



# FWF Update Newsletter

Department of Forestry, Wildlife and Fisheries

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

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### **A New Professional Hardwood Note is Available**

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

A UT Extension publication (PB 1783) entitled “Site Preparation and Competition Control Guidelines for Hardwood Tree Planting” will be printed and online by July 1. This publication is part of the Professional Hardwood Notes series. The article presents recommendations for weed and competition control for several land conditions (scenarios such as fallow field, row-crop field and pastures) when planting hardwoods through herbicides and the use of cover crops. Competition control before and after planting usually determines the success of the planting. Control of competition usually begins a year in advance of the planting.

Contact the UT-FWF Knoxville office or your local county Extension office for a copy of the publication. The online address is <http://utextension.tennessee.edu/publications/forestry/default.asp> under the Hardwood Silviculture Notes subsection. Copies of the publication will be distributed to Tennessee Division of Forestry offices during July.

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

*David Mercker, Extension Specialist, Forestry*

“There is no doubt production of green hardwood lumber has declined significantly in this (Appalachian) and other regions. While, lower output (of lumber) has stabilized pricing to a degree, costs to the industry have been high. Many longtime sawmill operators have idled or closed plants. Because of less need for raw materials (logs), logging contractors have also exited the hardwood industry. For some mills dependent on gate logs, the results have been tightening supplies and firmer pricing for raw materials at a time when lumber prices remain low. Also, the hardwood industry is losing highly qualified employees because of downsizing. Yet, these circumstances are an inevitable consequence of weak demand for hardwood construction material. Contraction in the housing market has continued for three and a half years, followed by an economic crisis the likes of which most people have never seen. . . . The reality is that there is little evidence of a near-term recovery for hardwood products demand.”

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

## **A Forest Certification Workshop for Family Forest Owners**

*David Mercker, Extension Specialist, Forestry*



Owners of family forests are invited to attend one of five forest certification workshops located throughout Tennessee. The events will occur August 17–25, 2009, and will explain the benefits and process of forest certification through the American Tree Farm System.

Forest certification means that forests are managed in a sustainable manner and that trees are harvested with environmentally sound practices. These management practices are certified by objective third parties. The American Tree Farm System is one source for family forests to become certified. Since 1941, the American Tree Farm (ATF) System has been active in recognizing private landowners who excel in forest management. Dr. David Mercker, University of Tennessee Extension Forester, will address the following at the workshops:

- Overview of the American Tree Farm System
- Explanation and benefits of forest certification
- The process of certifying your family forest
- The emerging carbon credit markets

Dinner for the participants will be provided at no charge, compliments of the Tennessee Forestry Association Tree Farm Committee. However **each location is limited to the first 40 to register.** The events will be from 6:00-8:30. Dates and locations include:

**August 17 - Jackson** – University of Tennessee County Office Bldg., 309 N. Parkway  
(note: this is not at the Experiment Station)

**August 18 – Lawrenceburg** – “Taste of Town Restaurant” - 204 East Gaines Street

**August 20 – Decherd** - Farm Bureau Bldg., 1401 Nicholson Street.

**August 24 – Waverly** – Natural Resources Conservation Service, 234 W. Blue Creek Rd.

**August 25 – Cookeville** – Hyder/Burks Agricultural Pavilion, 2390 Gainsboro Grade.

**To register:** Please **call** the Tennessee Forestry Association at **615-883-3832** and state you wish to register for the “Tree Farm Workshops.” Please give the location you will be attending and number of participants (limit 3 per party). Please register 3 days in advance of each workshop. These events are sanctioned by the University of Tennessee Extension, the Tennessee Forestry Association, and the Tennessee Dept. of Agriculture Forestry Division.

## **“Slow it – Spread it – Sink it” – the Slogan for Forestry BMPs**

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*David Mercker, Extension Specialist, Forestry*

Society receives abundant benefits from well-managed forestlands. Foresters often claim “wood, water, wildlife, and recreation” as amenities normally provided free of charge to non-landowners. Of these four, water has been given increased attention over the past two decades. Foresters, forest industry and loggers receive ongoing education on how to minimize the effects that logging and other forestry operations might have on water.

Water protection is more commonly referred to as BMPs (best management practices). As educators, conveying our knowledge about BMPs to private landowners is an important challenge. There is much to know about the subject, much more than can be easily demonstrated in a typical evening program or forestry field day.

Sometimes an unintended consequence of educators attempting to simplify the complicated is that we end up complicating the simple. This is true when addressing the subject of forestry BMPs. Water itself causes little erosion. However problems result when large quantities of water suddenly become concentrated and accelerated. That’s when water can score the earth, potentially resulting in gully erosion. And that’s where education efforts should focus.

In an attempt to find a catchy take-home slogan for County Agents, resource professionals and loggers to convey to others about forestry BMPs, the following is introduced: **“Slow it – Spread it – and Sink it.”** Whether working with haul roads, skid trails, or log landing areas, we should be cognizant of ways to hinder water’s acceleration then disperse it off of roads and into the forest where it can gradually percolate into the organic matter and soil. This allows more water to become available to vegetation and any excess to gradually release into water bodies.

