



# Forestry, Wildlife & Fisheries Update Newsletter

Department of Forestry, Wildlife and Fisheries  
George Hopper - Professor and Head

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### Calendar of Events - 2003

Jan. 23 - 25	KY-TN Society of American Foresters Winter Meeting Fall Creek Falls State Park Pikeville
Feb. 4 - Mar. 18	Master Wildlifer Short Course - via Satellite
Feb. 18	Aquaculture America 2003 Louisville, KY
Feb. 23 - 26	Southeastern Deer Study Group Meeting Chattanooga

#### Faculty:

*Wayne Clatterbuck, Forest Management*  
*Craig Harper, Wildlife Management*  
*Thomas Hill, Fisheries Management*  
*Sam Jackson, Web Coordinator*

*George Hopper, Natural Resources*  
*David Mercker, Forest Management*  
*Larry Tankersley, Forest Management*

## **Selecting a Christmas Tree**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

Christmas trees are a traditional part of this festive holiday season. The most popular Christmas trees in Tennessee are Virginia pine, eastern redcedar, Fraser fir and Scotch pine. Here are some tips for choosing and maintaining your Christmas tree.

Measure the dimensions, including ceiling height, of the area where the tree will be placed before buying the tree. This will help you select the right size and shape of tree.

The easiest method to obtain a fresh tree is to cut one from a Tennessee Christmas tree grower. There are over 120 growers of “choose and cut” Christmas trees in Tennessee. For a directory of Christmas tree growers, contact your County Extension Office or call the Division of Marketing, Tennessee Dept. of Agriculture at (615) 837-5160. An on line directory of growers is at the following address:

<http://picktnproducts.org/xmastree/index.html>

Trees in Christmas tree lots are often obtained from Michigan, the Pacific Northwest, Colorado and New England as well as regionally in Tennessee and adjacent states. These trees may have been cut 4 to 6 weeks before they appear on the lot. Make sure to test the tree for freshness by placing a branch between the thumb and forefinger of your hand. Pull your hand toward you allowing the branch to slip through your fingers. The needles should bend but not break, and adhere to the branch, not fall off in your hand. A second test is to lift the tree a few inches off the ground and drop it on the stump end. Some interior brown needles should fall, but if green needles fall in abundance, find another tree.

To keep your tree fresh, cut ½ to 1 inch of the bottom of the trunk. Immediately place the stump end in water. Keep water in the tree stand at all times. A cut tree can absorb 2 or 3 quarts of water the first day indoors. If the base of the tree dries out, sap from the tree will form a seal that will not allow water absorption. Water additives to enhance the “freshness” of the tree are not recommended. Research has shown that these additives will deter water absorption. Only use clean water in your tree stand.

The tree should be placed in a cool area. Keep your tree away from fireplaces, heat registers, radiators, heaters and televisions. Inspect your Christmas tree light for broken insulation or faulty sockets every year. Always unplug tree lights when you are away from home and before you go to bed.

For more information contact: *Wayne Clatterbuck at (865) 974-7346*  
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## **Success with a Living Christmas Tree**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

Living Christmas trees are becoming more popular, despite that they cost 25 to 50 percent more than a traditional cut tree. However, many owners would rather spend more to have a tree that they can plant and enjoy throughout the year rather than one that is thrown away at the end of the season.

A tree should be purchased that has enough of a root ball to support the livability of the tree. The ball should have 10 to 12 inches of soil per caliper inch of tree. For example, a tree with that is two inches in diameter should have a 20- to 24-inch root ball. We recommend buying a smaller tree with a large root ball rather than a large tree with a small root ball. Many nurserymen reduce the size of the root ball to make it easier for customers to carry, but this decreases the survival of the tree. Trees with root balls can easily weigh more than 100 pounds. Buy ball and burlapped (B&B) trees from established nurseries and garden centers. They deal

in landscape plants year round and know how to water, handle and buy trees with properly sized root balls.

Buy a species that will survive and grow within your area. White pine, Virginia pine, and other native evergreens native to Tennessee stand the best chance of surviving after the holidays. The species that do not fare as well are blue spruce, Douglas-fir and Fraser fir, all of which grow best at higher and cooler elevations.

Most mistakes are made after purchase, with the tree being left inside too long or not watered properly. Once purchased, the tree should be stored in a cool location, such as an unheated garage, basement or cellar, where the tree is sheltered from wind, sun and freezing temperatures.

