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Editors
Jason Gordon
Linda W. Garnett

Send comments to:
Jason Gordon
Extension Specialist
(662) 325-8851
jg966@msstate.edu



Feature Article

Your Backyard Dirt

By Jason Gordon, Extension Specialist

No one should take the soil in their backyard for granted. Among other benefits, soil supplies nutrients for plant growth and impacts water flow. Site and soil evaluation include topography, drainage, soil texture, soil profile, bulk density, chemistry, soil depth, presence of impermeable layers and the height of the water table, and organic matter.

Soils are very important for tree health. Most of our soils in Mississippi are coastal plain soils, but they differ quite a bit in texture from sandy soils to clay soils. Drainage also varies in our state, particularly in north Mississippi where there is hilly terrain with well-drained soil at the top of the hill to poorly drained soil at the bottom. This is important to keep in mind during tree selection because some trees prefer well-drained soils, while others do not.

For any kind of yard planting, including trees, you should determine the nutritional status of the soil. A soil test tells you about the soil's pH, how well it holds nutrients, and cationic exchange. MSU Extension provides a soil testing service for \$6 per sample. You can use the information from the test to talk with your Extension Agent or nursery manager about trees appropriate for the location you have in mind.

There are three primary plant nutrients: nitrogen, phosphorus, and potassium. Nitrogen promotes top growth; phosphorus contributes to root, fruit, and flower development; and potassium builds disease resistance. After the second or third growing season, a slow-release organic fertilizer can be applied if the soil has nutrient deficiencies. Trees live year after year and don't need a lot of fertilizer at any one time;

instead, they need it throughout the growing season. Also keep in mind that native plants often have lower fertilization requirements than exotic species and older trees need less fertilizer than younger trees. Further, a drought-stressed tree does not need fertilizer – it needs water. By adding fertilizer, all you're doing is making the tree need more water and causing it even more stress. In general, spring is the best time to add fertilizer if you want trees to grow fast because it is the most productive time for growth.

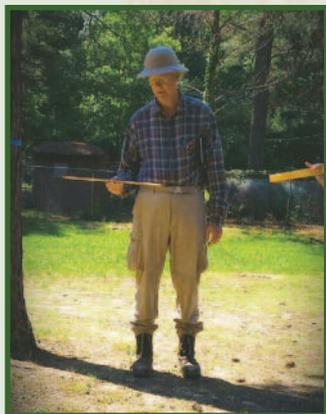
Another important soil topic is irrigation. Watering is important for young trees to get them off to a good start. As with grass, you want to water when there is dew formation (just before daylight) to avoid evaporation. Watering before daylight does not alter the natural cycle of soil wetting and drying. Trees prefer deep water irrigation with the soil moist to a depth of 12 inches. Slow, deep watering using a soaker hose once a week is preferred over fast, shallow watering. Deep watering forces young roots to grow deeper and help them become better adapted to the site. Avoid watering to the point where you see puddles forming on the soil. This means you've exceeded the soil infiltration rate and you're wasting water.

Mulching should be combined with irrigation. Mulch will reduce watering needs throughout the growing season. It also encourages all kinds of microbial and insect life as the organic matter decomposes.

(Continued on Page 2)

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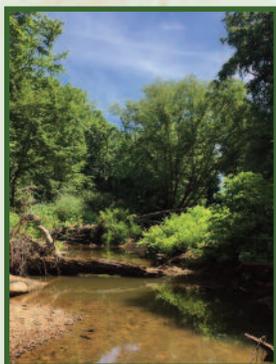
"A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people."
 — Theodore Roosevelt



TCW 2016 Dr. John Kushla getting ready for Biltmore Stick diameter measurement instructions (photo Brady Self)



2016 TCW HankinsLumber Company logging site visit (photo MFC)



TCW 2016 Tishamingo State Park Water Quality Study (photo MFC)

The Overstory

Feature Article: Your Backyard Dirt (Continued)

