10-1-2013

Update Newsletter October 2013

Department of Forestry, Wildlife and Fisheries

Follow this and additional works at: http://trace.tennessee.edu/utk_updatenews

Recommended Citation


This Newsletter is brought to you for free and open access by the Forestry, Wildlife, and Fisheries at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Monthly Extension Update Newsletter by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.
Why Do Leaves Turn Color?

Wayne Clatterbuck, Professor, Silviculture and Forest Management

The recent cooler evening temperatures and drier conditions in October should give most areas of Tennessee a vibrant leaf color show this year!

For information on leaf color change, especially effects of weather and shorter day length, refer to UT Extension Publication (SP529) available online at

https://utextension.tennessee.edu/publications/Documents/SP529.pdf
About 90 percent of wildfires in Tennessee are caused by human activity, predominantly by escaped debris burns and arson. The Division of Forestry requires a burn permit to conduct a debris burn of leaves and brush where local ordinances do not exist. Burning Permits focus attention on the safe use of fire. From **October 15 – May 15**, anyone starting an open-air fire within 500 feet of a forest, grassland, or woodland must by law secure a burning permit from the Division of Forestry. Permits are not required for burning in containers such as a metal barrel with a 1/4 “ mesh screen cover. Anyone needing to burn within an incorporated city should contact city authorities about any local burning ordinances. Many towns and cities have their own burning regulations that supersede the Division of Forestry’s burning permit program.

**The following tips should be followed when it is safe to conduct a debris burn:**

- Check with local authorities to make sure there are no local restrictions on burning currently in place, especially in cities and towns that have their own burning permit system.
- Notify your local fire department and neighbors to let them know your plans to burn
- Do not burn on windy days
- Check the weather. Stay abreast of changing weather conditions
- Choose a **Safe Burning Site**. A safe site will be far away from power lines, overhanging limbs, buildings, automobiles, and equipment.
- Establish wide control lines down to bare mineral soil at least five feet wide around burn piles
- Keep fire containment equipment on hand during the fire (e.g. rake, shovel, water)
- Stay with the fire until it is completely out. Drown the fire with water, turn over the ashes with a shovel and drown it again. Repeat several times. Check the burn area regularly over the next several days and up to several weeks following the burn, especially if the weather is dry and windy.
- It is illegal to burn plastic, tires, and most other waster products not from a tree or shrub.

Permits are **free of charge** and may be obtained by calling the phone number for the county in which the burning will be done or by filling out the online form. Permits will not be issued on days and in locations if it is considered unsafe to conduct a debris burn.

For more information please follow this link to the Burn Safe TN website.

[http://burnsafetn.org/burn_permit.html](http://burnsafetn.org/burn_permit.html)

*If you suspect arson activity in your area, please call the arson hotline at 1-800-762-3017.*
In Tennessee, there is a long history of making whiskey and of making wood products – including the white oak barrels that Tennessee whiskey is aged in. White oak was originally used for barrels for liquids, including whiskey, because the barrels made from this impermeable wood didn’t leak. However, over time the naturally occurring flavors in the wood move into the wine or whiskey stored in the barrel and people have come to appreciate – even expect – those flavors in their beverages. In fact the flavor and color of Tennessee whiskey is largely a result of the wood it is stored in – the freshly distilled spirit is clear and rough-tasting when it first goes into the barrel. Thus there is a fundamental connection between wood and Tennessee whiskey.

Recent research¹ suggests that the connection between wood and whiskey could be even more complex. A study in England investigated how the environment affected drinkers’ perceptions by having people taste the whiskey in different surroundings. It turns out that the participants liked their (Scotch) whisky best when they drank it while sitting in a wood-paneled room!

After some very tough times, the wood business in Tennessee is picking up and the fundamentals look good for the next few years. Likewise the outlook for the American alcoholic beverage industry is for steady growth. So, the businesses of wood and whiskey production in Tennessee look to have strong, and interrelated, futures.

