THE UNIVERSITY of TENNESSEE Extension

Forestry, Wildlife & Fisheries Update Newsletter

Department of Forestry, Wildlife and Fisheries *July 2007*
Dr. Keith Belli, Department Head *Website: http://fwf.ag.utk.edu*

In This Issue

Welcome to New Department Head

Keith Belli is the new head of the Department of Forestry, Wildlife and Fisheries. Prior to his appointment, he worked at Mississippi State University for 18 years, most recently as associate dean of the College of Forest Resources, associate director of the Forest and Wildlife Research Center, and interim head of the Department of Forest Products. During the past two years, he worked with former FWF head, George Hopper.

Belli, whose names is pronounced *Bell-Eye*, holds a bachelor's in forest science from Penn State, a master's in silviculture from Michigan State, and a doctorate in forest biometrics from the University of Minnesota.

"Dr. Belli was an outstanding candidate for the position, from his leadership skills, his experience base, and his enthusiasm. We look forward to his leadership as department head," said search committee chair Neil Rhodes, head of the Department of Plant Sciences.

Belli says he is very happy to now live in the beautiful countryside of East Tennessee and looks forward to meeting and working with Institute faculty, staff and students.

Wildlife Management Calendar for July

Craig Harper, Associate Professor, Wildlife Management

Habitat Management

Mow and spray perennial forage food plots for weed control if necessary
- see *Growing and Managing Successful Food Plots for Wildlife in the Mid-South*, PB 1743, for herbicide recommendations

Collect soil test samples from plots to be planted this fall and lime now as needed

Plant Japanese/browntop millet around beaver sloughs and other areas that will be flooded in November for ducks

Construct/repair dikes and water-control structures for flooding fields/woodlands for waterfowl this fall/winter

Spray woody competitors in native warm-season grasses and other old-field habitats
- multiflora rose, privet, sericea lespedeza, sweetgum, elms, etc.
- Roundup, Garlon, Arsenal, Ally, and PastureGard should be considered

If you are interested in quail, rabbits, and deer, **don't** mow (bushhog) your fields!

Wildlife Damage/Population Management

Put up chicken-wire fence 2 feet high around vegetable gardens to protect them from rabbits

Put up a 2- or 3-strand electric fence (one strand 6 inches above ground and the other 6 inches higher) to keep groundhogs and raccoons out of vegetable gardens

To repel deer from vegetable gardens, erect a single-strand electric fence (2 ½ feet above ground) with aluminum tabs attached every 3 – 5 feet.
- Smear peanut butter on the aluminum tabs.
- Deer are attracted to the peanut butter. When they touch the aluminum tabs with their mouths, they learn to stay away.

Nuisance crawdads in the yard may be remedied by pouring boiling water down the spout of the mound.

To keep bats out of attics and out from under vinyl siding and other areas, close or cover up all holes and cracks so they can't get in!
- do this at night after bats have left the roost; it may be necessary to open the hole the following night to allow any bats that were trapped inside a chance to leave
- maternal colonies will migrate to hibernation sites in the fall. If you wait until then to close holes and cracks, you will avoid trapping any inside.

"Repel" snakes by cleaning up around the house – mow more often, remove piles of wood, brush, and trash. There is no reliable "repellent" for snakes; only "snake oil"

Refer to *Managing Nuisance Animals and Associated Damage Around the Home*, PB 1624, for additional wildlife damage management information.

Mobile Information Technology Forestry Programs for Limited Resource Audiences Project at 1890 Land Grant Institutions

Joshua Idassi, Assistant Professor, TSU Cooperative Extension Program

The 1890 institutions have targeted their Extension programs quite well to non-traditional audiences. The hallmark and strength of the 1890 institutions is targeting the hard-to-reach, non-traditional, limited-resource farmers, woodland owners, and families. The Renewable Resources Extension Act (RREA) of 1978 has provided federal funding specifically for expanding Extension programs that target forest and rangeland resources. Compared to the funding available to support forest and range resources from RREA, the funding appropriated to the 1890 institutions is not sufficient.

Tennessee State University, Cooperative Extension Program Faculty and staff were awarded $64,000.00 through RREA National Focus Funds to conduct educational programs using their mobile information technology and distance education capabilities across the 1890s landscape targeting under served and minority landowners.

The specific objective of this proposal is to provide hands-on training and extension support to farmers and wood landowners on how to get information using the mobile information technology van on site. There are eighteen 1890 land grant Universities. So far in 2007, six workshops have been conducted in Tennessee, Mississippi, South Carolina and Florida. In July, two workshops will be conducted in Georgia and Arkansas.

Marketing: To attract participants to the workshop, TSU Agricultural Information Technology Center has designed and developed brochures and flyers for the workshops.