You should apply 2-4 inches of mulch to the edge of the tree canopy (i.e., the dripline) and it should not touch the tree trunk. Mulch piled against the trunk encourages fungus. Each type of mulch has tradeoffs. Pine straw is effective, it's nice, and it does not attract wood boring insects like bark or wood chips. Wood chips also float away in heavy rains. Inorganic mulches include stone and tire pieces. While long-lasting, these don't add organic matter to the soil as they decompose. They can also make weed removal difficult. Leaves can be used as mulch as long as air hits the trunk and the layer is not over 4 inches thick. For more information on backyard soils, talk with your county Extension Agent, and download MSU Extension publications IS0411 and P2301 at msucare.com. (Or simply click on the hyperlinked publication numbers above).



Hose used as part of a deep water Irrigation system
 Photo: Dr. Jason Gordon



Proper Mulching Technique
 Figure: www.arborday.org

The Wonderful, Incredibly Enlightening Teachers Conservation Workshop

John D. Kushla, Extension Specialist

Who says camp is just for kids? The Mississippi Forestry Association (MFA) sponsors the Teachers Conservation Workshop (TCW) for teachers. Every year in June, MFA holds two week-long camps devoted to professional education in sustainable forest management. The MFA has been doing these workshops for over 40 years. One workshop is hosted at Jones County Junior College and another at Northeast Mississippi Community College. An abbreviated workshop of two days is conducted in Jackson. Instruction is accomplished primarily through a collaborative effort of the Mississippi Forestry Commission, Mississippi State University Extension, and a wide array of other state and federal agencies, as well as forest industry.

Topics cover a variety of natural resource subjects including: aquatic ecology, forestry best management practices, forest industries, measuring timber, soil conservation, sustainable forestry, tree identification, water quality, and wildlife habitat. Participants learn through field tours in local state parks, visits to timber processing facilities, Project Learning Tree activities, and engaging lectures. Expertise is provided by MSU faculty and staff, agency personnel, and employees from companies that are members of the Sustainable Forestry Initiative. (Continued on Page 4)



Mississippi Timber Price Report



1st 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: 1st Quarter 2016 Stumpage Prices/Ton (Source: Timber Mart South)

Pine Sawtimber - \$23, Pine Chip-N-Saw - \$15, Pine Pulpwood - \$8,
Mixed Hardwood Sawtimber - \$39, Hardwood Pulpwood - \$10

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

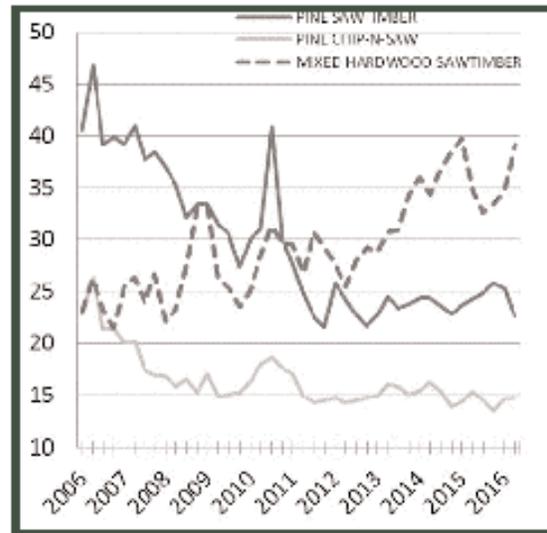
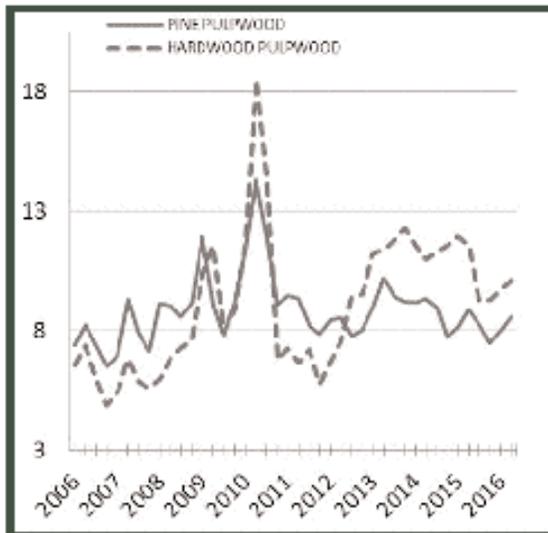
WHAT'S MOVING PRICES - TRENDS:

Prices for all products increased during the 1st quarter with the exception of pine sawtimber which decreased sharply.

Stumpage prices for pine sawtimber decreased by 10%, pine chip-n-saw increased slightly by 0.7%, and pine pulpwood increased by 7% from the previous quarter. Stumpage prices for mixed hardwood sawtimber increased sharply by 13% and hardwood pulpwood increased by 48% from the previous quarter.

TIME SERIES:

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



Timber Market South (TMS), Inc. is a service member of the Southern Forestry Association. The information contained herein is for informational purposes only and does not constitute an offer of insurance or any other financial product. TMS is a member of the Southern Forestry Association, a member of the Forest Stewardship Council, and a member of the Forest Stewardship Council. For more information, please visit www.tmsinc.com.

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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!

The Wonderful, Incredibly Enlightening Teachers Conservation Workshop (Continued)

TCW participants learn by doing. For example, they learn about mathematical applications in forestry by measuring trees, calculating the volumes, estimating timber value, and preparing bids for a timber sale. As well, teachers learn about forest products by having fun and being creative. They make paper by hand, but also visit mills to see how paper is made on an industrial scale. TCW focuses on collaborative learning. Teachers work in teams to do Project Learning Tree activities and prepare bids to buy timber. In short, participants develop the knowledge and skills to teach children about sustainable forest management. So pack your bags, put on your boots, and come to next year's camp. Learn about responsible natural resources management, and have a fun time doing it. For more information, visit the Mississippi Forestry Association webpage at <http://www.msforestry.net/>.

Delta Hardwood Notes

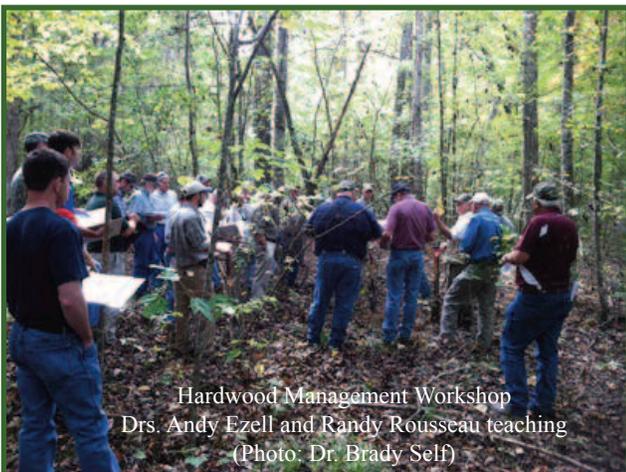
By Brady Self, Extension Specialist

Problems with Management of Hardwood Plantations (Part 4)

Over the last three installments of Delta Hardwood Notes, we discussed some of the problems resulting from low planting densities in hardwood plantations. In this article, we discuss integrating wildlife habitat improvement and timber production.

Owners of hardwood plantations often have multiple management objectives. Most desire quality wildlife habitat for species of their choice (e.g. deer, turkey, etc.) as well as increased future timber revenue. While priority may or may not be given to one objective compared to another, timber revenue is typically long-term in nature and recreational benefits are more immediate. As a result, the average hardwood plantation owner becomes concerned when wildlife habitat quality starts to decline and wildlife sightings decrease as these plantations age. This generally results in a desire to manipulate the stand to increase both cover and food for wildlife species of choice. Often, this unnecessarily lowers the priority of producing quality timber and potentially increases the risk of lowering future stand quality.

