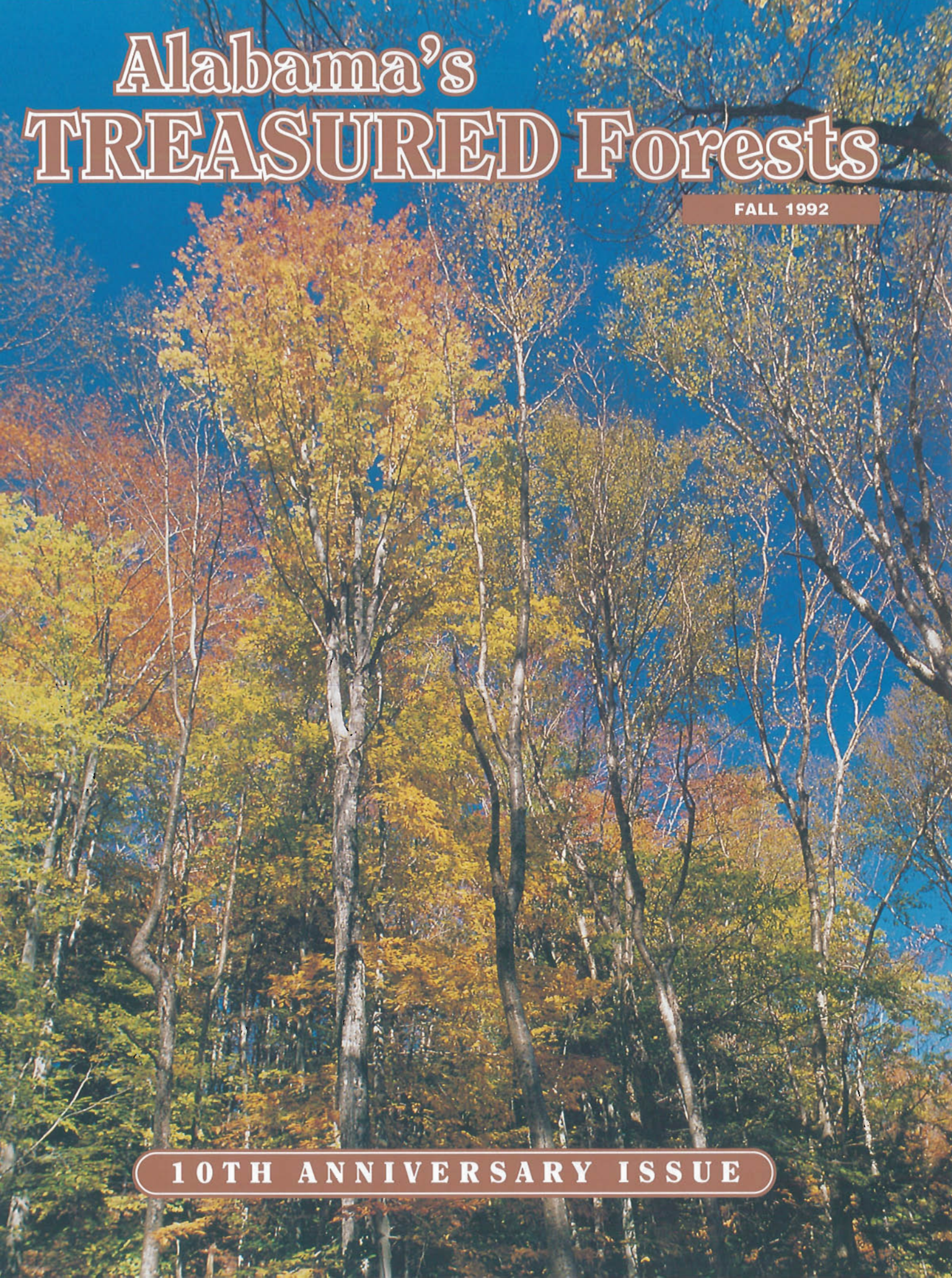
Alabama's TREASURED Forests

FALL 1992



10TH ANNIVERSARY ISSUE

STATE FORESTER'S MESSAGE

by C.W. Moody, State Forester

It is with great pride that the Alabama Forestry Commission publishes this tenth anniversary edition of *Alabama's TREASURED Forests*. The first issue of this magazine was published in the fall of 1982. As State Forester, I am extremely proud of this publication and how it has continued to provide meaningful information to forest landowners for so many years. Our circulation has grown to over 9,500 readers since that first issue. The magazine's purpose has always remained the same, however: to provide quality information about multiple-use forestry, which is the basis for the TREASURE Forest program.

As many of you know, budget problems continue to plague all state agencies, including the Forestry Commission. We are facing a third straight year of proration, and cutbacks in several areas must be made. Sadly, this magazine is one of those areas. Next year we will only be printing two issues instead of our usual four. It is my intention that as soon as our agency has the funding, the publication of *Alabama's TREASURED Forests* will resume on a quarterly basis.

In this fall issue—our fortieth—we have placed a reader survey on page 18. Please take a few minutes to fill it out and return to us. We'd like to know a little bit about you and the kinds of things you enjoy reading about in our magazine. The survey will be used to help plan future issues of *Alabama's TREASURED Forests*.

The outlook for forestry in Alabama continues to be bright, and I believe that TREASURE Forest landowners are managing some of the most productive forestland in the nation. Despite any budget problems we may encounter, the Alabama Forestry Commission has a commitment to landowners in this state. We pledge to continue to protect, conserve and increase our state's forest resources so that the future of forestry in Alabama remains secure.

Sincerely,

C.W. Moody
State Forester

The Alabama Forestry Commission supports the Alabama Forestry Planning Committee's TREASURE Forest program. This magazine is intended to further encourage participation in and acceptance of this program by landowners in the state. Any of the agencies listed above may be contacted for further information about the TREASURE Forest program.

Alabama's TREASURED Forests

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DEPARTMENTS

COVER: Photo by Bob Joslin, Center for Environmental Research and Service at Troy State University.

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Rock Creek flows through the property.

A Diverse TREASURE

by KIM GILLILAND, Editor

Alabama is blessed with a diversity of terrains and timber types. In the southern part of the state, rolling hills and pine trees are dominant. But the mountains grow increasingly steep in the northern part of the state, and hardwoods reign supreme. It is in and around these abundant hardwoods that TREASURE Forest landowner Dr. Jeff McCollum feels most at home.

McCollum's TREASURE Forest lies in the northwest portion of the state in southern Colbert County. McCollum and wife Suzie reside in Decatur, about an hour away, with their three children: Hannah, Nathan and Laura Jo.

Three quarters of the property is in hardwood or a pine-hardwood mixture. McCollum bought the original 400 acres while he was serving his residency in Birmingham, and has gradually added surrounding tracts to the property from neighbors who wanted to sell or trade. Each of these tracts is named after its former owner. Some of what McCollum acquired was once pastureland, and these areas have been transformed into wildlife food plots, pond areas or pine plantations. This TREASURE Forest is truly diverse in terms of regeneration methods, wildlife habitat and recreational opportunities.

Hardwoods line many of the roads.

A Change in Plans

When Jeff McCollum first started managing his property as a TREASURE Forest, a long-range plan was developed that included a schedule for harvesting, regeneration and other management activities. And, as frequently happens, the plan hit a snag early on.

"The second year into the plan, we had a big tornado that started on the back side of the property and came all the way across," said McCollum. Needless to say, the plan had to be modified. It took two years to clean up the debris, salvage the timber and replant some of the trees that had been destroyed. "Then we got back on the plan again!" McCollum said.

Types of Regeneration

One thing Jeff McCollum doesn't want to do is turn his natural hardwood areas into pure pine plantations, because the hardwoods are what he loves the best about his property. Several years ago he acquired a pine-hardwood area that had been clearcut, and he is making sure the

175 acres are reforested with the kinds of trees that originally grew on the site.

To provide the maximum result possible from a low initial investment, a summer prescribed burn was conducted on the area three years ago. The burn wasn't strong enough to kill all the hardwoods, but prepared the soil enough for planting containerized loblolly seedlings. The hardwoods are being allowed to regenerate naturally from stump sprouts. It's important to McCollum for this area to be returned to its natural state, which is the way he remembers it looking long before the property became his own. "Forty or 50 years from now it will be back the way it was. I may not be around, but my kids will get to see it the way I remembered it growing up."

The Conservation Reserve and Forestry Incentives Programs have been utilized to help plant some of the pastureland in pine trees. Three out of the last four years McCollum has planted containerized pine seedlings and has been extremely pleased with their rapid growth. "Other than just planting pine trees, I've probably put out three or four hundred sawtooth oaks," he said. "I've got them planted around the majority of the food plots." Pecan trees have also been planted for wildlife.

Several pine beetle infestations through the years have forced the cutting of some timber. A beautiful log cabin now stands near one 3-acre tract where an infestation killed the trees. McCollum and his father, Alton, cut the wood, piled it up, debarked it, treated it, hauled it up a hill and built the cabin. For other harvesting, a consultant forester assists with timber sales.

Managing for Wildlife

While most of the reforestation efforts are undertaken by McCollum, much of the wildlife management is accomplished by a 20-member hunting club that has access to the property. Most have been members of the club for a number of years, which is an advantage, says McCollum. "These people treat it with the same respect that I do. They don't ride around and throw out cans; if they see trash, they pick it up; if something tears up, they fix it." Members are responsible for planting food plots and also do other general maintenance work. Two trailers can be found on the property, one serving as a bunkhouse and the other as a clubhouse where members gather to socialize, cook and serve meals.

The property boasts a large population of deer, but McCollum confesses that turkey hunting is his favorite outdoor sport. He adds that there is now a satisfactory turkey population on his property. Turkey season was closed for years in north Alabama until the population could be restocked, and the property that McCollum owns is where some of that restocking took place. Turkey season has been open for 11 years now, and landowners like McCollum have made sure there is sufficient cover and food for the wild turkey in the region. "We've taken care of the turkey on this property year after year," he said.

A large map in the clubhouse shows the entire property, as well as neighboring properties, all of which is currently under the Department of Conservation and Natural Resources' Deer Management Program. Approximately 300 acres of the McCollum property is restricted to bow hunting only.

Summer and winter food plots dot the acreage, growing soybeans, clover, corn, wheat, and sorghum. Fields that have been in production several years in a row are allowed to lie fallow for a year or two before being put back into crops.

There are also two duck ponds, a catfish pond, and three bass and bream ponds on the property. McCollum himself fertilizes the ponds and builds and installs wood duck boxes around them. In addition to the wood ducks, several wild geese also make their homes near the ponds.

One of the duck ponds. In the background, hardwoods are naturally regenerating.

Personal Benefits

Besides hunting and fishing, some of the most enjoyed recreational activities are just to hike, drive or ride three-wheelers down the hardwood-lined roads. McCollum has always enjoyed the outdoors and says he gained most of his knowledge about forestry by reading and from employees of the Alabama Forestry Commission's Colbert County office. He believes that being well informed about all kinds of forestry practices has helped him become a better steward of his land. "We manage here for timber on this TREASURE Forest first, and wildlife second. I have to know what it means when you start talking about different timber practices, herbicides, sawlogs, board feet and all that stuff," McCollum said.

Although his schedule isn't one most people would envy, McCollum does find some spare time to spend relaxing—as well as working—on his TREASURE Forest. Nathan usually accompanies his father on most of the visits, and Suzie, Hannah and Laura Jo come often to enjoy fishing and other activities.

For Dr. Jeff McCollum, the TREASURE Forest program has given him the knowledge, the access to the resources he needs, and the incentive to further develop the diversity of his property. Personally, however, the rewards he receives are the kind that are difficult to put into words. "The best thing about it is, that regardless of what's going on elsewhere, I can come down here and enjoy myself! It's kind of hard to describe," he says, "but that's the bottom line."

Editor's Understory

by KIM GILLILAND, Editor

When Jeff McCollum was growing up in Florence, Alabama, he often went hunting with his father, Alton, who was part of an eight-member hunting club. The property they hunted on in Colbert County was owned by one of the eight members, Howard Johnson. As time passed, Jeff became good friends with Johnson. When he got older, Jeff told Johnson that if he ever wanted to sell the property, he had a buyer. After graduating from Auburn University and going through medical school, Jeff served his residency in Birmingham. During that time he was offered Johnson's 400-acre tract and subsequently purchased it. That hunting club is continuing today on the same property, which is now owned by Dr. Jeff McCollum. The original members were given lifetime memberships, while new members continue to join.

Although it was a struggle to pay the high interest rates while at the same time trying to finish his residency and provide for his family, the property meant enough to McCollum to make the sacrifices that were needed to buy it. This was the beginning of the McCollum TREASURE Forest. Other neighboring tracts have been purchased or trades conducted over the years to allow the McCollums to possess the block of land that they now manage primarily for timber and wildlife.

Today, at 37, Dr. Jeff McCollum is an anesthesiologist in Decatur, Alabama, where he lives with his wife, Suzie. They have two daughters—Hannah, 12, and Laura Jo, 8—and one son, Nathan, who is 9. McCollum says that while they enjoy living in Decatur, after the kids are out of high school he and Suzie want to move back to Colbert County and build a house on their TREASURE Forest. He even knows the precise location where that house will be. "I've already got it picked out," he says laughingly.

McCollum sought some forestry advice from the Colbert County Alabama Forestry Commission office in the late 1980s, and that's where he learned about the TREASURE Forest program. McCollum turned out to be a perfect candidate, and the property was certified in 1988.

Jeff McCollum

"Since then, we've been doing it—and enjoying it," he said.

Just a few years after his property had been certified, McCollum was well into his management plan and his property was nominated for the Helene Mosley Memorial TREASURE Forest Award, a statewide competition that honors the best TREASURE Forests in the state. Winning the district award in 1990 recognized his TREASURE Forest as one of the three best in the state. Although he didn't win at the state level, McCollum believes that his property will have a chance for the award in the future, when he's accomplished even more of his long-range plan. "I *want to* win it. I think that's a tremendous honor," he said.