Approach: Extension Specialists in Information Technology and Agriculture and Natural Resources and local, state and federal agencies have teamed up with the Tennessee State University team to conduct the workshops. A tentative agenda is developed to cover the following topics: Introduction to technology: an Introduction to Basic Computer Skills; Introduction to Internet Browsing. A **Video about a family forest story is shown to answer the following questions**: What does your forest mean to you and your family? a place to relax, income, a place to retire, recreation, or a sense of connection to history?. A new topic has been added also to tell the story behind the Minority Landowner Magazine. Other topics of interest include: GPS: A Tool for all Landowners; What is in Forestandrange.org; Estate Planning and Land Appraisal.

For more information about these mobile technology workshops, please:

Contact: *Dr. Joshua Idassi, TSU: Email: jidassi@tnstate.edu; phone: 615-963-5616*

Ms. Jenell Sargent, TSU: Email: esargent@tntate.edu; phone: 615-963-7493

# # #

Heart Pine

Adam Taylor, Assistant Professor, Wood Products Specialist

You may hear people proudly describing the 'heart pine' floors or other components in an old building. Does this make you wonder what heart pine is and what is magical about it?

Technically, "heart pine" is simply the heartwood of pine trees. In Tennessee, this generally means trees from the southern yellow pine species group. Most southern yellow pine lumber that is cut today comes from trees that are too young to produce much heartwood. Thus heart pine also generally means pine heartwood from old, large trees that were cut years ago. Wood from old, slow-grown pine trees may have desirable properties, for example it may have few knots, straight grain and narrow growth rings, but these attributes have nothing to do with the wood being heartwood.

The wood in a tree trunk serves two functions: to move water up from the roots and to provide structural support for the tree's leaves. The 'sapwood' in a tree truck is the outer ring of wood that helps to move water. Sapwood can be anywhere from ½" to one foot (or more) wide, depending on the species. After a few years (again, depending on the species) this sapwood dies and is converted in 'heartwood'. Heartwood doesn't move water in the tree – it only helps to hold the tree up.

When heartwood is formed from old sapwood, special chemicals ('extractives') are often put in the wood by the living tree. These chemicals can give the heartwood a special color or odor. For example, black walnut heartwood has an attractive chocolate-brown color, while the sapwood is white. In some species the heartwood extractives make the wood naturally resistant to insect attack and rot. Cedar and black locust heartwood are examples. The heartwood of southern pine trees is not especially rich in extractives, and the properties of southern pine heartwood are not much different from the sapwood.

People often value old and rare things. Because wood can last practically forever if it is kept dry, heart pine and other antique woods can be useful and valuable for years to come.

For more information, contact Adam Taylor at AdamTaylor@utk.edu or 865-946-1125

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Stump Sprouts

Wayne K. Clatterbuck, Professor, Forest Management and Silviculture

Many hardwood stands originate from sprouting. Because of their vigorous early growth from large, intact root systems, stump sprouts often dominate other forms of reproduction such as newly germinating seeds and small seedlings with diminutive root systems. The quality and longevity of trees resulting from stump sprouts are sometimes questioned. Outlined below are a few guidelines to promote successful trees that originate from stump sprouts.

1. Stems that start from small stumps cut at or near the ground level are considered good risks. Harvesting operations should encourage leaving low stumps. Sprouts on high stumps are not as structurally sound.

2. Multiple stump sprouting is often perceived as a detriment for desirable tree form. However, with time the most vigorous sprout will express dominance and other sprouts will succumb. Most multiple sprouting will occur on high stumps that should have been cut lower.

3. With multiple sprouts, growth and resources are being partitioned among several stems. Pruning to one or two stems will allow greater growth on the remaining stems. However, pruning of sprouts can be a costly, pre-commercial operation. Most of these pruned sprouts would have succumbed naturally with time. Pruning of sprouts could be justified because of greater growth of remaining stems, especially on more highly-valued species.

4. Sprouting is more prolific on smaller stems and tends to decrease once stems are larger than 8 to 10 inches.

5. Research has shown that sprouts that develop on low stumps near the ground level are as structurally sound as single-stem seedlings.

For more information contact Wayne Clatterbuck at 865.974.7990 or wclatterbuck@utk.edu.