Once indoors, the most important task is keeping the root ball moist. The root ball should be placed in a plastic bag. When watering the tree, the plastic bag prevents the water from draining away and allows the water to be soaked up by the root ball. Too much water is as bad as too little. The roots should not be in standing water.

Normally, living trees should not be kept indoors for more than 10 days. The longer the tree is kept in the house, the greater the possibility that they will break dormancy and begin to grow. Once the tree is taken back outdoors, place the tree back in a cool location again to allow the tree to get acclimated to the cooler temperatures, especially if post-holiday temperatures are below freezing. Outplant the tree as soon as conditions permit.

The tree should be planted in a hole about twice the diameter of, but no deeper than the root ball. Once the tree is in the hole, cut the burlap away leaving about the lower third of the burlap in the hole. Removing the lower burlap may injure the roots. Fill the hole with native soil, do not use soil amendments. When the tree breaks dormancy in the spring, some needle drop will occur. This is no cause for concern as long as it is accompanied by new shoot growth. A layer of mulch should be placed around the tree to reduce moisture loss. The tree should be watered every 7 to 10 days, especially during drought periods. The roots of the transplanted tree should not dry out during the year following the reestablishment period. However, too much water can also cause tree death.

In summary:

- Buy a healthy tree
- Put tree in a protected area until you move it indoors
- Limit the tree's stay indoors to no more than 10 days
- Check the soil moisture daily; add water if necessary
- Keep tree away from heat sources
- Move your tree outdoors in stages
- Plant the tree as soon as possible after returning it outdoors
- Pay special attention to watering the tree during its reestablishment period

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## **Beneath the Mistletoe**

*Sam Jackson, Web Coordinator*

Mistletoe has long been a traditional decoration during the holidays. But have you ever thought about what mistletoe actually is or where it comes from?

Although there are many different types of mistletoe in the United States, we predominantly see what is called leafy mistletoe or American mistletoe (*Phoradendron leucarpum*) in Tennessee. Found from New Jersey to Florida, there are only 24 counties in Tennessee where this plant has been found.

Mistletoe is evergreen and is most notable in the winter when trees and plants have lost their leaves. A host of different birds use the berries as a food source during the winter and this use is the primary means of dispersal for the plant. Birds eat the seeds and then deposit them on a twig somewhere down the road. This process is actually how mistletoe got its name. The word mistletoe was derived from the Anglo-Saxon words “mistel” meaning “dung” and “tan” meaning “twig”. So mistletoe literally means “dung on a twig!”

Mistletoe is found primarily on hardwood trees, with oaks and hickories being the most suitable hosts. A hemiparasitic plant, mistletoe derives only its water and minerals from its host, as it has chlorophyll and can create its own food using supplies from the host. A true parasitic plant relies on the host for all nutrients. Leafy mistletoe can exist on a healthy tree with little damage to the host, but trees that are unhealthy or stressed may be killed by an added problem like mistletoe. Another type of mistletoe, dwarf mistletoe, is found in other parts of the United States and is a more serious tree health problem, often causing tree mortality.

Mistletoe traditions date back to the early Europeans, times when the Druids, Norse, and others held the plant sacred for religious purposes. Some believed that placing a sprig of the plant in a child’s crib would ward off evil spirits, while others believed that feeding a sprig to the first cow to calve after the New Year would protect the entire herd.

Current traditions of kissing that special person under the mistletoe are derived from the Druids. In their culture, whenever enemies met in the forest under mistletoe plants, they had to lay down their arms and observe a truce for a day. Traditions of the 18<sup>th</sup> Century held that a girl under the mistletoe could not refuse to be kissed. At the time, a kiss signified a promise to marry and a young lady who remained unknissed while standing under the mistletoe would remain unmarried for that year.

Decorating with mistletoes is fun, however, it is important to remember that while its showy green leaves and white berries are beautiful, looks can be deceiving. Mistletoe should be kept out of the reach of small children and pets due to the poisonous characteristics of the leaves and fruits if they are eaten.

As Paul Harvey would say, “now you know the rest of the story.” Have fun decorating your home with mistletoe and other wonders of nature this holiday season.

Happy Holidays!

For more information contact:

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## **Take Care of Creosote in Your Chimney**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

Home wood burners should check their wood heating system for creosote deposits before the winter heating season. A creosote layer of ¼-inch or more should be removed by wire brushing to prevent a chimney fire.