McCollum is the director for District One of the Alabama Wildlife Federation, which covers Colbert, Franklin, Lauderdale and Lawrence Counties. The local AWF chapter sponsors a two-day youth camp on the McCollum TREASURE Forest every year. The property has also hosted tours from various other groups, including the Packaging Corporation of America.

McCollum is also active in the Colbert County TREASURE Forest Landowners Association. The group holds a dinner meeting on a quarterly basis and other landowners who may be interested in the TREASURE Forest program are also invited. McCollum believes TREASURE Forest landowners can benefit from activities like this where people who have the same goals can share ideas with one another. He also believes that TREASURE Forest landowners are a special breed. "It's kinda funny about TREASURE Forest people. You have this sense when you're riding around on their property. You can appreciate it, because you know what it means to them—because it means the same to you."

McCollum recommends that anyone—especially a TREASURE Forest landowner—who's interested in forestry and the stewardship of our natural resources read a series of essays by Aldo Leopold called *A Sand County Almanac*. Leopold was a forester, writer and philosopher, among many other things. His now famous "land ethic" is something that Jeff McCollum strongly believes in. Leopold felt that landowners should not be only economically minded, but ecologically minded as well. He suggested that a system of land management based solely on economic self-interest is "hopelessly lopsided." Leopold felt there should be "an ethical obligation on the part of the private owner" towards the earth, a concept known as conservation. Jeff McCollum is one landowner who is doing his best to follow this concept, making his TREASURE Forest environmentally sound and valuable in the most priceless way.

Forest Tools for the "HANDS-ON" Landowner

by TOM LANG, Alabama Forestry Commission, Selma

If you are a forest landowner, you probably have some stories to tell about trial and error experiences in forest management. Silviculture, the "art and science of forest management," may have led you into many work projects on your land. Conducting forest work can definitely be an art at times, with varying results. Using the right forest tools can go a long way in helping you reach your forest management goals.

An increment borer is used to take a core sample from a tree at 4 1/2 feet above the ground. A tree's age and growth rate can be determined by examining the rings of the core sample.

Before you get too involved with land management, you may want to seek professional advice. You may need a management plan tailored to your goals and your property needs. Advice and information is available from several governmental agencies, including the Alabama Forestry Commission, the Soil Conservation Service, the Game and Fish Division of the Alabama Department of Conservation and Natural Resources, and the Alabama Cooperative Extension Service. A forestry consultant or a wildlife consultant can also assist you with land management.

A forest management plan can be fairly basic or very detailed, depending upon such factors as the size of your property, the number of timber stands you have, and the intensity of management needed to help you reach your management objectives. Some key basics included in a management plan are a property map and stand map outlining forest stands on the property. Timber, wildlife, and other pertinent recommendations should be included on a stand-by-stand basis.

Once you have your management recommendations lined up, you may want to do some of the work yourself. Let's cover a few basic forest tools available and relate how they might help you in your land management. A list of forestry supply businesses can be found at the end of this article.

Practical Forestry Tools

Safety should always come first when working outdoors. With the proliferation of Lyme disease cases, a good tick repellant will be in order. A hard hat may come in handy, as might protective eyewear. Snake leggings will help give you some peace of mind and will do double duty as brush chaps.

A compass is almost a required tool to have in the forest. It can be used to check bearings on boundary lines, roads, fences, etc. It can be used in inventory work to keep you on line. If internal lines need to be established on your property, a compass may suffice to help flag or paint a line. Plastic flagging is inexpensive and can be used to temporarily outline boundaries such as cutting areas and streamside management zones (SMZs). Flagging is also useful in marking trails to deer stands.

A paint gun can be a useful tool in the woods. Uses include marking your own timber for a timber sale or marking permanent internal stand boundary lines or SMZ lines. Paint can also be brushed directly onto a tree. A compass, paint, brush, and machete or bush axe will help set you up to paint boundary lines.

One of the most basic forestry tools you can use is a tree planting bar, or dibble. This is a simple hand tool made of metal. It has a "T" handle with a shaft and a blade at the bottom. Overall length is usually just under 40 inches. A sharpshooter shovel is often used to check the quality of tree planting during or after a tree planting operation. Before planting any seedlings, make sure you know proper tree planting techniques, as well as proper seedling handling and storage procedures.

It is a good idea to check seedling survival in the fall following the first growing season. A 1/100th acre plot tape can help you sample seedling survival. The plot tape is swung around in a full 360 degree circle from a fixed point, and all seedlings inside this circle are counted.

Plots can be placed systematically throughout the planted area on a grid system. The length of a 1/100th acre plot tape is 11.778 feet, so a cane pole cut to this same length would substitute. To obtain your average number of seedlings per acre on a tract, first add up all the seedlings counted and divide this number by the number of plots taken. Next, multiply this number by 100 and you have your average number of seedlings per acre. Following the first growing season, the desirable number of living pine seedlings would be around 450-600 trees per acre.

Annual growth and ages of trees can be determined using an increment borer. This tool is an aid in determining growth rates and harvesting schedules. A clinometer is a tool that lets you measure tree heights. It can also be used to obtain vertical angles and slopes. Site index is a measure of forest site quality and can be determined by using an increment borer, clinometer, and a site index curve.

Tree injection can be done with several tools. Injection work may be needed to release suppressed pines or to remove cull hardwoods from a stand of timber. The most commonly used injection tool is a hatchet device which delivers herbicide through a bit in the hatchet blade. The "hack and squirt" method is fairly easy for a do-it-yourselfer. This method employs simple tools—a hatchet and a squirt bottle containing herbicides. Always read the label before using any herbicide.

The last forestry tool we will discuss can help you greatly with timber stand improvement, fuel reduction, wildlife habitat enhancement, and aesthetics. The drip torch is of great assistance in prescribed burning, and is basically a "must have" tool if you plan to burn large acreages. As great a tool as it is, it can also cause you to get into dangerous situations with control burning. Prescribed burning is an acquired skill which combines knowledge of fire behavior with practiced experience. It is definitely an art, and is best left to experienced practitioners.

By using some of the tools mentioned here, you can do some "artwork" on your forestland. Always check to make sure you use tools safely. Contact a professional forester or other professional resource manager to assist you with your forest management. With sound advice, you will be ready for some hands-on forest management work.

TREASURE Forest Memorabilia Donated to AU Archives

W. Kelly Mosley (center), whose property was certified as the first TREASURE Forest in 1976, recently donated his original sign, certificate and other materials to the Auburn University Archives.

The TREASURE Forest program began as an idea in the mind of State Forester C.W. Moody. After a period of development, agencies of the Alabama Forestry Planning Committee adopted the program in 1974 and began working together to make the program a reality.

The AFPC wanted an example of multiple-use forest management in action and cooperation among the agencies. As a result, Mosley's property in Marengo County, called Pineland, was the first to be nominated and certified. Larry Brooks (left), now Alabama Forestry Commission District Forester in Selma, was the inspecting forester.

To inaugurate the program, an awards luncheon ceremony was held at Auburn University in March of 1976. It was planned by Larkin Wade (right), now coordinator of Extension Forestry Programs at Auburn University. Former Auburn University President Harry Philpot presided, and a number of people spoke. The first certificate and sign were presented to Mosley during the ceremony.

Through the leadership of Moody and others, the TREASURE Forest program in Alabama has become the model for the national Stewardship Program. So, in effect, Pineland is the first Stewardship Forest in the nation.

The donation Mosley has made to the AU Archives will ensure that the historical aspect of the TREASURE Forest program is well documented.

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EPICORMIC BRANCHING

A Threat to Hardwood Sawlog Quality and Value

by TIM L. GOTHARD, Alabama Forestry Commission, Montgomery

The production of high quality sawlogs is often an objective when managing pine and hardwood. These products are consistently some of the most valuable taken from the forest. Producing high quality pine and hardwood logs often involves different types of management and care. Likewise, individual species within these two broad groups may have unique requirements depending upon natural characteristics of the species being managed.

In general, producing high quality hardwood logs is more complex than for pine. Factors that influence the development, makeup, and production of quality hardwood logs are more numerous, and often not fully understood.

High quality hardwood logs that were a rule of thumb in our virgin and early hardwood forests are no longer as abundant. Widespread use of high-grade cutting practices (harvesting the best trees and leaving the rest to make up the next stand) in the early to mid-1900s has resulted in an overall decrease in high quality hardwood sawlogs. This reduced natural occurrence has magnified the importance of recognizing log quality. Equally important is an understanding of factors that impact the production of high quality logs during stand development.

Measuring Log Quality

Lumber is one of the most valuable products that comes from hardwood logs. The largest use of this lumber is in furniture manufacturing, which has strict quality requirements for the wood it uses. The ability to predict the potential for obtaining quality lumber from logs in a tree can enable estimation of tree value. Log grades provide a method for estimating log quality before lumber is sawn.

Grade is determined on the basis of five major factors: 1) position of the log in the tree (butt log or upper log); 2) log diameter; 3) log length; 4) straightness; and 5) presence or absence of defect. From these five characteristics, logs are classified into one of three grades.

Grade 1 logs are of the highest quality. They tend to yield a considerable amount of lumber that is clear (free from visual defects), sound (free from structural weaknesses), and individual pieces are relatively large in size (length and width). Grade 3 logs occupy the other end of the spectrum and tend to yield a low amount of lumber that is clear and sound, and individual pieces are relatively small. Grade 2

Epicormic branching on white oak.

logs are best described as being somewhere between grades 1 and 3. For logs of the same diameter, length, and species, Grade 1 logs can be twice as valuable as grade 2 and 15 times as valuable as grade 3. Likewise, grade 2 logs can be seven to eight times more valuable than grade 3.

Of the factors that influence the grade of hardwood logs, diameter and defect are extremely important. In general, the grade and value of a log increases as its diameter becomes larger, provided that factors such as defect and straightness do not cause degrade. Therefore, diameter is a factor that forest managers can influence to improve log grade and value by using stand treatments that promote diameter growth. Other factors, however, must be controlled to prevent grade loss.

Defects such as decay, bird peck, mineral stain, branch stubs, etc., are just a few of the potential defects commonly found in hardwood timber and logs. In addition, epicormic branching and its effect on wood is a major cause of grade reduction and value loss. A study on the quality of butt logs (the lower 16-foot section of the tree bole) for Piedmont hardwoods greater than eight inches in diameter revealed that epicormic branches and their effects on wood accounted for the highest amount of defect in standing hardwood logs.

Thinning is often used to stimulate diameter growth in hopes of increasing the size, grade, and value of crop trees. The effectiveness of this practice for increasing value can be virtually destroyed by the formation of epicormic branches. For this reason, insight into factors affecting the occurrence of sprouting and resulting effects on hardwood sawlog quality is critical.

Origin and Effect of Epicormic Branches

Epicormic branches, also called sprouts, develop from dormant buds that exist on the tree bole. These buds were formed as the tree grew but did not activate and develop into normal branches. However, these dormant buds often produce branches when stimulated by changes in stand conditions.

When epicormic branches are produced, underneath are very small knots, bark pockets, and wood discoloration. All three result in wood blemishes that are considered defects which limit the length of clear lumber cuttings and can contribute to reduced lumber grade. Likewise, they can directly affect log and tree grade.

Factors Affecting Occurrence

The occurrence of epicormic branches is influenced by a combinations of factors. Degree of exposure to sunlight, crown class, height on the tree bole, and species are most influential in determining both the occurrence and number of sprouts.

The development of epicormic branches is often observed following stand distur-

bances such as thinning, storm damage, individual tree or group mortality, and other events that result in increased light exposure on tree boles. Studies have shown that the development and number of sprouts produced increases as the amount of light reaching previously shaded tree boles increases. Stand treatments such as thinning, shelterwood and seed tree regeneration cuts, and small patch clearcuts produce changes in the forest canopy that allow increased light exposure on tree boles. In general, the heavier the cut, the greater the risk of epicormic branch formation. Likewise, the greater the chance for loss of hardwood log value.

Another factor which influences epicormic branch occurrence is the crown class of the tree. Trees within a stand are classified into four crown classes: dominant, codominant, intermediate, and suppressed. Dominants and codominants as a group compose the upper stand canopy and are usually the largest (in height and diameter) and fastest growing trees in the stand. Intermediate and suppressed trees make up the lower stand canopy and are usually the smaller, slower growing trees. Studies have repeatedly shown that the occurrence and number of epicormic branches is related to the crown class of the tree. Trees of the dominant and codominant crown classes branch less frequently and consistently produce fewer sprouts than do intermediate and suppressed trees.

Height on the bole and log position within the tree are significant in relation to the occurrence and number of epicormic branches produced following stand disturbance. Sprouting increases with height and log position with the least amount found on the butt log. Second logs (the second 16 foot section of the tree bole) typically have fewer sprouts than third logs. In addition, the number of epicormic branches produced usually increases as height on the bole increases. Since butt logs are potentially the highest value log within the tree, this suggests that in certain instances grade reduction may be avoided if sprout numbers are small or are concentrated in specific areas that do not restrict the clear length of the lumber when sawn. In addition, second and third logs are generally of lower quality and can withstand more defect before their value or grade is affected.

All other factors held constant, species is perhaps the most critical factor in epicormic branch occurrence. Virtually all southern hardwoods have the ability to produce sprouts; however, the intensity of sprouting varies between species, from virtually non-existent to abundant. Researchers have studied this relationship closely. *Table 1* is a grouping of several southern hardwoods based on their relative tendency to sprout.

Table 1.
Categories of decreasing relative tendency to produce epicormic branches.

Category A
Species: white oak, n. red oak, cherrybark oak, black oak
Category B
Species: basswood, black cherry, chestnut oak, Shumard oak, sweetgum
Category C
Species: American beech, hickory, yellow-poplar, red maple
Category D
Species: white ash, green ash
A = very many, **B** = many, **C** = few, **D** = very few

As *Table 1* shows, some of our most desireable oaks are the heaviest sprouters, while yellow-poplar and green ash branch less often and have fewer in number. In fact, studies have shown that often green ash will not sprout even under extreme conditions such as an intense thin, and when it does, the number of sprouts produced is extremely small.

