



Forestry, Wildlife & Fisheries Update Newsletter

Department of Forestry, Wildlife and Fisheries
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Website: <http://fwf.ag.utk.edu>

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Dates to Remember

January 11-13	Lumber Grading Short Course	Cookeville, TN
	<i>For more information, contact Adam Taylor - 865-946-1125</i>	
	or AdamTaylor@utk.edu	
January 17	"Crop Tree Release in Precommercial Hardwood Stands"	
	- Lawrence County Forestry Association	

NOTES FROM THE WEB

This month we will focus on the UT Forest Products Center website and the Land Trust for Tennessee website.

The University of Tennessee Forest Products Center mission is to solve problems for Tennessee forest products producers and provide leadership in research and education to ensure future competitiveness and sustainability of the industry. The TFPC is focused on providing research and education for the forest products industry in Tennessee, the region and beyond.(See article)

The Land Trust, a 501 © (3) nonprofit organization, works exclusively with willing landowners to find ways to preserve forever the scenic and natural values of their land. The Landtrust for Tennessee website features weblinks to projects, newsletters, a photo gallery and Tennessee standards and practices. (See article)

Tennessee Forest Products Center Website - <http://web.utk.edu/~mtaylo29>

The University of Tennessee's Forest Products Center (FPC) exists to solve problems for Tennessee's forest products producers. The FPC has recently mailed a newsletter to each forest products company in Tennessee. To learn more about the FPC and what we do, you may wish to read the newsletter yourself. It can be found by going to the Forest Products Extension website . Click on the Fall 2005 Newsletter link. Hard-copies of the newsletter are also available from Adam Taylor (865-946-1125 or AdamTaylor@utk.edu). Also, if you know of anyone who would like to receive future editions of the newsletter, please let me know.

TOWARDS UNITY AMONG ENVIRONMENTALISTS - www.landtrusttn.org

If you don't receive the Land Trust for Tennessee's newsletter you might wish to contact them and get on their mail list. I really enjoy my copy. These folks deal in conservation easements and participate among many other conservation minded groups in Tennessee. Contact them at (615) 244-5263 or visit their website: www.landtrusttn.org

The reason I mention the newsletter is a recent article that very elegantly explained much of the misunderstanding among environmentalists that I have observed over the Cumberland Plateau. As with most of Tennessee, it is not a homogeneous area. The Cumberland Plateau has at least two distinct land types.

Many folks think of the "Plateau" as the top of the plateau that is characterized by very dry situations; mostly shallow soils that support dry forest types such as post oak, scarlet oak and white oak. Persons interested in timber production are immediately inclined to plant sites like these in pine. These sites, being flat, also lend themselves to development for more intense human uses such as retirement villages, etc.

What the "land trust newsletter" discusses in an article called, "*The Significance of Cove Conservation*", is the other landform that for many characterize the Plateau. The "escarpment" or edges of the Plateau are the part that by almost any account are the treasures. These "coves" are natural landforms that essentially drain the drier portions of the plateau forming water falls, springs, seeps and rugged rock fields that are "pristine", relative to farming, timber harvesting and other human activities.

I'd be proud to send you a copy of the land trust article. It's important to understand which part of the Plateau we are talking about as we discuss the "best" stewardship for the future. Seems to me? Contact me anytime.

For more information contact: Larry Tankersley at 974-7977 or ltanker1@utk.edu

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WILDLIFE MANAGEMENT CALENDAR FOR JANUARY

Craig Harper, Associate Professor, Wildlife Management

Habitat Management

Native warm-season grasses can be planted during the dormant season

- don't plant too deep – no more than ¼ inch!
- don't forget pre-emergence weed control next April/May; it is critical!

