

Alabama's TREASURED Forests



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STATE FORESTER'S MESSAGE

by C. W. MOODY



Each time I have the opportunity to be associated with TREASURE Forest owners, I am more convinced that they are special people. I recently met with TREASURE Forest owners **John Rudd, Larry Trotter, James Hughes, Ned Folmar, Aaron Sellers, Leonard Blanton, Chuck Lewis, and Floyd Clemons** at Guntersville State Park. The purpose of our meeting was to explore ways that we might better serve the needs of TREASURE Forest owners in Alabama as well as better educate and encourage forest landowners to become TREASURE Forest practitioners. We left that meeting filled with enthusiasm and with several excellent ideas which we will pursue.

We gave emphasis to the upcoming **Third Forest Landowner and TREASURE Forest Conference** which will be held in Montgomery on September 11-12. A maximum effort should be exerted to get forest landowners to attend this conference so that they might benefit from current forestry information, improved forestry practices, and also be solicited to adopt and practice TREASURE Forest management. The TREASURE Forest landowners at Guntersville thought that it would be a good idea to have current TREASURE Forest landowners attending the conference to bring at least one potential TREASURE Forest landowner to the conference. I hope that you will seriously consider this. A registration form for the conference is on the back cover of this magazine. Please take a few minutes now while you are thinking about it and send it in! If you don't want to cut your magazine, simply print the same information on a piece of paper and mail it in with you registration fee!

Another area that I want to call to your attention is the unfair competition by Canadian manufacturers in the American lumber market. Stumpage owned by the Canadian government is sold to their forest industry at well below market prices for timber in the United States. The National Forest Products Association and others who have been looking into this consider that this practice by the Canadians is designed to capture American markets with subsidized Canadian lumber.

There is a bill in Congress—the Omnibus Trade Bill by Gibbons (D. Florida)—that would correct this problem. This matter has a direct impact on forest landowners in Alabama in that reduced demand for timber depresses the prices paid for stumpage. It also has implications to jobs in Alabama and America. I urge you to exercise your rights by letting our two senators and your congressman know of your attitude regarding this matter.

Sincerely,

A handwritten signature in cursive script that reads "C. W. Moody". The signature is written in dark ink and is positioned below the typed name.

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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.

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Cover Photo: Clarke County TREASURE owner Vivian White stands with her 3-year-old planted pines near the Tombigeo River.

Alabama's TREASURED Forests

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IT'S A DREAM-COME-TRUE

by CYNTHIA K. PAGE, Editor

THE TOMBIGBEE RIVER slowly winds through the deep woods of Alabama. Having spilled over its banks numerous times, the river has built some mighty fertile bottomland down through Southwest Alabama. Sprawled out along its east bank near Coffeerville in Clarke County is living proof of what nature and man—rather, “woman”—can do together. A 3600-acre TREASURE belongs to Vivian and Mary Alice White!

Though both sisters own the property, Vivian has taken up the role of forest management. Neither is afraid of hard work. Whether the hay needs baling or the cows need to be fed, both women can do just about anything they set their minds to do! As children, they learned to work together; as adults, they share a commitment to developing the land that was their father's dream.

Necessity Prompts Action

In 1974, Vivian White had her career well established. With a degree in chemistry, she had made her place in pharmacology research at Research Labs in Birmingham. Not quite 30 years old at the time, she was already considered a success by any standard.

Tragedy struck! Her father died, leaving the management of the farm to his wife and two daughters. Vivian and Mary Alice both kept their jobs and still tried to keep the farm operational. A school teacher by trade, Mary Alice was able to devote her summers almost entirely to plowing, planting, and tending cattle. Vivian tried commuting every weekend from Birmingham but soon realized that someone needed to devote full attention to the farm for it to be successful.

She quit her job and moved back to Coffeerville to live with her mother. She had no business background and had to learn the ropes. Quick witted and intelligent, she soon knew how to keep the books as well as handle all of the planning required to stay

in the black. After all, farming and logging is a lot more than just physical ability!

Vivian explained how she really got started. “We had to pay a great deal of tax after my father passed away. We had 2000 acres of woodland, so the *source* of income was not a problem. The *know-how* was! My father used to log, but *I* didn't know how to conduct a timber sale.

One of her first contacts was Ron True with Alabama River Woodlands (ARW). He sent a company representative out along with Hybard Paul, a local wood dealer. After inventorying the timber, they made an offer. Not only did she sell the timber, but a lasting and profitable relationship was established with the Paul family.

“I didn't really feel the necessity to get closed bids on all of my timber sales because *I know* the people I'm dealing with,” Vivian pointed out. “That trust factor is important. I'm completely satisfied that I've always gotten a competitive price, but

if you don't have that situation, closed bids are a good idea.”

Hybard Paul's son, Maurice, knew a great deal about forest management and began to work with Vivian and Mary Alice. In the late 70's, contact was made with the Alabama Forestry Commission and a Woodland Resource Analysis Program (WRAP) plan was made for the property. Tree planting, prescribed burning, and timber stand improvement soon filled Vivian's time, and a new cash crop was growing on the farm!

Timber—A Crop and an Enjoyment

“When my grandfather first bought the land down by the river,” Vivian reflected, “people around here thought that he was crazy to buy that piece of swamp! To walk through there now, it's easy to see why! The earth is rich and some the finest timber around is growing down there!”

That's a fact! The hardwoods in that 922-acre bottomland are a sight to behold! Vivian believes in natural regeneration for her hardwoods, especially in an area as sensitive as the river bottom. Seeking the advice of the Alabama Forestry Commission's hardwood specialist, Tom Cambre, she soon put his recommendations into effect.

Overstocked areas were thinned, allowing room for the higher quality trees to grow. The water level was lowered in the cypress pond to permit germination of new seedlings. Vivian favors that cypress area above all else. “It's just so beautiful!” she exclaimed. “The wood ducks and white ibis are simply glorious, and in the spring the scattered wildflowers just help to bring the place alive!”

Some other areas nearby were left completely untouched either for aesthetic reasons, wildlife enhancement, erosion control, or stabilization of the environment. “Even though we may sacrifice a little on timber production, the other areas *have* to be looked after, too,” said Vivian. “Oh, you



Vivian enjoys the beauty of her hardwood bottom.

could cut the trees, but then you wouldn't have all of the other things that make this place so beautiful and such an enjoyment!"

After the harvest to pay off some of the taxes, Vivian set out to site prepare and replant. "There was one thing we didn't count on," she said. "Hurricane Frederic! There wasn't a soul around anywhere to do the site preparation. Finally, I found a fellow with a flat blade. It worked out all right, but he really did push up a lot of dirt!"

Another area was planted to pine near the river, but Vivian has faced a constant battle trying to keep the hardwoods out. "Mr. Cambre looked at it and said that it is a natural hardwood site, and that they will grow best there," Vivian explained. "He recommended that I let them come on back and maintain a mixed stand on that one small plot for a while."

There has never been a pine harvest on the White farm without a followup planting. Site preparation methods are carefully selected, though, especially on slopes and in the riverbottom. Maurice Paul has a chipping operation and usually cleans up the logging slash behind a harvest. The chips can be sold either to Masonite or to Alabama River Pulp. A root rake then pulls up the rest, and windrows are piled and burned. In some cases herbicides followed by burning have been effective.

All planting—between 400-500 acres—has been done by hand. Almost all of the planted pines have been Livingston Parrish or improved loblolly purchased from the Alabama Forestry Commission nurseries, McMillan-Bloedel, Scotch, and Alabama River Woodlands.

Wildlife

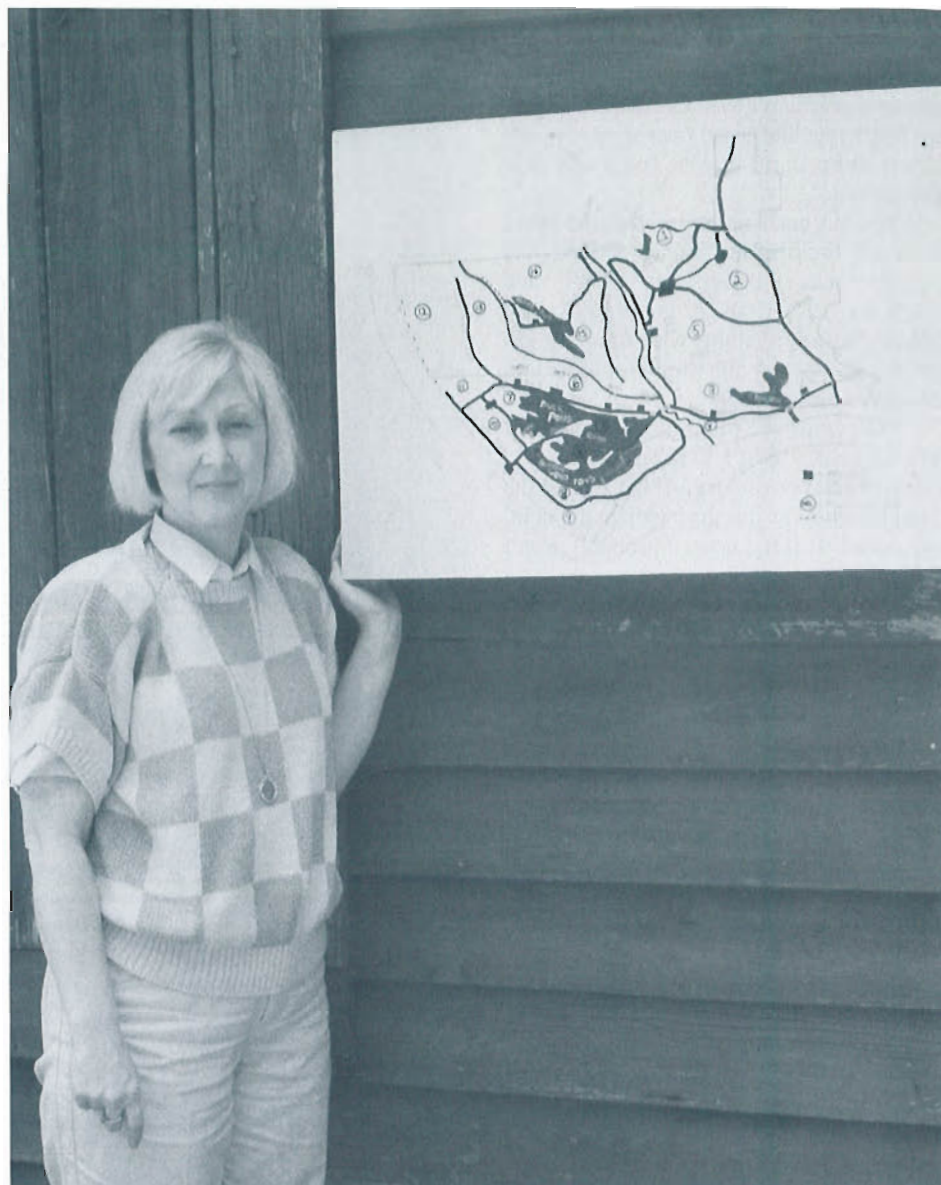
With over 900 acres in hardwoods, this is most certainly a wildlife haven. Besides the hardwood mast, a number of food plots are strewn throughout the property.