Creosote is a highly flammable fuel that is carried in the smoke of a wood fire. It condenses and is deposited on walls of a cool chimney or on the stovepipe walls that connects the heater to the chimney. Creosote also forms inside the fireplace and the wood heater.

Creosote has several forms. It may be lightweight, fluffy and ash-like in appearance. This type is easily removed by wire brushing. A second form is a black, hard, crusty buildup that forms on the flue and stovepipe walls. This buildup is more difficult to remove. The most difficult form of creosote to remove is the glazed or enamel-like coating on walls of a wood heating system. This form is called 3<sup>rd</sup> degree creosote, cannot be easily be removed by wire brushing and should be removed by professional chimney sweeps.

How may the home wood burner reduce the amount creosote deposits when burning wood? Dry wood should be burned. The wood should be cut, split, and stacked for drying at least 3 to 6 months before burning. About half the weight of fresh cut or green wood is water. The water is evaporated from the wood as steam when the wood begins burning. This reduces heat from the fire and living area and causes the cooler smoke to condense on the flue as creosote.

Build the fire so that it starts burning as soon as it is lit. One way to build a fire is to lay crumpled newspapers on the bottom, add some small kindling and then put on several small pieces of firewood until the fire is burning hot. Light a crumpled newspaper and put it on top of the wood before lighting the fire. The heat from the burning paper will help the chimney draw the smoke up faster.

Home wood burners who want to maintain a fire in their woodstoves over a long period usually fully load their stove and almost completely close off the air supply. This practice maintains a slow burning, smoldering fire that causes creosote deposits. Use a smaller amount of wood and keep the woodheater drafts open more in order to produce a hotter fire. If this is not possible, the stove drafts and damper should be kept wide open for about 30 minutes a day so that the fire burns hot to reduce creosote deposits.

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## **The Right Kind of Firewood**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

Now is the time to stockpile wood to burn in your wood stove or fireplace during those cold, blustery days of winter. Obtain seasoned wood for best results.

Unseasoned wood or what many folks call green wood, should not be purchased now for use in the next few months. Freshly cut wood can easily contain close to half its weight in water. Unseasoned wood takes from 4 to 6 months to dry out.

How can you tell if the wood is properly seasoned? A few tell-tale signs include:

**Bark.** In seasoned wood, it should practically fall off a log when you handle it.

**Cracks.** Seasoned wood has cracks and checks from the middle of the log.

**Weight.** Seasoned wood weighs less than an unseasoned piece of the same size because it contains less moisture.

Wood pieces should be stacked perpendicular to each other so air can pass through freely. Stack wood at least 10 feet from the exterior of your home. The closer the firewood is to the house, the greater the chance that insects will invade your home and damage it.

The kind or species of wood can also make a difference. All species of wood have a similar energy content per unit weight. The problem is that wood is purchased on a volume basis (usually rick or cord), not on weight. Therefore, a cord of less dense poplar or pine will yield far less warmth than a cord of red oak. Some higher density woods to use for firewood are oaks, beech, black locust, hickories, and sugar maple.

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### **Firewood Measures: Cubic Foot, Cords, Board Feet**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

Firewood season is here again. There are many misconceptions on how firewood is sold: by the cord, face cord and rick. A few definitions are in order for the consumer to compare costs and the amount of wood sold.

A cubic foot of anything including wood is 1 foot by 1 foot by 1 foot.

- A board foot is a piece of wood that measures 1 foot wide by 1 foot long by 12 inches thick. Most sawtimber is commonly measured in 1,000 board feet, which is equivalent to 160 cubic feet.
- A cord is a pile of wood 4 feet tall by 4 feet in depth by 8 feet long. That is 128 cubic feet. However, since trees are round and irregular, there are air spaces between the sticks of wood. Thus a cord of wood actually has only 80 to 90 cubic feet of solid wood.
- A cord of air-dried, dense hardwood (oak, hickory, etc.) weighs about 2 tons (4,000 pounds) and has the heating value of a ton of coal or 200 gallons of fuel oil. About 15 to 20 percent of the weight is from water.
- A face cord has the same dimensions of a cord except the depth of the pile is the length of the firewood logs, not 4 feet. The dimensions of a face cord where the logs are 20 inches long are 4 feet tall by 20 inches in depth by 8 feet long.
- A rick is generally one-third of a cord.