Finish strip-mowing or silage chopping dove fields to provide seed

Fertilize winter forage plots, especially those containing oats, wheat, and/or rye

- 30 pounds of N per acre
- P and K according to soil test

Soil test now for spring plots

- applications of lime require about 6 months before full effect on pH is realized

Plant trees/shrubs for wildlife

- establish hedgerows across fields with soft-mast bearing trees and shrubs
- hedgerows can be used to break up fields into sections
- also plant trees/shrubs in blocks at end of fields or in “odd” areas
- crabapple, persimmon, wild plum and others are good choices
- refer to *Improving Your Backyard Wildlife Habitat*, PB 1633, for a list of other trees and shrubs to consider

Fertilize/prune trees/shrubs for increased soft mast production

- this is for trees out in the open, not those in woods
- fertilizing oaks in woods is a waste of time and money; to increase mast potential for trees in the woods, refer to TSI activities

Continue Timber Stand Improvement activities

- select good mast producers (e.g., oaks, beech, cherry, persimmon) and release their crowns by
- girdling competitors and spraying herbicide solution into wound (1 quart Garlon 3-A / 6 ounces Arsenal AC / fill to 1 gallon water)

Build brushpiles from thinned trees and pruned limbs

- put large stems on bottom, small stems on top

Erect boxes for wood ducks and bluebirds

- 1 box per 100 yards of shoreline is adequate for wood ducks
- clean out old wood duck boxes and put in fresh wood shavings (about 4 – 6 inches)
- screech owls and squirrels may use the boxes through winter
- repair/install predator shields if necessary
- bluebird boxes should be no closer than 80 yards apart
- up to 9 or more bluebirds may roost in a single box on cold nights

Keep bird feeders full

- black-oil sunflowers are a favorite of many birds
- thistle seed is preferred by goldfinches
- suet provides energy for lots of birds during the winter
- refer to *Improving Your Backyard Wildlife Habitat*, PB 1633, for information on specific feeders and seed for birds

Begin burning woods (hardwoods and pines) and fields to enhance conditions for wildlife

- make sure firebreaks are in place
- **much** more beneficial for wildlife than bushhogging!

Wildlife Damage/Population Management

Close crawl spaces under the house and check for openings in the attic

- helps keep snakes, skunks, and squirrels from getting into places where they are not welcome
- rodents are beginning to cache food for the coming winter; take action now to keep them out of your house
- glueboards are very effective in trapping mice, snakes, and lizards looking for a warm place inside your basement or garage

Blackbirds and starlings have gathered into large winter flocks

- don't allow them to roost in your trees; if they start, they'll form a habit
- repel them with noise makers (shotguns, firecrackers, banging metal pans together)
- be persistent

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KEEPING YOUR CHRISTMAS TREE FRESH

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

Keeping your cut Christmas tree fresh so that it lasts longer during the holiday season involves making a fresh trunk cut when the tree is purchased and keeping it watered. Once the tree is brought home, and before the tree is set up and decorated, make a fresh, straight cut across the base of the trunk – about ¼ to ½ inch above the original cut. Place the tree in a tree stand that holds about a gallon of water immediately.

Keep the tree stand filled with water. A seal of dried sap will form over the cut stump in 4 to 6 hours if the water drops below the base of the tree, preventing the tree from absorbing water later when the tree stand is refilled. A tree will absorb as much as a gallon of water in the first 24 hours and one or more quarts a day thereafter. Keeping the tree watered will prevent the needles from drying and dropping and the boughs from drooping. Water also keeps the tree fragrant.

Do not use additives in the water. Advertisements on television, radio and newspapers sometimes suggest products that you add to the water in the tree stand that will prolong the “freshness” of the tree. Some of these concoctions include water-holding gels, commercial additives, bleach, syrup, aspirin, floral preservatives, sugar, soda, honey and even vodka or gin. Research at several universities has shown that these additives tend to deter water absorption and may actually accelerate needle loss. Just plain tap water is all that is needed to maintain freshness

Thus, maintaining tree freshness involves making a new stump cut and keeping your tree well-watered, not allowing the water level to get below the stump. Only use clean water in your tree stand with no additives.

The Extension section in Forestry, Wildlife and Fisheries at the University of Tennessee wish you a happy and prosperous holiday season? Enjoy your Christmas tree!

RECYCLING YOUR CHRISTMAS TREE

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

What will you do with your Christmas tree after the holidays? Don't just put it out to the curb for garbage pickup. Recycle it! Most communities have a program to recycle Christmas trees. Check with your local department of public works for information.

Christmas trees are biodegradable. The trunks and branches can be used as mulch for gardens, parks, trails or in animal stalls. The mulch provides a hospitable environment for the roots of plants and helps to control weeds. The mulch also decomposes releasing nutrients that plants need to thrive.