¹ Velasco et al. 2013. Assessing the influence of the multisensory environment on the whisky drinking experience. Flavour 2013, 2:23
Classifying Forest Insects by Feeding Habits

David Mercker, Extension Specialist, Forestry

Forest entomology is a challenging science. Most of us have little more than passing knowledge of insects in the forest and yard settings, including foresters. Yet Extension educators receive numerous calls involving trees and insects - - damage, identification, and control. The Woodland Steward (Fazio 1987) has an excellent section whereby common forest insects are classified according to their feeding habits. By understanding feeding habits, insect control (if necessary) becomes easier. Following is a brief summary of the classifications.

**Defoliators** – defoliating insects eat the leaves of trees (both broad leaves and needles); the damage is easily seen via loss of foliage and “droppings” located under the crown; insects regularly feed on leaves and normally damage is minimal except when outbreaks occur; in our region, some of the more common defoliating insects include: sawflies, forest tent caterpillar, variable oakleaf caterpillar, and leafminers.

**Bark Beetles and Other Bark Borers** – over 100 insect species fall into this very destructive category; adults excavate the sugar-rich phloem just under the bark where they lay eggs; larvae hatch and continue eating their way from the main gallery through many smaller galleries; in our region, some of the more common bark beetles include: southern pine and ips beetles, emerald ash borer, walnut twig beetle, flatheaded borers, and twolined chestnut borer.

**Wood Borers** – similar to bark beetles, wood borers mine deeper into the tree and damage the new wood (called sapwood or xylem); sometimes wood borers cause little to no damage (such as for overwintering purpose), while other times their galleries can sever the flow of water to the foliage and cause rapid mortality; fine sawdust (also called frass) is often seen on the bark and near the trunk; in our region, some of the more common wood borers include: ambrosia beetles, oak borer, carpenterworms.

**Terminal Feeders** – this category of tree pests feed on buds or roots; a few even cause damage by girdling twigs; rarely is their damage lasting (unless repeated annually); rather they mostly deform the bowl and crown of younger trees; in our region, some of the more common terminal feeders include: Nantucket pine tip moth, pales weevil, twig borers, and girdlers.

**Sucking Insects** – insects that rob trees of their food by drawing fluids from the leaves and fine branches are sucking insects; rarely do they cause death but can spread tree diseases; in our region, some of the more common sucking insects include: aphids, woolly adelgid, scales, spittlebugs, and cicadas.

When attempting to identify forest/tree insects, it helps to first classify their feeding habit. Control is then made easier. Some insects, such as the emerald ash borer, are very serious threats and restrictions on movement of wood products exist.

How Will Tennessee Forests be Managed?

Wayne Clatterbuck, Professor, Silviculture and Forest Management

More than 14.5 million acres in Tennessee are forested, about 55 percent of the land area. Approximately 12 million acres of the forest land in Tennessee are privately-owned, with about 20 percent (2.4 million acres) controlled by corporate investment entities and partnerships. Private individuals own about 9 million acres of private forests, sometimes referred to as family forests. Plantations compose about 5 percent of the private forest in Tennessee or about 600,000 acres. Plantations can be considered the intensively managed forests in the state. Government owns the remaining 15 percent (2.4 million acres). Forest industry that previously owned about 10 percent of the forest land in Tennessee a few years ago, does not own an appreciable amount of forest land today.

What are the forest management approaches for these lands? Four approaches have been applied based on current policy: (1) reserves, (2) incidental harvest, (3) intensive management and (4) integrated management.

Forest reserves are generally off-limits to harvesting. Most government-owned forest lands such as National Parks, National Forests and State Parks are managed for objectives other than timber. Although some timber harvesting will occur on some of these lands, the purpose will be for wildlife habitat manipulation, recreation, and demonstration. Forest reserves are a minor source of the wood supply.