Prescribed burning has improved the habitat in pine stands. The cypress pond also is excellent for waterfowl, especially ducks!

"We let our friends hunt here," Vivian said, "but we impose some rules and regulations. In the future we may consider lease hunting. We do have a lodge now that the family uses for recreation, and we're remodeling another old house for that purpose. When it's finished, we may just use the first one for a hunting lodge. Right now, though, our family and friends are enjoying the hunting opportunities."

Resolving Problems

Forest management isn't as clinical as pharmacology research, and Vivian soon



Vivian stands in front of the hunting plot map.



The cypress swamp is a haven for ducks and other wildlife.

learned that Mother Nature can sometimes create problems. In 1976 there was some beetle damage. These trees were promptly salvaged. Then in 1979, Hurricane Frederic left his mark. Damaged trees were removed before insects and disease could take over and spread.

When Vivian first returned to the farm, some of the mature stands looked like jungles—heavy understory, briars, and much too crowded. A good prescribed burning rotation along with thinning has greatly increased the timber production as well as the wildlife.

“This year, we planted some pines,” Vivian said, “but I’m afraid that we’re going to have poor survival because of the drought. They’re just drying up in the field, and even if it rains now, it probably won’t help much.”

Beavers have also caused some problems in the riverbottom sloughs and creeks. “We’ve broken up dams and put out traps. This is something, though, that has to be done constantly!” Vivian exclaimed. “Bill, our farm foreman, really gets involved with the little critters. He even got so attached to one that he had been trying to catch for such a long time that he named him ‘Sam’. Well, one day we saw Bill with a big grin on his face coming up the road with a beaver in his hand. He had caught Sam!”

Access to the large acreage was another problem. After ten years, there is now a road that will take you pretty close to anywhere you want to go on the property. “We hauled in dirt and built bridges all along until we finally finished it!” said Vivian. “It’s so nice to ride through!”

One last battle has been with the government over land needed for a dam and a refuge. “I know that these projects are worthwhile,” Vivian said. “Sometimes, though, a landowner doesn’t even know that his land is being considered until it’s too late. They already have 200 acres of our land. Now they want more for this refuge. They advertised the project in a newspaper north of here, rather than in our local papers. They are not managing their land as well as I am, and I somewhat resent the fact that they take mine and then neglect it! One fellow called and asked me what my price was. I told him that there isn’t a price. In fact, what’s down there isn’t worth much to anybody, but it’s got my blood and sweat in it!”

Vivian and Mary Alice have indeed put blood and sweat into the property. Their affection for each other and cooperation has literally made their father’s dream come true. It’s beautiful. It’s a TREASURE Forest and a Tree Farm. Somehow, though, it appears to be even more than that to the two White sisters! ♣



There's room for pines and pasture on the 3600 acres!



Some of the natural pines are still growing to maturity.

EDITOR'S UNDERSTORY

by CYNTHIA K. PAGE, Editor

WHEN FACED WITH THE DECISION TO forfeit her pharmacology career, Vivian White was apprehensive and uncertain. After all, she was almost 30 years old and had a lot of money and time invested in an education and her job.

"It's so funny now," says the 40-year-old petite blonde. "I never use my college training anymore, but I'm so happy just doing what I do!"

Just what is that? First, there's Vivian, the landowner. It's hard to imagine such an attractive blue-eyed picture of femininity bouncing through the woods in a four-wheel drive, baling hay, or planting trees! This lady's not as soft as she looks, though. In fact, she's a pretty tough taskmaster, too!

Not knowing anything about forest management didn't stop her either! In five years, she has accomplished just about everything that could be accomplished in a TREASURE Forest—pine production, hardwood management, wildlife enhancement, aesthetics, soil erosion control, and protection of the environment. Each of these areas has been addressed in a highly

visible fashion, even though timber is the primary objective. Besides a beautiful TREASURE, the property is also a Tree Farm. Just recently, Vivian was named Alabama's Tree Farmer of the Year! As a landowner, she also believes in sharing her knowledge with friends and neighbors and has allowed her property to be used as a site for demonstrations. Additionally, Vivian has assisted in the preparation of slide presentations used by the Alabama Forestry Planning Committee agencies.

Vivian is also a farmer. Raising hay and cattle can be pretty tough work. Supervising two full-time employees, Vivian and her sister have kept their father's farming operation alive. Many times, they personally operate the equipment, order parts, and do anything else that has to be done.

Another cap Vivian wears is that of an entrepreneur. In March, 1985, she and her sister along with Hybard Paul began operating a church furniture manufacturing plant in Grove Hill. "I keep the books, and Hybard purchases all of the materials we need," Vivian explained. "We kept the 65

employees who were already here, and we've been successful! In fact, we may have to add another shift just to get caught up with all of the orders." Utilization has been a major factor in the successfulness of the operation. Nothing is wasted. Scraps are used in some fashion!

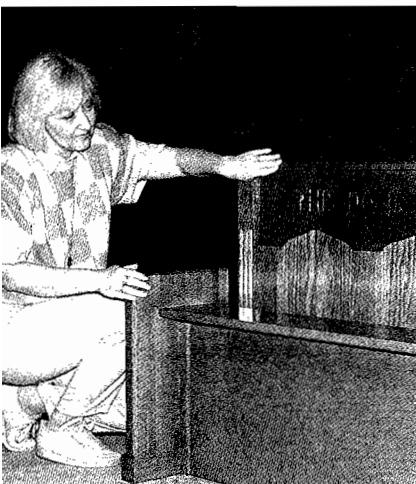
Mayor Vivian White presides over town meetings in Coffeerville and signs all the city legal documents. Vivian says that this has been one of the most rewarding experiences of her life. "I love working with the elderly people here," she said. "They're just all so grateful."

Vivian, the daughter, speaks fondly of her 75-year-old mother. Energy must run in the family. Vivian laughed as she pointed to a box in the corner, "Mother decided to try selling flavoring!" She may well, indeed, if she ever tires of traveling!

As a sister, Vivian demonstrates a tenderness and genuine affection for Mary Alice, a few years older than she is. They do many things together, and always cooperate when the best interest of the family is at stake. "Mary Alice always goes along with whatever management decisions are made—whether it's at the business or on the farm. We never would have made it without her understanding, encouragement, and support. She's a hard worker and a tremendously strong person in every way." So is Vivian, whichever hat she might be wearing for the day.

Driving back toward the main road, we passed the farm foreman's house. Vivian threw up her hand and shouted, "Hey, Bubba!" She then explained that Bubba was handicapped and spent almost all day swinging on the porch. "Oh, I meant to bring him some of that pound cake, even though he says he only likes cake that's got all its clothes on!" she said remorsefully.

There's also Vivian, just a kind, compassionate person. ♣



WATER QUALITY

ANOTHER SEGMENT OF A TREASURE FOREST



by MARK F. BEELEER, Forest Management, Tuscaloosa

Public Law 92-500, passed by Congress in 1972, said that by 1983 every stream, lake and coast in America will be clean enough to swim and fish, wherever possible. The Alabama Forestry Commission

(AFC) and the Alabama Water Improvement Commission (AWIC) were in the process of developing voluntary guidelines for the protection of water quality and promoting voluntary usage of these guide-

lines prior to the passage of the Federal Water Pollution Control Act. The AFC following completion of the plan in November, 1978, Governor Fob James certified it as Alabama's official plan.

submitted a proposal in September, 1976, to the AWIC for development of the Silvicultural Runoff Management Plan. Fol-

Because of the interest and cooperation demonstrated by the forestry community to maintain its reputation as conservators of natural resources and to demonstrate its ability to correct water quality problems linked with silvicultural activities, the program to improve water quality is non-regulatory or voluntary.

The creation and enforcement of laws, rules, or regulations prescribing specific forest practices were considered a less desirable alternative as a means of achieving the goals of water quality because of *the simplicity of the design of a non-regulatory nonpoint water quality program; the undesirable possibility of licensing forest operators; and the undesirable possibility of requiring landowners and forest operators to obtain permits prior to applying certain silvicultural treatments.*

Even though PL92-500 identifies forestry activities as possible non-point pollution sources, studies show that most logging activities do not hurt water quality. In fact, logging, properly done, is an important part of the life of a forest. Cutting trees does not cause erosion and sedimentation problems, but there are a few activities in logging that can contribute to water pollution if they are not carefully planned and carried out. Researchers have found that the parts of logging operations that most affect water quality are as follows:

1. Roads
2. Landings
3. Stream crossings
4. Cutting along streams

In fact, among studies documenting the production of stream sediment from all forestry operations, most have concluded that roads are the greatest single source. More than 90% of sediment production from forestry operations has been attributed to roads, primarily logging roads.

Access is essential for the use, management, and harvesting of forest resources. At a minimum, a skeletal network of good permanent roads is required in managed or utilized forest lands. They serve as main haul roads during harvesting and for general access at other times. Minor roads constructed specifically for harvesting operations are commonly considered temporary but frequently become permanent or semi-permanent—being used for recreation and management access for years after the logging job. Thus, their level of planning may frequently be inadequate for their actual use, resulting in their being located with grades too steep or without adequate erosion protection.



Here are some simple guidelines for reducing impacts on water quality from some forestry activities:

Roads

Build only necessary roads. This sounds trite, but quite often roads are built when they are not necessary or when there is an old logging road nearby that can be easily opened up.

Keep all grades as gentle as possible. Roads with gentle slopes are easier to build, easier on the logging equipment and do not cause pollution. Sometimes in steep or hilly terrain it is not always possible to keep grades gentle, due to the slope or obstructions such as big boulders or rock outcroppings, but gentle slopes should be the goal in all logging road construction.