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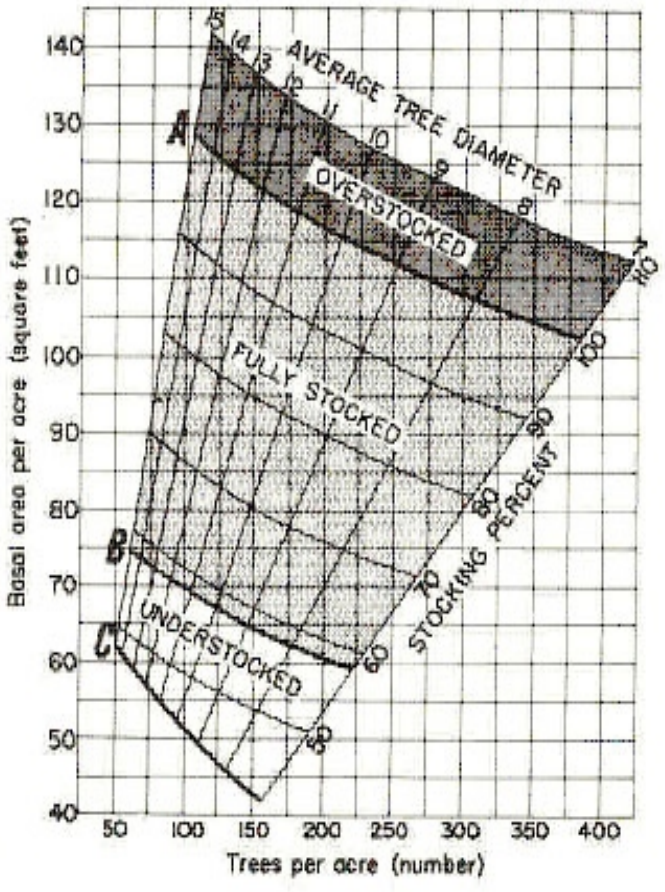
The Assessment of Stand Stocking

Wayne K. Clatterbuck, Professor, Forest Management and Silviculture

Stand stocking is a measure of site occupancy, the degree to which a given site is utilized by the vegetation occupying it. Stocking is a *subjective* indication using relative terminology such as understocked (trees are not fully utilizing the site, less than 60 percent stocking in upland hardwood stands), fully stocked (trees fully utilizing the site, 60 to 100 percent stocking) and overstocked (too many trees for the site, greater than 100 percent stocking). The factors that influence stocking are numbers, sizes and spatial distribution of the trees in the stand. **Stand density** is the quantitative measure of tree stocking based on *absolute* measures such as number of trees, volume, basal area or some other measurement on a per unit basis.



USDA, Forest Service Ag. handbook 355

Stocking is often a problem in hardwood stands in Tennessee. Most hardwood stands are remnants of earlier stands following years of high-grading or diameter limit cutting, fires and grazing. The stocking in these stands is often inadequate (understocked) and does not reflect the true potential of the site for best growth and management. The decision for most landowners and managers is whether to rehabilitate or to regenerate the stand.

Often the best management alternative is to harvest what remains of the stand and regenerate it. However, if the stand contains acceptable and adequate growing stock --- enough trees of favorable species, age and quality potential for future growth and development, then other management alternatives are available such as crop tree release, thinnings and timber stand improvement.

Generally, the number of trees per unit area declines with increasing tree diameter. As trees grow larger, they need more growing space. Stocking above the A-line is considered overstocked and below the B-line is understocked. Stands should be maintained in the fully-stocked condition (between the A- and B-lines for best growth and development.

Once stocking is near or over the A-line (90 percent or more stocking), plans should be made to partially harvest the stand to allow more space and sunlight for the remaining trees to become larger, reduce stocking to above the B-line (60 to 70 percent stocking) or to conduct a regeneration cut to start the stand again. Often, as stands become overstocked, the trees become stressed because resources (sunlight, water and space) are more limited. Growth rates decline and trees struggle to maintain themselves. Overstocked conditions eventually lead to unhealthy trees in the stand, usually making them more susceptible to insects and disease.

For more information contact Wayne Clatterbuck at 865.974.7990 or wclatterbuck@utk.edu.

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4-H Forestry News

Larry Tankersley, Forest Specialist

4-H Forestry District contests are right around the corner and I hope everyone is as excited as I am. The dates I have are:

August 25, 2007, Western Region Fall Judging, Milan 4-H Camp,

September 8, 2007, Eastern Region, Knoxville, TBA,

October 2, Central Region, Cedars of Lebanon State Park.

The State contest will be October 13th, here in Knoxville, we'll most likely be here on campus and go to the field from here.

