



# FWF Update Newsletter

Department of Forestry, Wildlife and Fisheries

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Dr. Keith Belli, Department Head

Website: <http://fwf.ag.utk.edu>

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## WILDLIFE FIELD DAY- JUNE 19

*Craig Harper, Professor, Wildlife Management*

Wildlife Field Day will be held on June 19th in Winchester, TN at the farm of Greg Vaughn. This workshop will primarily focus on the management of bobwhite quail and will in turn talk about the residual effects on other wildlife species. Please disperse to your personnel and anyone interested in attending the event. Please have everyone that plans on attending RSVP by June 15th. We will need a headcount for food reasons. If you have any questions you can contact Cliff Borum directly.. Thanks and I look forward to seeing all of you in attendance.  
*(See attached .pdf file for flyer)*

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## Temporary Sawmill Shutdowns to Make Money?

*Adam Taylor, Assistant Professor, Forest Products*

The TVA-EnerNOC Demand Response program has been developed to prevent costly spikes in electricity demand. The program can be a boon to sawmills and other large electricity customers if they are able to temporarily shut down.

The Tennessee Valley Authority (TVA) is sometimes forced to buy power from outside regions on hot summer days, when air conditioners are running at maximum levels. Buying power is extremely expensive for TVA – so expensive that it can actually be cheaper for TVA to pay users to reduce demand. This is the concept behind the Demand Response program.

TVA has partnered with a EnerNOC, a private company, to implement Demand Response. Depending on the local utility provider, commercial, institutional and industrial customers are eligible to participate. Sawmills and other large wood processing facilities are good candidates, if they are able to reduce their operations for a few hours as needed.

Participants agree to reduce a portion of their electricity consumption in response to high peak demand events. “Events” usually last from 2-8 hours. These temporary down times can be used for maintenance, clean up or other low-electricity-consumption operations. The company receives recurring payments in return for being on call to respond. Additional payments are made for reducing demand during power spike events. There is no cost to sign up.

For more information, you can call EnerNOC at (866) 366-7820, visit [www.enernoc.com/get-started](http://www.enernoc.com/get-started) or call Adam Taylor at (865) 946-1125.

## US Forest Service Publishes Findings of Tennessee Forests

*David Mercker, Extension Specialist, Forestry*

Recently the US Forest Service published *Tennessee's Forests, 2004* (Oswalt, C., et. al.). The report is a summary of on-going forest inventory throughout the state. Forests cover an estimated 52 percent of the state (13.8 million acres). Some of the highlights from the 2004 report are summarized here.

1. Since 1961, forest land in Tennessee has consistently comprised about one-half of the state's land
2. 125 separate tree species were recorded in Tennessee Forests
3. Softwood forest acreage (conifers) is the smallest ever published for Tennessee since the first inventory in 1948
4. Red maple is the most common species in terms of number of individual stems recorded
5. The two species with the greatest amount of wood volume are white oak and yellow poplar
6. About 85 percent of the forest land in Tennessee is in private land holdings
7. The two top reasons why landowners own forest land is aesthetics and family legacy
8. The inventory of standing wood volume is growing larger, at a pace of about 2 percent per year
9. 96 percent of the timberland is of natural origin (i.e., not planted)
10. We have an aging forest base - the amount of acreage in small/young (early successional) condition is declining
11. The average diameter of many trees is getting larger
12. The grade (a measure of quality) is declining for hardwood trees
13. The net annual growth-to-removal ratio is positive for hardwoods (1.8:1)
14. About 96 percent of the State's family-owned forest land is estimated to be in parcels of < 100 acres
15. 52 percent of all forested plots sampled from 2000 to 2004 contained at least one nonnative invasive plant species; Japanese honeysuckle and Nepalese browntop were the most frequently observed species; and Tree-of heaven was the most frequently observed nonnative invasive tree, occurring on 6 percent of the plots

The report is encouraging in that we are maintaining a fairly steady amount of forest acreage. The presence of nonnative invasive species is concerning, as is the lack of early successional forests. Forest fragmentation will likely be a focus as we move forward as well. To view the entire report, see the following web site: <http://www.treesearch.fs.fed.us/pubs/32506>

## **Hardwood Analysis and Trends (HAT) – May 2009**

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*David Mercker, Extension Specialist*

And the good news is . . . things are *less bad*.

The **HAT** report has been silent for several months, mostly waiting a change, any news, in what is uncharacteristically trying times for the hardwood industry. It's tough, indeed a very tough market for loggers, sawmill operators, log concentration yards, wholesalers, brokers and distributors of hardwood lumber. Even private consulting foresters have expressed concern over timber markets – not to mention forest landowners.

Since the last **HAT** report (Feb 2009), prices for #1 common 4/4 lumber have experienced almost steady decline across all six species that are tracked. Lumber has fallen as follows: black walnut (-19%), black cherry (-16%), White oak (-12%), Sugar maple (-9%), tulip tree (-8%) and red oak (-7%). The “less bad news” is that over the past month there has been no additional price decline for five of these six species tracked by **HAT** – a welcomed indication of leveling off? What's more, the recent wet weather has slowed logging activity, allowing log supplies to drop. This should “cut” into some of the surplus lumber and help bring supply in-line with demand, potentially averting any further price reductions.