Christmas trees make effective sand and soil erosion barriers at beaches and along streams and rivers. These trees also make excellent habitat, refuge, and feeding areas for fish in ponds and waterways.

Before recycling, Christmas trees can be used to make bird feeders, adding color and excitement to the winter garden. Utilize orange slices, peanut butter, suet, and seed to attract birds. They will come for the food and stay for the shelter in the branches.

Christmas trees can have many more uses than just for decoration during the holiday season. Look into recycling your tree in your community instead of allowing it to take landfill space.

Adapted from: National Christmas Tree Association, 1999

For more information contact: *Wayne Clatterbuck at 865-974-7346 or*
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TIMBER TAX TIPS

Larry Tankersley, Extension Forester

If you sold timber this year remember to file the proceeds as a capital gain rather than as ordinary income. Long term capital gains are taxed at lower rates; this helps you keep more of your money.

Depending on how your timber was cut, you might have prepared the site and replanted. If this is the case don't forget Reforestation Tax Incentives, when you file. Qualified reforestation expenditures include site preparation costs, seedlings and expenses to get the trees planted. Expenditures up to \$10,000 can be deducted directly from you income. Amounts over \$10,000 can be amortized over the next eight tax years. Amortization gives you another opportunity to reduce your income for tax purposes. Its important to begin your amortization the year, you spend the money as this tax incentive can't be started on an amended return. If you started an amortization in years past, don't forger to take your deduction this year.

Many folks receive cost-sharing from the government, when conducting operations in their forests. If you receive cost-sharing it's important to determine whether you can exclude the total amount or some portion of the amount from your income, otherwise you are required to pay taxes on the amount you receive. If you get a form 1099-GOV for the cost-sharing, as with other 1099's, don't lose it. The IRS got a copy too and they'll be in touch if you don't account for the amounts listed.

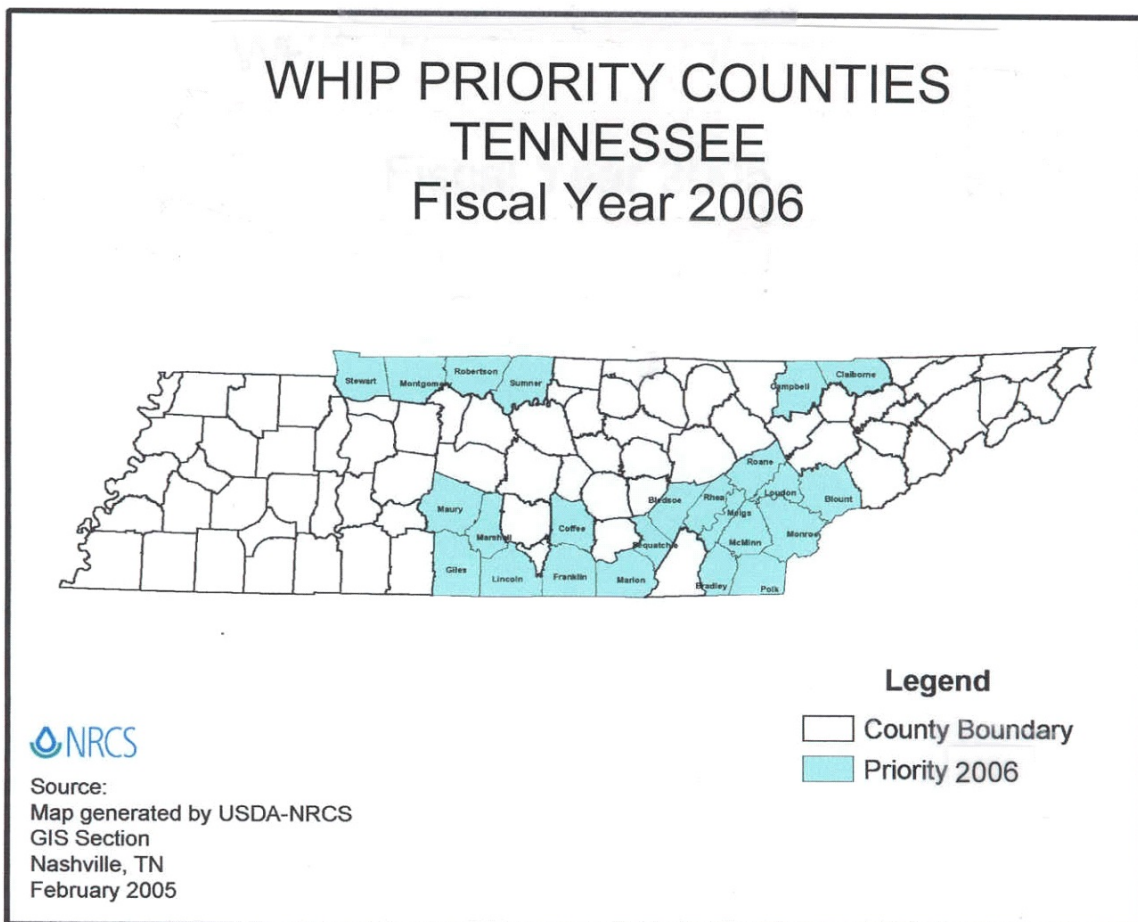
Persons who sustained tree destruction from wind, flood, ice, or other involuntary conversion are allowed to claim losses up to the value of their adjusted basis in the timber that was damaged. You do need to document when the damage occurred and that you tried to salvage the timber. If you need help understanding "adjusted basis" ask your county agent for UT Extension publication 1691, "*Settin' up the Books,...*". Be sure to let us know if we can give you hand!