Incidental harvest is how many forests have historically been managed: harvest the wood, abandon the forest while it regrows naturally, and harvest it again when the forest matures. Most private land has been harvested in this “potluck” manner without regard to future aspirations or management. Those who use the incidental harvest approach are not reaping the full benefits of forestland ownership.

Intensive management is how many investment firms manage their land. The high investment costs of forest land and plantations need high yields and returns to be economically attractive. To be economically feasible, the greater costs and yields also necessitate relatively short rotations. The amount of wood produced on an acre of intensively managed plantations is 5 to 10 times more than produced on most forest land, thus lessening the amount of land needed to grow wood fiber. This allows more forestland to be used for purposes other than intensive fiber production.

Integrated management allows stands to develop in a variety of natural patterns. A more diverse mixture of wood qualities and species are supplied. The forest is managed as a portfolio to minimize the risk and to maximize profits by harvesting different stands containing different species and products. The flexibility of integrated management provides many more choices and satisfies desires in accomplishing multiple-use landowner values.

Forest policy is presently in flux. Governments tend to place restrictions and/or incentives on forest management and harvesting timber, whether on private or public land. Intensive plantations are being promoted by investment firms to provide a constant source of income. Integrated management provides the best of both worlds by managing for multiple benefits. Since private individuals own most of the forestland in Tennessee and most ownership have multiple objectives for possessing forest land, integrated management provides the most latitude in management philosophy. The vast majority of private forest landowners are in the middle, providing a multitude of benefits for themselves and society. These objectives usually are multi-dimensional including periodic income, improved wildlife, enhanced recreation, aesthetics, clean water, clean air, or just a place to get away.
Know Your Sources of Timber Prices
Wayne Clatterbuck, Professor, Silviculture and Forest Management

Timber is usually sold from a property once or twice in a lifetime. Knowing what timber prices entail will assist you in determining a fair price for timber, especially when timber is cut infrequently. The following definitions are helpful in determining timber price.

**Stumpage or standing timber price**: Price that sellers or landowners receive for their trees.

**Delivered price**: The price the mill pays for logs. Price includes the stumpage price, the logging cost (including profit) from getting the trees/logs from the woods to the paved road, and transportation to the mill.

**Lumber price**: Price at which the mill sells lumber and includes the delivered price for logs from the loggers and the cost (including profit) of sawing and milling to produce lumber.

The Tennessee Division of Forestry (TDF) publishes quarterly a delivered price per species on their website: [http://www.tn.gov/agriculture/forestry/bulletin.shtml](http://www.tn.gov/agriculture/forestry/bulletin.shtml) Delivered prices instead of stumpage prices are used because most landowners are unwilling to divulge the price (stumpage) they received for their timber. Mills are surveyed by TDF and are willing to allow delivered prices to be known. The prices that a mill is willing to pay for delivered logs will vary by the lumber markets and the ability of the mill to produce lumber in a cost effective manner.

Delivered prices vary widely across Tennessee and are reported by region for three different areas in the state: east, middle, and west Tennessee. Although delivered prices are reported averages within each region, those prices may fluctuate greatly within and between regions based on the interests of lumber buyers, i.e., the market. For example, if a mill has a large order from a buyer for Grade 1 white oak lumber and this type of lumber is in short supply, then the mill is willing to increase its price for high-grade white oak logs to fulfill the order. Alternatively, if there is a large amount of that lumber already available in inventory, the price for those logs decline.

Lumber is a commodity that is sold locally, statewide, regionally, nationally and internationally (export). Each tree/wood species has a different lumber price based on its use and grade. Additionally, each mill has business relationships with different sets of buyers. Lumber prices are negotiated based on the needs of the buyers and market conditions (supply and demand). Because of the variability associated with lumber markets even within a locality, with different preferences of different mills at different times, landowners should use competitive bid procedures (refer to UT Extension publication PB1607 --- [https://utextension.tennessee.edu/publications/Documents/pb1607.pdf](https://utextension.tennessee.edu/publications/Documents/pb1607.pdf)) to ensure that a fair price is received when selling timber.