Remember that all firewood volume measures are not exact. The size and shape of individual logs, how carefully they are stacked and if the wood is split influence the actual wood volume in a cord, face cord or rick. A cord of large diameter logs will have less wood volume and more air space than smaller diameter logs.

Also be familiar with the density of the wood purchased. All species of wood have similar energy content per unit of weight. The problem is that wood is purchased on a volume basis. Thus, a cord of yellow-poplar will yield far less warmth than a cord of oak or hickory.

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### **Preparing Firewood for Winter: Avoiding Insect Problems**

*reprint of article by Brian Bond, Extension Wood Products Specialist, Va. Tech University*

The cold weather of winter is upon us and many folks have finished splitting and stacking their firewood. How firewood is stacked can effect how quickly it will dry and be ready to burn; however, it also effects the degree to which the wood will be attacked by insects. Insects commonly found in firewood include wood-boring beetles, bark beetles, carpenter ants, termites and wood cockroaches. These insects live and feed in the wood during at least part of their life cycles and are associated with the natural decomposition and recycling of organic matter within trees in the woods.

Firewood that has been properly cut, split and stored is not likely to deteriorate an appreciable amount due to wood-attacking insects: however, old, improperly stored or decaying firewood can be subject to significant insect attack. Proper stacking of green wood means that it be stacked in an open area where there is good natural circulation. Blocks should be used to build up a small foundation to keep the first course of firewood off the ground. This will reduce insect infestation and increase airflow through the stack. The wood will become lighter and develop end checking as it dries. Stacked firewood should be covered to protect it from rain and snow.

Occasionally insects will emerge from firewood inside the house, causing alarm to the homeowner. Insects that typically attack firewood stored outside live in unseasoned wood and generally enter a standing tree or log soon after it is cut. They do not infest the wood after it has been seasoned or dried. The exception to this is the carpenter ant. Carpenter ants may infest seasoned wood, but generally only if it contains a lot of moisture, such as wood in contact with the ground or uncovered. A few ants carried in with firewood will not find conditions to support the establishment of a new colony.

To reduce problems with wood-infesting insects, store firewood outdoors until it is ready to be burned. Only bring the firewood that will be used within a few days into the house. The few insects that do emerge can be vacuumed or swept-up and discarded. Household aerosol insecticides can be used directly on the insects.

Spraying firewood with an insecticide is not recommended because it coats the outside of the wood and does not penetrate to where the insects live. Also, the absorbed insecticide may cause harmful vapors to escape when the wood is burned.

Proper storage of firewood will help ensure that it does not become infested with wood destroying insects. However, if some insects do emerge from firewood in the home, they do not pose a serious threat of infestation.

## **Wood For Fireplaces and Stoves**

*Wayne K. Clatterbuck, Associate Professor, Forest Management & Silviculture*

There is considerable variation among different tree species in their heat value. Wood varies in its weight from about 2 tons per cord for the heavier hardwood to as little as 1 ton per cord for the lighter hardwoods. Wood per unit weight generally produces the same BTU, no matter the species. However, that unit weight will be of different volume among species because each species is of a different density. For example, it takes twice the volume of a low density wood such as poplar or sweetgum to approach the heat production of a high density wood such as oak or hickory.

Some of the woods that produce the greatest heat per cord of wood are beech, oak, hickory and black locust. Ash, sugar maple, walnut and cherry are intermediate within the range. Pines, spruces, hemlock, aspen, basswood, sycamore, soft maple and sweetgum have roughly half the heat production per cord than the hotter burning hardwoods.

Certain species of wood pop when burned. A metal screen in front of the fireplace is recommended to keep sparks from causing damage in the room. Woods that are likely to have flying sparks are softwoods such as hemlock, spruce, pine and cedar. Hardwoods such as black locust, sassafras and sumac also emit sparks. These woods contain pockets of moisture or volatile resins that are heated as the wood burns. Trapped gases and water vapor build pressure in these pockets and vigorous popping results.

Wood for fireplaces needs to be thoroughly dry, from 3 to 5 inches in diameter for best results, and cut to length (usually 18 to 24 inches) that will fit within the fireplace.

For best burning efficiency, the following guidelines are recommended. Dry the wood for one year or more in areas with good air circulation. Cut the wood as short as can be conveniently used. Split all sticks 5 inches in diameter. Split wood will lose moisture through the split surfaces and the ends, while round wood does not lose moisture as fast through the protective bark. Use hardwoods of high density for fuel. Avoid those woods that have a tendency to spark or pop.