The rules this year are the same as last years. No changes to worry about. The contest rules are available on line as an Adobe file. Here's the address:

http://fwf.ag.utk.edu/Extension/pdfs/forestryrules.pdf

Of course if you have any questions be sure contact us.(865) 974-7977 or ltanker1@utk.edu

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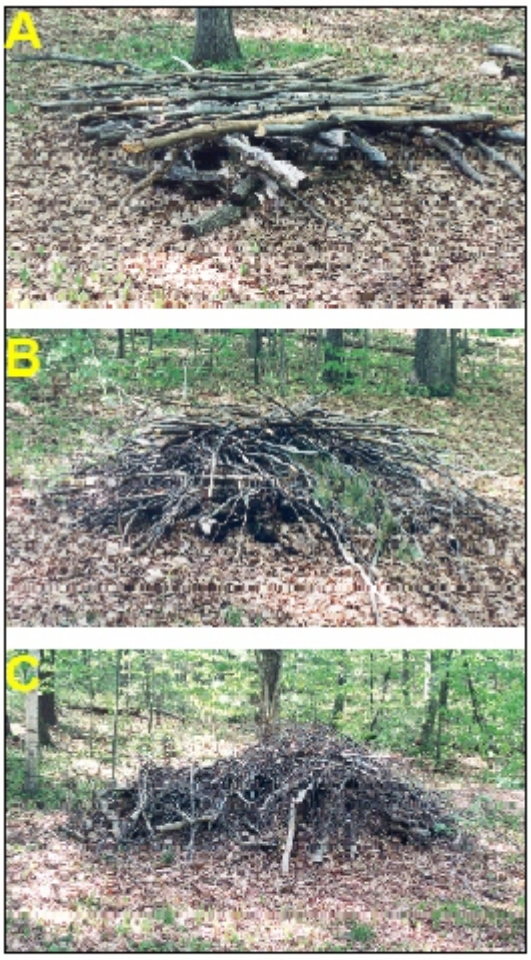
Brush Piles

Larry Tankersley, Forest Specialist

Small mammals, amphibians, reptiles and other wildlife of the forest floor use brush piles for escape, resting and nesting cover. Effective brush piles are built on a base of coarse materials so openings are available at ground level for wildlife movement. A few piles of large rocks at least 12 inches wide and 2 feet tall, and several crisscrossed logs at least 6 feet long and 6 inches in diameter make good brush pile bases. Stumps can also make good bases. Progressively smaller limbs and brush are piled onto the base until the brush pile is about 6 feet tall. Living brush piles can be made by partially cutting small trees near the base and pushing them to the ground using the bark left intact at the base as a hinge. The partial severing of the tree allows it to remain alive, providing dense live foliage near the ground.



Brush piles should be constructed with heavy material at the base (A) with increasingly finer material on top (B and C) to provide cover for small mammals, reptiles and other wildlife.

I built one of these at my place and the skunks really liked it, . . .hey, what's wrong with helping skunks??

(This was taken from Managing Forests for Fish and Wildlife, produced by the Wildlife Habitat Management Institute of the Natural Resources Conservation Service. Check the publication at the following website: ftp://ftp-fc.sc.egov.usda.gov/WHMI/WEB/pdf/Forests.pdf)

Hardwood Analysis and Trends (HAT) – July 2007

David Mercker, Extension Specialist I, Forest Management

As hotter weather approaches, sawmills traditionally control inbound logs to maintain inventory at operable levels. Wood staining due to heat is a concern for some species, particularly those with lighter-colored woods. As such, #1 common 4/4 lumber price for maple (both hard and soft) and tulip poplar has dropped. During June, sugar maple fell 1.5 percent and poplar was down 2.5 percent. Black cherry is a common companion wood to maple, used in flooring, cabinets, and accessories. Though wood color varies for cherry, the wood texture and lack of open-grain mimics maple. It too has experienced price reduction, nearly 3.5 percent in four weeks.

For more positive news, we are directed to white oak and black walnut. Both continue to perform very well. Domestic and international markets are actively pursuing white oak lumber. Kiln-dried inventories are low, pressuring supplies. In turn, prices are trending higher, with #1 C 4/4 lumber experiencing the fifth increase since September of 2006.

Shortages of some dimensions and grades of black walnut lumber exist, causing those involved in the walnut lumber business to actively pursue this species. Prices for #1 C 4/4 lumber are up an astonishing 4.5 percent during June of this year. Walnut trees have a dotted presence in Tennessee: rare to the west, common in the central, and scattered to the east. Not only sought after for lumber, walnut is prized as veneer too, with veneer prices exceeding lumber prices five to ten-fold. Landowners should be very careful about not selling walnut veneer trees for standard lumber trees. Only the experienced eye of a professional can distinguish between the two.

Conditions for red oak lumber continue to be challenging. Prices remain static. Mills are adjusting production of lumber to avoid additional surplus. Because this species is so prevalent in Tennessee, it is difficult to avoid production for long periods. Red oak is a major component of most standing timber sales. Loggers, timber brokers, and mills are forced to "deal" with this species. Inventories for lumber remain high, demand is limited. Additional price reduction may be necessary if demand isn't accelerated. Although new housing starts were down 24.2 percent from May of 2006, building permits increased 3 percent from April to May of this year – a *possible* sign of future improvement.

Summarized with permission of the Hardwood Market Report, Memphis, TN.