The regionally published delivered price guide gives an indication of pricing. Remember that delivered prices are not the same as stumpage prices. Timber prices are strongly correlated with housing starts. The improving economy and increasing housing starts have seen a resultant gradual increase in timber prices.
Managing Native Grass Forages –
Cool-Season Competition Control

Patrick Keyser, Professor and Director, Center for Native Grasslands Management

Cool-season weeds present substantial competition for native grass forages. If left unchecked, they can weaken warm-season natives and eventually take over the stand. Cool-season grasses have a place in a forage program, but that place is not within the warm-season grass stand! One or the other will dominate and the other will suffer.

Where fertility levels are higher than what is needed for native grass forage production, this competition can be especially severe. Native grasses, with the exception of eastern gamagrass, do not use much fertilizer. Thus, the first step in reducing cool-season weed pressure is making sure that you are not over-fertilizing native grasses. Given current – and forecast – fertilizer prices, this is a good step regardless.

Another important consideration in reducing cool-season weed pressure is to ensure that native grasses are not stressed. Hay harvests that are too late (after Aug 25 or so), too frequent, or too short (<8 inch residual height), or overgrazing can all lead to stressed stands that are more vulnerable to weed encroachment. This applies to warm-season and cool-season weeds. If you are seeing unacceptable levels of weed pressure, evaluate your canopy management to be sure you are not stressing the stand.

Where cool-season weeds do need to be controlled, it can be relatively simple because native grasses are dormant following frost in the fall. Thus, once the natives are dormant, broad spectrum herbicides can be used. For perennials, such as tall fescue and orchardgrass, use of glyphosate can be very effective during the fall. Spray once the natives are dormant but while the cool-season grasses are still actively growing – typically in November. In fact, this is the best time of year to control these species as far as effective and spray rates are concerned.

Broadleaf biennial and perennial weeds such as thistles and plantains can also be effectively controlled during late fall with 2,4-D or metsulfuron formulations. Winter annuals can also be controlled at this time of year or in March. For annuals, the broadleaf herbicides mentioned above can be used as can glyphosate. Burndown chemicals such as gramoxone can also be effective on annuals. Please keep in mind though, there is a 60-day restriction for grazing with gramoxone, so timing is important.

Another tool widely used in the Great Plains to control weeds in native grass stands is prescribed fire. Burning native grasses in late March or early April can be effective at removing annuals and suppressing perennials. Neither tall fescue nor orchardgrass will be killed by burning though. In fact, burning too early (before late March) can actually enhance these competitor’s position in the stand.

Good management is the first step to reducing cool-season weed problems in native grasses. But winter dormancy provides a good opportunity to eliminate these weeds when they have become a problem. Left uncontrolled, they can weaken a native grass stand and reduce its vigor and production.
Time to Start Thinking About Taxes

Larry Tankersley, Extension Specialist, Forestry


Tax Tips for Forest Landowners for the 2013 Tax Year
by Linda Wang, National Timber Tax Specialist and John Greene, Retired Research Forester, Southern Research Station

This annual bulletin provides federal income tax reporting tips to assist forest landowners and their advisors in filing their 2013 income tax returns. The information presented here is current as of Sept. 15, 2013.

Personal Use, Investment, or Business Property

If you do not own your forest land at least partly to grow timber for profit, it may be personal use property, which provides few opportunities for tax deductions. Profit motive is determined by factors including the time and effort you put into activities directly related to producing income; it also includes the expectation of future profit from appreciation in the value of your timber due to growth and enhanced quality. An investment might rely mostly on such appreciation in value, while a business would involve timber management activities on a more regular and continuous basis. It is a good idea to document your profit motive in a written forest management plan. If you are a farmer, the sale of annual crops results in ordinary income, but a qualified sale of timber results in a capital gain.

If you hold your forest land for business use, you must materially participate in its management in order to avoid the passive loss rules, which restrict the deduction of business costs. Investment property is not subject to these rules.

