

College of Forest Resources **Extension Forestry**

The Overstory

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From the Coordinator's Desk

by James Henderson, Extension Specialist Forestry Extension over the past several months has worked to increase our ability to get information to you as quickly as possible. Last vear we started a Twitter account and a new FaceBook page. These can be found at twitter.com/MSUExtForestry, and www.facebook.com/MississippiState University Extension Forestry. We realize not everyone uses Twitter and Facebook so last month we launched our new blog (web log) which is available at http://blogs.msucares.com/forestry/ This new website will be used to announce and post our latest forestry publications, all up coming short courses and workshops, quarterly price report updates, our newsletter, and occasional press releases on topics important to forestry clientele such as cost share programs and invasive species alerts. Our goal is to keep you informed and these new internet tools will help us greatly. A fantastic feature of the new blog is the option for you to receive alerts via email whenever something new is posted. For example, when the quarterly price report is posted to the blog you will receive an email letting you know. Going to the blog and entering your email address will keep you as informed and as current as possible. Please visit the blog and sign up for email alerts today. Of course our website at msucares.com/forestry will continue to be a great source of information on a host of forestry topics. Yet, our new Forestry Extension blog will be a means to keep you up to date on all the latest events and information.

On a final note, thanks to everyone who completed The Overstory Readership Survey in January. We did our best to address your comments. For example, each issue will now incorporate a variety of topics instead of a theme. We hope you enjoy the new Overstory Newsletter.

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Feature Article

Shortleaf, the Forgotten Pine

by John Kushla, Extension Specialist

Loblolly pine is the premier pine species planted in the United States. When plantation forestry began in earnest during the mid-twentieth century, nursery production for reforestation grew with it. In the search for a widely acceptable pine species to plant, loblolly pine with its fast early growth rate and high adaptability won the contest. Yet in the shadow of this impressive species, there is a related southern pine that has an even greater natural range than loblolly, with virtually identical wood characteristics. This is the shortleaf pine, Pinus echinata, which is native throughout most of Mississippi. Within its natural range, this species performs best in northern Louisiana, Arkansas, and the southern Piedmont. Its wood has been used for pulp and paper, construction lumber, bridge timbers, framing on doors and windows, and veneer in plywood.

Shortleaf has a needle length of 2.5-4 inches usually in clusters of 2, and cones about 2 inches long which tend to be persistent, often remaining on the tree after seedfall.

Littleleaf is the most damaging disease to shortleaf, and is caused by a root pathogen, *Phytophthora cinnamomi*. It occurs most often on wetter sites. Shortleaf is more resistant than loblolly or slash pine to fusiform rust, perhaps the most damaging disease of southern pines. The very extensive range of shortleaf makes it a viable choice for natural stand or plantation management in northern Mississippi, Alabama, and Tennessee. This pine has the most resilience to ice of the southern yellow pines, and mature stands can withstand ground fire, though young stands are susceptible.

Shortleaf pine will grow on drier, more infertile sites, due to its extensive root system, and among southern pines, it is uniquely capable of sprouting at young ages. It can also tolerate growing in very dense stands, responds to vegetation and herbaceous weed control, as well as thinning even as mature trees.

Shortleaf has the potential for tree improvement through genetic research, although silvicultural and genetic research is/has been very limited. At early ages, shortleaf has a smaller seedling and slower growth rate as it develops its root system. However, shortleaf is capable of maintaining an extended growth period, and as a result is capable of producing a high quality sawlog. Since sawtimber production is the goal for southern forest landowners, shortleaf pine should be added back to the list for consideration in management.

We are by nature observers, and thereby learners. That is our permanent state.

Ralph Waldo Emerson



Shortleaf, the Forgotten Pine



USGS Shortleaf Pine Range Map



Aerial View of SMZ zones



Mississippi 9-point Buck Whitetail Deer 2014

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Why Are SMZs Important?

By: John B. Auel, MS PLM Coordinator

Streamside Management Zones, or SMZs, are critical for protecting water quality during and after timber harvests. SMZs are relatively undisturbed areas adjacent to perennial and intermittent streams. These areas act as filter strips for water flowing overland after it rains. Most of the pollution that results from silvicultural activities, like logging, is in the form of sedimentation of streams. This just means that soil is carried from the harvesting site and is deposited in the stream channel by runoff.

Well maintained SMZs preserve the ground cover and some trees for a predetermined width along the stream channel. The vegetation on the ground effectively slows the speed of the water and allows the suspended soil to settle out of the water before it reaches the stream. The trees left along the stream provide shade to maintain the normal temperature of the water. The width of the SMZ is determined by the slope adjacent to the stream; the steeper the ground, the wider the SMZ. The Mississippi Forestry Commission's Best Management Practices for

Percent Slope*	SMZ Width
0% - 5%	30 Feet
6% - 20%	40 Feet
21% - 40%	50 Feet
Over 40%	60 Feet
* % Slope = Rise/Run x 100	

Forestry in Mississippi, recommends certain widths and slope combinations.

Harvesting trees in an SMZ is perfectly alright. However, the recommendation is that only half of the trees be removed. Leaving 50% of the crown cover will give adequate shade to the stream. This allows the landowner to remove the most valuable trees along the SMZ while maintaining the effectiveness.

Water quality concerns are the driving force behind SMZs, but they offer other benefits as well. SMZs improve the aesthetics of a timber harvest and provide excellent wildlife corridors. Forest landowners want more than just timber income from their property, and using Best Management Practices will protect water quality, enhance recreational opportunities and wildlife potential. For more information on SMZs and Best Management Practices, contact your county Extension office.