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## **Storm Damaged Trees**

*Larry Tankersley, Extension Associate, Forestry Management*

What can you do when a storm wrecks your trees? This has been a common question in recent Tennessee winters. There really is no easy answer. Take a deep breath and inventory the damage.

Hazardous trees or their parts need to be dealt with as soon as possible. Trees lodged against another tree or a large branch could fall in the next wind. Foresters call these “widowmakers” for obvious reasons. If your broken or lodged trees are in the woods, just be careful. If they are in your yard, encourage your local tree service to make your job a priority. They are busy but likewise want to work to protect the local community as soon as possible. Consider your situation relative to others.

Creative pruning, bracing and cabling and righting tip trees are alternatives for treating important trees. A qualified arborist can help prescribe the appropriate remedy. Your County agent also has additional information. In general the tree will need as much of its crown that can be saved. Pruning under any circumstances should never remove more than a third of the crown. Broken branches should be cut back to nodes. Supplemental water for the next several weeks would help trees that have large open wounds. The ground should be allowed to drain/dry between watering.

Some homeowner’s insurance policies will pay to assist clean-up/replacement of storm damaged trees.



Seldom is this greater than \$500. Check with your claim agent for applicable details. For losses greater than your insurance coverage, IRS casualty loss rule would apply, requiring documented tree values in dollars on the date of acquisition (basis). Discuss this with your arborist.

For forest owners, again start with a deep breath and reach and review your forest Stewardship/Management plan. Overlay the damaged area on your maps and consider the effect of the “natural” disturbance on the state of your forest and your objectives. Timber, trails, roads, wildlife habitat, soils, all or any of your forest resources may or may not be affected by the disturbance but a new prescription for the affected area is warranted. Your local natural resources community is available to discuss your options. It is important however, not to over react but to work out and exercise your options.

When considering a wood salvage, remember that lodged trees are “widow-makers” and that any material under tension is dangerous to you and anyone working on the salvage. Be careful and consider these hazards when negotiating the value of your trees knotted on the ground.

Also consider the temporary glut of wood available. This tends to tax local wood using economies ability to use the wood. Cleaning up after a storm is dangerous and inefficient for loggers and the merchantability of the trees have been compromised by the storm. Staining from decay, ring shake, and other terms are used to describe why the tree can no longer be used for certain products. Also consider wood that is being weighed will be lighter as it lays in forest for any prolonged length of time.

These considerations are not intended to discourage salvage, merely to sober us relative to the timber markets reaction to the storm. Most of the wood will be good for either pulp wood or firewood for up to 12 months depending on the species.

As with any transaction, some inventory of the commodity must take place. Tangled trees are not easy to measure but some simple counting of stems and estimation of their volume is required to appraise the value offered for your wood. Immediately following a storm, we are admittedly not in a great negotiating position but an inventory can help us decide whether the salvage is worth anyone’s time and effort.

If the decision is made to sell the timber, a written contract should be considered especially for larger sums of money. Also, carefully plan how the trees will be moved to the highway. Logging can be done well if you plan to do it well.

Many have heard that storm damaged trees can be “written off” on your taxes and this is true, but the IRS code relative to this write off has some casualty loss rules. First, the dollar value of the loss can be no greater than your basis in the timber. Your basis is the value of the damaged timber when it became yours and any subsequent allowable adjustments. Talk to your tax advisor, forester and/or county agent about your timber basis.

The IRS has no provisions for writing off the reduced tree growth if the tree is still alive with a broken top. Also some record of attempting to salvage the timber may be requested if you claim a loss. Repeated unsuccessful calls to wood users/loggers should be documented.

This leads to proceeds from the timber salvage. Especially where there is no basis, there is often income generated from the sale. Gross proceeds should be reduced by the costs of conducting the sale and the appropriate value from your basis(if you have one), and the net reported as a capital gain or ordinary income depending on the situation. Again get competent advise on these matters if they seem complicated, because they are.

Good luck in caring for yourself and your trees or forest!

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## **Tips on Choose-n-Cut Christmas Tree Production**

David Mercker, *Extension Associate, Forest Management*

Landowners with marginal farm land are regularly looking for alternatives for their land other than traditional row crops or pasture. They are reminded each year during the holiday season that one option is Christmas tree production. A Christmas tree enterprise can be lucrative, though the labor input is much more intensive than is initially realized. The following is a list of tips for growers to consider, whether a well established grower, or a novice exploring the option.