Don't expect any consistent and much welcomed price rebound until *housing starts* begin to increase. All other economic indicators for the hardwood industry play second to housing starts. It's all about cabinets, flooring, furniture, trim and other accessories. Demand for these products only comes after houses are started, about six months later. Speculative buyers of standing trees will be more willing to enter the market when housing starts resume a more favorable pattern. Essentially they will once again bid on trees based on where the market appears to be headed, not where it's at.

High quality and low quality trees, logs, and lumber continue to move fairly well. But **HAT** tracks average quality, where the preponderance of wood is. And right now, the market for average is . . . well . . . it's below the recent average.

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

## Thinning Stump Sprouts

*Wayne K. Clatterbuck, Professor, Silviculture and Forest Management*

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Questions often arise whether stump sprouts are good candidates for future crop trees. Sprouts from stumps were often considered inferior to trees of seedling origin because of the potential of decay and disease. However, recent studies show that good quality and vigorous stems can result from stump sprouts provided that the sprouts originate at or below the ground line. Stump sprouts can account for as many as half the stems after a hardwood regeneration harvest.

Sprouts in thinned clumps grow faster and produce higher quality stems than sprouts in unthinned clumps. Thinning allows the best-formed, most vigorous stem to be selected for future growth. Resources for growth are being partitioned among several stems in the sprout clump. By allowing one stem to receive those resources, growth in diameter and height of the remaining sprout is increased.

Select species for stump thinning that are long-lived and have high value potential for quality stems. Suitable species include oaks, yellow-poplar, black cherry, and ash.

The earlier stems are thinned, the larger the resulting stems. Sprout clumps can be thinned as early as 5 years after harvest cuts. The longer the thinning is delayed, the more growth will be reduced. For example, if thinning of northern red oak sprout clumps are delayed from age 5 to age 10, stem diameter will be 12 percent smaller at age 25. If thinning is delayed until age 15 or 20, diameter will be up to 30 percent smaller.

Stump sprouts should be thinned from the late-growing season through the dormant season (September through mid-March) when the sprouts are not actively growing and the potential for stem injury is less.

Leave the best one or two sprouts that are widely separated on the stump. Leave only well-formed dominant or co-dominant sprouts that are free from defect and are attached to the stump at or below ground line. Decay organisms can enter stump sprouts through heartwood connections with either the decaying parent stump or dead companion sprouts. Decay hazard from the parent sprout is minimal from sprouts originating at or below the ground line.

On slopes, favor sprouts that are on the uphill side of stumps. Choose smaller sprouts of high quality (less bole defects) over large sprouts of poor quality. Sprouts that remain should be free of V-shaped connections with other stems, show little evidence of epicormic branching, and have no forks, crooks or seams on the lower bole.

Sprout clumps growing on the better sites benefit most from thinning. However, even on the lower productivity sites, thinning sprout clumps produces larger stems in less time than not thinning. Do not over thin all stump clumps. Only thin those clumps that are anticipated to be future crop trees. Stems given too much growing space will have reduced height growth and poorer natural pruning.

In summary, thinning sprout clumps increases value of timber, reduces rotation length, increases stem quality and minimizes risk of bole defects and decay. Landowners should consider stump sprout thinning at an early age to maximize these benefits.

*Modified from Central Hardwood Notes 6.12*

## **Emerald Ash Borer Found in Kentucky**

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*Wayne K. Clatterbuck, Professor, Silviculture and Forest Management*

*Source: Frank Hale and Beth Long. What's Happening newsletter. Volume 25, Issue 6, May 29, 2009. University of Tennessee, Dept. of Entomology and Plant Pathology*

On May 22, officials with the office of the State Entomologist in the University of Kentucky Entomology Department that the first two confirmed occurrences of emerald ash borer had been found in the state. Officials investigating reports of dying ash trees found the infested trees in two locations: a private woodlot in Shelby County and a residential landscape in central Kentucky.

The approximately ½ inch long metallic-green adult beetles should be active now. They lay their eggs on the bark of ash trees and the resulting larvae chew through the bark and feed in the living cambial region. Their S-shaped feeding galleries get progressively wider as the larvae develop throughout the summer. They complete their feeding in the autumn and overwinter in shallow chambers excavated in the bark or outer sapwood. Pupation begins in April. This feeding damage causes trees to lose 30% to 50% of their canopy after 2 years and this girdling kills most trees within 3-4 years of infestation.

This invasive pest has also previously been found in a county in the Boothill of Missouri (not far from Lake County, Tennessee) so it is definitely getting closer to Tennessee. Since these beetles can be moved in firewood, officials are urging Kentuckians to not transport firewood, even within Kentucky. Buy any firewood that you need for camping locally and do not bring extra wood home with you. Do not buy wood from outside of the state.