The interaction of crown class, height on the bole, degree of light exposure, and inherent characteristics of the species contribute to both the occurrence and number of epicormic branches that may be produced following stand disturbance. Forest managers concerned with producing high quality hardwood sawlogs must be aware of these factors and consider them when making stand management decisions.

Considerations in Stand Management

There are two primary purposes of intermediate stand harvests (harvests occurring before the final harvest): to improve or increase the growth of residual crop trees and to facilitate natural regeneration. The first is commonly referred to as "thinning," the second is termed "regeneration cut." The result of both types of harvesting is that the remaining trees are usually some of the best trees found in the stand. They also produce changes in stand characteristics that can influence the occurrence of epicormic branching on residual crop trees. To avoid significant reduction in product value, sprouting must be minimized.

Thinning

Thinning involves the lowering of stand density and is an important tool for guiding crop tree growth. Reducing stand density (trees per acre, basal area per acre) can be affective in stimulating growth of overstocked and stagnant stands. In many instances this is a desireable concept for production of high-quality hardwood sawlogs in the shortest amount of time. Benefits in growth and value, however, can be partially or even completely erased by the occurrence of epicormic branches on previously clear boles of crop trees. Therefore the factors that influence sprouting, which are influenced by thinning, must be evaluated.

A direct result of thinning is increased light exposure on tree boles, a critical factor in epicormic branch occurrence. The degree of exposure is directly related to the intensity of the thin. In most cases, as the intensity of thinning increases, the stand canopy becomes more open (strict thinning from below offers the only chance of an undisturbed canopy). Likewise, as the canopy becomes more open, the amount of light entering the stand increases and creates more ideal conditions for sprout occurrence.

Thinning should be conducted so that residual trees (trees that will not be cut) are from the upper crown classes (dominants and codominants). Stand densities should first be reduced by harvesting those trees in the stand that are diseased, poorly formed, suppressed, or otherwise show characteristics that are unsuitable for quality sawlogs. In addition, some trees may be removed that are of relatively good quality but are competing with other comparable or superior trees for

water and nutrients. By favoring the upper crown class trees for residuals, the crown class factor in epicormic branch occurrence can be minimized.

When evaluating sprouting potential in stands to be thinned, consideration must be given to the epicormic branching tendencies of the species being managed. For yellow-poplar and ash, the manager is benefited by a low tendency to produce epicormic branches. This results in the ability to use thinning without a high probability of suffering severe log degrade and value loss. When managing hardwood stands where income is desired from thinning, these species should be favored whenever appropriate in order to capitalize on their low sprouting tendencies. By doing so, a stand will exist containing valuable species that will allow intermediate harvests of varying intensities without a high risk of degrading crop tree value. Other species such as oak, a very desireable species for high value timber production, do not afford this luxury.

Oak species are sensitive to the intensity of thinning operations. White oak and cherrybark oak are two species which receive much attention in the South. Their epicormic branching tendencies result in large amounts of concern. Knowing that epicormic branching will increase with the intensity of thinning, frequent, light thinning should be considered in an attempt to minimize sprout occurrence. This method will avoid a sudden increase in light exposure on tree boles while gradually opening the canopy to allow for crown expansion and increased diameter growth. Residual tree selection should favor individuals of the dominant and codominant crown classes that express a tendency for straight, clear boles and high vigor. By doing so, the manager can attempt to minimize the occurrence of sprouting.

The desired outcome of thinning is concentration of growth on potential high quality crop trees in order to produce high value sawlogs. Epicormic branching must be avoided for successful use of this practice.

Regeneration Cuts

The seed tree and shelterwood regeneration cuts are similar to thinning in many ways. All result in lower stand densities, an increase in light exposure on tree boles, and tend to favor better trees within the stand—usually of the upper crown dominance classes. However, the intensity of regeneration cuts most often results in conditions that are more ideal for epicormic branch occurrence.

Regeneration cuts, for the most part, are of greater intensity than thinning. In comparison, this results in significantly lower residual stand densities (stand density following harvest) and greater light exposure on tree boles. The purpose of regeneration cuts differs from thinning in that growth stimulation is not the primary objective. Instead, the goal is to provide a seed source for natural regeneration of the stand. Residual trees should be selected based on favorable outward qualities. Characteristics such as long, straight, clear boles of large diameters are desireable. By making selections on this basis, the best chance of acquiring regeneration of similar quality is maximized. However, this most often results in the highest value trees being left on the site and subject to degrade from epicormic branches.

If regeneration cuts are used, the seed tree method of regeneration cutting should be avoided with oak species. The extreme opening of the canopy in seed tree cuts results in very high light exposure on tree boles. This factor, combined with the high sprouting tendencies of oak, may override the ability of dominants and codominants to resist branching and result in complete loss of tree value. Furthermore, the heavy seed of oak is not well suited for the seed tree system.

The shelterwood method should be favored for oak when clearcutting or coppice (stump sprout) regeneration methods are not desired. This method disturbs less of the canopy while also providing an opportunity for crown expansion in order to achieve both diameter growth and increased seed production. In addition, since oak species tend to produce good seed crops every three to five years, regeneration cuts should be performed as close as possible to an expected good seed year. This will offer the best opportunity for adequate regeneration in the shortest amount of time. If so achieved, the young age of the epicormic branches on residual trees may not result in severe degrade, as timber buyers may consider the age of the sprouts and the ability of these to be slabbed off in the sawing process. If so, value loss may be minimized.

Small patch clearcuts, used to promote natural regeneration of trees which grow best in full sunlight (oak, poplar, ash), also create optimal conditions for epicormic branch production. Therefore, the risk of sprouts developing on border trees around the clearcut is very high. When patch clearcutting, careful selection of border trees can limit the occurrence of epicormic branch production. By selecting border trees such as beech, hackberry, hickory, and maple, that are typically lower in value than oak, or valuable species with low branching tendencies such as ash and poplar, the potential loss of quality in the adjoining stand's edge can be minimized. In general, favor low value species for border trees whenever possible.

Summary

Managing hardwood stands for high quality sawlog production requires close attention to the threat of epicormic branching. This defect is perhaps the most common cause of grade reduction and value loss in hardwood logs. In order to minimize the risk of log value loss, consideration must be given to the epicormic branching tendencies of the species being managed and to the impact cultural practices will have on the factors that influence epicormic branch occurrence.

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Fisheries, Forestry and Wildlife Extension at Auburn

Moving to meet the challenges of multi-resource stewardship[1]

The TREASURE Forest concept has wide appeal to forest landowners in Alabama and elsewhere, largely because it emphasizes caring, informed and sustained stewardship of the **multiple** resources and benefits forests can generate. The Natural Resources Extension programs at Auburn University are responding to the same unifying needs that gave birth to TREASURE Forests. Though housed in different academic units, they are working increasingly in interdisciplinary teams, recognizing the interdependency and inter-relatedness that exists among the multiple resources and values resident in our state's forests.

To foster comprehensive ("holistic") approaches, the Alabama Cooperative Extension Service has incorporated into its program of major new initiatives a special interdisciplinary thrust titled "Forestry, Wildlife and Natural Resources." The program is led by Lee Stribling of the Zoology and Wildlife Department, with other key Extension faculty from the School of Forestry, the Department of Fisheries and Allied Aquacultures, and county Extension staff collaborating. This issues-focused program promises to provide more comprehensive information for TREASURE Forest owners and other forest resource managers in Alabama, helping them deal more effectively with the increasingly complex issues, challenges and opportunities that confront them almost daily.

Listed below are short biosketches on Extension specialists at Auburn. These individuals have the expertise and the responsibility for meeting the wide variety of educational programming needs of the forest resources community of interest in Alabama, a community that now extends well beyond forest borders and into towns and cities all across the state. We encourage you to contact these specialists directly if you have particular information needs or see unmet educational opportunities. You can also convey your concerns to them through your local county Extension staff or your representatives on your county forestry planning committee.

We'd like to use this opportunity to get in a plug for a program that exemplifies this new multi-resource, issues-oriented approach. On October 28, the day before the Ninth Alabama Landowner and TREASURE Forest Conference begins in Tuscaloosa, Kathryn Flynn and her partners will present a special program on "Environmental Responsibilities of Non-industrial Private Forest Landowners." This half-day session will address key regulations and regulatory processes involving both threatened and endangered species and wetlands. It will also de-mystify the workings of the new Stewardship Incentives Program (SIP). We hope to see you there, and at other upcoming Extension programs.

JIM ARMSTRONG
Extension Wildlife Specialist:
75% Extension/25% Research,
at Auburn since 1/90.
Areas of expertise: human dimensions in wildlife management; wildlife damage management; environmental education.
Recent activities: Extension—numerous wildlife damage management programs and 4-H programs (snakes, trapping); 4-H wildlife habitat evaluation program. Research—human attitudes toward animal use; actual and perceived coyote damage in Alabama; foraging patterns of wading birds on west Alabama catfish ponds; deer fence study.
Address/phone: Department of Zoology and Wildlife/844-9233.

JOHN BLISS
Extension Forestry Specialist:
75% Extension/25% Research,
at Auburn since 1/90.
Areas of expertise: private non-industrial forest management; social aspects of natural resources management (attitudes, issues, conflicts and trends); economics of NIPF management (marketing, taxation).
Recent activities: Alabama forest owner survey; public opinion surveys of attitudes toward forestry; oral histories of Alabama pulpwood producers; forestry education for youth.
Address/phone: School of Forestry/844-1049.

DICK BRINKER
Extension Timber Harvesting Specialist:
75% Extension/10% Research/
15% Teaching, at Auburn since 2/88.
Areas of expertise: logger safety training; timber harvesting systems; road construction; geographic information systems; wood procurement.
Recent activities: commercial drivers' license training for log truck drivers; loss control management for loggers; silvicultural training for loggers; BMP demonstrations for logging and road construction.
Address/phone: School of Forestry/844-1038.

HONORIO CARINO
Extension Forest Products Specialist:
25% Extension/65% Research/
10% Teaching, at Auburn since 1/81.
Areas of expertise: forest products technology and operations management, with emphasis on lumber production.
Recent activities: Research—development of decision models for improving economic efficiency of wood products mills. Extension—direct technical assistance to wood products companies in Alabama; workshop on wood drying.
Address/phone: Forest Products Lab/844-4216.

(Continued on page 15)

[1] *This article was prepared by George Bengtson, associate dean of the School of Forestry, with the cooperation of John Pritchett, head of the Department of Zoology and Wildlife, and Wayne Shell, head of the Department of Fisheries and Allied Aquacultures at Auburn.*

Best Management Practices for Forested Wetlands

by DON BURDETTE, Environmental Forester, Alabama Forestry Commission

Have you been confused by all the rumors going around about wetland regulations? There has been quite a bit of conflicting information circulated about what federal and state laws and regulations say about practicing forestry in forested wetlands.

The Alabama Forestry Commission is trying to resolve these misunderstandings by including a chapter on forested wetlands within the updated *Alabama's Best Management Practices for Forestry* due for release this fall. Information for this chapter was derived primarily from the "Forest Industry Wetlands Task Force" and in consultation with the Environmental Protection Agency, the Corps of Engineers and the Alabama Department of Environmental Management. The new BMPs will serve as guidance to help landowners, foresters and loggers practice forestry to achieve their personal ownership objectives and protect environmental quality at the same time.

Section 404 of the federal Clean Water Act usually requires that a permit be obtained from the Corps of Engineers before a discharge of dredged or fill materials can be made into waters of the United States, including wetlands. A regulated discharge occurs when fill or dredged material is deposited into wetlands.

Exemptions

Although forestry activities that discharge dredged and fill materials into a wetland are regulated, those activities are exempt from having to obtain an individual Section 404 permit from the Corps of Engineers if they meet the following conditions:

a. it is not part of an activity whose purpose is to convert a wetland into an upland where the flow or circulation of the waters of the United States may be impaired or the reach of waters reduced; and
b. it is part of an established (i.e., ongoing) silvicultural, farming or ranching operation and not a new use to which the wetland was not previously subject; and
c. it uses "normal" silvicultural, farming or ranching activities which are in compliance with federal BMPs (listed in the wetland road section); and
d. it has not lain idle for so long that hydrological modifications will be necessary to resume operations; and
e. it does not contain any toxic pollutant listed under Section 307 of the Clean Water Act.

Streamside management zones should be established and managed around all major drainages.

What is an established silvicultural operation?

Established or ongoing operations are included in a management system (not necessarily written) which is planned over conventional rotation cycles for a property or are introduced as part of an established operation. An activity itself needs not to have been ongoing as long as it is introduced as part of an ongoing operation.

Evidence of historical use of the property may be used to determine whether an operation is on-going: 1) a history of harvesting with either natural or artificial regeneration; 2) a history of fire, insect and disease control to protect the maturing timber; and 3) evidence of windrows, logging roads, landings or other indications of established silvicultural operations.

While past management may have been relatively non-intensive, intensification of management involving artificial regeneration and other practices can occur as part of a conventional rotation and be considered an established operation.

Although the wetland regulations do not require a written forest management plan, it is in a landowner's best interest to have one to be able to document that operations are established, that BMPs are implemented and effective, and that all activities are consistent with other Section 404 exemption criteria.

A change in ownership between landowners (both of which manage forested wetlands for silviculture purposes) has no bearing on whether a forestry operation is part of an established, ongoing activity. Continuation or strict adherence to a management plan written for the previous owner is not required by Section 404 silvicultural exemptions.

"Normal" silvicultural activities (such as road construction, timber harvesting, mechanical or chemical site preparation, reforestation, timber stand improvement and minor drainage) conducted as a part of "established, ongoing" silvicultural operations are exempt from Section 404 Corps of Engineers permit requirements as long as the appropriate measures are implemented. Those measures are listed under the forest roads section in the wetlands section of the new BMPs.