1. Grow the best tree you possibly can, and charge the highest price you possibly can.
2. Never grow more trees than you can realistically shear. For a small grower, five acres is the recommended maximum.
3. Never walk through your plantation without your hand snippers and ribbon to clip off or mark insect and disease invasion.
4. Religiously inspect your plantation for pests. They will sneak up on you.
5. Minimize the use of insecticides. Remember, that when we kill off the natural enemies of a pest, we inherit their work.
6. Practice even-aged management. Grow your trees and harvest them in blocks. Don't interplant. Doing so makes management more difficult and encourages pest problems.
7. After clear cutting a block, leave it fallow one year to eliminate pest build-ups (both weed and insects).
8. Grow most trees for a 7 foot market. That's where the market is.
9. Choose n' cut farms perform best if they are located in high-visibility, good exposure areas.
10. Remember, this is a *business*.
11. Minimize the mess. Shake needles, give customers a removal bag and bale every tree.
12. Don't over diversify - 70 to 75% of your sales should be one species.
13. Understand that you are not selling Christmas trees, you are selling the "experience of picking one out and cutting it down."
14. Spend no more than 3 - 5 % of gross sales on advertising.
15. Road signs are the smartest use of advertising dollars. Have quality signs and plenty of them.
16. There is no replacement for word of mouth advertisement. Therefore, go to all extremes to satisfy a customer.
17. DO NOT allow customers to pre-tag trees. In most cases it will be a nightmare you wish you hadn't started.
18. Liability insurance is smart business.
19. Place a price tag on each tree prior to season's open. Sales tax should already be included. Price trees to avoid the need for cumbersome loose change.
20. Do not tie trees down onto customer's vehicles for them. Instead, provide twine so they may tie their own tree. This could be a liability issue.
21. Make the customers cut their own tree down. You provide the best quality saw.
22. Think twice about selling additional items (wreaths, crafts, ornaments etc.). This will tend to pull from the value that you should instead be charging for your trees.
23. Several weeks prior opening day, post the date your farm will open for business and the hours of operation.
24. Don't attempt to generate business by belittling your competition (including artificial trees).
25. Join national and state Christmas Tree Growers Associations and gain from the knowledge of others.

There is considerable education that landowners need in order to have a successful chose-n-cut Christmas tree enterprise. Diligent study is essential. Remember too, that sales occur during a very busy time of the year curtailing social activities which instead must devoted to the business.

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### **Tennessee Forest Products Market Report - 3<sup>rd</sup> Quarter 2002**

*David Mercker, Extension Associate, Forest Management*

	<b>East Tennessee</b>	<b>West Tennessee</b>	<b>Statewide Average</b>
<b><u>Stumpage</u></b>			
Pine Sawtimber \$/MBF Doyle	184	323	253
Oak Sawtimber \$/MBF Doyle	203	302	253
MXD HDW Sawtimber \$/MBF Doyle	185	175	180
Pine Pulpwood \$/Ton	4.69	7.1	5.9
HDW Pulpwood \$/Ton	4.37	2.53	3.45
<b><u>Delivered</u></b>			
Pine Sawtimber \$/MBF Doyle	303	416	360
Oak Sawtimber \$/MBF Doyle	481	491	486
MXD HDW Sawtimber \$/MBF Doyle	288	276	282
Pine Pulpwood \$/Ton	20.70	21.43	21.06
HDW Pulpwood \$/Ton	20.93	19.75	20.34

**Note:**

This information is for educational use only by the University of Tennessee Agricultural Extension Service. Price information is adapted by permission from *Timber Mart-South*, a copyrighted publication by F.W. Norris, Highlands, NC. and is not to be copied for public distribution.

**Explanatory Notes:**

Prices: Prices given in this report are average prices in the current issue of *Timber Mart-South*. Prices for specific timber stands or products may vary significantly from the average prices listed due to location and accessibility of the timber, volume per acre, area included in the sale, restrictions placed on the harvest, size, quality and species of the stand or delivered product, and local demand.

Stumpage price is the price of timber standing in the woods.

Delivered price is the price of harvested products paid at the mill or the loading point (with no freight included).

Prices for sawtimber are given in dollars per thousand board feet (\$MBF) based on the Doyle log rule. The Doyle rule is the predominate rule for measuring tree and log volume in Tennessee. To convert prices to International rule, multiply the price by .61. This rule is for average values and cannot be used to convert individual log or tree volumes.