Erosion can only occur during heavy or prolonged rainfall. The buildup of large volumes of water moving rapidly causes erosion. To prevent this buildup, *water should be turned out from the roads.* Examples of structures for turning water out from roads are 1) higher crowns in center of roads; 2) turn outs; 3) water bars; 4) culverts.

Landings

Handled much the same as roads, *a landing site should be on high ground and well drained so that water does not stand on it.* The size of the area cleared off will affect the amount of runoff. Therefore, landings should be of small workable sizes. If any runoff occurs from the landing that does not go directly into the woods, water bars or ditches

should be put in to divert the water into the woods.

Put the roads and landings to sleep. This can include smoothing up the soil and sowing it with some perennial grass such as fescue, and controlling access to the road by blocking it with large mounds of dirt or locked gates.

Stream crossings

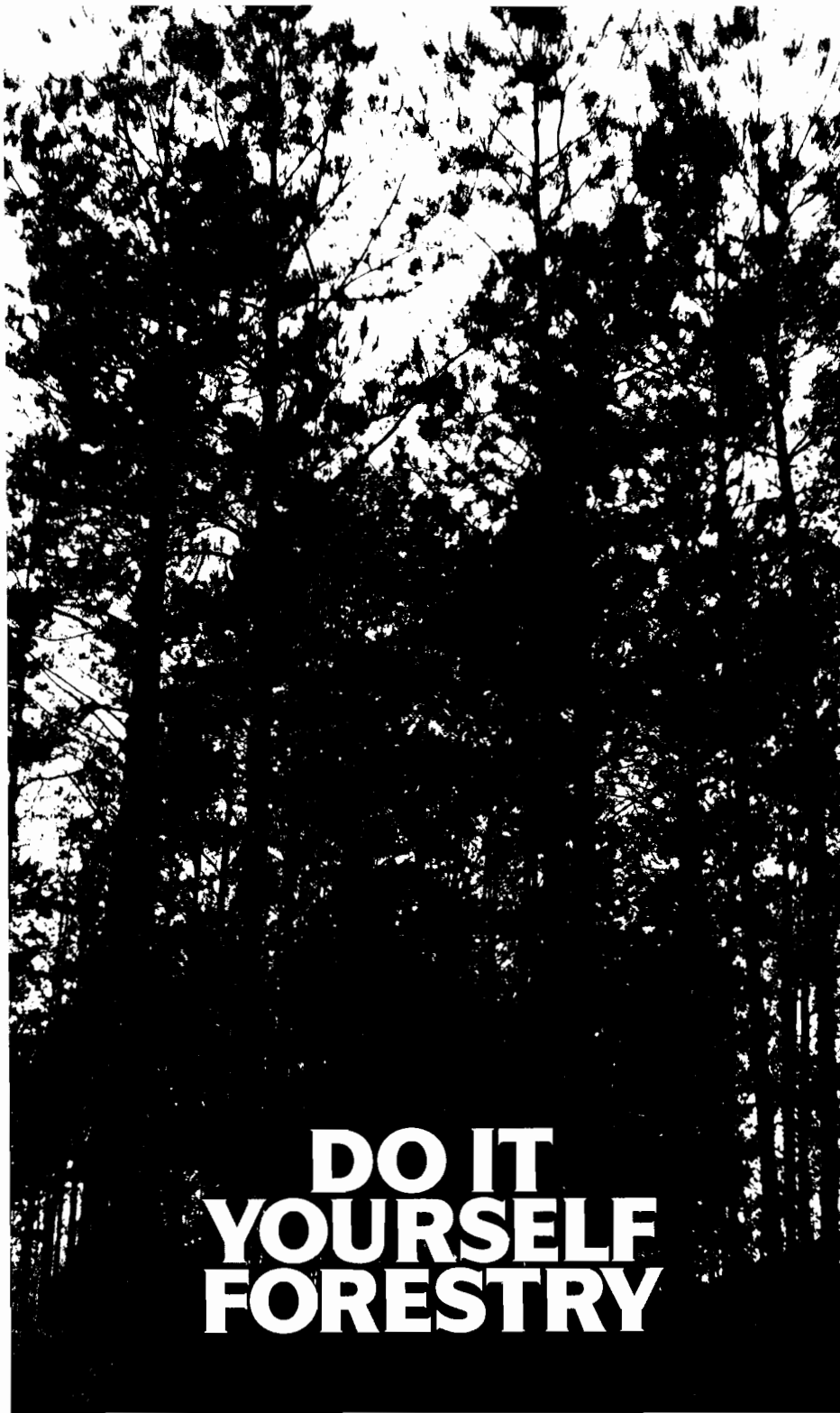
It is best not to cross streams, but on some logging operations it is absolutely necessary. When it is necessary to cross streams, *the crossing should be straight across* so that as little of the stream bank be disturbed as possible. If a more permanent logging road is needed, a small bridge or culvert can be put in to channel the water, making it unnecessary for the equipment to go through the stream channel.

Cutting along streams

Water quality is affected by the way trees are harvested along streams. Streams not shaded by a buffer strip of trees have high water temperatures that lower the quality of water. This is known as thermal or heat pollution. Higher than normal water temperatures upset the natural balance between water and the plant and animal life found in the water. To protect streams from heating by direct sunlight, *a small buffer zone or filter strip should be left along each side of the water.* These filter strips also prevent erosion by holding soil in place. Another advantage of filter strips is that they serve as settling points for soil sediment in runoff water moving toward the stream, depending on how steep the slope is and the width of the filter strip.

Remember, water quality can be improved by the way roads, landings, stream crossings and cutting along streams is handled. If you pay close attention to these

parts of your operation, there is not likely to be any need for legislation for the sake of clean water. ♣



DO IT YOURSELF FORESTRY

by LOUIS HYMAN, Chief, Forest Management

HISTORICALLY, most techniques used in forest management were developed by foresters employed by either government or the forest industry. The goal of these “advances” has always been to make forestry less labor intensive—in other words,

to replace people with machines. From a financial point of view, the cost of the machinery did not matter, as it could be written off over a period of years. Industry and government aimed for “state of the art” forestry. If the plantation ended up

costing \$200 per acre to establish, that was the cost of doing business.

For most private, non-industrial landowners, \$200 per acre seems pretty expensive. Yet, when he asks advice from many foresters, the advice is for high-cost forestry. Is there another way?

The idea behind high cost forestry is that labor costs too much and nobody wants to work in the woods anyway. This is not true with many people who have smaller landholdings. In fact, many landowners want to spend time in their woods “fixing things up.” They would be willing to do more if only they knew what to do. In this article, I would like to point out some low-cost, higher labor projects for landowners to consider.

Starting Your Forest

Let’s start at the beginning. One project many people can do is start a forest on idle land, either pasture or row crop. Tree planting is not difficult to do. Trees can be planted either by hand or by planting machine.

Hand planting consists of poking a hole in the ground, putting a seedling in the hole, then closing the hole tightly. This is done using a planting bar called a dibble (see “Make It Yourself,” *Alabama’s TREASURED Forests*, Winter, 1986). The trees are spread across the field, usually in a grid pattern. The spacing between trees is based on the site, the species planted, and the product that you are trying to grow. One person should be able to plant about one acre a day. Detailed instructions on how to hand-plant trees are available in an Alabama Forestry Commission (AFC) pamphlet called “Seedling Care and Planting Guide.” It is available at any county AFC office.

Machine planters cut a furrow in the ground. A tree is put in the trench which is then closed by two packing wheels. These machines are expensive to purchase, but can be rented for a nominal charge from some Forestry Commission county offices. Some of the machines are pulled by farm tractors, but some will need bulldozers for their power. Any forester can help you set up a planting plan for your property.

Stand Management

Once your forest is started, there is still much to do. Young pine trees are fragile and can be choked out by shrubs, weeds, and dense grasses. Weed control is an on-going project that should not cost too much.

One alternative to costly herbicides is to mow or bush-hog between the rows of pine

trees. This cuts the competition and lets the young trees get more light and grow faster. Mowing would only be necessary twice a year for the first two years; then the trees should be big enough to start shading out the grasses.

Many areas that were cut over and replanted have a problem with hardwood sprouts. These sprouts rob moisture and sunlight from the pines. They can be controlled by bush-hogging (if the ground is relatively clear of stumps) or by hand-cutting using axes or small saws. There is a gas powered "weed eater" on the market that can be fitted with a circular saw blade. It can be used to make swaths through the plantation and cut hardwood sprouts. A small amount of herbicide sprayed on the new stump will prevent resprouting.

When the trees get larger, or if you have property with a forest already on it, there are other opportunities for do-it-yourself forestry. Some trees, either because of disease or poor genetic makeup, will not grow into high quality trees that can produce good timber or wildlife food. These "weed trees" should be removed so that the "good trees" will have more room to grow. Foresters have a term for this—Timber Stand Improvement. One easy way to improve your forest is to cut firewood, either for your own use or for sale. Just remember the saying, "Keep the Best, Cut the Rest."

Another method of timber stand improvement is to use herbicides to kill the weed trees. The poor trees can be injected with the herbicide using a hatchet and a squirt bottle. Also, the herbicide can be sprayed on the ground at the base of the weed tree to be taken up by the roots. Your local forester can help you set up a Timber Stand Improvement Program.

One other point about "weed trees" is that some of the poor timber producing trees serve as valuable wildlife food sources. Others should be kept for their high aesthetic value, such as dogwood trees. It is a fact of life that many so called weeds, both in the garden and in the forest, have the prettiest flowers.

Prescribed Burning

By far, the cheapest way to improve the quality of your pine forest, both for timber and for wildlife, is prescribed burning. Prescribed burning is the careful, controlled use of fire under the correct conditions to obtain specific goals. The Forestry Commission can help you set up a burning program on your land. Once the program is started, you should be able to do much of the work yourself. It is a law in Alabama that any forestry burning must have a permit from the Forestry Commission.

Erosion Control

A major problem on many forestlands is erosion, especially on roadways and trails. These trails can serve many purposes: logging access, patrol routes, or walking trails. A badly eroded trail, however, is less useful and in fact can detract from the value of your forest.

Erosion can be stopped. The easiest way is to spread grass seed over logging roads right after harvest. The grass not only slows erosion, it also serves as good wildlife food.

If erosion has already started, it can be slowed and the site healed by use of water bars. Water bars are like speed bumps in a parking lot. Their job is to slow things down. By slowing the water and pushing it off the road, water bars can stop erosion and let grass get established. This will heal the site. Water bars can be made by piling dirt into low mounds about 18 inches high. The distance between water bars is based on the slope of the road (TABLE I). (Also see "Don't Get In A Rut," *Alabama's TREASURED Forests*, Summer, 1983.)