When Are Permits Required?

A forestry activity or operation *will* require a 404 permit from the Corps of Engineers when:

a. the activity results in the immediate or gradual conversion of a wetland to an upland as a consequence of altering the flow and circulation or reducing the reach of waters of the United States.

Changes in flow, circulation or reach of waters can be affected by permanent major drainage such as channelization or by placement of fill materials. A discharge which changes the bottom elevation of waters of the United States, without converting it to dry land does not reduce the reach of waters, but may alter flow or circulation, and therefore may be subject to permitting requirements.

The criteria used to determine if a wetland has been converted include a change in hydrology, soils and vegetation to such an extent that the area no longer qualifies as a jurisdictional wetland.

b. a new activity results in a change from the past historical use of the wetland into a different use to which it was not previously subject where the flow or circulation of waters is impaired or the reach of the waters is reduced. Such a change does not meet the established, ongoing requirement and causes the activity or operation to lose its exemption.

An example of this situation is an area where tree harvesting has been the established use and the landowner wishes to convert the site for use as pasture, green tree reservoir, agriculture, real estate or aquaculture. In such cases the landowner must first obtain a 404 permit before proceeding with the change.

c. roads and stream crossings are constructed in wetlands without following the mandatory, federal BMPs (listed under the wetland section of the new "Alabama BMPs for Forestry").

d. the area has lain idle for so long that hydrologic modifications are necessary to resume operations. This does not refer to temporary water management techniques such as minor drainage, plowing, bedding and seeding which are exempt, normal silvicultural activities as long as they don't result in the conversion of wetlands to uplands. However, it does apply to reopening ditches which were once established as permanent wetland drainage structures but have lost their effectiveness for this purpose as they filled in with soil and vegetation.

Other BMPs

Streamside management zones should be established and managed around the perimeter of all major drainages and open bodies of water (i.e. main stream courses, oxbow lakes, sloughs) contained within wetlands.

Minor drainage refers to installation of ditching or other water control facilities for temporary dewatering of an area. Minor drainage is considered a normal silvicultural activity in wetlands to temporarily lower the water level and minimize adverse impacts on a wetland site during road construction, timber harvesting and reforestation activities. Minor drainage does not include construction of a canal, dike or any other structure which drains or significantly modifies a wetland or other aquatic area.

BMPs are not voluntary on wetland roads and stream crossings

Minor drainage is exempt from needing an individual 404 permit if it is part of an ongoing silvicultural operation and does not result in the immediate or gradual conversion of a wetland to an upland. Once silvicultural activity has been completed, the hydrology that existed prior to the harvest should be restored.

Forest roads and stream crossings within wetlands and other waters of the U.S. must be constructed and maintained in accordance with Corps of Engineer baseline BMPs in order to retain exemption status from permitting requirements. The Corps' BMPs are listed verbatim within the forested wetland section of the new "Alabama BMPs for Forestry."

Guidelines for normal methods of timber harvesting and equipment apply if harvesting is timed during dry periods.

Harvesting during wet periods or on sites that remain wet requires special precautions and harvesting systems to minimize water quality hazards and other negative site impacts. Site damaging effects from harvesting equipment such as rutting, puddling and compaction should be controlled and minimized whenever possible. For example, concentrate skidder traffic on a few trails rather than over the entire area. Do not harvest sites during periods of flowing water whether from overbank flooding or other water accumulation.

Reforestation in wetlands is not much different from regenerating uplands with regard to water quality: the main factors to consider are the site's potential for erosion/sedimentation and hydrology.

Land clearing is an exempt silvicultural activity if it is associated with timber harvesting or reforestation operations. However, land clearing using mechanical equipment for the purpose of removing vegetation in preparation for converting the site to a different land use is not part of an established silvicultural operation. Therefore, it is not exempt from having to go through the Corps of Engineer permitting process.

Herbicides bearing the "wetlands" warning on the label can be applied to vegetation on dry soils of jurisdictional wetland areas but must not be applied directly to surface water or to intertidal areas below the mean high water mark.

Bedding is the construction of earthen mounds from surrounding soil resulting in adjacent and alternating "beds" and furrows. Seedling beds create temporary elevated soil conditions which allow seedlings to escape saturated soil conditions and have a greater opportunity to survive and grow.

Bedding is considered a normal silvicultural activity that is exempt from Section 404 permitting requirements if:

a. the bedding does not result in the gradual or immediate conversion of a wetland to upland as a consequence of impairing the flow or circulation or reducing the reach of waters of the United States; and

b. it is performed as part of an established, ongoing silvicultural operation.

However, if bedding were to significantly alter the flow, circulation or reach of waters of the United States and consequently result in conversion of a wetland into an upland, the exemption

would no longer apply.

Species composition change (i.e. bottomland hardwood to pine plantation) resulting from intensification of management is considered a normal, silvicultural activity that is exempt from 404 permitting if the property is in silvicultural usage before and after the harvesting and planting.

However, a species composition change is not exempt if the activities used to clear, prepare or plant the site would result in a change in use that is accompanied by an impairment of the flow or circulation or the reduction of the reach of waters. An example of such a new use situation would be where the change in species composition would cause a conversion of wetlands to uplands.

Beaver impoundments and other blockages. Removing surface water that had been impounded as a result of beaver or other activity is considered exempt from 404 permitting as long as the process does not include enlarging or extending the dimension of, or changing the bottom elevation of, the affected drainage way as it existed prior to the formation of the blockage, or without changing the use of the land in question.

EPA wetland regulations currently allow mechanical site preparation and conversion of bottomland hardwoods to pine plantations.

Beaver dams can be dismantled by hand without any problems. Dynamite and heavy equipment can also be used to destroy dams as long as they are not used to construct drainage channels that will result in conversion of wetlands to uplands.

For more information on wetland laws, regulations and BMPs, contact your local office of the Alabama Forestry Commission.

(Continued from page 12)

KATHRYN FLYNN
Extension Forestry Specialist: 75% Extension/25% Research, at Auburn since 4/92.
Areas of expertise: wetlands ecology and water quality; wetlands management.
Recent activities: developing Extension and research program in environmental quality; Extension—programs on environmental responsibilities of NIPF landowners; air and water quality in Alabama. Research—effects of harvesting and road-building techniques on floodplain systems.
Address/phone: School of Forestry/844-1036.

JOHN JENSEN
Extension Fisheries Specialist: 92% Extension/8% Teaching, at Auburn since 1/79.
Areas of expertise: commercial aquaculture production, processing and marketing; recreational aquaculture.
Recent activities: developed state of Alabama aquaculture plan; Alabama Fish Farming Conference; catfish harvesting and loading research; organized Eli-Lily/Elanco tour of AU catfish industry; recreational fish pond management teleconference; W. Kelly Mosley Environmental Awards Committee member.
Address/phone: Department of Fisheries and Allied Aquacultures/844-9211.

BOBBY LANFORD
Extension Timber Harvesting Specialist: 25% Extension/50% Research/ 25% Teaching, at Auburn since 1/78.
Areas of expertise: forestry; statistics; operations research, with concentration on forest engineering and timber harvesting.
Recent activities: development and demonstration of harvesting systems compatible with NIPF landowners' needs; improvement and promotion of operating techniques for timber forwarding systems; monitoring and improvement of forest thinning approaches; BMP workshops.
Address/phone: School of Forestry/844-1061.

MIKE MASSER
Extension Fisheries Specialist: 100% Extension, at Auburn since 8/89.
Areas of expertise: aquaculture; fisheries; recreational fish pond management; aquatic ecology; water quality.
Recent activities: Research—removal and utilization of fish wastes from intensive fish production systems. Extension—publication, video and teleconference on recreational fish pond management.
Address/phone: Department of Fisheries and Allied Aquacultures/844-9312.

KEN MCNABB
Extension Forestry Specialist: 75% Extension/25% Research, at Auburn since 2/89.
Areas of expertise: forest regeneration, including nursery management and seedling quality; planting; silvicultural herbicides; prescribed burning.
Recent activities: short courses and seminars on silvicultural herbicides, prescribed burning, non-industrial forest regeneration; presentations on movement of nitrate and pesticides in forest nurseries based on ongoing research program.
Address/phone: School of Forestry/844-1044.

KEN MUEHLENFELD
Extension Forest Products Specialist: 100% Extension, at Auburn since 8/89.
Areas of expertise: forest-based economic development; wood products manufacturing and marketing; new business planning and analysis.
Recent activities: industrial recruitment and trade promotion activities; feasibility analyses for manufacturing facility investments; assessment of worker training needs for secondary wood manufacturing industry development.
Address/phone: Forest Products Lab/844-4224.

LEE STRIBLING
Extension Wildlife Specialist: 75% Extension/25% Research, at Auburn since 11/85.
Areas of expertise: wildlife economics and management.
Recent activities: Research—economics of hunting in Alabama; effects of prescribed burning on rabbits, quail, small mammals and birds; evaluation of deer forages; translocated deer. Extension—a wide variety of programs in wildlife management including white-tailed deer management, wildlife damage control, non-game wildlife, and wildlife education for youth; W. Kelly Mosley Environmental Awards Committee member.
Address/phone: Department of Zoology and Wildlife/844-9247.

LARKIN WADE
Extension Forestry Coordinator: 100% Extension, at Auburn since 7/65.
Areas of expertise: Extension administration, planning and evaluation; forest management demonstrations; forest economics and taxation; general Extension forestry programming.
Recent activities: woodland management correspondence course; Mosley Environmental Awards Program; forest management demonstrations; county forestry planning committees; projects on behalf of the Alabama Forestry Planning Committee.
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LANDOWNERS LEGISLATIVE · ALERT

NATIONAL

by BILL IMBERGAMO,
Washington Office, National Association of State Foresters

Federal programs to assist private forest landowners will remain intact in the coming fiscal year, although the ultimate path of these programs—as well as many other things in the nation's capitol—remains uncertain. While this year will pass without major new developments on the natural resource front, the future of many issues will be largely shaped by November's elections.

Forestry Funding

The results for forestry related spending programs have been fairly positive, given the fiscal climate in Washington. While other programs are undergoing severe budget cuts, forestry programs appear to be holding their own. When Congress departed for the August recess, the two Houses had completed work on their own versions of the Interior spending bill, which funds the USDA-Forest Service's State and Private Forestry programs. The differences between the two versions will be worked out in a conference committee.

Most programs that provide assistance to private landowners were funded at continuing levels or with slight cuts. The most notable forestry assistance program, Stewardship Incentives, will not receive the huge increases that the administration had sought to accomplish the goals of "America the Beautiful" (e.g.—to plant one billion trees a year). Other forestry-related programs, such as the Forestry Incentives Program, will receive the same amount of money as last year.

Two programs that have an impact on private landowners were effectively shut down for the coming year, however. The Conservation Reserve Program, which pays landowners to take ecologically sensitive lands out of crop production and place them in conservation practices, was funded at a level that will not allow any new lands to be bid into the program. However, the USDA has been provided enough money to meet rental payment obligations on the lands already enrolled.

The Wetlands Reserve Program, which was implemented on a pilot basis in eight states this year (Alabama is not among them), was effectively eliminated by Congress. The program had recently begun accepting bids, and had received several hundred thousand acres more in bids than it had the resources to accept.

Next year will see the entire USDA operating on a reduced administrative budget and under continued pressure to reduce the size of its field operations. Indiana Senator **Richard Lugar** and certain members of the administration have led an effort to downsize the agency, which has offices in nearly every county in the nation. The effect of these reductions on the forestry programs conducted by the agency is unclear, although it is not expected to be severe.

It is safe to say that the remaining opportunities to reauthorize the Endangered Species Act and the Clean Water Act have slipped away for this session. The programs authorized by these critical environmental laws will likely be funded without a new authorization, and the new Congress will be faced with them early on.

Other Developments

On the administrative front, the U.S. Army Corps of Engineers and the Environmental Protection Agency have issued a proposed rule that gives their latest interpretation of what counts as destroying a wetland. The rule change was issued as part of a settlement in a lawsuit filed by the North Carolina Wildlife Federation, and is intended to close the loopholes around activities that effectively destroy wetlands without directly discharging dredge or fill material into them. Some in the forestry community have raised concerns that the rule could effectively repeal the exemption for normal silvicultural activities, although the agencies say that is not their intention.

The White House is reportedly working on a compromise wetland delineation manual that will be closer to the 1987 version than to the controversial 1991 version. Developers and agriculture interests are reported to be working within the administration to make sure their concerns are addressed. The Manual will be the first time the federal agencies principally involved with wetlands issues have agreed to a common definition of what constitutes a wetland. The 1989 Manual, which the 1991 was to have replaced, would have reportedly brought millions of wet southern pine flats under potential regulation. The 1991 Manual provoked a firestorm of criticism from environmentalists.

Another key development has taken place in the courts. The U.S. Supreme Court found in favor of North Carolina landowner Steven Lucas in his case against the state. The state had prevented Mr. Lucas from building houses on his two ocean front lots under a statute which had passed after he took title. The Court ordered the state to reconsider the case under the terms of laws that were on the books when Lucas took title to his property. Private property rights advocates are hailing the case as a major victory.

On a broader scale, the climate for private forestry in the coming year is an uncertain one. Even if every remaining incumbent is returned to his or her seat,

there will be more new members in Congress next year than at any time in the last century.

As for the executive branch, there is no certainty in predicting who will occupy that office next year. The course the next administration takes on forestry issues, be it a second Bush Administration or a Clinton Administration, is not clear either. Unless the economy picks up, renewed emphasis on forestry and environmental programs is not extremely likely.

ALABAMA

by FRANK SEGO, Legislative Liaison, Alabama Forestry Commission

February 2, 1993. Groundhog Day. Can it be that the Alabama legislators will take a cue from the old woodchuck and find the shadow of tax reform facing them again? It may not mean six weeks of bad weather, but it could mean at least six weeks of tumult in Montgomery.