Delta Hardwood Notes

By Brady Self, Extension Specialist

This column features commentary on hardwood management. Occasionally the column focuses on the Delta, but often it applies to hardwood forests in any region of the State. For more information regarding regeneration of hardwood forests, contact your local county extension office or area extension forestry specialist.

Due to the predominance of agriculture, the presence of mature oak dominated stands is atypical for most of the Delta. For landowners interested in establishing hardwoods in these areas, the only available option for regeneration is planting seedlings. However, for those landowners possessing hardwood stands, other options exist. If the stand has sufficient levels of desirable species in the overstory, natural regeneration may be possible. Before planning any cutting or other silvicultural treatments, landowners should perform a regeneration evaluation to assess the adequacy of current regeneration levels. Normally, numbers of desirable seedlings are insufficient, and successful stand establishment with appropriate species is improbable. At this point, some form of overstory cutting should be used to help achieve adequate stocking of desirable seedlings. Typically, a shelterwood is used to attain this stocking.

Harvest cut (cut-overs) and shelterwood approaches to obtaining adequate natural regeneration often do not allow for problems associated with established shade tolerant understory and midstory stems. While not always the case, the canopy created by these stems frequently restricts available light to a point where reliable establishment of more desirable shade intolerant species (e.g. oaks) is unlikely. Research has shown average available light levels as low as 5 percent in many bottomland hardwood stands. While regeneration is possible under these settings for shade tolerant species such American beech and hickory, efforts involving more desirable shade intolerant species are not successful. For example, oaks require between 30 and 50 percent available light, with 50 percent light optimal for seedling establishment. In situations where understory/midstory stems are prolific, landowners should consider using injection to control these stems before cutting overstory trees.



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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 2013 Stumpage Prices/Ton (Source: Timber-Mart South)

Pine Sawtimber - \$24, Pine Chip-N-Saw - \$15, Pine Pulpwood - \$9, Mixed Hardwood Sawtimber - \$36, Hardwood Pulpwood - \$11

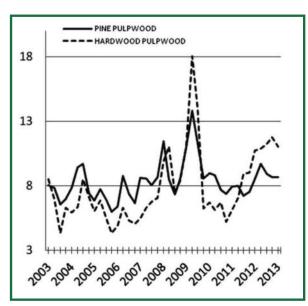
WHAT'S MOVING PRICES - TRENDS:

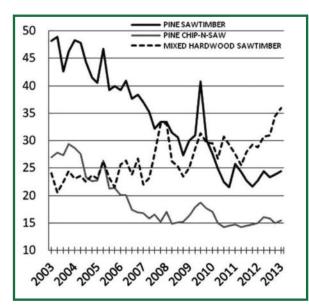
Product prices increased over the 4th quarter for all product categories with the exception of both pine and hardwood pulpwood.

Stumpage prices increased from the previous quarter by 2.5% for pine sawtimber, by 2.4% for pine chip-n-saw, and by 4.4% for mixed hardwood sawtimber. Pine pulpwood fell slightly by 0.5% and hardwood pulpwood was down by 6.2%.

TIME SERIES:

Average Mississippi Pine and Hardwood Stumpage Prices 4th Quarter 2003 to 4th Quarter 2013 (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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The Changing Face of Deer Management in Mississippi

By Don Bales, Extension Associate

From the early years of the twentieth century when deer were very scarce, populations have increased to the saturation point across Mississippi. Deer populations increased rapidly from the 1950s to the 1980s due to the restocking and protection efforts of dedicated conservation officers and wildlife biologists. The legal harvest was almost entirely bucks during the restoration and protection phase.

Biologists recognized the need for a balanced sex ratio and older buck age structure to properly manage Mississippi's deer herd. The restoration phase lead to the management phase with the gradual increase of either sex harvest. The antlerless harvest recommendations met strong resistance that has faded over time as hunters realized that sustained antlerless harvest improved habitat and did not decimate the deer population. The Deer Management Assistance Program (DMAP) has collected data from millions of deer across the state. Armed with this information, management was fine tuned and eventually created three zones across the state with different regulations.

Over the last twenty years, the average hunter in Mississippi now talks more about how many bucks they let walk instead of how many they harvested. Management success stories bolstered the belief that harvesting adequate numbers of does and allowing young bucks to reach maturity was the correct form of management. This success story is evident when one visits the Mississippi Wildlife Extravaganza sponsored by the Mississippi

Wildlife Federation. Hunters now gaze in awe at far more "trophy" size bucks than ever before as they walk the aisles of the Big Buck Contest and Magnolia Records Program during the August event.

Forest landowners are now aware that forest management practices impact deer habitat. Food plots can be used to supplement the diets of deer but it is much more important to consider how forest management practices affect the plant community. Any forest management activity that increases sunlight to the forest floor and lightly disturbs the soil has great potential to increase herbaceous plant communities that deer depend upon. Activities include timber sales, prescribed fire and strip disking. While hard and soft mast production is important, forage is the main food supply for deer. Any activity that increases herbaceous plants, vines and shrubs will increase the year round food supply for deer. It is also important to consider diversity. Plan your forest management activities to create timber stands of different ages and species composition whenever possible.

The current challenge is to manage for a healthy herd, a healthy and diverse forested landscape and to consider the social dynamics as deer impact agricultural crops and our safety on the highways. For more information, visit msucares.com and browse the forestry section. Be sure to look for the lecture series Managing the Family Forest on youtube. In addition be sure you visit our deer management website at www.msudeerlab.com.

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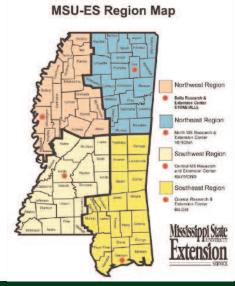
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