For more information contact: *Larry Tankersley at 974-7977 or*
ltanker1@utk.edu

Craig A. Harper, Associate Professor, Wildlife Management

Farmers and landowners only have until January 17, 2006 to sign up for the USDA’s Conservation Programs in Tennessee. The programs include the Environmental Quality Incentives Program (EQIP), the Wildlife Habitat Incentives Program (WHIP), and the Wetlands Reserve Program (WRP). Nationally, these programs provide technical and financial assistance to landowners committed to improving and conserving their land. Significant enhancements to the programs have been implemented since last year, so applicants from previous years are encouraged to sign up again this year.

Administered by the Natural Resources Conservation Service (NRCS), these conservation programs provide financial assistance to agricultural producers who will apply cost share and incentive practices that provide significant environmental benefit. In Tennessee, NRCS provides funding to each county to address local resource concerns. This ranking period is the only one that is anticipated for fiscal year 2006, though applications for all three programs are accepted throughout the year. Applications received after January 17, 2006 will not be evaluated and ranked during fiscal year 2006. Cost share rates range from 50 – 75 percent depending on the program. Those qualifying as Limited Resource Farmers receive 90-percent cost share, and Small Scale Farmers can receive up to 75-percent cost share. For landowners interested in WHIP, priority counties have been identified (see map below). Landowners enrolling in the WHIP in those counties get additional priority points.



The above information was provided by Perry Stevens, State Public Affairs Specialist, NRCS. Anyone interested in EQIP, WHIP, or WRP can sign up at their nearest USDA Service Center or call NRCS at 615.277.2531.

Craig A. Harper, Associate Professor, Wildlife Management

Agricultural producers interested in hay production, livestock grazing, and wildlife habitat have a new opportunity in Tennessee under the USDA's Environmental Quality Incentives Program (EQIP). Approximately \$500,000 has been set aside in a state fund for landowners interested in establishing native grasses for hay, pasture, or field buffers. Producers are eligible for cost-share to establish native grasses and a **\$100/acre management incentive payment for the first two years** of the contract to compensate for forage loss during establishment. In addition, the Tennessee Wildlife Resources Agency (TWRA) is **also providing a \$55 per acre (one-time) incentive payment** for installing and managing these native grass practices.

Native warm-season grasses (nwsgr) provide excellent hay and forage and, when properly managed, can provide great wildlife habitat, especially for ground-nesting birds such as bobwhite quail. Nwsgr are attractive for producers because the majority of growth occurs in the summer when optimum hay drying conditions occur and when forages such as tall fescue and orchardgrass produce very little hay. Yields of 2 – 5 tons per acre of native grass hay (prior to boot stage) are common after the second year. Interested landowners should go to your local NRCS office to determine if you are eligible and apply for the 2006 Environmental Quality Incentives Program (EQIP). The application deadline is January 17, 2006. Visit your local NRCS office or the Tennessee NRCS home page <http://www.tn.nrcs.usda.gov/programs/index.html> for more information. *Information provided by Mark Gudlin, Private Lands Liaison, Tennessee Wildlife Resources Agency.*