From a habitat improvement standpoint, crown closure of planted hardwood trees occurs as the stand ages. Crown closure results in reduction of light reaching the ground surface. This in turn results in reductions of food and cover available to wildlife. If left to natural processes, the stand will eventually self-thin and light levels will increase; however, this process takes decades. It is for this reason that plantation owners often seek to artificially manipulate their properties to increase ground level vegetation for wildlife. Habitat improvement and maintaining hardwood stem quality is possible, but proper methods must be utilized. Landowners should read the next installment of The Overstory for the conclusion of this series. Management options available to landowners wanting to optimize both wildlife habitat improvement and timber production will be discussed.



Hardwood Management Workshop
Drs. Andy Ezell and Randy Rousseau teaching
(Photo: Dr. Brady Self)



Managing for timber and wildlife habitat can create different problems at certain stages of timber growth
(photo: www.treefarmssystem.org)

UPCOMING EVENTS: July - September 2016

- 07/07/2016 **Ties to theLand: Your Family Forest Heritage**
- 07/14/2016 **Tate County Extension Office, Senatobia, MS --- Click [HERE](#) for Brochure**
- 08/17/2016: **Extreme Weather Events and Risk Management Options for Family Forests**
Gale Center, Hernando, MS --- Click [HERE](#) for Brochure
- 08/22/2016: **Alternative Sources of Forest Income Short Course**
- 08/29/2016 **Montgomery County Extension Office, Winona, MS --- Click [HERE](#) for Brochure**
- 08/26/2016 **Mid-South Forestry Equipment Show**
- 08/27/2016 **Oktibbeha County, Starkville, MS --- Click [HERE](#) for Website**
- 09/06/2016 **Proactive Emerald Ash Borer Management: Maintaining Desirable Forest Landscapes, Vicksburg, MS --- Click [HERE](#) for Brochure**

Other Locations for Forestry Extension Information

MSUCares.com (Forestry-Forest Products/events)
www.facebook.com/MississippiStateUniversityExtensionForestry
www.blogs.msucares.com/forestry, OR, twitter.com/MSUExtForestry

Correction

Data about the extent of Southern Pine Beetle detection published in The Overstory 5(1) are found in Technical Bulletin-Forest Health Notes #71 and #77, authored by James R. Meeker and Dr. John J. Riggins and published by the Miss. For. Comm.

Primary Business Address
 Mississippi State University
 Forestry Extension
 P. O. Box 9681
 775 Stone Blvd
 Mississippi State, MS 39762

Contact: Lisa McReynolds
lcf30@msstate.edu
 662-325-3150
 Fax:662-325-0027

Area Specialists:

NE District: Dr. John Kushla
 662-566-2201, or jk182@msstate.edu

NW District: Dr. Brady Self
 662-226-6000, or abs3@msstate.edu

SW District: Dr. Stephen Dicke
 601-857-2284, or sgd2@msstate.edu

SE District: Dr. Glenn Hughes
 601-794-0671, or hgh2@msstate.edu

Don Bales
 601-794-0671, or gdb5@msstate.edu,

Butch Bailey
 601-794-0671, or asb1@msstate.edu,

State Specialists:

Hardwood Silviculture: Dr. Randy Rousseau
 662-325-2777, or rjr84@msstate.edu

Economics & Taxes: Dr. James Henderson
 662-325-0754, or jeh149@msState.edu

Restoration Silviculture: Dr. John Willis
 662-325-0523, or jw2905@msstate.edu

Community Forestry: Dr. Jason Gordon
 662-325-8851, or jg966@msstate.edu

Logger's Education: Mr. John Auel
 662-325-7948, or jba9@msstate.edu

Media: Linda Garnett
 662-325-8355 or, lwg1@msstate.edu

Impact Assessments & Certifications: Mark Measells
 662-325-3550, or mkm2@msstate.edu



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MSU-ES Region Map