TABLE I

RECOMMENDED DISTANCES BETWEEN WATER BARS

ROAD GRADE (Percent)	DISTANCE (Feet)
2	250
5	135
10	80
15	60
20	45

Wildlife Habitat Enhancement

One labor investment with a pretty fast payback is wildlife habitat improvement. Most wildlife species need three basic things: *food, shelter, and water*. Wildlife food can be encouraged on your land by prescribed burning or by planting some areas with choice foods such as chufa, rye grass, millet, or lespedeza. These food plots attract wildlife, especially in winter (which by happy coincidence happens to be hunting season). Wildlife foods are also produced by native trees like oaks, hickory, and dogwood, so be careful to leave some of these trees when you are weeding your forest.

Wildlife needs shelter from winter storms and nesting sites. Small thickets of pine, honeysuckle, and wild plum are very useful. Leave some dead trees, called snags, for bird nesting sites.

Selling Your Timber

This is one place where you should definitely **NOT DO IT YOURSELF!** Selling your timber requires expert advice as to what trees to cut, how they should be harvested, and what they are worth. Studies have shown over and over again that people who sell timber with a forester's help get up to 50% more money for their trees.

There are some things you can do to make selling your timber and reforesting your stand easier. The first is to begin a prescribed burning program. By doing three burns in the five years before harvest, you can improve access in the forest, increase stumpage value, and decrease site preparation costs by over 50%.

Another consideration is the type of harvest to be made. Reforestation costs will be drastically cut if you use natural regeneration instead of the clear-cut, site preparation, and planting method. Natural regeneration is done by leaving the best trees in the forest uncut. These trees will then reseed the site and start the new forest. A consulting forester can easily help you do this.

After the harvest is finished, the site will need to be cleaned up. Cleanup consists of breaking up the tree tops into smaller piles so that they can decompose faster, grassing in the logging roads and loading decks, and cutting down any weed trees or severely damaged trees left by the loggers. A firewood sale would be a good way to get a few dollars out of the cut tops, called logging slash. The final cleanup of the site can be done by a prescribed burn.

Sweat Equity in Your Land

In the real estate business, there is a term called "Sweat Equity." It describes what happens when people buy a property at a relatively low price, fix it up with very little cash but a lot of work, and sell it at a large profit.

This same concept can be applied to a forest. By substituting effort for cash, you can greatly increase the value of your forest. The work described here is not difficult. It is good exercise to work in your woods. The economists say that financially the rate of return of doing this work may be low. However, how do you judge the beauty of a day in the woods, or the happiness of a job well done? This spiritual repayment counts even more than the financial return.

After all, what is the rate of return on your vegetable garden? When you add up all the labor costs and money spent, what are the products worth? *Ten Dollar Tomatoes, Anyone!* ♣

MAKE IT YOURSELF: A Customized Biltmore Stick

by DON BURDETTE, Forest Management Specialist, AFC, Florence

HAVE YOU EVER NOTICED that some people dislike depending entirely upon others for information or assistance? As a forest landowner, you may be like that yourself in some way or another. Consider, for instance, answers to these questions about your own forestland. Do you know if your forest stands are adequately stocked with enough of the right kind of trees? Can you determine at least an approximate volume and value for individual trees? Do you know when your trees need to be thinned, as well as how many to take out and how many to leave?

The materials you will need include a stick of oak or some other tough, light-colored hardwood which is at least 33" long x 1" high x 2" wide, a metal angle exactly 1" wide, two 1" wood screws, some cord or leather thong, and a small can of spar varnish or polyurethane. The tools you will need include a pencil, black ball-point pen, 12" engineer's scale, sand paper, drill and bits, hack saw, paint brush, small carpenter's square and hand saw, either an engraver tool, chisel and die set or wood burner, and TABLES I-VIII (included with this article).

There's no getting around the need for a professional forester to answer at least some of these questions. However, once a forester cruises your property and sets up a management program, there are some things you can keep a check on yourself between visits from your forester.

This article is intended to show ambitious forest landowners how to make and use a customized biltmore stick. The stick can be used to measure stocking of your timber stands, the diameter and merchantable height of standing trees, and the volume in logs of different lengths.

TABLE I

DIAMETER AT BREAST HEIGHT (DBH)
Graduations in Inches from Left End of Stick

Diameter of tree, inches	Distance from eye to tree (arm reach)						
	22"	23"	24"	25"	26"	27"	28"
4"	3.68"	3.69"	3.70"	3.71"	3.72"	3.73"	3.74"
5	4.51	4.53	4.55	4.56	4.58	4.59	4.61
6	5.32	5.34	5.36	5.38	5.40	5.42	5.44
7	6.10	6.13	6.16	6.19	6.21	6.24	6.26
8	6.85	6.89	6.93	6.96	6.99	7.03	7.06
9	7.58	7.63	7.68	7.72	7.76	7.79	7.83
10	8.29	8.35	8.40	8.45	8.50	8.54	8.58
11	8.98	9.05	9.11	9.17	9.22	9.27	9.32
12	9.65	9.73	9.80	9.86	9.93	9.98	10.04
13	10.24	10.33	10.41	10.48	10.55	10.62	10.74
14	10.94	11.04	11.13	11.21	11.29	11.36	11.43
15	11.57	11.67	11.76	11.85	11.94	12.03	12.10
16	12.17	12.29	12.39	12.49	12.59	12.68	12.76
17	12.77	12.89	13.01	13.12	13.22	13.32	13.41
18	13.55	13.48	13.61	13.72	13.84	13.94	14.04
19	13.91	14.06	14.19	14.32	14.44	14.56	14.66
20	14.47	14.63	14.77	14.91	15.04	15.16	15.28
21	15.02	15.18	15.34	15.48	15.62	15.75	15.87
22	15.55	15.72	15.89	16.05	16.19	16.33	16.46
23	16.08	16.26	16.44	16.60	16.75	16.90	17.04
24	16.60	16.79	16.97	17.14	17.31	17.46	17.61
25	17.10	17.31	17.50	17.68	17.85	18.01	18.17
26	17.60	17.81	18.01	18.20	18.38	18.56	18.72
27	18.09	18.31	18.52	18.72	18.91	19.09	19.26
28	18.57	18.80	19.02	19.23	19.43	19.62	19.80
29	19.05	19.29	19.51	19.73	19.94	20.14	20.33
30	19.51	19.76	20.00	20.23	20.44	20.65	20.84
31	19.97	20.23	20.48	20.71	20.94	21.15	21.36
32	20.43	20.69	20.95	21.19	21.43	21.65	21.86
33	20.87	21.15	21.41	21.67	21.91	22.14	22.36
34	21.31	21.60	21.87	22.13	22.38	22.62	22.85
35	21.74	22.04	22.32	22.59	22.85	23.10	23.33
36	22.17	22.48	22.77	23.05	23.31	23.57	23.81
37	22.59	22.91	23.21	23.50	23.77	24.03	24.28
38	23.01	23.33	23.64	23.94	24.22	24.49	24.75
39	23.42	23.95	24.07	24.37	24.67	24.94	25.21
40	23.83	24.17	24.49	24.81	25.11	25.39	25.67

Scale Graduation = the square root of $\frac{a(D \times D^2)}{a + D}$, where a = arm reach
D = DBH

TABLE II

DOYLE (MESAVAGE-GIRARD)
BOARD FOOT VOLUME OF STANDING TIMBER
(FC 78)

DBH	1 Log	2 Log	3 Log	4 Log	5 Log
10	14	20	22	*	*
12	29	43	53	56	*
14	48	75	93	103	*
16	72	116	149	170	*
18	100	164	215	248	*
20	135	225	297	346	383
22	174	295	392	462	521
24	216	370	496	582	668
26	266	459	619	737	849
28	317	551	750	890	1,032
30	376	658	898	1,069	1,251
32	441	776	1,068	1,283	1,488
34	506	894	1,235	1,487	1,730
36	581	1,035	1,434	1,732	2,023
38	655	1,170	1,635	1,975	2,322
40	740	1,330	1,858	2,260	2,636

TABLE III

CUBIC FOOT VOLUMES
USING MERCHANTABLE HEIGHT IN 8-FOOT INCREMENTS

DBH	12'	20'	28'	36'	44'
6	1.6	2.7	3.8	4.8	*
8	2.3	4.6	6.4	8.3	10.1
10	*	6.8	9.5	12.3	14.9
12	*	*	13.0	16.7	20.5
14	*	*	17.5	21.2	24.4
16	*	*	23.1	28.1	32.6

TABLE IV

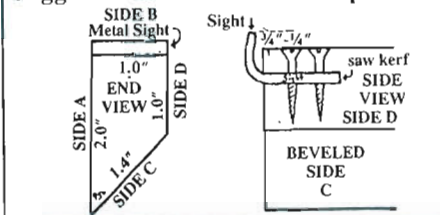
MINOR'S ROUGH CORD VOLUME USING MERCHANTABLE HEIGHT
IN 10-FOOT INCREMENTS (FC 75-79)

DBH	10'	20'	30'	40'	50'	60'
6	.024	.036	.048	.060	*	*
8	.041	.060	.079	.098	.117	.136
10	.062	.089	.116	.143	.170	.197
12	.085	.122	.159	.196	.232	.269
14	.117	.165	.214	.262	.311	.360
16	.148	.210	.271	.333	.394	.455

The Basic Angle Gauge

Cut the stick *exactly* 33" long; other dimensions may be as in **FIGURE 1** or left 1" x 2". Give rough sticks a good preliminary sanding to remove saw marks. Cut a slot in one end of the stick (**FIGURE 1**) and insert an *exactly* 1" wide metal angle. Drill pilot holes through the wood and secure the angle in the slot with two 1" wood screws. Finally, cut off the exposed end of the angle so that what is left protrudes 3/16" to 1/4" above the surface of the stick (See **FIGURE 1** again).

Figure 1:
Suggested dimensions and shape



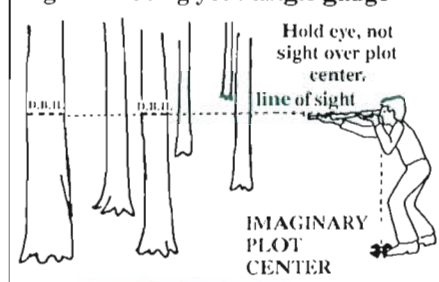
You now have a basic angle gauge which can be used to determine if your stands are under, over, or adequately stocked. You are actually measuring the basal area (BA) or the total square feet of cross-sectional area at four-and-a-half feet above the ground (Diameter breast height - DBH) for the trees in the stand.