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“DRY ROT” ISN'T DRY

Adam Taylor, Assistant Professor, Wood Products Management

Water is the basis of life. This is true for animals and plants but it is also true for the fungi. The kingdom fungi includes organisms such as the mushrooms we buy in the grocery store but it also includes the wood-rotters that cause significant damage to wood in buildings. Unlike mold and stain fungi that can discolor but do not weaken wood, wood-rotters – or “decay” fungi – consume parts of the wood and thus destroy its structural integrity. There are many species of decay fungi and they are commonly grouped by the appearance of the wood after attack, for example: brown rot and white rot. Regardless of the type of wood decay, all require that the wood be wet.

Dry rot is a commonly-heard term. Usually when wood decay is identified as “dry rot” it is a mis-identification of brown rot. In the advanced stages of brown rot, all that remains of the wood is a spongy brown material that can easily be broken by hand. If this residue dries out after the brown rot has run its course it will then be both “dry” and “rotten,” but it is still correctly referred to as brown rot.

Most decay fungi feed on wood that is exposed to a steady source of water. This can occur if wood is in contact with the ground, or if a leak in a building traps water in contact with the wood. There are however a few, relatively rare, fungi that can transport the needed water to the wood. These species are often called the “dry rot fungi” but they are actually water-transporting brown rot fungi. *Meruliporia incrassata* or “Poria” is one such fungus that is found in the southern United States. Poria grows specialized water-conducting tubes called rhizomorphs that can help it to move water from wet areas (e.g. the ground) to nearby wood. Poria is of further concern because it can also decay some woods that other fungi can't: naturally durable wood such as cypress and cedar and wood treated with copper-based preservatives.

Poria is very susceptible to drying, so it is very unlikely to become established on wood that is in a very dry environment. Thus, even though Poria can move water to wood that would otherwise be too dry to support decay, prevention of this fungus is similar to that for other wood rotters: Keep the building dry. If, for example, gutters are installed and maintained, crawl spaces are kept dry and leaks are promptly fixed, this will greatly reduce the risk that Poria will be a problem.

Wood is remarkably durable material and wooden buildings exist that are many centuries old. The key to this longevity is keeping the wood dry. This not only prevents attack by “dry rot” but also prevents mold, stain and insect infestation. For more information contact: *Adam Taylor at (865) 946-1125 or AdamTaylor@utk.edu*

CAUSES OF FOREST HERBICIDE FAILURE

David Mercker, Extension Specialist, Forest Management

Private landowners and forest contractors regularly use herbicides to accomplish silvicultural objectives, including site preparation, seedling and sapling release, thinning, and cull tree removal. The result of herbicide applications is normally satisfactory, provided the manufacturers' directions are properly followed. Sometimes, however, the results are disappointing, even with experienced applicators.

There are a number explanations why herbicides sometimes fail to perform as intended, and they are summarized here:

1. Soil Texture – Herbicides act more slowly on finely textured soils (clay) than on coarse soils (sand). Often it is necessary to slightly increase application rate on finely textured soils and soils with high mineral and organic matter, and slightly lower the application rate on coarse soils.
2. pH of the Water – herbicides mixed with highly acidic water will be less effective than with water having a more neutral pH. Don't use surface water for mixing herbicides and always test the pH before mixing.
3. Air temperature – many herbicides will perform better with warmer air temperatures. Normally during cool or even cloudy weather, plants are not actively growing. Herbicides will not translocate readily and favorable results will be slow, if at all.
4. Volatility – rapid evaporation can cause some herbicides to function poorly. Soil incorporation may be necessary.
5. Sap Flow – when applying herbicides to the girdles or frills of certain trees (e.g. maple) in early spring, sap flow can be so aggressive that herbicides are immediately "pushed" back out, never to reach the roots.
6. Solubility – herbicides designed to work as a solution are more mobile than those designed to work as suspensions. Solutions can sometimes move off-target with precipitation.
7. Precipitation – whether in excess or too sparse, precipitation is a major factor in success with herbicides and one that the applicator has no control (other than in timing of application).
8. Improper application – poor site preparation, improper mixing, faulty spray equipment, too much variation in ground speed, etc. all contribute to inconsistency or failure.