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## **Forest Stewardship Doesn't Cost - - It Pays!**

*Larry Tankersley, Extension Associate, Forest Management*

My friend Mark's stewardship plan had just been approved and he was ready to get started following it recommendations. A few months ago however, he was complaining that his forest way not paying its way. I suggested that he have a forester take a look.

The forester prepared a management plan for Mark's place with maps showing all his land, and gave Mark recommendations to help him get exactly what he wanted from his forest land. As it turned out, Mark does have some woods not growing as well as they could. Some of the stands are too thick and need thinning. Others are old and starting to die from drought, diseases and insects. These stands need to be replaced. Other stands are growing well with more cash value than Mark had ever dreamed of. Without a forest management plan, however, Mark could not really determine whether his forest was paying its' way or not.

If you own forestland, you are in the forest management business. Your forest is part of your overall personal assets, and like other assets, it should be managed to provide you with maximum satisfaction. Forests provide a multitude of benefits to their owners; cash from timber sales, dollar value accumulation as the trees grow, hours of recreation and the good feeling that comes from owning land. Forests also cost, especially if we allow opportunities to be missed.

What is the state of your forest? Are your trees growing at their best? Value from tree growth is a good example of compound interest. Is your soil stable? Soil erosion is a serous cost both to you as the current landowner as well as to the next landowner. Can you get to that waterfall on the back side of the property with a picnic basket? If you can't that is also an opportunity cost preventing you from enjoying your woods to their fullest.

Tennessee's Forest Stewardship Program is designed to help you answer these questions by providing you with a management plan. Once you know what you have, you can start developing what you want. Once your plan is approved, the Stewardship Incentives Program is available to provide cost-sharing for activities recommended to enhance your forest.

My friend Mark has owned his forest for years, but with his new Forest Stewardship plan, you would think he had just bought it.

Rediscover your forest today! Take the opportunity this winter to reevaluation your forest land. Contact your county Extension agent or local forester for more information about Tennessee's forest.

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## **Deer Management Coming to Tennessee**

*Craig Harper, Assistant Professor, Wildlife Management*

Deer managers, biologists, professors, and graduate students from across the South will gather February 23 – 26, 2003 at the Chattanooga Choo Choo Holiday Inn in Chattanooga, TN to discuss the latest research and management information for white-tailed deer during the 26<sup>th</sup> Annual Southeast Deer Study Group Meeting. The theme of this year's meeting is *Keeping Deer Management on Track: Where are We Heading?* Chronic wasting disease, quality deer management, and overpopulation will be some of the issues addressed in the presentations and the ever-popular "Shoot From the Hip" session, which will be held Monday evening. The meeting is open to the general public. For registration and accommodation information, contact Ben Layton, TWRA Region III Biologist, at (931) 484-9571 or [Ben.Layton@state.tn.us](mailto:Ben.Layton@state.tn.us).

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## **Tips for Backyard Bird Feeders**

*Craig Harper, Assistant Professor, Wildlife Management*

Now that winter is coming around, it is a good idea to refill your bird feeders. Various seeds and dried soft mast (e.g., wild cherries, grapes, dogwood and holly) are in demand this time of year and many birds are attracted to feeders as natural food sources become hard to find. By knowing the type of feeder and seed (or other food) that different birds prefer, you can cater to several different species.

Feeder design is less important than seed type, especially if you use a fly-through feeder, which will accommodate most bird species. More selective are the tube-type or cylindrical feeders used to offer thistle seed to goldfinches and pine siskins. The table below lists different seeds and other types of food that may be offered to attract different birds.

<b><u>SPECIES</u></b>	<b><u>PREFERRED FOOD</u></b>
mourning doves	black oil-type sunflower seeds, white proso millet
woodpeckers, chickadees, titmice, nuthatches	black-oil type sunflower seeds, cracked nuts, shelled and broken peanuts, bread crumbs, suet
blue jay	sunflower seeds (all types), peanuts, cracked nuts, shelled and cracked corn, suet
mockingbirds, brown thrashers, robins, thrushes, catbirds	cut apples, oranges, raisins, bread crumbs
cardinals	sunflower seeds (all types), cracked corn, shelled and broken peanuts
Eastern towhees	white proso millet, sunflower seeds (all types), cracked corn, shelled and broken peanuts
evening grosbeak	sunflower seeds (all types), cracked corn, shelled and broken peanuts
goldfinches	niger thistle, hulled sunflower seeds, black oil-type sunflower seeds
house finch	black oil-type sunflower seeds, niger thistle
purple finch	sunflower seeds (all types)
sparrows, juncos	white pros millet, black oil-type sunflower seeds, wheat, bread crumbs
grackles	hulled sunflower seeds (all types)