By coincidence, that's the day the 1993 Regular Session of the legislature begins, and forecasters predict the return of a tax reform package. What form will it take? Well, back in July, **Governor Hunt** met with members of his 1992 Tax Reform Committee to feel their pulse for another round at doing something the '92 Legislature failed to do.

Legislators Talk Reform

A few days after the governor's meeting in Birmingham, Sen. **Crum Foshee** (D-Andalusia) brought a group of key legislators together at the Statehouse in Montgomery to consider ways to resurrect the aborted tax and education reform effort.

This legislative joint committee on tax structure then began a series of meetings to discuss a renewal of plans to generate tax reform, possibly at the beginning of the '93 session.

Sen. Foshee, who ironically was a vocal opponent of the '92 package, said his committee needed to analyze various reasons some of the measures didn't wash with the legislature. He also called on Superintendent of Education **Wayne Teague**, former Chief Justice **Bo Torbert** and others for their input.

As of this writing, no real evidence of a workable package has been developed. If there is to be a tax reform proposal, it is certain that some legislators are still wary of even giving the voters a chance to approve or disapprove such a package. They are reminded that it was their body which levied a 5 cent per gallon increase on gasoline and diesel fuel while the '92 tax reform measures were being debated. One lawmaker was quoted as saying, "That was enough to ask them (the voters) to swallow in the same session."

Meanwhile, the governor indicated that if a new committee is initiated through his office, it would undoubtedly have to include members of the legislative leadership. That was one of the chief complaints voiced by many legislators, who felt they were the ones who had to climb into the ring and slug it out with the opposition.

Tom Carruthers was the Birmingham attorney who chaired the governor's Task Force Committee in the last session. Never has this writer seen a man more dedicated to his assignment or more conscientious in wanting the package to succeed. It's a good bet that he will play a major role in any plan the governor may have for '93.

What began as a $550 million, 35-bill package designed to finance the state's Education Improvement Act of 1961 and provide a transfusion for the state's critical general fund was slashed to as low as $200 million at one point during the heated session of '92.

Special Session Requested

Some pressure was applied during the summer to persuade Governor Hunt to call a Special Session to find solutions to the state's staggering financial crisis. At one juncture, Dr. **David Bronner**, head of the Retirement Systems of Alabama, called upon the governor in a front page editorial of his organization's publication, "The Advisor" (August issue), to bring lawmakers back into session immediately. Bronner said, "Alabama deserves nothing less with its hideous financial problems. We can't afford to keep shuffling chairs on the Titanic," he added.

On the heels of Dr. Bronner's appeal for a Special Session came a plea from Alabama State Employees Association Executive Director **Jon Barganier** for the governor to act fast. With proration hitting the 7 percent level on October 1, Barganier also proposed un-earmarking funds in the state's general fund budget, an idea that would have an adverse effect on funds earmarked for Forestry Commission programs.

Package Must Be Changed

One thing is sure—Special Session or not. If a package is to be presented, it must assume different proportions. As one of the senators in the joint committee said, "Too much emphasis was placed on new taxes, and not enough on education reform." That did seem to trigger Senate resistance during the dying hours of the '92 session.

Rep. **Taylor Harper** (D-Grand Bay), chairman of the powerful House Ways and Means Committee, was quick to appraise the demise of the '92 package by saying, "We just ran out of time. Maybe we learned our lesson. If we can refine the approach, then maybe—just maybe—we can attract some of the opponents."

Can Forestry Benefit?

How will the Forestry Commission fare under another year of proration that threatens to cut deeper into resources to combat fires, forest insects and diseases? Only time will tell, but if the shadow of tax reform does reappear, as will the groundhog on February 2, 1993, there might be a package acceptable to the legislature and the voters, and it could very well include needed benefits for Alabama's forestry programs.

It's also possible that as you read this a Special Session may be in progress. If the governor does give in, then you can be sure he has had some assurance from Lt. Gov. **Jim Folsom**, House Speaker **Jimmy Clark** and other legislative leaders that there is a way out of the proration and tax reform dilemma.

Here's hoping!

Tell Us What You Think!

During the past 10 years, *Alabama's TREASURED Forests* has tried to provide you with a wide variety of information on all aspects of multiple-use forestry. We'd like to know how we're doing! Please take a few minutes to complete and return this survey. Your responses will help us plan future issues.

Alabama's TREASURED Forests

Are you a forest landowner? ☐ Yes ☐ No **Please indicate your sex:** ☐ Male ☐ Female

Are you familiar with the TREASURE Forest program? ☐ Yes ☐ No

What best describes your occupation?

☐ Student ☐ Farmer/Rancher ☐ Forest Industry ☐ Government Agency ☐ Teacher
☐ Homemaker ☐ Technical/Trade ☐ Military ☐ Secretarial/Clerical ☐ Professional
☐ Retired ☐ Other_____

Age: ☐ 25 or under ☐ 26-34 ☐ 35-49 ☐ 50-65 ☐ Over 65

Please tell us how much you enjoy these regular departments in the magazine:

	Always Read	Sometimes Read	Never Read
State Forester's Message	☐	☐	☐
Landowner Feature Story	☐	☐	☐
Editor's Understory	☐	☐	☐
Landowner's Legislative Alert—			
National	☐	☐	☐
Alabama	☐	☐	☐
Hidden TREASURES	☐	☐	☐
Calendar of Events	☐	☐	☐

How interested are you in the following subject matter?

	Very Interested	Somewhat Interested	Not Interested
Endangered Species	☐	☐	☐
Forest Insects and Diseases	☐	☐	☐
Forest Products/Forest Industries	☐	☐	☐
Forest Recreation (other than hunting)	☐	☐	☐
Game Species	☐	☐	☐
Non-game Species	☐	☐	☐
Hardwood Management	☐	☐	☐
Pine Management	☐	☐	☐
Hunting	☐	☐	☐
Reforestation	☐	☐	☐
Tax Information	☐	☐	☐
Urban Forestry	☐	☐	☐
Water Quality	☐	☐	☐
Wildlife Plantings	☐	☐	☐

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☐ Too Technical ☐ Not Technical Enough ☐ Just About Right

Is most of the information useful to you? ☐ Always ☐ Sometimes ☐ Never

What do you like best about *Alabama's TREASURED Forests*? _____

What do you like the least? _____

What, if anything, would you change about *Alabama's TREASURED Forests*? _____

_____

What topics would you like to read about in future issues? _____

_____

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Name: _____

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Return survey to: *Alabama's TREASURED Forests*, 513 Madison Ave., Montgomery, AL 36130-0601.

Nurturing Nature

by COLEEN VANSANT, Information Specialist, Alabama Forestry Commission, Birmingham

Nestled atop Easley Mountain, a little northwest of the city of Oneonta in Blount County, is the 21-acre paradise of Marvin and Barbara Whited.

Unlike many TREASURE Forest landowners who own hundreds or thousands of acres, the Whiteds hand nurture every inch of their farm. From corner marker to corner marker the couple knows what their land is doing at almost every moment. They are so in tune with their small TREASURE that a snake can't slither across a firelane without one of the two knowing it. When talking to them and listening to their enthusiasm you get the feeling that they know each small pine sapling and towering hardwood personally. Since the first seedling was planted four years ago, the rows and rows of loblolly pine have been referred to by the pair as "our babies."

Marvin and Barbara Whited

After being around Marvin for a time you soon realize that he and his small 21-acre tract of land have something very much in common. Although both of them are small in stature (Marvin stands a little over five feet tall), they are each living life to the fullest. He is nurturing the land with the commitment of his time and love and the mountaintop homestead is responding with vigorous beauty and splendor.

Managing primarily for timber with wildlife as a secondary objective, the Whiteds have dedicated their life to the prosperity of their farm. The couple became TREASURE Forest owners in 1990, and they sport certification number 800. They are also tree farmers, and at one time reigned as Blount County's Tree Farmer of the Year.

Approximately 9,000 pine seedlings, ranging in ages of 1 to 4 years, cover just over 14 acres of the tract. Large mature hardwoods have been left around the property to support the abundance of wildlife that either make the farm their home or just visit as they pass through on their way to another destination.

No chemicals are used in the control of weeds in the young plantation. Believe it or not, Marvin hand mows every inch of the farm on a year-to-year rotating basis. His weed whacker is a bright red walk-behind Troy Built tractor with a cycle-type blade mounted on the front. When asked why he goes to all of this hard work and trouble when chemicals can do the job for him, his answer is very simple. "I want to control it," he explains. "I've got the upper hand and I want to keep it."

Of all the pleasures their property provides, it's probably the wildlife from which they receive the most enjoyment. Coveys of quail, families of bluebirds and other numerous songbirds, and many other small animals thrive from their gentle care. Deer stroll through their front yard seeking out one of the delightful delectables the couple has provided for them. From the deer feeders filled with corn to the apple trees loaded with sweet fruit, to the patch of peas planted especially for them, the deer keep coming back as if to say thank you for the treat. "We sit on the porch and watch the deer," says Barbara. "We enjoy our wildlife very much out here." At times deer travel across the property in herds of as many as seven.

The couple laughs when they tell the story about their experience with the deer and their pea patch last summer. Two patches of peas were planted, one for the deer and one for the humans. Evidently the human patch tasted better because that is what the deer treated themselves to. Marvin chuckles when he explains, "I told my wife maybe we ought to go and pick theirs."

Trying to keep up with Marvin Whited as he walks over his property can best be compared with attempting to keep up with a toddler. He's everywhere at once, talking and pointing out different interests and projects. He's a five-foot, four-inch tall dynamo of turbo-charged energy. Even broken bones can't stop him from his mission. In April of 1991 he suffered a broken foot and this year he spent 18 weeks in a brace after falling from a ladder and breaking vertebrae in his back. He hobbled around on his foot that was never set, and before the back brace was off he was walking behind his Troy Built tractor keeping up with the weeds growing among his "babies."

Marvin and Barbara Whited of Easley Mountain are special folks. The dream they share together and the love, dedication, and understanding they show the miracle of mother nature that surrounds them makes this couple one of Alabama's most valued TREASURES.

Editor's note: The Whiteds were 1992 district finalists for the Helene Mosley Memorial TREASURE Forest Award.

Preserving The Forest Heritage

by MELANIE SHOCKLEY, Information Specialist, Alabama Forestry Commission, Bay Minette

Multiple-use, water quality, education, TREASURE Forest, biodiversity, wildlife management—these are not just buzz words for the James River Timber Corporation, they're action words!

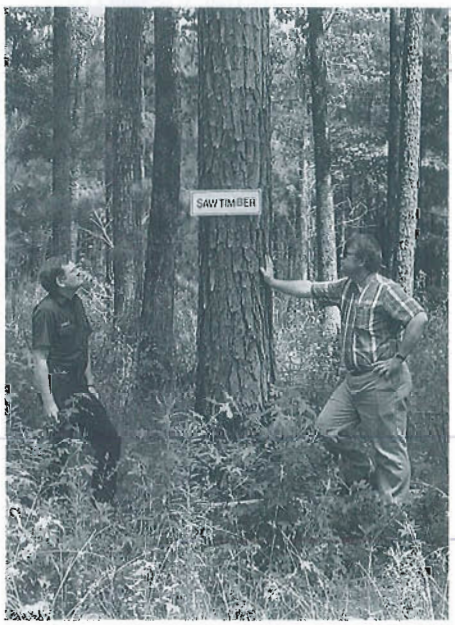
Certified as a TREASURE Forest in 1989, James River's property is a prime example of how timber production and the management of other natural resources can be accomplished simultaneously.

Timber production is their primary objective. With land in six southwest counties, stand composition and tract sizes are varied. Pure pine stands are the dominate forest type, along with some areas of pine and hardwood mixtures. A new avenue for James River is the development of hardwood plantations. They began this experiment by planting over 350 acres in sycamore trees. These seedlings have grown to over 16 feet tall in only two growing seasons and are projected to be 2 1/2 to 3 inches in diameter at the ground line. In addition, James River has 650 more acres in hardwood plantations.

Proper harvesting methods, adherence to their own BMP guidelines, and regeneration of cutovers are important to James River.

Since wildlife management is their secondary objective, it is considered in any pre-harvest decisions and integrated into harvesting operations. "Our harvesting practices really revolve around wildlife management," says Allen Bruce, timberlands manager. James River sees harvesting as the time to put diversity back into the land. "Checkerboard harvesting helps to break up stands and creates age class diversity; this helps the turkey and deer," Bruce explains. Prescribe burning and thinnings are also used to enhance wildlife habitat.

James River is unique because it uses an innovative machine to prepare sites for planting. A three-in-one bedding plow prepares the site by subsoiling, disking, and bedding all in one pass. "It has cut our site prep costs by two-thirds," explains Dr. Bill McKee, timberlands resource manager. After the site is prepared, seedlings are hand planted in the beds; the seedlings are then checked for survival the following fall.



Trees along the Conservation Forest tour are tagged to indicate their best uses. Pictured are Larry Grable of the Forestry Commission (left) and Dr. Bill McKee of James River.

The company attributes some of its success in wildlife management to the hunting clubs who lease some of its land. "Our hunting clubs work with us; we are currently working together to establish three-acre food plots. The primary cover for these are wheat/clover combinations but we are also trying new food plantings. We're experimenting with corn and two different types of wildlife food plantings, a joint vetch and a southeast wildlife mix," Dr. McKee explains.

According to Dr. McKee, James River has its own set of BMP guidelines that are used with contractors to ensure all harvesting is done properly and that water quality is protected. "We have a BMP plan with our contractors; we get with them before cutting." The contractors are given cards that cover each area of concern under BMPs. These cards outline certain procedures to follow in particularly sensitive areas.

James River's extensive road system is not only used for transportation but also as corridors for wildlife. The roads are back-sloped and are planted with crimson clover. A 15- to 30-foot wide shoulder is left on both sides of the roads allowing the sun to penetrate the ground so that the roads dry quicker after rains. A second benefit is for wildlife. "The shoulders of the roads create a field-like effect that provides insects for young turkeys," says Dr. McKee.