Don't worry if that definition went over your head. Here is a practical example to show you how to use your angle gauge on your property. Let's say that your forester recommended in your management plan that a particular pine stand be thinned until it has a BA of 70. He then specifies that the trees should be allowed to grow until the BA has built back up to 110 before the stand is thinned back to 70 again.

You can use your angle gauge to watch for when the stand reaches a BA of 110 by periodically measuring the BA at several points within the stand. At each point mark a plot center, stand with your aiming eye over the plot center and hold the angle

gauge up to this eye. The metal site must be on the end of the stick away from your eye (**FIGURE 2**). Hold the stick so that the site

Figure 2: Using your angle gauge



appears just below a point on each tree four-and-a-half feet above the ground. Disregarding the distance you are from the tree and the individual tree sizes, count "+1" for all trees which appear larger than the site. Count "+0.5" for all trees which are the same width as the site. Don't count trees which appear

E V

4-FT. PULPWOOD STICK HEIGHT
Graduations in Inches from Bottom End of Stick

Merchantable height	Distance from eye to tree (arm reach)						
	22"	23"	24"	25"	26"	27"	28"
12'	4.00"	4.18"	4.36"	4.55"	4.73"	4.91"	5.09"
16	5.33	5.58	5.82	6.06	6.30	6.55	6.79
20	6.67	6.96	7.27	7.58	7.88	8.18	8.48
24	8.00	8.36	8.73	9.09	9.45	9.82	10.18
28	9.33	9.76	10.18	10.61	11.03	11.45	11.88
32	10.67	11.15	11.64	12.12	12.61	13.09	13.58
36	12.00	12.55	13.09	13.64	14.18	14.72	15.27
40	13.33	13.94	14.55	15.15	15.76	16.36	16.97
44	14.67	15.33	16.00	16.67	17.33	18.00	18.67
48	16.00	16.73	17.45	18.18	18.91	19.64	20.36
52	17.33	18.12	18.91	19.70	20.48	21.27	22.06
56	18.67	19.52	20.36	21.21	22.06	22.91	23.76

Graduation interval = arm reach (in inches) x log height (in feet)
66 feet

E VI

5-FT. PULPWOOD STICK HEIGHT
Graduations in Inches from Bottom of Stick

Merchantable height	Distance from eye to tree (arm reach)						
	22"	23"	24"	25"	26"	27"	28"
10'	3.33"	3.48"	3.64"	3.79"	3.94"	4.09"	4.24"
15	5.00	5.23	5.45	5.68	5.91	6.14	6.36
20	6.67	6.97	7.27	7.58	7.88	8.18	8.48
25	8.33	8.71	9.09	9.47	9.85	10.23	10.61
30	10.00	10.45	10.91	11.36	11.82	12.27	12.73
35	11.66	12.20	12.73	13.26	13.79	14.32	14.85
40	13.33	13.94	14.55	15.15	15.76	16.36	16.97
45	15.00	15.68	16.36	17.05	17.73	18.41	19.09
50	16.67	17.42	18.18	18.94	19.70	20.45	21.21
55	18.33	19.17	20.00	20.83	21.67	22.50	23.33
60	20.00	20.91	21.18	22.73	23.64	24.55	25.45
65	21.67	22.65	23.64	24.62	25.61	26.59	27.58
70	23.33	24.39	25.45	26.52	27.58	28.64	29.70
75	25.00	26.14	27.27	28.41	29.55	30.68	31.82
80	26.67	27.88	29.09	30.30	31.52	32.73	*
85	28.33	29.62	30.91	32.20	*	*	*
90	30.00	31.36	32.73	*	*	*	*
95	31.67	*	*	*	*	*	*

Graduation interval = arm reach (in inches) x log height (in feet)
66 feet

TABLE VII

LOG AND HALF LOG HEIGHTS (FOR 16-FT. LOGS)
Graduations in Inches from Bottom of Stick

Merchantable height	Distance from eye to tree (arm reach)						
	22"	23"	24"	25"	26"	27"	28"
1 Log	5.33"	5.58"	5.82"	6.06"	6.30"	6.55"	6.79"
1.5 Logs	8.00	8.36	8.73	9.09	9.45	9.82	10.18
2 Logs	10.67	11.15	11.64	12.12	12.61	13.09	13.58
2.5 Logs	13.33	13.94	14.55	15.15	15.76	16.36	16.97
3 Logs	16.00	16.73	17.45	18.18	18.91	19.64	20.36
3.5 Logs	18.67	19.52	20.36	21.21	22.06	22.91	23.76
4 Logs	21.33	22.30	23.27	24.24	25.21	26.18	27.15
4.5 Logs	24.00	25.09	26.18	27.27	28.36	29.45	30.55
5 Logs	26.67	27.88	29.09	30.30	31.52	32.73	33.94

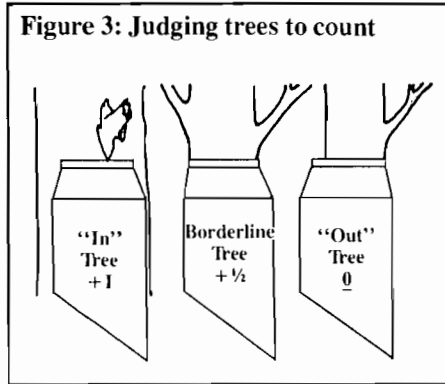
TABLE VIII

DOYLE (MESAVAGE-GIRARD) BOARD FOOT VOLUME OF 16-FT. LOGS

D.I.B.	8 Ft Log	10 Ft Log	12 Ft Log	14 Ft Log	16 Ft Log
10	18	22.5	27	31.5	36
11	24.5	30.6	36.8	42.9	49
12	32	40	48	56	64
13	40.5	50.6	60.8	70.9	81
14	50	62.5	75	87.5	100
15	60.5	75.6	90.8	105.9	121
16	72	90	108	126	144
17	84.5	105.6	126.8	147.9	169
18	98	122	147	171.5	196
19	112.5	140.6	168.8	196.9	225
20	128	160	192	224	256
21	144.5	180.6	216.8	252.9	289
22	162	202.5	243	283.5	324
23	180.5	225.6	270.8	315.9	361
24	200	250	300	350	400
25	220.5	275.6	330.8	385.9	441
26	242	302.5	363	423.5	484
27	264.5	330.6	396.8	462.9	529
28	288	360	432	504	576
29	312.5	390.6	468.8	546.9	625
30	338	422.5	507	591.5	676
31	364.5	455.6	546.8	637.9	729
32	392	490	588	686	784
33	420.5	525.6	630.8	735.9	841

Doyle BF = (D-4) x L
16

smaller than the site (FIGURE 3). Keeping your eye over plot center, rotate 360 degrees checking each tree as you turn. Be sure not to count any trees twice. When you are through, add the "+1's and +0.5's" and multiply the number of trees by 10 to get the BA for a particular plot. If there is some



variation in BA measured within a stand, use an average BA.

In our example, if you counted 9.5 trees at one point, then your BA is currently 9.5 x 10 or 95. In other words you need to let your trees grow a little larger before you thin again.

Adding Additional Information

To be able to determine merchantable volume of standing trees, as well as for felled logs, additional information must be imprinted on your stick and/or carried with you into the woods. The amount of information which you choose to add to your stick will depend on your patience and skill as you will soon see.

First, let's put the "custom" into your customized biltmore stick. The accuracy of most of the additional measurements you may want to make will depend on your ability to maintain a constant, comfortable distance between your eye and the stick as you use it. This distance will be referred to as your *arm reach*.

To determine your personal arm reach, stand with shoulders square to an object such as a tree or pole, grasp your biltmore stick about a third of the distance from the left end and hold it just below DBH level (four-and-a-half feet from the ground). Adjust your position until you can hold the stick with your arm in a comfortable and easily resumable position. Now have someone else measure the distance from the corner of your eye to DBH level (FIGURE 4). This is your *arm reach* (most likely between 22" and 28").

DBH

Side A can now be graduated for DBH

using the figures from the approximate column of TABLE I. If, for example, your arm reach was determined to be 25", TABLE I shows your 4" DBH mark should be made 3.71 inches from the left end of the stick. The 5" DBH mark should be made 4.56 inches from the end, and so on until you have all DBH's marked up to 40". Measure precisely using an engineer's scale and use a square for a straight mark.

Initially mark all graduations and/or information with a pencil so that you can make corrections or improvements. When you are satisfied with all of the markings, use either an engraver tool, a chisel and die set, or even a wood burner to imprint numbers, lines and letters into the wood. Go over each line or character with a black, ball-point pen to darken them for easier reading.

FIGURE 5 shows how your biltmore stick is used to secure the DBH of standing trees. It is very important to stand with shoulders square with the tree, hold your arm the same as when your arm reach was measured and move your aiming eye only. Keep the other eye closed and do not move your head.

Listing corresponding volumes for each DBH from TABLES II, III, and IV is

optional to you of course. Other volume tables can be used and may be available from local foresters. Whether you mark this information on your stick or carry these tables into the woods with you, you can get a rough estimate of the volume and value of individual trees. You'll find out how after the next section on merchantable height.

Merchantable Height

Hypsometer readings for 4' or 5' pulpwood sticks and 16' logs can be placed on a narrow edge opposite of the bevel (FIGURE 6). Graduations are listed on the appropriate arm reach column of TABLES V, VI, and VII. Mark the graduations as you did with DBH. These figures are for use in determining merchantable height from a distance of one chain (66 feet) from the tree.