Example 1: A tree farmer owns and grows her timber for profit from appreciation in value but does not actively manage it. Her forest land may be investment property. Qualified expenses for managing her timber investment property are deductible on Schedule A, where they will be subject to a 2% of adjusted gross income reduction.

Timber Basis and Timber Depletion Deductions

Timber basis. You should allocate the basis of land, timber, and other assets (e.g., a bridge) that you acquire together in proportion to their fair market value (FMV) and record them in separate accounts. The basis of timber that you purchase is the total amount you paid for it (e.g., the purchase price and survey and legal fees). The basis of timber that you inherit is its FMV on the decedent’s date of death, while the basis of timber you receive as a gift generally is the lower of its FMV or the donor’s basis. If you didn’t establish the basis at the time of acquisition, a consulting forester can determine it retroactively, but you should weigh the cost of doing so against the potential tax savings.
Example 2: You bought forest land for a total cost of $30,000.

The FMV of the bare land is 64% of total FMV and that of the timber (300 thousand board feet (MBF)) is 36%. The basis of the land is $19,200 (64% x $30,000) and the basis of the timber is $10,800 (36% x $30,000).

Timber depletion deduction. Depletion is a deduction against timber sale proceeds, which reduces the tax due on the sale. This is one of the reasons you need a timber basis account. Calculate your timber depletion deduction by dividing your timber basis by the total volume of timber (the depletion unit), then multiplying by the units of timber sold.

Example 3: Continuing with Example 2, say you sold 200 MBF of the timber. Your depletion unit is $36/MBF ($10,800 ÷ 300 MBF) and your depletion deduction is $7,200 ($36/MBF x 200 MBF).

Timber Sales

Sale of standing timber. Only the net gain from a timber sale, after deducting timber depletion and sale expenses, is taxed. Report the sale of standing timber held as an investment on Form 8949 and Schedule D. Report the sale of standing timber held for business use on Form 4797 and Schedule D, whether you sell it outright (lump-sum) or pay-as-cut (sec. 631(b)). If you sell timber outright in a business, you also are required to file Form T unless you only have an occasional timber sale (see below).

Example 4: You sold standing timber held as an investment for over 1 year for $8,000, incurring $950 in sale expenses. Assuming a depletion deduction of $1,330, your net long-term capital gain is $5,720 ($8,000 – $950 – $1,330).

Sale of products cut from timber held for use in a business. If you cut your own timber or have it cut by a contractor working at your direction, either for sale or for use in your business, the gains are ordinary income unless you elect to use sec. 631(a) on Form T, Part II. If you so elect, the difference between the FMV of the standing timber on the first day of your tax year and its basis is a capital gain, and the difference between the proceeds from sale of the cut products and the sum of the FMV of the standing timber and the costs of converting it into products for sale (e.g., cutting, hauling, etc.) is ordinary income.

Example 5: You paid a contractor $2,000 to cut standing timber held for business use for over 1 year into logs and sold the cut logs to a mill for $30,000. The FMV of the standing timber was $23,000 on Jan. 1 and your basis in it was $1,000. If you elect to use sec. 631(a) on Form T, Part II, report a $22,000 long-term capital gain ($23,000 – $1,000) on Form 4797 and Schedule D, and $5,000 of ordinary income ($30,000 – $23,000 – $2,000) on Schedule C. If you fail to make the election, all $27,000 is ordinary income.

Installment Sales

An installment sale involves receiving one or more payments after the year of sale, allowing you to defer tax by spreading your gain over 2 or more years. Interest is charged on deferred payments.