James River recognizes that just doing the right thing is not all there is to forestry today. You've got to work with the public and show and explain why some things are done. They are accomplishing this through their new Conservation Forest located in Bellamy. This area is set aside to preserve their forest heritage and to promote good forest and wildlife management practices. The area is named after Evan F. Allison, a pioneer of forest conservation in Alabama. The tour of Evan F. Allison Conservation Forest is self guided, with stops along the way explaining forest ecology and timber-wildlife management.

"This is where you can come and see differences, see why we do the things we do in forestry. We have a lot of people who come here—schools and local people," says Dr. McKee.

The first stop along the tour is a forest succession area. "This is where we are going to let nature take its course. Here we are trying to show how the natural forest develops and changes over time."

Another stop along the tour shows how trees are selected based on the highest value wood product. Trees are tagged to indicate their best uses (POLE, PILING, SAWTIMBER, CHIP-N-SAW, PULPWOOD).

A focal point along the tour is TREASURE Forest and Tree Farm. "Here we talk about the two programs and explain the multiple use concept," says McKee.

In the wildlife management area a comparison is made between a pine stand that is thinned and prescribe burned and a pine stand that has not received either application. This area in particular highlights how forestry operations in pine stands are beneficial to wildlife.

The reforestation area demonstrates the various alternatives in regeneration. Both correct and incorrect practices of cut and leave, seed tree and artificial regeneration are demonstrated in this area. Forest management techniques such as herbaceous weed control, hardwood control and fertilizer are also illustrated here.

The demonstration forest is a forestry showplace. Visitors can see for themselves how forest owners, like artists who use brushes to create a masterpiece on canvas, use forest management techniques to improve and enhance nature.

James River is looking to the future with experiments and research in the areas of site preparation, hardwood regeneration and seed orchards. "We're looking at mechanical site preparation, chemical and a combination of both," says Dr. McKee. "We have two seed orchards and we're also working on some experiments with irrigating and fertilizing sweetgum, sycamore and cottonwood plantations. We're working with Dr. Mike Golden at Auburn University on some cherrybark oak regeneration experiments," explains Dr. McKee.

Stewardship is the name of the game for James River. Preserving their forest heritage, working today to tell the forestry story and experimenting for the future—all through multiple-use forestry practices.

CHOCTAW COUNTY
1992 FORESTRY CAPITAL OF ALABAMA

by REGINA MILLER

As you enter Choctaw County on any major highway, you are greeted by a special message: "WELCOME TO CHOCTAW COUNTY, 1992 FORESTRY CAPITAL OF ALABAMA." These signs are a product of Choctaw County's celebration as the Forestry Capital of Alabama.

Choctaw County, located in southwest Alabama, was chosen as this year's Forestry Capital of Alabama by the Alabama Forest Resources Center with good reason. Ninety percent of the county's total land base is forested, the forest products industry is the number one employer in the county and, better yet, the people are very proud of their forest heritage and take great care in managing this valuable resource.

What makes this year's recognition so special is the spirit of the people of Choctaw County who have come together to work for the betterment of their county—not only in developing projects for this year, but ones which will continue for many years.

Throughout the year, many activities and events have been created or earmarked to observe Choctaw County's title as Forestry Capital. Evelyn Beaty Evans, Choctaw County Forestry Queen, was chosen earlier this year to reign over the Forestry Capital festivities.

Many people have worked tirelessly to undertake some very big projects. Among these people are co-chairpersons Tommy Campbell, Virginia Graham and Dan Curtis.

The largest event, and one you shouldn't miss, is the Forestry Capital Expo planned for Saturday, October 17th on the grounds adjacent to Ezell's Fish Camp (yes, this the original Ezell's!). The fish camp is located on Highway 10 just west of the "Nanafalia" Tombigbee River Bridge. The day-long festivities begin at 9 a.m. and promise to provide fun for everyone! Lumberjack contests will feature the original and m-tooth two-man crosscut saw speedcuts, bow saw speedcut, axe throw, pole felling, stock chainsaw (speed cut, match cut and disc stacking), "hot" saw speed cut, and much more. Up to $2,000 in prizes will be awarded.

A unique contest that Probate Judge Charles Ford has planned is the Ugly Truck and Ugly Dog Contest! Maybe I should explain . . . this is **one** contest where participants must have what they consider to be an ugly truck *and* an ugly dog to go along with it. This will certainly be a memorable event and an exceptional title for the winner!

While at the Expo, you will be entertained by local performers and see various exhibits. Arts and crafts booths will draw your interest, as well as actual craft demonstrations, a fire-fighting helicopter and worm fiddling!?

You can count on some fun activities for the kids, including the moon walk, greasy pole climb and face painting. Woodsy Owl and Smokey Bear will make an appearance, and there will be plenty of clowns on hand to keep everyone laughing. Chairperson Ruth Cook and her committee have planned an exciting day—one you shouldn't miss!

Other Forestry Capital activities this fall include the Bladon Springs State Park Fall Festival, the Forestry Queen of Alabama Pageant, *The Choctaw Advocate*'s forestry tabloid, a historic photo display at the Choctaw County Historical Museum, and clean-up, environmental and fire safety programs. The people of Choctaw County are proud of their heritage, their way of life, and are determined to make Choctaw County an even better place to live and work. Congratulations, Choctaw Countians, for your dedication and commitment to your county as the 1992 Forestry Capital of Alabama!

A Place for People

by JOHN TYSON and SKIP TURNER, Alabama Forestry Commission, Dadeville

The TREASURE Forest that belongs to Sonny Roberts in Tallapoosa County has been used by many people over the centuries. The first people known to have used the site were the Indians, who inhabited a small settlement on the Tallapoosa River. They left their fireplaces and other artifacts that are still found on the tract today.

The next group of people to claim the site were white farmers who cleared much of the forest. There are two small cemeteries on the place. The dates on the tombstones show that white men had settled here well before the Civil War.

The 1,300 acres that now belongs to Sonny Roberts once supported a number of families; old chimneys dot the forest. A grist mill and a ferry once operated on the tract.

In time, the small upland farms were abandoned and the forest reclaimed the land. The old roads grew up, the old houses rotted away or burned, and it would now be easy for an inexperienced observer to believe that the land is largely untouched by man.

The land was bought by the Roberts family during the 1940s and Sonny Roberts, of Columbus, Georgia, now manages it to produce commercial timber, wildlife, and recreation for his family and friends. It is a textbook example of a well-managed and productive piece of forestland.

One of the most impressive features of the forest is the roughly two miles of shore line along the Tallapoosa River. The river is still free-flowing in this area and has stretches of white water and deep holes where the fishing is good. Sonny has several food plots on his forest and is in the process of seeding the firebreaks—secondary roads—to prevent erosion and to provide additional areas of wildlife food.

Pine plantation and firebreak/access road that has been sown with a wildlife food crop.

Sonny says that he sees many more deer on the tract now than he did before he established the food plots. He doesn't hunt, but his friends harvest 15 or 20 deer here each year. Most of the tract consists of upland pine sites; however, there are areas of hardwood that are very productive wildlife habitat areas.

Mr. Roberts' timber management policy is aimed toward the production of sawtimber. Pulpwood is also taken out as a secondary product. He has planted several hundred acres of pines, but prefers to use natural regeneration when it is practical. He usually uses a seed tree cutting system in the natural regeneration areas. Sonny leaves a filter strip up to 100 yards wide when he harvests timber along the river.

Mr. Roberts, his family, and his friends spend quite a bit of time camping on the land. It is a great place to set up a tent and just enjoy the quiet of the forest for a few days. The kind of feeling that you get when you sit by a fire and listen to the whippoorwills is something that everybody who has done it understands.

What more can be said about this place? It has provided adequately for many people for a long time. It was a productive place in the stone age, when the Indians were there, and it is a productive place now in the space age, as a TREASURE Forest.

The forests and land of Alabama are exceptionally versatile and productive. And if we give our forests a little help they will still be productive centuries from now.

The Best of Both Worlds

by TILDA MIMS, Information Specialist, Alabama Forestry Commission, Tuscaloosa

In Dallas, Texas, over one million people get ready to go to work each day. Multi-lane highways hum with traffic as thousands of businesses gear up for a day's production.

Ten hours away, in Alabama's rural Sumter County, a hidden tree frog is the loudest sound one can hear. The busiest workers around are hummingbirds competing for a berth on the back porch of Bob and Elsie Monette's country retreat.

The Monettes have lived and worked in Dallas for many years and, truthfully, enjoy the numerous pleasures that only city life can bring. But every six weeks or so they make the day's drive to their 320-acre TREASURE Forest outside Gainesville for several weeks of life at a slower pace.

The idyllic setting belies the years of work that created this TREASURE Forest. The tract was a wedding gift to Bob's great-grandmother. Through the years it was farmed by the Monettes and sharecropped by several families.

Bob's father had logged a little and planted a few pines there when he gave the land to his son in 1953. Although Bob and Elsie's family and friends enjoyed the serenity and recreation the land offered, no actual forest management began until 1982.

Since then, many acres have been cleared and planted, and soybean fields have been converted under the CRP program. An upcoming timber harvest will allow additional pine planting and will open up hardwood areas for natural regeneration.

Timber is the primary objective of this TREASURE Forest and wildlife is secondary. After an early summer stroll to see wildflowers, bird houses and feeders, and turtles sunning by the lake, it is easy to see that either objective could easily be changed to aesthetics.

Elsie and Bob Monette

Their "country home" is a comfortable cypress structure with Mexican tile floors. The walls are dotted with photographs of four generations of Monettes that have called this land home. Bob and Elsie work long hours to surround their home with roses, gardenias, azaleas, kiwi vines, dogwoods, fruit trees and flowering hanging plants.

Martin houses, bluebird houses, trays of bird seed and hummingbird feeders attract an amazing array of woodpeckers, flying squirrels, song birds and deer, as well as a special raccoon that eats from Bob's hand.

A 12-acre lake is the focal point of the view from the back porch. Host to turtles, water birds and many game fish, the lake has been a delight to this family for many years.

In a few weeks the Monettes will make the day's drive back to Dallas where they will chat over the fence with neighbors and enjoy shopping and entertainment downtown. Then some morning while one million people head to work, Bob and Elsie Monette will make the drive back to Alabama where a totally different life awaits them.

The saying, "the best of both worlds" may be over used, but for the Monette's TREASURE Forest, nothing could be more accurate.

Alabama TREASURE Forest LANDOWNERS ASSOCIATION

by DAN JAMES, TREASURE Forest Landowner, Brent, Alabama

Well folks, you can rest assured that there is some good news to be found in Alabama! Despite a long list of national polls that invariably place Alabama at the very bottom, the Alabama TREASURE Forest landowner does not fit in that bottom category at all. In fact, TREASURE Forest landowners are an elite group of people who wisely manage their forestlands for all the multiple forest resources.

The success of the TREASURE Forest program, which also led to a national program being modeled after it, is a direct result of Alabama's outstanding TREASURE Forest landowners. We as landowners have formed a statewide association called the Alabama TREASURE Forest Landowners Association. The Association's purpose is to promote and educate others of our stewardship philosophies. In turn, we will be increasing the number of acres in Alabama managed according to the TREASURE Forest philosophy.

We are convinced that credit should be given wherever credit is due. The concept of TREASURE Forest is the "brainchild" of State Forester Bill Moody. Thanks to his good character and his long-range vision, this concept is serving each of us very well. His foresight has enabled him to see a time in the future when leadership at the Commission level might possibly not share the same values and relationships with the private timberland sector that today's TREASURE Forest landowners embrace and enjoy. At that point he set about to ensure that the stewardship philosophies that we value so much are perpetuated by placing the "ball carrying" responsibilities into the hands of Alabama's private non-industrial landowners—the Alabama TREASURE Forest Landowners Association.

The charter members, or Board of Directors, of this non-profit organization were drawn primarily from the membership of the TREASURE Forest Advisory Board to the state forester. The Board of Directors continue to fill this advisory capacity today. The Board of Directors consists of one representative from 10 Forestry Commission districts across the state. In addition, five at-large members serve on the Board. All are committed to the Association's philosophies and serve by virtue of being a TREASURE Forest landowner. Board members serve three-year terms on a staggered basis and the officers serve one-year terms. Current officers are: President—Edward McCullers; Vice-President—Gerald L. McLeod; Secretary—Sharon A. Clark; Treasurer—Dorothy R. Reynolds.

The Association is a member of the Alabama Forestry Planning Committee (AFPC). The current president represents the Association at all AFPC meetings. In addition, Association members also serve on the Education, Productivity and Services Subcommittees of the AFPC. This participation gives TREASURE Forest landowners a voice in the planning and development of the TREASURE Forest program, the National Stewardship Program and the Stewardship Incentives Program.

The Board of Directors meets quarterly at different locations across the state. The fall meeting is held just prior to the Annual Alabama Landowner and TREASURE Forest Conference. Other county and district chapters, which are currently formed or are being formed, meet at locally scheduled times.

Funding for the Association is secured in part through a grant from the National Stewardship Program. Remaining funding comes from the $5 per year membership dues. Funds are expended to promote stewardship and good forestry practices. The expenditure of these funds must have prior approval by the Board of Directors with each member being accountable to the Board for expenses incurred.

Presently, certified TREASURE Forest landowners may be Association members. TREASURE Forest creed signers, TREASURE Forest commitment form signers or forest resource associates may be associate members at the discretion of the Board.

Among the Association membership there is a special kind of fellowship and sharing of ideas and experiences that enhance an already solid relationship in stewardship. Members have willingly spent many hours in business, committee and casual meetings because of their commitment to promoting the ideals of TREASURE Forest.

A recent poll of Association members revealed the following expressions of what they thought the Association represented.