Merchantable height is defined as the useable, marketable length of the stem starting at stump height (about 8" - 12" off the ground) up to the height where the buck or saw hand would usually cut off the top. In the case of pulpwood, the top is usually cut off where the stem diameter falls below 4". In the case of sawtimber, the minimum top diameter is about 8" for pine

Figure 4: Determining arm length

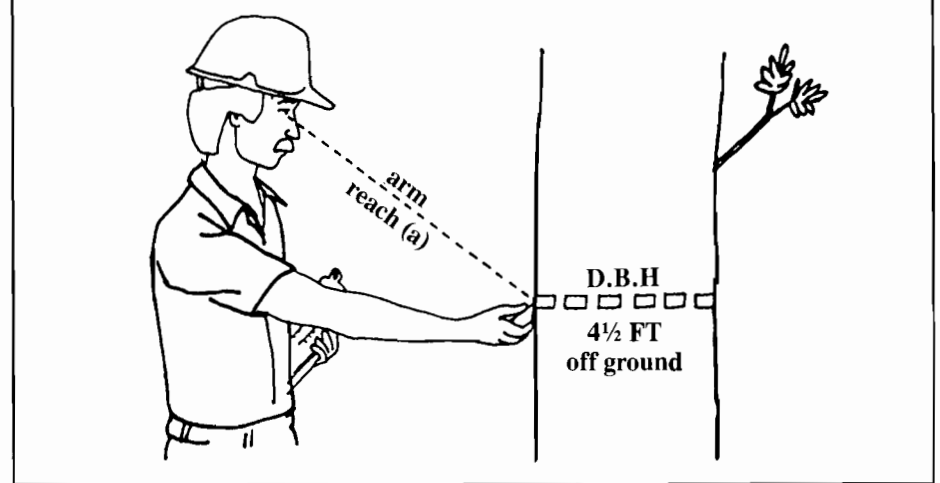


Figure 5: Using the biltmore stick to find D.B.H.

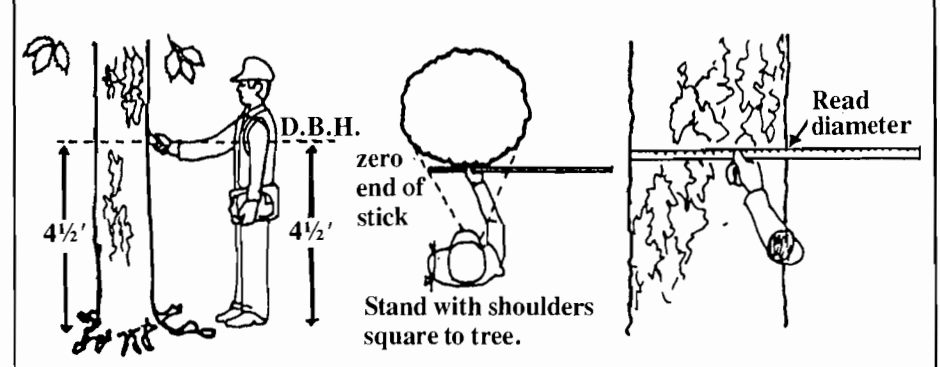
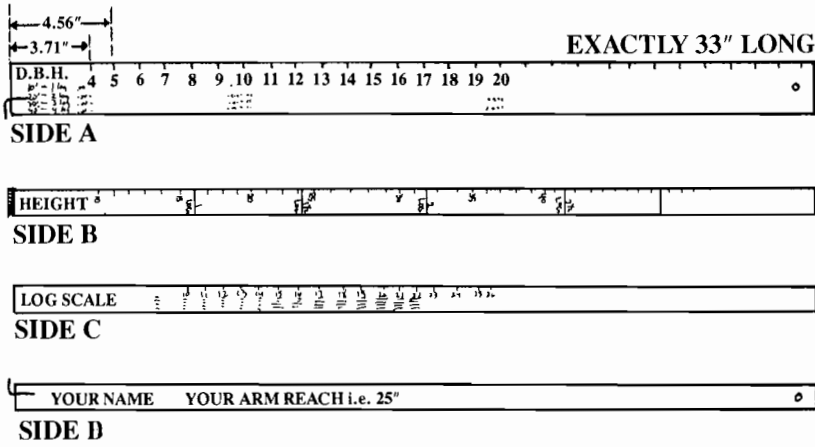


Figure 6: Faces of Biltmore stick



Scribner log rules from a local forester if you so desire.

Measuring the log scale is an easy matter. Simply lay the zero end of the scalestick on one side of the cross section of a log and read the figure where the scale crosses the log surface on the other side of the cross section. The only precautions here are that you be sure to measure the diameter inside of the bark (FIGURE 8) and that you read the number of board feet from the appropriate length of logs.

The Finishing Touches

Once all of the desired graduations have been added and the ink has been allowed to dry, resand the stick lightly to remove dirt and smudges. Finish the stick with two or three coats of either spar varnish or polyurethane.

When the stick is completely dry, drill a 3/16" to 1/4" hole through the end of the stick opposite the metal site. Tie a loop of cord or leather thong through the hole to give yourself a more secure hold on the stick as you swing at mosquitoes, deer flies, briars and snakes!

and 10" for most hardwoods. However, the buckler may cut off the top where the stem diameter is greater than 8" or 10" if the quality of the upper log is very poor due to damage or defects.

To measure merchantable height using your biltmore stick, first pace out *exactly* 66 feet from the tree trying to use a path that will allow the entire tree to be seen when you look back. An error on your pacing could throw off the accuracy of your measurement significantly. Okay, reassume your arm reach position and keep your shoulders square to the tree as you hold the stick straight up and down between yourself and the tree. Sight the zero end of the stick to rest on top of an imaginary stump. Do not move your head but run your eye up the stick to the point where the last merchantable cut would be made in the tree. Read sawlogs to the nearest one-half log, or pulpwood to the nearest stick (FIGURE 7).

Once you have measured the DBH and merchantable height of a standing tree, you can refer to TABLE II, III, or IV to determine the volume. Look on the line across the table from the DBH and down the column from the closest merchantable height. The figure at this intersection is the approximate merchantable volume for that particular tree. To determine a rough value for the tree, multiply the tree's volume by the current, local stumpage price per cord or per thousand board feet. Here's an example: a 14" pine sawtimber tree with 2 logs contains 75 board feet. If the local stumpage price for pine sawtimber is currently \$175 per 1000 board feet then the tree is worth 75/1000 board feet x \$175 or \$13.13.

not depend on your personal arm reach. Log scale (or volume) graduations can be placed on the beveled edge of the stick beginning with the minimum log diameter of 10". Doyle scale volumes are given for 8-, 10-, 12-, 14- and 16-foot logs in TABLE VIII. Again, you may be able to obtain log scales using International or

Figure 7: Determining merchantable height of tree

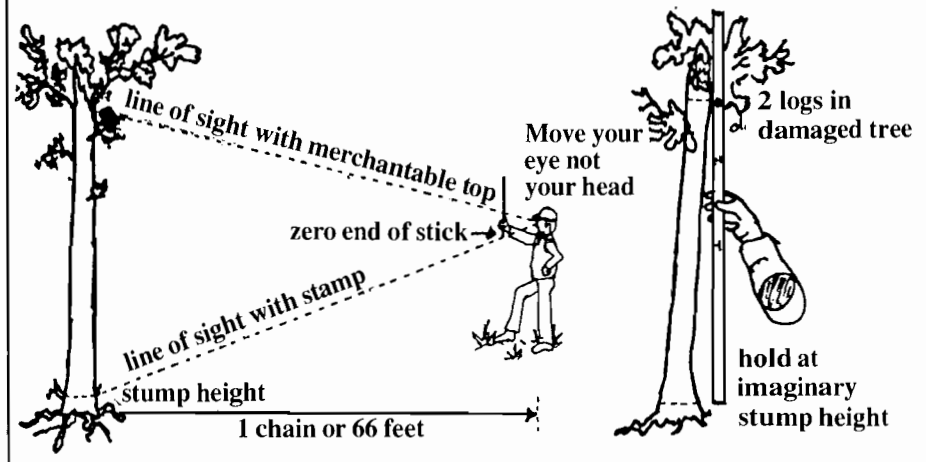
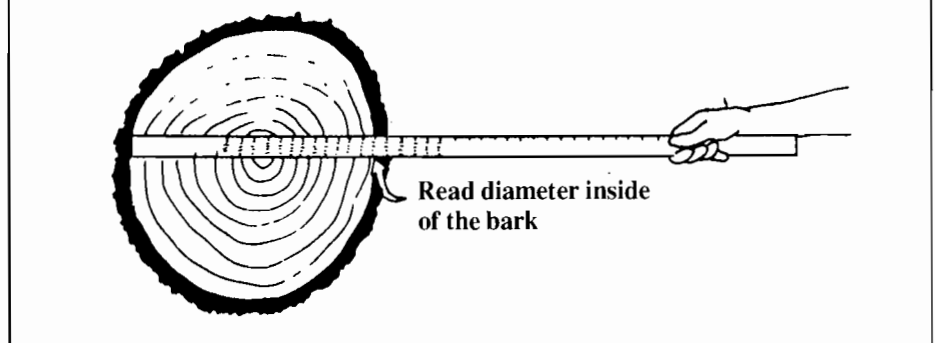


Figure 8: Scaling the column in a log



Log Scale

This is one measurement which does

LANDO

NATIONAL



by J. KENNETH MYERS, Legislative Affairs Staff, U.S.D.A. Forest Service

CONGRESS CONTINUES its deliberations of the budget and deficit reduction. Appropriations for the Fiscal Year 1987 (beginning October 1, 1986) is under consideration by the House and Senate committees and their proposals were to be made public in June in the form of introduced bills. This will be followed by the more formal "mark-up" process in which amendments that add or subtract funds from the government's programs will be made to the bills.

The fate of the cooperative forestry programs—those federal-state efforts providing protection and management assistance for the nation's private forestlands, including the Forestry Incentives Program—are not known, but it is expected that the committees will continue these programs at the same level as Fiscal Year 1986. The states shared a federal appropriation of \$28 million in 1986. In doing so, Congress would be overruling the administration's budget request of zero dollars for these programs. In hearings before congressional committees earlier in the year, the National Association of State Foresters and other conservation and environmental organizations urged that funding be provided for the cooperative programs.

The Tax Reform Act of 1986, *H.R. 3838*, is a major legislative issue that will dominate Congress' time in the coming months. The Senate Finance Committee, chaired by Senator Bob Packwood of Oregon, has announced its version of this bill which has significant differences from the House version. Action by the Senate on *H.R. 3838* is expected during the summer months. Conference committee action to resolve the differences between the two versions would then follow, but it is not certain that this action would be completed

before Congress' anticipated adjournment before the November elections. If Congress does not return after election in a "lame duck" session, the bill would die and have to be reintroduced in the 100th Congress which begins in January, 1987.