Landowners who are inexperienced with herbicide application should first seek professional assistance, starting with the local County Extension Office or Division of Forestry Area Forester. Remember too that restricted use herbicides applied commercially require a pesticide applicator's license.

For more information contact: David Mercker at 731-425-4703 or
dmercker@utk.edu

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RETURN OF THE FLOODED FOREST

David Mercker, Extension Specialist, Forest Management

Sandbags, river dams, levees and canals are just a few of the devices we have developed to keep the rivers within their banks. Often, however, our efforts are not enough and the water reclaims its territory for a while. Many landowners are beginning to realize the futility at beating the natural environment at its own game and are returning bottomland fields that have been deemed nearly unfarmable to their original use . . . bottomland forest.

Bottomland forests are invaluable for many reasons. During seasonal flooding, the excess water spreads over these areas, slowing the flow. Whereas cleared bottomland often leads to soil erosion and does little to decelerate the rushing waters, bottomland forests serve as a relief valve. As the water rises and flows into these areas, the rich soil absorbs water while the trees and other plants retain moisture within their roots, slowing the recession of water to the river.

During periods of heavy rain, soil is washed into the bottoms from upland areas and water channels. As the water slows, this soil is then deposited onto the bottom areas. Pollutants, such as farm chemical, sewage, industrial waste, organic matter, etc. are deposited along with the soil. The cleaner water then moves downstream, remains in pools for fish and wildlife, or soaks, into gravel underlain soil to be added to the underground water table. It then becomes available for reuse by plants, animals or humans.

Trees and other plants take up the water that remains in the bottoms and transpire the water from their leaves back into the atmosphere, becoming the source of future rains. The nutrients, pollutants, and soil left behind are utilized by a multitude of plants, micro-organisms, and animals, and are recycled safely into the food chain. In fact, they contribute to making the soil in these bottoms some of the most fertile. Thus a crop that is better suited to the wetter conditions, such a certain species of trees, grows even faster than it might on other sites. Some of the most valuable species of trees, such as oaks, black walnut, pecan, and ash as well as some less desirable species, including cottonwood, silver maple, shellbark hickory, sycamore, and bald cypress are suited to these areas.

The “bottom” line is, the factors that make bottomland unproductive for other uses are actually assets for tree farming. The US government realizes this and is encouraging afforestation efforts on bottomland through the Conservation Reserve Program. The University of Tennessee Center for Research and Education, in Jackson, restored a 120 acre row crop field to bottomland forest. Nearly 51,000 hardwood seedlings were planted to create a public demonstration area. It’s a model that hopefully will be observed and adapted throughout the Southeast.

For more information contact: David Mercker at 731-425-4703 or
dmercker@utk.edu

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HARDWOOD ANALYSIS AND TRENDS (HAT) – December 2005

David Mercker, Extension Specialist, Forest Management

Lumber prices remain stable from the previous month with no changes to report in **HAT**. As is typical, gate-wood deliveries dropped slightly due to the Thanksgiving holiday and annual hunting season. Some mills briefly shutdown in attempt to schedule production around undersized crews, but apparently this had little affect to log inventories. There is still concern over transportation costs, with little ease in the high price of diesel. Some landowners will feel the effect of this when selling timber.

Comments are limited regarding the six hardwood species important to the region, and include:

1. Markets for the common grade of red oak are improving, spurred on by increased interest in oak strip flooring manufacturers. Buyers prefer red oak over white for this usage.
2. The renewed interest in common grade red oak is not a result of increased demand, but of lower supply (many mills have shifted production away from oak and toward maple and cherry).

3. There remains a high level of interest in the top grades of both red and white oak. Demand for average to lower grade lumber should remain stable, with little indication of strong rebound.
4. Hard maple continues to perform well in cabinetry, furniture and flooring. Cooler temperatures have lessened the fear of log stain, thus increasing log deliveries and allowing shipments to keep pace with production. The rate of consumption is not anticipated to change, with consumers preferring the appearance of closed grain whitewoods. This does not bode well for many of Tennessee hardwood mills because sufficient supplies of good quality, hard maple is simply not available.
5. Poplar enjoys strong demand among both domestic and international markets, keeping supplies tight. Even so, there is considerable resistance among sales operations when trying to push prices upward.

Summarized with permission from Hardwood Market Report, Memphis, Tennessee.