- A forum by which private non-industrial landowners are provided a chance to speak with one voice on issues which directly affect our natural resource of forestry.
- The enjoyment of being with like-minded people who have been recognized as good stewards of their multiple use forestlands.
- The hope and aspirations of being able to continue to manage their woodlands free of the worry that their private rights might be limited by outsiders who do not know and love our forestlands as we do.
- Ever encouraging and being encouraged to make our TREASURE Forest a better place not only for ourselves but also for the generations which will follow us.
- To mentor others to be sincere, sensitive, diligent, and responsible toward that which God has entrusted to us.

For more information, write the Alabama TREASURE Forest Landowners Association, 513 Madison Avenue, Montgomery, AL 36130-0601. Our organization is growing and spreading like a tree in spring. Please join us.

Logging Changes With the Times

by BILL JONES, Alabama Forestry Association, Dr. BOB LANFORD, Auburn University School of Forestry, and SAMMY WOODFIN, Tennessee Valley Authority

Highly maneuverable, three-wheeled directional felling machines have been upgraded to harvesters.

If you are not directly in the timber harvesting business or do not sell timber on a regular basis, you may not be aware of the continuing trend toward mechanized logging in Alabama. In this article we will look at how changes in the business of forestry have prompted moves toward mechanization, some of the newly introduced technologies, and the implications of mechanization to forestland management on private, non-industrial lands.

Changes in the Business Climate

Times have changed from 30 years ago, when the short pulpwood truck delivered a large portion of the wood used in the forest products industry. Mainstream timber production has shifted from the delivery of short pulpwood to rail woodyards to a very integrated network of mechanized logging and trucking today. What has caused this change? Many of the shortwood operations in Alabama have become a part of the past because of the increased demand for wood, changes in labor considerations, and government regulations.

First, consider the tremendous growth of our forest industry and the development of Alabama's world class forest resource. There is no denying that there has been an accelerated demand for Alabama wood, which has placed increased demand on the landowner and work force to produce it for expanding markets. This demand has developed into opportunity for many timber harvesters, but not without concern for controlling production costs. Much of the development toward mechanized logging has been the result of trying to increase production, improve efficiency and beat the competition.

Labor costs and availability have also been motivating factors in streamlining harvesting operations to improve efficiency. Salaries, insurance, worker's compensation and other employee benefits all add up to a significant portion of wood production costs. Increases in the cost of worker's comp coverage have accelerated at such a rate in Alabama that it has placed a heavy burden on some logging operations to remain profitable. Improvement in logging safety remains the most practical way to limit the costs of accident insurers for timber workers. However, improving worker safety will require safety training and use of proper safety equipment; both will add to the cost of wood production.

As Alabama's population continues to urbanize, fewer individuals are willing to work long days in wide-ranging climatic conditions, with insect pests, and under constant stress to produce at the lowest possible cost. The survivors are tougher and more professional than ever.

Cut-to-length harvesters use state-of-the-art electronics and hydraulics.

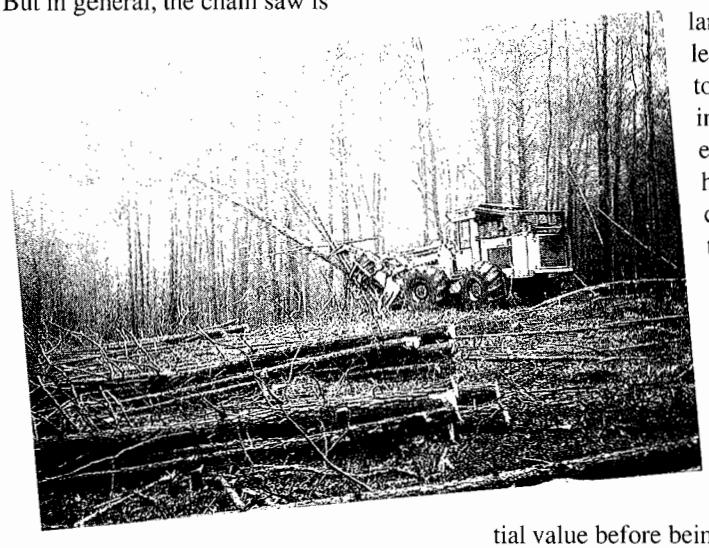
Gene Carter of Maplesville is a good example of a wood supplier who started out with a shortwood truck in 1964 and graduated through the ranks of the logging profession. Gene was recently awarded "Logger of the Year" by the Alabama Forestry Association for his professionalism, business skills, safety record and conservation ethic.

Production costs specific to transportation, government regulations, fuel and taxes have all directly impacted the profitability of forest harvesting operations in recent years. Gene is one of many loggers who have constantly made changes to remain competitive in the logging force. The challenge remains for Gene and other logging professionals to meet the standards of the Occupational Safety and Health Administration, the Department of Transportation, the Environmental Protection Agency, and the Department of Labor and still make a profit.

Timber Harvesting Technology in the South

Logging equipment and technology are continually evolving. Manual logging using horses, mules, crosscut saws and axes has been replaced by mechanized timber harvesting methods.

Chain saws are still used for felling and processing in some of the more difficult terrain, particularly the steeper ground. But in general, the chain saw is being replaced by "feller-bunchers" which drive to the tree, cut it from the stump, and carry it to a bunching location. Excavator-style feller-bunchers offer high flotation tracks for soft soils or extra traction for steep terrain. The concept of carrying trees vertically has allowed trees to be bunched in efficient, properly sized packages for transport to a log loading site.



Feller-bunchers increase wood production in an efficient manner.

Maplesville's Gene Carter is a good example of today's professional timber harvester.

In-woods transport of full length trees is commonly performed today with grapple skidders. Pine trees and some hardwoods are delimbed by backing them through a latticework of pipes called a gate. Most limbs are broken off and require only minimal trimming with a chain saw. Most crews have a chain saw operator stationed at the truck loading area to clean off any limbs missed during gating and to cut trees to merchantable lengths. Trees are loaded onto log trucks with a hydraulic, knuckle-boom loader.

Another timber harvesting system which is gaining popularity is called "cut-to-length." The latest cut-to-length systems incorporate modern electronics and hydraulics. The name comes from the fact that trees are processed (delimbed and cut to merchantable lengths) in the stump area. Saleable products are merchandised in the woods for their highest potential value before being transported to the roadside loading area. Trees with plywood quality logs are separated from sawlogs and pulpwood. Cut-to-length minimizes rehauling of products by delivering only that which is needed for a particular mill.

In a one-step approach, a single cut-to-length machine called a "harvester" fells and processes trees. Harvested trees are measured by electronic scanning equipment with lengths and diameters fed into an on-board computer. The computer has minimum log specifications for different products stored in memory. The operator selects the log length and type which he thinks can be made. Then the computer checks the operator's selection as it processes the tree.

As the harvester drives through the woods it creates piles of conveniently located and processed logs. Piles of logs are picked up by a loader mounted onto an in-woods transport vehicle called a "forwarder" (or prehauler). The processed logs are placed in racks on 6- or 8-wheel drive machines and carried out of the woods to be reloaded onto log truck trailers on the sides of main roads or highways. Forwarders can carry from 2 to 5 cords (5 to 12 tons) of wood at a time. The larger the log piles left by the harvester machines, the more productive the forwarder is.

Tree-length systems have served loggers well for many years; so why should they be interested in cut-to-length systems? There is good reason to believe that forwarder systems are less hindered by adverse weather and can work more days per year. With their larger payloads, forwarders transport wood more efficiently over longer distances than skidders. Operating costs of fuel, lubrication, and repairs are generally lower for cut-to-length systems than for tree-length systems. Combined initial costs for all machines in both systems are not much different, but the cut-to-length system has fewer pieces of equipment. The cut-to-length machines have a longer life expectancy, thus spreading the higher initial costs over more wood. Another potential opportunity is that some cut-to-length systems have been designed to work at night; again, this spreads higher initial costs over more volume.

Cut-to-length systems are also capable of a less adverse impact to soil and water than with tree-length skidding systems. Forwarders do not need a pushout road network. Most tracts in the South can be logged to a single landing located close to an all-weather road. Forwarders drive over existing woods roads or through the timber stands. Much travel can be done over a matt of limbs and tops created during tree

processing, which supports the weight of the forwarder and gets slash on the ground for better decomposition. Since the wood is carried rather than dragged, there is less disturbance to the ground litter; less bare soil means less potential for erosion. A forwarder's weight is better distributed over its wheels, so there is considerably less rutting and soil compaction than by skidders.

Forwarders can be used to cross streams with less adverse impact on water quality than by either skidding across or driving trucks across logging debris covered with dirt. Forwarders cross small streams by placing merchantable logs in the stream and driving across. Once the area accessed by the crossing has been harvested, logs are removed from the crossing with the forwarder's loader. Crossings can be installed or removed in a matter of minutes, giving maximum flexibility and control during rainy periods.

Cut-to-length systems probably will not run tree-length systems out of the woods in the near future, but as landowners and the public demand alternative logging approaches, innovative loggers will answer this need with cut-to-length systems.

Forwarders have much potential to minimize some environmental concerns.

Implication of Logging Changes to Private Landowners

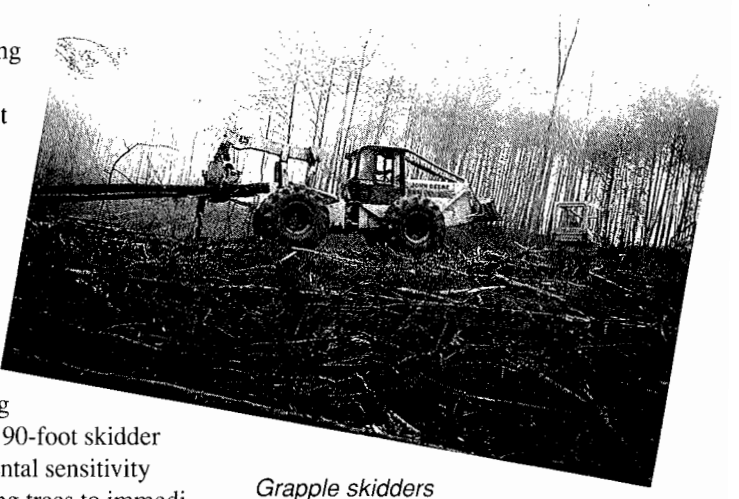
Equipment innovations are expanding the capabilities of woodland workers. But, how do these changes affect forest management for private landowners?

New industrial processes and complex logging machinery offer the capability to utilize more of the forest resource than ever before. Highly productive felling and forwarding machines can economically harvest small trees that have become too expensive to harvest manually with chain saws and cable skidders. Cut-to-length harvesting systems can extract higher value chip-n-saw/stud logs from what was once only pulpwood. They produce higher value products, which in turn can provide the private landowner with additional stumpage revenue.

Partial cuts are being requested by many landowners who want alternatives to clearcutting. While partial cuts can be done by tree-length systems, it is much easier to carry a 30-foot forwarder load through a stand without scarring trees than dragging a 90-foot skidder load. This environmental sensitivity allows those remaining trees to immediately concentrate on growth instead of healing and survival. Higher quality thinning operations can return more income to the landowner at the time of harvest, and also increase yields and income for future harvests.

Environmental awareness is causing many changes in harvesting methods and equipment. Landowners must accept that environmental compliance comes with a price — a price that the landowner must share. Building better roads with appropriate drainage, leaving some timber standing along stream banks, and seeding skid trails and landings are all investments in future forest health. Tracked machines, skidders with wide tires, and forwarders offer improvements in environmental protection. All of these features can result in less soil disturbance and compaction, which reduces soil erosion and site productivity losses. These machines can access sensitive sites such as steep slopes and soft soils with minor adverse impacts. However, if not managed wisely, significant impacts can result on extremely sensitive sites that were once inaccessible with conventional skidders.

Again, forwarding operations require fewer roads. Reducing road construction reduces the major contributor to soil erosion and water quality problems from forestry operations. Forwarders also enable the use of fewer landings with little or no slash buildup. This may be particularly appealing for aesthetics, but perhaps more important, future site productivity can be enhanced and soil erosion reduced by slash left to decay throughout the stand.



Grapple skidders have overcome difficult terrain and today's small tree size.

Competition among local logging companies will always encourage and favor quality operations. However, the economic requirement for productivity can in some cases result in quality sacrifices. Small tracts of timber or stands hard to access may be difficult to sell or at least may bring less than premium stumpage. Complete utilization of all timber on the stand may be interrupted when harvesting efficiencies become economically unacceptable.

Today's most modern logging operations, with increased training and high-tech equipment, are high-performance operations with capabilities far surpassing past methods. Greater volumes of wood can be harvested in shorter time periods at higher quality levels with less environmental impacts. However, similar to a high-performance race car, today's logging operations can deliver pleasing results when managed properly, but are less forgiving when mistakes are made. For this reason, it is more important than ever for private landowners to consult with professional foresters before initiating harvesting operations. Landowners need to be aware of all the harvesting options that may be available to them, as well as the liability to meet environmental regulations that they share with loggers and foresters.

Salamander (sal' ə man' dər) n. Any of various small, lizardlike amphibians of the order Caudata, having porous, scaleless skin and four legs that are either weak or rudimentary.

THE SANDY-MOUNDER

In south Alabama, a turtle is a gopher, and a furry rodent is a salamander.

by MARK A. BAILEY, Zoologist, Alabama Natural Heritage Program

The dictionary definition is good enough for the 30 or so Alabama creatures to which it applies, but there's *another* salamander, one the dictionaries have overlooked: "The Salamander is a large mole about half the size of a rat. It penetrates the earth in every direction, especially the pine barrens, which it throws up in the form of anthills."—John Williams, *A View of West Florida*, 1827.

BARRY MANSELL

Pocket gophers are rarely seen above ground.