Wood, water, wildlife and recreation – perhaps the greatest of these is water. It’s simple, let’s *slow it, spread it, and sink it!*

## **Distinguishing Between Deeds, Easements, and Leases**

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*David Mercker, Extension Specialist*

It is impossible to be involved in land and timber transactions, or many outdoor recreational pursuits, without encountering legal terminology. Forestry law regularly uses three terms that landowners and natural resource professionals should understand: deeds, easements, and leases. The Alabama Forest Ownership summarized these (*Capital Ideas*, May 2008), and they are shared here.

**Deed** - A deed involves granting bargaining, selling or conveying title or interest in property to another. It must be recorded to be enforceable and it is transferable. When standing timber is sold, often a timber deed is secured by the purchaser, while the land is excluded.

**Easement** - An easement grants the right of ingress and egress across a property and is usually created by a deed. Easements normally are retained with the land, passing to the new owner. Examples include access and utilities. Easement holders normally are not allowed to extract anything from the land, rather only to use the land for a stated purpose. Easements have lasting value, as compared to right-of-ways, which are normally temporary. Sometimes easements are established when landowner’s have property that is land-locked, and extraction of resources, such as timber, has no other way of being removed.

**Lease** - Leases transfer the right to possess a part or purpose of property to another. Title to the property does not transfer from the owner to the lease holder, but a “possession” has been parted with. Hunting or other recreational leases are the most common examples, whereby one is invited to enter and remove wild game.

## **A Forest Management Plan as Part of Your Estate Plan**

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*Larry Tankersley, Extension Forester*

The primary goal of Estate Planning is the conservation of wealth accumulated during your life and its transfer to heirs and other beneficiaries. When forest land is involved, a forest management plan is helpful to both the goal of producing income and preserving the land's inherent productivity and aesthetic through sustainable management.

The management plan should address several goals including income, wildlife management and value appreciation. Strategic planning should focus on the best rotation length and structuring the age-class distribution of growing timber to produce an even flow of income. Longer range plans should consider species selection, stocking levels, rotations and interactions among the various timber, wildlife and other goals. The plan should also focus on the operational production of net income in relatively short time periods, say 5 year increments.

An operational plan first requires a current inventory with stand-level detail. All operations for the next five years, including wildlife activities, together with their related costs and revenues are scheduled. Mature stands should be analyzed for rate of return and income to be generated. Financial criteria should be developed to guide the replacement of less productive stands by harvesting them. Similarly, the expected returns from reforestation, timber stand improvement, and other projects should be analyzed for the best use of limited time and money. Annual budgets can target the specific stands to be harvested with details for reforestation and other silvicultural activities.

Operationally, each stand functions as an individual investment from which thinning and final harvest revenues are projected. Similarly, annual management expenses for property taxes, timber stand improvement, competition control, and growing stock enhancements such as fertilizer are prescribed. These are important "inputs" for decision making regarding stocking control and property maintenance.

Good plans generally reflect your objectives and the current market conditions. A good plan is also flexible with the ability adapt to your revenue needs, availability of time and money and to market fluctuations. Flexibility to respond to shifts in public policies and or casualty losses are also important.

The scope and sophistication necessary to develop a forest management plan depend on your circumstances. A small property with modest timber value, can be successful with a simple plan. As property size and timber value increase more attention should be devoted to the plan, reflecting the greater value and potential earning capacity.

Estate planning is important to passing on your forest land successfully to those who will care for it best. Your management plan will help ensure your forest legacy endures.

Let us know if we can assist you.

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*from "Estate Planning for Forest Landowners", US Forest Service*

## Is Pruning to Develop High Quality Hardwoods Worth the Consideration?

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Wayne K. Clatterbuck, Professor, Silviculture and Forest Management

Tree pruning to promote high-value hardwoods has not been commercially practiced to any great extent in the southern United States. Most practitioners believe that the expense of pruning is not justified. The pruning expense must be carried for many years before the expense is recovered through the increased revenue associated with a higher value tree or product. Schlesinger and Shigo in the Central Hardwood Notes 6.09 state that “a price differential of only 40 dollars per MBF between clear pruned logs compared to rough, unpruned logs, is all that is needed to make pruning an economical viable treatment...” Perhaps pruning should be reevaluated considering that high-valued hardwood logs are in short supply and grade one logs are worth 2 to 4 times more (depending on species) than grade three logs.

As practiced in other areas of the country, pruning is an important silvicultural treatment to promote the growth of clear wood over the branch occlusion. Douglas-fir is often pruned to produce clear wood for plywood production and knot-free lumber. Ponderosa pine is another species that is frequently pruned. Hardwood plantations are pruned in Indiana to produce higher value logs. Cottonwood is often pruned at an early age to promote branch-free wood

Valuable hardwood species such as black walnut, sugar maple and white oak are candidates for pruning because of their poor natural pruning ability and slower diameter growth. Most red oaks (exception is scarlet oak) and yellow-poplar generally have good branch shedding ability.