Example 6: You sold timber for $10,000 ($8,000 after deducting timber depletion and sale expenses) in 2013. The buyer paid you $5,000 in 2013 and will pay the remaining $5,000, plus interest, in 2014. Your gross profit percentage is 80% ($8,000 ÷ $10,000). Report a $4,000 gain for 2013 ($5,000 x 80%), using Form 6252.
Timber Management Expenses

If you hold your forest land to grow timber for profit, you can deduct ordinary and necessary timber management expenses, such as the cost to protect the timber from insects, disease or fire, control brush, do a pre-commercial thinning or mid-rotation fertilization, or maintain firebreaks. If you qualify as an investor, deduct these expenses on Schedule A, where they are subject to a 2% of adjusted gross income reduction; if you qualify as a material participant in a business, deduct them on Schedule C.

Reforestation Costs

All taxpayers except trusts may deduct up to $10,000 ($5,000 for married couples filing separately) per year of reforestation costs per qualified timber property (QTP). Qualifying costs include the direct costs to establish or reestablish a stand of timber by planting, seeding, or natural regeneration. Any amount over $10,000 per year per QTP may be deducted over 84 months (amortized).

Example 7: You spent $17,000 to reforest after a harvest. Deduct $10,000, plus 1/14th of the remaining $7,000 ($500) on your 2013 tax return. Deduct 1/7th of the $7,000 ($1,000) on your returns for 2014–2019 and the last 1/14th ($500) on your 2020 return. If you qualify as an investor, take the $10,000 deduction as an adjustment to gross income on the front of Form 1040; if you hold your forest land for business use, take it on Schedule C. Elect to amortize and take amortization deductions on Form 4562, Part VI.

Depreciation, Bonus Depreciation, and Sec. 179 Expensing

Capital expenditures, such as for logging equipment, bridges, culverts, fences, temporary roads, or the surfaces of permanent roads, may be deducted over a set number of years (depreciated). For example light-duty trucks and logging equipment are depreciated over 5 years. You also may take bonus depreciation equal to 50% of the cost of qualifying new property placed in service in 2013. Further, if you hold your forest land for business use, you may expense up to $500,000 in qualifying property (generally tangible personal property) in 2013, subject to a $2 million phase-out and business taxable income limitation (sec. 179 expensing).

Cost-share Payments on Form 1099-G

If you receive a cost-share payment from a qualified government program, you may exclude part or all of the payment from your income. Qualified federal programs include the Forest Health Protection Program (for southern pine beetle and mountain pine beetle), Conservation Reserve Program, Environmental Quality Incentives Program, Wildlife Habitat Incentives Program, and Wetlands Reserve Program. Several state programs also qualify for exclusion. The excludable amount is the present value of the greater of $2.50 per acre or 10% of the average annual income from the affected acres over the last 3 years. You cannot exclude part or all of a cost-share payment from your income and also claim a deduction for the expense reimbursed by the payment. Neither can you exclude part or all of a payment that reimburses a deductible forest management expense.
**Example 8:** You received a $4,000 cost-share payment from the Conservation Reserve Program and used it as capital expenditure for your 100-acre woodland. If you had no income from the property in the last 3 years, you could exclude $4,554 (($2.50 x 100 acres) ÷ 5.49%). The interest rate is from the Farm Credit System Bank. If you had $9,600 of income from the property, you could exclude the entire payment: (10% x ($9,600 ÷ 3)) ÷ 5.49% = $5,829 > $4,000. Attach a statement to your tax return describing the program and your calculations.

**Timber Casualty and Theft Losses**

Loss of timber from a casualty—a sudden, unexpected, and unusual event such as a fire or severe storm—may be deductible from your taxes. The deduction is the lesser of the decrease in FMV caused by the casualty or your basis in the timber block (the area you use to keep track of your basis). Similarly, a theft loss deduction is limited to the lesser of the decrease in FMV or your basis in the stolen timber. A competent appraisal usually is required.

**Example 9:** A fire caused $5,000 in damage to your timber ($9,000 before-fire FMV – $4,000 after-fire FMV). Your basis in the affected block is $2,000. Your loss deduction is the lesser amount, or $2,000. Report the loss on Form 4684, Section B, and adjust your timber basis to zero on Form T, Part II.