The Tax Reform Act contains several provisions important to Alabama forest landowners. Several of the tax benefits now available to forest landowners would be reduced or eliminated in the House of Representatives bill. This includes the annual deductions of expenses from the management of timber (including taxes and interest), capital gains treatment of proceeds from timber sales, and the investment credit for reforestation expenses. These would be offset, at least in part, by a reduction in tax rates for both individuals and corporations. The Senate version appears to be less detrimental to forest landowners in that it only reduces, not eliminates, those tax benefits applicable to timber growing. An example of the differences between the Senate and House versions is that capital gains treatment of timber sale proceeds would be retained for individuals but excluded for corporations in the House bill; it is repealed for individuals and retained for corporations in the Senate version. Obviously, much deliberation and debate lies ahead on this legislation. While some provisions are the same, those that differ may be changed entirely before Congress completes its action.

Although Congress has many issues now before it, a good number of which deal with natural resources, it is these two issues which will dominate the agenda in the coming months. The desire to complete action on these issues before its expected October adjournment will insure a busy schedule. ♣

AS THE 1986 REGULAR SESSION of the Alabama Legislature was drawing to a close on April 28, one political observer quipped "there ought to be a law against having a session in an election year."

Truth is, it's not easy for a lawmaker to keep his mind on the business at hand when he's preoccupied with a reelection bid that's only three weeks away. That may or may not have had any bearing on the lackluster session just concluded.

It took all of 30 legislative days to finalize both the general fund and education budgets. Most state agencies were whacked approximately 4.5 percent. The Forestry Commission, which operated with a budget of \$11 million in fiscal 1985-86, was slashed to \$10,027,500 with a conditional appropriation of \$1 million.

\$1 Million Conditional

An agreement was reached between State Forester C. W. Moody, Senators Hinton Mitchem and Foy Covington, and Governor Wallace that if the budget was not in proration and if action making the conditional appropriation would not force proration, the \$1 million would be made absolute before the Governor leaves office in January, 1987.

State Forester Moody, however, took the occasion to express his appreciation to the Governor, legislators, the forest industry and forest landowners for assisting the Forestry Commission with its increased efficiency in holding this year's fire losses far below those of previous years. He credited this feat to the lawmakers who supported the Commission's budget increase for the current year.

He said Alabama would have suffered substantially higher losses had the Com-

WINNERS

STATE



FRANK SEGO, Legislative Liaison, Alabama Forestry Commission

mission not been able to hire additional fire suppression crews and pilots for air detection.

Services Could Suffer

It was during the 1985 Legislative Session that lawmakers passed a bill doubling the severance tax on forest products and provided a matching sum of \$1.8 million to be appropriated to the Forestry Commission from the general fund for fiscal year 1985-86. Failure to obtain a similar amount in the 1986-87 budget would curtail some of the services now being provided by the Forestry Commission.

This year, for the first time, the Commission has been able to bring an end to "one-man fire crews," something that has plagued State Forester Moody since his arrival in 1970. Old, worn, and obsolete equipment is being replaced in each of the AFC's 10 districts. The picture was changing for the best until the bottomline of next year's budget came into focus.

Few Bills Passed

Of the more than 1,600 bills introduced during the 1986 session, only a few gained final passage. Among the casualties were a number of measures vital to forestry and the forest landowner in Alabama.

Most notable among these was the much-sought-after bill to establish a state forest industrial development board. Senator Perry Hand of Gulf Shores secured 24 co-signers and the bill passed the upper chamber without a dissenting vote. When it reached the House Ways and Means Committee, the \$375,000 appropriation from the general fund to implement the bill was a determining factor that halted further

consideration, and it died in the House committee.

Another bill which would establish a Timber Theft and Woodland Condemnation Act wheeled through the Senate, made the House Special Order Calendar and appeared certain to be passed on the final day. However, it was later learned that one or two lawmakers had reservations about the bill and asked the House leadership to block its passage.

Yet another measure made the House Special Order Calendar before its demise in the final hour of the 30th day. The bill would make it easier to maintain records of purchases of manufactured forest products. It would have simplified the manner of record keeping and increased the penalty for failure to maintain such records.

No Pay Raises

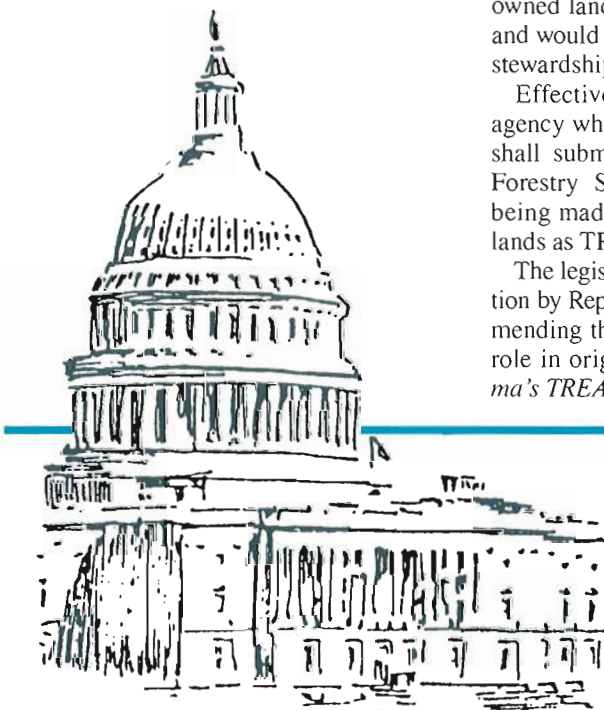
The gavel also came down on legislation to provide annual bonuses for state employees. The Senate passed a bill that would have given the state's 30,000 employees a 5% pay raise, plus annual bonuses ranging from \$300 to \$600, depending on length of state service. The House stripped away the pay raises and left the bonuses, but that also died without action.

State Lands As TREASURE Forests

Legislators did pass a joint resolution by Representative Curtis Smith and others for the adoption and implementation of the TREASURE Forest concept on all state-owned forestland to ensure that such state-owned lands would be properly protected and would serve as a model of responsible stewardship.

Effective January 15, 1987, each state agency which owns or controls forestland shall submit a report to the Legislative Forestry Study Committee on progress being made toward certification of these lands as TREASURE Forests.

The legislature also passed a joint resolution by Representative Jimmy Warren commending the Forestry Commission for its role in originating and publishing *Alabama's TREASURED Forests* magazine. ♣



ACTIVITIES

DISTRICT 1 Piedmont Fire Department awards dinner was held in Calhoun County to honor AFC personnel, cooperators and firemen.

Larry Parker, Marshall County, helped in judging the Marshall County public speaking contest for the 4-H Program in Marshall County.

Jack Lay has recently completed the firearms instructor school at Jacksonville State University. Jack had a final academic average of 94.5 and a marksmanship average on the range of 97.6.

Mr. Moody, along with Sam Gravel and Mark Sullivan, joined Chuck Weber, Huntsville City Arborist, in three different ceremonies celebrating Arbor Day in Huntsville. First, Huntsville was certified as a Tree City, and then they dedicated an Arboretum at Ed White School to the memory of the 7 astronauts who recently died. The last ceremony was a tree planting on the courthouse grounds in memory of Charles Stone, Madison County Commissioner, who had been a friend of forestry over the years.

Philip Smith, Etowah County, has been discussing with the Mental Health Center how to begin a nursery in the county for their patients to operate. They are interested in raising 3 million trees over the next five years.

Ed Eldridge, Jackson County, worked with each of his county schools in Jackson County in presenting an Arbor Day program during Arbor week. Scottsboro Mayor Lonnie Crawford signed an Arbor Day Proclamation. A tree planting at City Hall was held in honor of Arbor Week.

Scottsboro, Jackson County, has recently received Tree City U.S.A. certification.

Two thousand seedlings were also given away to Scottsboro residents in honor of Arbor Week.

DISTRICT 2 The Cooperators meeting for District 2 was held in Walker County on February 6. During the meeting each county supervisor gave a brief review of how the increase in the fiscal year '86 budget greatly helped in combatting wildfires and State Forester C.W. Moody was on hand to give a review from a statewide perspective.

State Forester C.W. Moody and District Forester Bart Williams "burned a trail" of Wildfire Prevention news media interviews across District 2 on February 6-7. According to Williams, the day and night whirlwind trip included audio interviews at four radio stations, seven newsprint interviews, a television interview and a luncheon address by Mr. Moody at the Haleyville

Chamber of Commerce. During the two-day media blitz the pair also made stops at a Treasure Forest dedication ceremony at the property of John McCrary in Jefferson County. While at the McCrary TF, Mr. Moody held a Wildfire Prevention press conference for members of the local media. WBRC-Channel 6 and Western Star newspaper attended the special called meeting. The remainder of Mr. Moody's tour included a speech to the forest industry cooperators at the District 2 Fire Suppression Cooperators meeting. He also attended an appreciation dinner with Mr. and Mrs. Darryl Lawson (Shelby County Forestry Supervisor) for State Senator Butch Ellis of Shelby County, who is a Treasure Forest owner himself.

District Forester Bart Williams, Winston County Supervisor David Frost and Cullman County Supervisor Darrell Johns attended a Conservation Reserve Program orientation in Hartsville on February 25.

St. Clair Ranger Gary Hamilton was recently surprised when he attended an organizational meeting of the prospective Cool Springs Volunteer Fire Department. Instead of finding the usual disorganized group of eager individuals, Hamilton met face to face with a fire truck! Congratulations and best of luck to the Cool Springs Volunteer Fire Department!

On April 15, District Forester Bart Williams introduced Coleen Vansant as the new full-time Information and Education Coordinator for District 2.

Cullman Rangers Darrell Johns and Jim Moody and Staff Forester Tom Kimbrell, District 2, conducted forestry judging competition for the North Central Alabama District FFA organizations Saturday, April 19 at Cullman High School. J.P. Pennington High School in Blount County earned first place honors and West Point High School in Cullman County captured second place. Cullman County FFA competition was held April 15, with West Point High School earning first place and Cold Springs High School taking second.

Tom Gilpin of Montgomery joined the Cullman Forestry Commission office as the department's third ranger.

Fire Specialist Larry Wright presented a program on fire prevention to approximately 20 Cub Scouts and their parents Tuesday, April 22 at Corner.

A fire truck dedication ceremony was held Friday, April 25 for Boldo Volunteer Fire Department in Walker County. The ceremony was attended by District Forester Bart Williams, RCFP Chief Ray Tucker, Walker County Forester Charles Hall, and former AFC Commissioner Sam Murphy. State Senator Charles Bishop was also on hand to conduct the fire truck dedication and turn over the keys to the fire truck to fire department officials.

Crane Hill Fire Department in Cullman County recently added a 1967 F 950 fire truck to their inventory of equipment. The 1,000 gallon tanker, with a 750 gallon-per-minute capacity,

also features four 30-minute air packs, 1,250 feet of 2-and-one-half inch hose, 400 feet of one-and-one-half inch hose and 300 feet of three-quarter inch booster hose.