Nearly a century after Williams, Alabama geographer and botanist Roland Harper also described this mysterious animal, but with flawless accuracy: "At many places in the longleaf pine forests on the more sandy uplands, east of the Tombigbee River, one can see at any time of the year, but especially in early spring after the burning of the grass, small mounds of sand averaging a foot or two in diameter and a few inches high. These are made by the "salamander," a rodent, *Geomys Tuza Mobiliensis*, which travels underground, feeding on roots, and gets rid of the sand excavated from its tunnels by pushing it out from below without leaving an opening. In areas where it is abundant it keeps the soil pretty well stirred up and must counteract the leaching effect of the summer rain to a considerable extent. It ranges eastward with some variations to the Savannah River, but has never managed to cross the Tombigbee. It is rare in the red hills and unknown in the black belt, but reappears on the pine hills in the central part of the state. Open burrows with mounds of sand of about the same size at their mouths are made in the same general region by a turtle known as the gopher, *Testudo* or *Gopherus Polyphemus*, but that is much less abundant in Alabama."—*Resources of Southern Alabama,* 1920.

This furry, burrowing rodent is known today by biologists as the southeastern pocket gopher, but most Alabamians familiar with it still call it "salamander." Although several species of pocket gopher in the western United States are called "gopher" by local residents, the gopher tortoise holds that title in the South, so the early settlers of Alabama, Florida, and Georgia came up with a different name to describe the burrowing mammal in their fields. As it turns out, "salamander" may not be such an illogical name for the pocket gopher. No one knows, but according to one theory, it was originally called *sandy-mounder*, in reference to the creatures' habit of depositing mounds of sandy soil above its underground tunnels.

Like the pocket gopher, the gopher tortoise also deposits a mound of sand at the surface of its burrow. But the tortoise's tunnel is open, and it makes only one mound of sand, compared to the pocket gopher's several scattered mounds with no visible openings. Dig into a pocket gopher mound and you'll just find more sand, since the foot-long animals usually pack the small tunnels under their mounds with sand all the way back to the main tunnel to prevent predators from entering. The Florida pine snake will take other prey, but young pocket gophers are its specialty.

Although pocket gophers may occasionally venture out of their burrows after dark to forage for vegetation, they prefer

to spend their time below ground, where they feed on roots and tubers. Each adult pocket gopher lives alone in its own tunnel, from which it excavates smaller side tunnels and pushes up several mounds of soil, giving the impression that more pocket gophers are in an area than are actually present. Males dig longer and straighter tunnels than females, so they can intersect the burrow systems of several prospective mates.

With tiny eyes and ears, and strong digging claws on stout forelimbs, pocket gophers are well adapted to life underground. Although they may resemble moles in some aspects of appearance and lifestyle, pocket gophers are no more closely related to moles than to bats. Being rodents, they are closer kin to squirrels, beavers, and porcupines. The "pockets" for which they are named are fur-lined cheek pouches used for transporting food.

Pocket gophers may be a much more important part of our natural heritage than we have realized. In the sandy soils in which they live, nutrients rapidly leach from the surface by rainwater percolating downward. The "sandy-mounding" habits of pocket gophers help maintain soil fertility by returning some of these leached nutrients back to where they can be reached by plant roots. One study found that, under optimal conditions, pocket gophers can return more than three and a half *tons* of soil per acre to the surface each year. The mounds of bare soil provide natural seedbeds where longleaf pines and herbaceous plants can germinate. The pocket gopher's burrows provide shelter to a diverse assemblage of other animals, as do those of the gopher tortoise. For example, at least fourteen arthropods (mostly insects) are believed to be unable to exist *anywhere* but in the burrows of southeastern pocket gophers.

BARRY MANSELL

The pocket gopher's eyes and ears are small, and its strong claws enable it to dig and find food with ease.

MARK BAILEY

Pocket gopher mounds resemble anthills.

Unlike related western species, our southeastern pocket gophers are not generally crop pests. They typically live in poor sandy or gravelly soils, and although they will move into pastures and fallow fields, they generally abandon an area as soon as cultivation or site preparation begins. Unfortunately, changing land use patterns have resulted in the disappearance of pocket gophers over much of their former range in Alabama. Roland Harper considered them much more abundant than gopher tortoises in Alabama 72 years ago, but both species are scarce now, and the tortoises may even be faring better than the pocket gophers. The little burrowers are now gone from what was once the northernmost part of the species' entire range. Decades ago, a group of pocket gophers lived in sparse longleaf pine and oak woods on a gravelly ridge near old Warrior River Lock 14 in Tuscaloosa County. They apparently died out due to habitat alteration, and although intensive surveys have not yet been conducted, all of the pocket gophers that once lived in Tuscaloosa and Bibb counties are thought to be gone.

We still don't know enough about the current distribution and status of the remaining populations of pocket gophers in Alabama, but the documented decline of the species has warranted its classification as a Species of Special Concern, and it receives formal protection by a Game and Fish regulation. Their burrowing lifestyle hampers their ability to disperse overland, and fragmentation of their habitat by hard-packed roadbeds may be a barrier to animals that would ordinarily colonize otherwise suitable areas. This, combined with a low reproductive rate, makes the pocket gopher prone to extinction in today's man-dominated landscape. The southeastern pocket gopher is the only subspecies of *Geomys pinetis* in Alabama, but three Georgia subspecies are believed to have become extinct in recent times. With the increasing rate of loss of natural areas, responsible stewardship and management of remaining occupied habitat on both public and private lands will be required if our children and grandchildren will have the opportunity to wonder at those curious piles of sand and learn of the fascinating sandy-mounder.

Firelanes Have Multiple Uses

by MADELINE HILDRETH, Alabama Forestry Commission, Brewton

A 12- to 15-foot path is pushed with the straight blade of a tractor.

Many TREASURE Forest landowners have discovered a management tool that has many uses—permanent firelanes. These wide firebreaks can protect and enhance a TREASURE Forest. While conventional firebreaks afford only temporary wildfire protection, permanent firebreaks offer long-term protection as well as other benefits. Permanent firelanes differ from temporary firebreaks; they are wider, longer lasting and more functional. Permanent firelanes also provide much more protection during wildfires and prescribed burns. Conventional firebreaks are only two to three feet wide, while permanent firelanes are 10 to 15 feet wide. Because of their width, spotovers from fires are much less likely to occur where permanent firelanes are present.

As the name implies, permanent firelanes are long lasting, unlike narrow firebreaks which last only a short time. Leaves and other debris soon fall into temporary firebreaks, making their effectiveness short lived. Periodic maintenance of permanent firelanes assures many years of usefulness.

Although fire protection is their main function, permanent firelanes have other uses. These wide lanes, when properly planted and maintained, serve as sources of food for wildlife.

Permanent firelanes also provide excellent access to the entire property, because their width allows them to be used as roads. Property access is essential; however, depending on the location of the property, firelanes may make illegal entry easier. It may be necessary to erect gates in some areas to prevent unauthorized access.

Construction

Proper construction of permanent firelanes is crucial. A tractor (JD450 or larger) equipped with a straight blade is used to clear a 12- to 15-foot path around the perimeter of the property. Depending on the size of the property, internal firelanes may also be needed. Since the firelane is cleared to mineral soil, trees and other vegetation must be removed or pushed aside.

It is important that the firelanes be built along the contour whenever possible. If this is not feasible, water bars and turnouts should be constructed on slopes to prevent erosion. The distance between water bars depends on the amount of slope; the greater the slope, the more water bars needed (see box). Turnouts and water bars should be built 12 to 18 inches high and at a 30 degree angle down slope to allow water to be diverted to forested areas.

The firelane is constructed around the entire boundary of the property as much as possible. Occasionally natural barriers will prevent a continuous lane. These barriers, such as creeks and bottoms, serve as natural firebreaks. In this case, the firelane is simply built to the barrier.

If wildlife plantings are a factor, the lanes can be widened at intervals. These wider areas can actually serve as small food plots.

Distance between water bars/turnouts is based on slope.

Slope	Distance
2%	250 feet
5%	135 feet
10%	80 feet
15%	60 feet
20%	45 feet
30%	35 feet
40%	30 feet

Planting

Once a lane has been built, it is disced with a farm tractor, fertilized, limed and seeded. There are many choices for cover grasses. Soil type, cost and location are some of the factors to consider when choosing a cover. Erosion control, fire control, wildlife and aesthetics should all be considered when deciding on a vegetative cover. Fescue, clovers, bermuda and bahiagrass are only a few cover selections. The Soil Conservation Service and a wildlife biologist can provide valuable information concerning the most appropriate cover.

A mixture of Pensacola bahiagrass and ryegrass is a good general cover. This mixture provides year round cover, which is necessary to prevent erosion. Early fall planting allows the Pensacola bahia to become established by the time the rye-

grass dies in the spring.

The Soil Conservation Service recommends planting 40 pounds per acre of Pensacola bahiagrass and 30 pounds per acre of ryegrass. The seeding should be followed by fertilizer and lime. A soil test may be necessary to determine the exact amount of fertilizer and lime needed. If fall planting is done, 800 pounds of 4-12-12 are required per acre. One to two tons of lime is suggested.

Permanent firelanes also serve as roads.

When seeding the firelane, special attention should be paid to sloping areas. To prevent erosion, these areas can be seeded heavily. Putting hay on sensitive areas will add stabilization until the grass begins to grow and will also cause the area to be heavily seeded.

Maintenance

Although permanent firelanes require little maintenance, it is imperative that they be maintained enough to remain functional.

Annuals, such as ryegrass, must be replanted each year. It is essential to have a winter cover. Not only does this cover provide excellent wildlife food, it also assures a green strip to serve as a firebreak.

Many cover species require minimal maintenance once established. For some species, periodic burning or discing may be all that is required. Pensacola bahiagrass requires very little maintenance. It should be bushhogged and perhaps lightly disced in order to get a good cover. After it is established, bushhogging the bahiagrass in September will ensure reseeding. This can be done when planting the winter cover.

Most vegetation on permanent firelanes requires annual fertilization. The same rates that were applied initially should be used. A good time to fertilize is when the annual grass is planted in late summer.

Once lime is initially applied, it is not required for another three to five years. A soil test every three years will provide future rates for liming.

The firelanes should be checked periodically. Any trees or limbs that have fallen across the lines should be removed. If the firelanes are properly installed, there should be no erosion problems unless unusually heavy rains or flooding occur. Any erosion problems should be corrected immediately.

Conclusion

Permanent firelanes are expensive when compared to conventional firebreaks, but the Alabama Resource Conservation Program (ARCP) offers some cost-share assistance for their construction.

A permanent firelane, unlike a conventional firebreak, is a long-term investment. The increased wildfire protection, access, recreation and wildlife benefits are well worth the expense.

CALENDAR

October 4-10 —
Fire Prevention Week.

October 18-24 —
Forest Products Week.

October 28 — Tuscaloosa, Ala. Conference on the "Environmental Responsibilities of Non-industrial Private Landowners" Bryant Conference Center, 11:45-5:00. Registration is $20 and includes luncheon. You must preregister by Oct. 23 to attend the luncheon. Please contact Kathryn Flynn at 205-844-1036 for more information.

October 29-30 — Tuscaloosa, Ala. Ninth Alabama Landowner and TREASURE Forest Conference. Bryant Conference Center. Indoor sessions, banquet and tour of a TREASURE Forest. Registration after Oct. 9 is $40. For more information, call Myrtle Kizziah at 205-333-1590.

November 16-20 — Durham, N.C."Conservation Land Acquisition," a professional development course. Knowledge, information and identification of available resources to enable a volunteer or experienced professional to plan, finance, acquire and manage a land conservation program. Call 919-684-2135 for more information.

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Burning Outdoors: What You Should Know

by WALTER VEST, Law Enforcement Chief, Alabama Forestry Commission

State law requires that you secure a permit before you burn any woodland, grassland, field, or new ground that is over 1/4 acre in size or lies within 25 feet of natural fuels (such as woods and grass).

To obtain a permit to burn, simply call your Forestry Commission district's toll-free number (see box). You will need the following information to obtain a permit:

1. Location of the property including section, township, and range number.
2. The approximate time, date, and type of burning.
3. You must have adequate tools, equipment, and manpower to control your fire and to prevent it from escaping.

This law is designed to insure that outdoor burning is done safely and to prevent the spread of careless wildfire.

Burning household trash and garbage is a violation of the Public Health Law. There are other state laws that you also must obey when burning, such as:

1. Fires must not be allowed to escape whereby property of another is injured or destroyed.
2. Reasonably necessary precautions must be taken by a person who burns any grass, brush, trash, or any sort of debris.
3. When you are burning, you must clear the area of all inflammable materials for a reasonable safe distance.

Alabama Forestry Commission officers will be enforcing these laws. Violation could result in a fine of up to $1,000 and/or up to six months in jail.

If someone allows a fire to escape and it burns across your property, you can recover your loss. The first thing you must do is investigate the fire and determine who is responsible. You should call the nearest Forestry Commission office and ask for assistance. After the person responsible for the fire has been identified, you must survey your damage to estimate the amount of loss. If you have timber burned, you will need a registered forester to help determine your loss. After you have the person responsible and place a dollar amount on damages, you need to decide what action to take.

You may decide to get a warrant and have this person arrested. If you have the person arrested and he or she is found guilty, you can ask the judge to recover your loss.

If you decide you do not want to have the responsible person arrested, you must file a civil suit asking for the amount of your loss.

If you need additional information, please call your local Forestry Commission office.

To obtain a burn permit, call the toll-free number listed for your county.

1-800-572-2017
Calhoun, Cherokee, DeKalb, Etowah, Jackson, Madison, Marshall

1-800-292-6653
Blount, Cullman, Jefferson, Shelby, St. Clair, Walker, Winston

1-800-452-5923
Fayette, Greene, Hale, Lamar, Pickens, Sumter, Tuscaloosa

1-800-492-3711
Chambers, Clay, Cleburne, Coosa, Randolph, Talladega, Tallapoosa

1-800-242-2504
Autauga, Bibb, Chilton, Dallas, Marengo, Perry, Wilcox

1-800-922-7688
Barbour, Coffee, Dale, Geneva, Henry, Houston, Pike

1-800-672-3076
Butler, Conecuh, Covington, Crenshaw, Escambia, Monroe

1-800-672-6912
Baldwin, Choctaw, Clarke, Mobile, Washington

1-800-942-3107
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