**Example 10:** Continuing with Example 9, you sell the damaged timber for $2,000 in a salvage sale. You have a taxable gain of $2,000 ($2,000 – $0 basis), but you can defer tax on the gain by using it to acquire qualified replacement property (e.g., reforestation) within the allowable replacement period, generally 2 years.

**Filing Form T (Timber)**

You must file Form T (Timber), Forest Activities Schedule, if you claim a timber depletion deduction, sell cut products in a business (under sec. 631(a)), or sell outright timber held for business use. There is an exception for owners who only have an occasional timber sale, defined as one or two sales every 3 or 4 years. You must maintain adequate records, however, and if you hold your forest land for business use, it is prudent to file Form T.

*The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual’s income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA’s TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.*
Wildlife Management Calendar for November
Craig Harper, Professor, Wildlife Management

Wildlife Notes

White-tailed deer breeding season peaks in most areas of TN during November
Wild turkeys form winter flocks
Groundhogs begin to hibernate
Ducks begin to migrate through in TN substantial numbers
Sandhill cranes and an occasional rare whooping crane migrate through east TN
Owls and hawks increase vocalization and begin establishing territories just prior to mating season
Blackbirds form large winter flocks
Marbled salamander eggs hatch in ephemeral forest pools

Habitat Management

Spray perennial cool-season grasses (such as tall fescue and orchardgrass)
- October through mid-November is the optimum time to kill these grasses
- spray in order to stimulate the seedbank and enhance habitat for wildlife associated with early successional communities; spray also in preparation to plant native warm-season grasses and forbs or food plots next spring, or to control these grasses in existing food plots
- use 1.5 – 2 quarts per acre of a glyphosate herbicide (such as Roundup) if spraying to release the seedbank or in preparation to plant native grasses or a food plot; use a grass-selective herbicide, such as 12 ounces of Clethodim per acre, if controlling these grasses in a clover/chicory forage plot
- refer to Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South, PB 1752 for additional information on eradicating perennial cool-season grasses

Disk areas within old-fields to enhance brooding cover for wild turkeys and bobwhites
- will stimulate desirable forb growth next spring
- will reduce grass dominance where needed
- will reduce woody encroachment by sweetgum, elms, maples, and other undesirable woody saplings in the field

Disk firebreaks around fields and woods before the ground freezes so they’ll be ready to burn next March/April
- disking now will stimulate forbs next spring
- winter wheat can still be sown, if desired, or leave fallow
- don’t disk firebreaks immediately adjacent to the woods; come out beyond the drip line of the trees, 50 feet from the trees, and allow a soft edge to develop

Begin dormant planting native warm-season grasses and forbs
- don’t plant too deep – no more than ¼ inch!
- don’t forget preemergence weed control next spring
Enhance the cover around old-fields by thinning (killing) undesirable trees 100 feet into the woods (edge feathering)

- girdle unwanted trees and spray wound with a mixture of Garlon and Arsenal AC
- use a 20% solution of Arsenal (imazapyr) or a 50% solution of Garlon 3-A (triclopyr) with water
- dead standing trees (snags) provide perching, roosting, denning, and feeding sites for many wildlife species
- increased groundcover is stimulated by the additional sunlight, improving forage and nesting cover for many wildlife species

Continue Timber Stand Improvement activities

- stimulate growth among oaks, beech, cherry, persimmon, blackgum, and other mast producers by killing surrounding competitors
- girdle unwanted trees and spray wound with appropriate herbicide
- use a 20% solution of Arsenal (imazapyr) or a 50% solution of Garlon 3-A (triclopyr) with water

Identify good acorn producers

- one-third of the oak trees produce roughly 70% of all the acorns
- if you are interested in improving acorn availability in your woods, distinguishing good producers from poor producers will help you identify which trees to favor
- once acorns begin to fall, walk through the woods and mark trees with good acorn crops with aluminum tags or tree marking paint near the bottom of the tree
- continue this for at least 3 years and a pattern will begin to develop identifying those trees that do not ever produce many acorns (even in a good acorn year)
- good producers can be released by killing or removing unwanted adjacent competitors, allowing the crowns of favored trees to expand and produce more acorns