Emerald ash borer presence and potential spread has caused regulatory agencies and the USDA to enforce quarantines and fines to prevent the transport of potentially infested ash trees, logs, and firewood. The states affected include Michigan, Illinois, Indiana, Maryland, Ohio, Missouri, Minnesota, Pennsylvania, Virginia, and West Virginia and the Quebec and Ontario provinces in Canada. With ash composing 10 to 20 percent of the trees planted or present in urban forests in Tennessee as well as many natural hardwood stands, this invasive pest has the potential to alter the forest composition in much the same way as chestnut blight and Dutch elm disease.

In Tennessee and elsewhere, be on the lookout for dying ash trees in the landscape and forests. Symptoms to look for include canopy dieback, sprouts growing from roots or the trunk, loose bark and vertical cracks, D-shaped (3-4 mm in diameter) exit holes in the trunk, and increased woodpecker damage. For more information see:

<http://www.emeraldashborer.info/> While at this web site, be sure to download the new publication entitled "Insecticide Options for Protecting Ash Trees from Emerald Ash Borer."

## Wildlife Management Calendar for June

Craig Harper, Professor, Wildlife Management

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### Wildlife Notes

Peak hatch for wild turkey nests occurs early in June.

- **DO NOT MOW** old-fields!

Most white-tailed deer fawns born in June.

- Do not pick them up, thinking they have been abandoned.

Bullfrogs are breeding.

Box turtle eggs hatch in June.

Ducks and geese molt in June and July and are flightless for a couple weeks.

### Habitat Management

Finish planting native warm-season grasses and associated forbs

- plantings through mid-June will do fine with adequate rainfall later in the month
- existing sod should be killed before planting
- use a preemergence herbicide (imazapic) when planting bluestems and indiagrass
- plant seed **no deeper** than ¼ inch
- be patient!
- refer to **Chapter 5** in *Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South*, PB 1752, for additional information on establishing native grasses and forbs

Plant firebreaks and other disked strips not left for natural vegetation

- Iron-clay cowpeas, soybeans, grain sorghum, Egyptian wheat, and various millets provide forage and seed for a variety of wildlife species
- refer to *A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense* PB 1769, for seeding rates and additional information

Plant warm-season food plots

- refer to *A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense*, PB 1769, for planting recommendations

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

Mow and spray perennial forage food plots for weed control if necessary

- refer to *A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense*, PB 1769, for specific herbicide and management recommendations

**DO NOT** mow old-fields!

- destroys cover for wildlife at a time it is needed most (nesting and raising young)
- stimulates grass and leads to reduced forb cover (which means less food and cover)
- increases thatch at ground level and makes travel through the field much more difficult for wildlife
- manage old-fields by burning or disking in late March/early April; **don't ow them!**
- refer to **Chapter 6** in *Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South*, PB 1752, for additional information on managing early successional areas

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

Establish salt/mineral licks for white-tailed deer

- realize mineral licks have not been found to increase antler size, body weights, or reproduction
- trace mineral salt licks may increase visitation to sites that will be used later for infrared-triggered camera surveys

Spray woody competitors in native grasses and old-field habitat

- multiflora rose, privet, sericea lespedeza, sweetgum, elms, etc.
- Roundup<sup>®</sup>, Garlon<sup>®</sup>, Arsenal<sup>®</sup>, Cimarron<sup>®</sup>, and PastureGard<sup>®</sup> are good herbicide options

Wildlife damage/population management

- Leave young wildlife alone
- let nature takes it's course; you'll do more harm than good by trying to save "orphans"

Do not allow pet cats outside; report all feral cats to the animal shelter for immediate removal

- putting a bell around a cat's neck does not keep it from killing birds and young rabbits and squirrels
- house cats are not natural predators as they are not native to North America

Put up chicken-wire fence at least 6 inches belowground and 2 feet aboveground around vegetable gardens to repel 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; however, when they touch the aluminum tabs with their mouths, they learn to stay away.

Plant "alternative" forages (such as iron-clay cowpeas, buckwheat, and clovers) for wildlife on the outside of fencing around a garden to satiate the appetite of deer, groundhogs, and rabbits, further helping to keep them out of the garden.

"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."

The best way to get rid of moles is by trapping, but you have to set the traps *correctly*!

Keep crawl spaces and other entrances to houses and buildings closed to prevent young skunks from entering

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

Link online to above publications:

<http://utextension.tennessee.edu/publications/default.htm> Click on wildlife & fisheries tab and then scroll down to find the publications.

## **TWRA Pond Management Guide**

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Tennessee provides over 100,000 acres of potential fishing waters. With proper planning and management, anglers can enjoy years of good fishing on their own property. TWRA, in partnership with other state and federal agencies, is providing information and recommendations in creating sustained fishing opportunities for both private and public lands. This guide provides landowners the requirements for producing and maintaining quality fishing, and helps avoid common mistakes that prevent sustained fishing in small lakes and ponds.

Link to the guide online: <http://www.state.tn.us/twra/fish/pond/ponds.pdf>

Note: on the "Table of Contents" you can click on the blue section titles and go directly to that section.



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