There is some controversy whether pruning cuts should be flush to the stem or if the branch collar should be left. O’Hara, in a review article on pruning in the *Journal of Forestry* (April/May 2007), contends that either method could be used based on objectives. If a branch is cut flush with the stem, a larger wound results, but if the branch is cut further from the stem, the resultant clear wood production will be less.

Recent work by Oswalt at UT as part of his doctoral research indicates that pruning for clear wood production should take place on branches before they reach 2 inches in diameter. The larger the branch diameter, the more time needed for diameter growth to occlude the branch cut. Prune only the first 12 feet of the stem because most of the lumber value is in the lower stem. Pruning higher on the stem requires more time and equipment and thus increases costs. Tree pruning should take place at an early age when the branches are smaller. At least 35 percent live crown ratio (live crown length/ total tree length) should be left after pruning. Lower crown ratios will delay diameter growth with lower growth rates.

Do not prune every tree in a stand. Only prune trees (usually 50 per acre) that are the potential crop trees for sawtimber. The best time to prune trees is during the dormant season when the leaves are not on the trees. Avoid pruning in early spring when leaves are forming and sap (conductance) is high.

Pruning is an extra expense, but may be worthwhile considering the value of clear wood, knot-free diameter growth beyond the pruned area and the scarcity of high grade logs in the marketplace. Pruning should only occur on species that are highly-valued; when trees are young (at least 4 inches in diameter) and branches are small in diameter; and on the future sawtimber crop trees. Take photographs of trees after pruning. These photographs will show future buyers that the trees were pruned and that the trees have a higher proportion of clear wood.

## Wood Products are Green

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*Adam Taylor, Assistant Professor, Forest Products*

Would it surprise you to hear that cutting trees can be *good* for the environment? It's true! For example, using wood for building houses uses less energy and results in less pollution than using steel or concrete. Harvesting trees, as part of sustainable forest management, also encourages landowners to keep their forests and these forests provide many environmental benefits.

Most of us enjoy forests and see them as valuable assets that provide wildlife habitat, recreational opportunities and beauty for society as a whole. Some people instinctively dislike it when trees are cut, fearing that these benefits will be lost. However, it is important to remember that cutting one tree provides the opportunity for another to grow and that harvesting trees as a part of forestry is not the same as deforestation. Deforestation is a serious problem in some tropical countries that results mainly from conversion of the forest for unsustainable food production.

Money paid for timber can help to ensure the continued existence of the forest by providing the landowner with an incentive not to convert forestland to another use. The population of Tennessee is growing rapidly and this is providing an incentive for many landowners to sell their forestland for development. This is likely to be a major threat to our forests in the future. We can encourage landowners to maintain their forests and one good way to do this is by using local wood products.

In addition to providing numerous environmental benefits, local forests provide wood that can be used for many things including pencils, paper and building materials. If we decide not to cut our trees to make these products, then the wood will have to come from somewhere else. That 'somewhere' is often very far away (e.g. Asia or South America) and transporting wood over great distances has environmental impacts. In addition, the production of wood products in other countries is too often illegal and unsustainable. In the United States, almost all wood production is done legally and sustainably. Our timber resources and forest lands have been growing steadily for years.

It is possible to substitute other materials for wood in many cases. Fencing can be made from plastic. Houses can be made from steel studs or concrete walls. However, studies show that the total impact on the environment from using these non-wood alternatives is much higher. For example, it has been calculated<sup>1</sup> that a home constructed with wooden framing uses 16% less energy than one with concrete walls. Air pollution is 23% less, solid waste is 51% less and greenhouse gas emissions are reduced 31%.

The forests of Tennessee are abundant and provide society with many benefits. Continuing to value wood products and support our local forest products industry may be one of the best ways to save the trees and our environment.

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<sup>1</sup> [www.corrim.org](http://www.corrim.org)

## **Wildlife Management Calendar for July**

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*Craig Harper, Professor, Wildlife Management*

### **Wildlife Notes**

July is peak breeding season for black bears.

July is also peak time for the second litter of squirrels

Lots of quail born in July. **DO NOT MOW** old-fields!

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

### **Habitat Management**

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 additional management information

Burn unharvested wheat fields that have been left standing for doves.

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

Plant wild or browntop millet and/or buckwheat 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 undesirable woody plants in early successional habitat

- multiflora rose, privet, sericea lespedeza, sweetgum, green ash, and *Ailanthus* are examples of undesirable woody plants in early successional habitat
- Roundup, Garlon 3-A, Arsenal, Cimarron, and PastureGard should be considered
- refer to [Appendix 4](#) in *Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South*, PB 1752, for additional information

**DO NOT** mow old-fields and associated early successional habitat!

- 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 mow 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 habitat

## **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.



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