Build brushpiles from thinned trees and pruned limbs

- put large limbs on bottom and small limbs on top for crevice space and overhead protection
- this is best done and the effect greatest along the edges of and within good cover (native forbs and grasses with scattered brambles and shrubs)

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
- planting a small orchard (6 – 12 trees) at end of hedgerows or in “odd” areas is a good idea
- apple, pear, crabapple, persimmon, wild plum, elderberry are good choices
- refer to Improving Your Backyard Wildlife Habitat, for a list of other trees and shrubs to consider

Fertilize/prune trees/shrubs for increased soft mast production

- this is for trees/shrubs 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 to silage-chop or strip-mow dove fields to provide seed and hunting opportunities
- strips can be disked and top-sown with winter wheat (2 bushels per acre) to provide additional forage opportunities
- migrating doves appreciate your efforts and the late dove seasons can offer great shooting

Spray perennial forage food plots for weed control if necessary
- refer to *A Guide to Successful Food Plots: Blending Science with Common Sense*, PB 1769, for specific information

Soil test now for food plots planted next spring
- applications of lime require about 6 months before full effect on pH is realized

Flood waterfowl impoundments -- a depth of 8 – 12 inches is ideal for dabbling ducks

Clean-out bluebird boxes to allow more room for roosting bluebirds when cool weather arrives
- 10 or more bluebirds may roost in a single box on cold nights

Clean-out wood duck boxes and replace old wood shavings with fresh shavings
- screech owls and squirrels may use the boxes through fall and winter
- repair/install predator shields if necessary

Put out bird feeders and keep them full
- refer to *Improving Your Backyard Wildlife Habitat*, PB 1633, for information on specific feeders and seed for birds

**Wildlife Damage/Population Management**

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

Deer season is underway
- allow hunters access to your land if you have a problem with too many deer
- shoot the females (does); concentrating on bucks does not control overpopulation
- in many overpopulated areas, it may be necessary to kill 1 doe per 10 acres (sometimes more) before the population is reduced to acceptable levels
- where Quality Deer Management is desirable, never kill more bucks than does, shoot more does than bucks to even the sex ratio where needed, and allow bucks to reach 3 years of age before shooting them
- remember to take a kid hunting!

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

Dr. Keith L. Belli, Professor and Department Head
  865-974-7346, kbelli@utk.edu
Dr. Wayne K. Clatterbuck, Professor, Silviculture & Forest Management
  865-974-7990, wclatterbuck@utk.edu
Dr. Craig A. Harper, Professor, Wildlife Management
  865-974-7346, charper@utk.edu
Dr. Patrick D. Keyser, Professor, Native Grasslands Management
  865-974-0644, pkeyser@utk.edu
Dr. Adam Taylor, Associate Professor, Forest Products
  865-946-1125, mtaylo29@utk.edu
Dr. David C. Mercker, Extension Specialist, Forestry Specialist
  731-425-4703, dcmercker@utk.edu
Mr. Larry A. Tankersley, Extension Associate, Forestry Specialist
  865-974-7977, ltanker1@utk.edu
Extension Associate in Wildlife — Vacant
Fisheries Specialist — Vacant

FISHERIES FIRST RESPONDERS

East Tennessee Region
Mr. Kelly Amonett, Morgan County
  423-346-3000, damonet1@tennessee.edu

Middle Tennessee Region
Mr. Creig Kimbro, Grundy County
  931-592-3971, ckimbro@tennessee.edu

West Tennessee Region
Mr. Ron Blair, Henderson County
  731-968-5266, rblair3@tennessee.edu

EXTENSION PROFESSIONAL STAFF

Mrs. Mirian Wright, Administrative Assistant
  865-974-7346, mwright@utk.edu