Don't forget to try suet feeders, fruit halves nailed to a tree or post, peanut butter smeared into pine cones or onto the side of a tree, and old breads and cakes. Offering several types of foods will ensure a diversity of birds visiting your backyard. Remember to clean feeders periodically with hot, soapy water fortified with a capful of bleach. Bottoms of platform feeders (and others that might hold water) should have small holes drilled into the bottom to allow water to drain after a rain. Finally, beware of cats. House cats are extremely efficient predators and can severely reduce the number of birds and small mammals visiting feeders, especially when only one or two feeders are used and birds are concentrated around them. For additional information on ideas for your backyard wildlife, pick up a copy of *Improving Your Backyard Wildlife Habitat*, PB 1633, at your county Extension office.

For more information contact: *Craig Harper at (865) 974-7346*  
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## **Stock Grass Carp to Control Weeds and Algae in Ponds**

*Tom Hill, Professor, Fisheries Management*

Grass carp, also called white amur, are almost exclusively aquatic weed and algae eaters. Stocking carp in farm ponds is an effective way to control these pests without having to rely on expensive herbicides.

Stock 15 grass carp per surface acre in most ponds. Where a large crop of aquatic weeds is already established, a herbicide treatment may be required initially to get them under control. Then the grass carp should be able to help maintain a clean pond.

In ponds where largemouth bass are already established, grass carp to be stocked should be 9 to 10 inches long or they will be eaten by the bass. Smaller grass carp can be stocked in new ponds or in ponds where not predator fish are present.

Once grass carp are very large (30-35 pounds) they become inefficient at weed control. They may be 6 or 7 years old by then. Catch these large fish and eat them as they are quite good, not at all like common carp. An Extension publication, *Processing Chinese Grass Carp for Feed, SP422*, tells how to dress these good fish and avoid the bones. As the large fish are harvested, replace them with 9 - 10 inch stockers in order to continue control of the weeds and algae.

For more information refer to the U.T. publication, SP 376-Q, Using Grass Carp in Aquaculture and Private Impoundments.

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## **Cooking From the Wild Side!!**

*Mirian Wright, Secretary..... Just for fun!*

Tired of the same old turkey and ham for Christmas? Game hunting is a typical pastime in the South during the various hunting seasons. Assuming the hunters are successful, the head cook has to then take over with an assortment of ways to serve the bounty. Your freezer may be full of wonderful delicacies that you have no idea how to prepare. I once went over to my brother's house to retrieve something for "granny" for Thanksgiving meal preparations. Imagine my surprise when I found the eyes on a 6-point deer staring at me. Well, just go wild yourself. When the "rewards" are brought home, it's time for a hunter's feast. (*Make sure "the hunter" has properly cleaned, cut into pieces and refrigerated the "prize"!*)

Don't be afraid to prepare game because it has the reputation of being tough and dry. Since game lacks the marbling of most domestic animals, it can be tough and dry if not prepared properly. Marinating and cooking by moist heat methods will ensure a tender, juicy product. The fat that is present is not mixed or marbled throughout the meat fibers as in beef. This makes the meat tend to become dry as it is cooked. Even when adding fats to sausages and wrapping around and on top of wild meat as it is cooked, the moisture is still lost through the cooking process and dry meat is the result. After many years of enduring dry roasts and not so good steaks, I have found the secret to really good and moist wild meat cooking. 250 degrees F. This is it. Very simply put. Cooking wild meats at this low temperature will be the difference between ordinary dry meat and a really good meal. Try your favorite recipe with the temperature reduced and the cooking time increased and see if you agree. Note: When cooking at this low a temperature the vegetables, like potatoes and carrots may not get done. Cook your vegetables separately and add to your meat dish later in the recipe.

Try some of the following recipes from the wildlife and fisheries "cooking from the wild side" specialists and have a great holiday! Just click on the attachment "Cooking From The Wildside".

*(Actually, these recipes are from "The Southern Living Cookbook" and the "Taste of Home" magazine.)*