Shelby County Forester Daryl Lawson was recently elected to serve as vice-president of the Shelby County Fire Chief's Association.

Cary Rhodes, Shelby County ranger, presented a school program to a group of 5th graders at Our Lady of Sorrow School at Indian Springs in Pelham. Rhodes' presentation was concentrated around the topic of forest management.

Andy Winslow recently joined the ranger staff of the Jefferson County office.

Fire Specialist Larry Wright, District 2, presented a program on nature trails and fire prevention to approximately 20 elementary students Wednesday, April 30 at Tannehill State Park.

DISTRICT 3 District Forester Wayne Strawbridge says that many factors contribute to the low to date average size fire of 9.6 acres: (1) Dedication and commitment of District 3's fire suppression personnel including volunteer fire departments, forest industry and assistance from Districts 6 and 7; (2) better aerial detection with the use of two aircraft; (3) addition of part-time laborer to fire suppression unit and (4) last, but not least, good news media coverage of the fire situation and in turn outstanding cooperation from the general public in adhering to our fire danger alert by not burning.

District Forester Wayne Strawbridge has recently made six T.V. appearances with coverage from WDBB Channel 17 in Tuscaloosa and Channel 6 in Birmingham (Tuscaloosa Bureau) and numerous radio announcements and newspaper articles. NEWS MEDIA, WE THANK YOU!

The Tuscaloosa County Fire Protection Association met at District 3 Headquarters February 14 to work out the details for completion of the Tuscaloosa RCFP radio system. Richard Cumbie and Paul Davis from the State Office attended the meeting called by District Forester Wayne Strawbridge. A third repeater, better antennas and new equipment at the dispatch center will be installed during March. This additional equipment should eliminate long standing problems with the radio system.

A multi-agency training session on the new Conservation Reserve Program was held in Tuscaloosa on February 26 for 14 West Central Alabama counties. Media coverage of the meeting (Tuscaloosa News, WCFT-TV and WDBB-TV) was coordinated by members of the Tuscaloosa Forestry Planning Committee. John Harper, RCD Coordinator, SCS; and Mark Beeler, RCD Forester; were guests on radio station WACT's "Hotline" talk program on February 25. Discussion

of the new cost-share program was followed by answering questions from the listening audience.

A meeting for landowners was held at the Tuscaloosa Public Library on February 27 to discuss the new cost-share program (CRP). Following a slide/tape presentation on the cost-share program, questions from the audience were answered by representatives of the ASCS, SCS, AFC and ACES.

District Three law enforcement officers won the Annual Marksmanship Trophy for the third consecutive year with an average score of 293. Top shooter was District Forester Wayne Strawbridge who shot 299 (23X). In the six years the trophy has been awarded, District Three has won four times. Districts Five and Seven were second and third with average scores of 284 and 281, respectively.

Congratulations to Harold Jordan and Alton Terrell of Lamar County who placed first and third in the Lamar County Fraternal Order of Police annual pistol match held in December.

Alabama Congressman Richard Shelby presented an American flag to District Three Headquarters in January. The flag was flown over the United States Capitol on December 6, 1985, for District 3.

Hale County celebrated its first county-wide Arbor Week. Four Hale County mayors and the Hale County Commission all signed proclamations declaring February 16-22 as Arbor Week. Trees were also donated to several schools in observance of Arbor Week, encouraging Alabamians to plant a tree. The Hale County Forestry Planning Committee hosted a tour of Hammernill's sawmill at Hulls for interested landowners.

Government agencies in Fayette County (ACES, AFC, SCS and Department of Conservation and Natural Resources) joined forces in a Blue Bird House Project. Held February 15 at Guthrie Smith Park, 250 blue bird houses were sold. The houses were constructed and sold by the local FFA and 4-H chapters.

The Boley VFD celebrated its 10 year anniversary in February with an open house. The fire department equipment was on display for the public and Senator Roger Bedford spoke on the volunteerism of volunteer fire departments.

DISTRICT 4 Glenn Berry, Cleburne County Supervisor, and Earl Smith, Clay County Supervisor, are conducting a Utilization

survey in District 4. The information obtained in these surveys has proved invaluable as we have a large number of requests for it.

H. D. C. (Buddy) Adcock, Coosa County, attended the Forestry Academy's Spring Training. He will also attend the Wildlife and Recreation Ranger Training to be held at the 4-H Club Camp in Shelby County.

The Chambers County Forestry Planning Committee meeting was held Tuesday night, April 15. About 20

landowners heard presentations by **Jerry Johnson, SCS; Bill Frazer**, consulting forester with Piedmont Foresters in Lafayette; and **Clayton Schwind**, AFC county supervisor for Chambers County. The subjects included an overview of the timber market; site preparation and soil erosion; and the southern pine beetle.

The Chambers County Forestry Association meeting was held in Standing Rock on April 28. The AFC wishes to thank the **Chambers County VFD's** for their outstanding cooperation during the extremely long spring fire season.

The Clay County Forestry Planning Committee had its quarterly business meeting, April 29, in Ashland at the **ASCS** office.

W. N. McCollum, FR III, and Earl Smith, County Forester, are participating in a 160-hour structural fire training course funded by the **Alabama Forestry Commission** and taught by **Mike Haynes** of the State Fire College. Students who pass the course and the state exam will be the only certified fire fighters in District 4 who are members of VFD's.

On April 2, the FFA Forestry Judging Contest was held in **Clay County**. **Lineville** was this year's winner.

The **Third Annual Clay County RCFP Competition** was held April 5. Eight of the seventeen VFD's in the county competed for \$600 in prize money plus other prizes. Trophies were presented to the top three contestants in specific categories and also trophies for the best overall. The trophies were made of walnut by FR III **W. N. McCollum**. We look forward to next year's event!

The Randolph Leader carried an article with photos of a bad weekend wildfire outbreak. The photos were of an endangered motel and a 97-acre plantation which was destroyed. The newspaper devoted two front pages to the wildfire problem! Also covered with stories and photos were a **TREASURE** Forest presentation to **Luther Rice** and a recertification of **Edward Allen's TREASURE**.

The Randolph County Volunteer Firemen's Association had a **Saturday "Barn Raising"** for the tanker truck shed to house the county tanker.

Randolph County AFC assisted with the Forestry Judging Contest. The **Roanoke-Randolph Area Vocational School Forestry Class** taught by **Jim Morris** was the winner. High scorer was **Connie Banks** Three vo-ager classes competed.

Earl Manning, owner-operator of **WELR Radio**, is the latest **TREASURE** recipient in Randolph County. The ceremony was covered by the **Randolph Leader**.

The Cleburne County Forestry and Wildlife Association held their bimonthly meeting at the AFC office in March. The program concerned the care and handling of seedlings.

Tallapoosa County Supervisor Guy Slayden and Forestry Worker **Scott Pitts** presented Smokey Bear and gave

balloons and rulers to over 300 kindergarten children in Alexander City Schools.

The Tallapoosa County Forestry Planning Committee gave away 28,000 loblolly pine seedlings in bundles of 50-100 trees. The seedlings were donated by the **Soil Conservation Service, Kimberly-Clark, Georgia Kraft, Union Camp, and Weyerhaeuser**.

Guy Slayden assisted District Soil Conservationist **Connie Vaughn** in a land judging contest for county high school students.

As in several districts, District 4 experienced one of the longest fire seasons on record. The only real relief came in mid-May. From Christmas until that time, we were constantly faced with fighting wildfires. **District Forester E. O. Moore, Clayton Schwind, Earl Smith, Glenn Berry, Ralph Wooley, Steve Nix, John Tyson, and Guy Slayden** all express their appreciation to each of the **Volunteer Fire Departments** in the district as well as all of the cooperators.

DISTRICT 5 On February 13, **Smokey Bear and Autauga County personnel** participated in a tree planting ceremony at **Prattville Elementary School** with approximately 500 students in attendance.

On February 22, **Autauga County personnel** participated in a ceremony recertifying **Prattville** as a Tree City, USA for the third consecutive year. Smokey Bear was present and assisted girl scouts in giving away thousands of trees donated by the **AFC and Union Camp Corp.**

On April 7, **Autauga County personnel** participated in the taping of a segment on forest fires by **WAKA-TV**, which was aired on the evening news.

Perry County landowners had a big day on March 6. The **Perry Co. Forestry Planning Committee** sponsored a Forest Economics Field Day and Workshop. **Dr. Bill McKee**, Auburn Extension, outlined the investment advantages of forest management. Then the 60 participants toured six sites and discussed various aspects of each step from an economic point of view. A barbecue lunch was provided.

Seven area cities received Tree City, USA recognition in 1986 as Arbor Week was celebrated in District Five. **Selma, Prattville, Clanton, Linden, Camden, Thomaston and Demopolis** have tree commissions and are showing they care about their trees. **David Pearce**, District Five Urban Forester, challenges other cities to match their civic dedication.

On February 13, tree planting ceremonies were held in **Demopolis, Thomaston and Linden** in observance of Arbor Week.

On February 20, approximately 25,000 seedlings and 500 different species of hardwoods were given to

150 people from **Marengo County** during Arbor Week.

On March 20, Tree City, USA ceremonies were held in **Demopolis, Thomaston and Linden**. Flags and plaques were presented to each city.

On April 4, **Alan Weeks and Nathaniel Todd** set up and judged the Marengo Co. forestry judging contest for the FFA at **Chickasaw State Park**.

During Arbor Week, the **Wilcox Co. Extension Service** distributed 1500 AFC seedlings to 4-H Clubs in Wilcox Co. Schools.

On February 19, **Camden's Tree Commission** supported two urban tree plantings to observe Arbor Week.

Smokey Bear made an appearance at the annual **Pine Hill Arts Crafts Festival** on March 22.

Jim Gober, AFC; Gary Faulkner, AFC; and Ralph Stanford, Energy Division, ADECA, spent some time in Wilcox County providing wood energy and utilization assistance to a local forest industry.

The **CRP** program made a big debut in District Five. Over 2,180 acres will be converted from marginal cropland to producing those beautiful pines! Soil erosion will be reduced and the production of the land will continue!

A general forestry presentation was given to the **Southside Grammar School** in Dallas County.

Byrd Elementary School in Selma received the first **TREASURE Educator Award** on February 21. The award was presented by **Neil Letson and Frank Roth**.

DISTRICT 6 Eufaula City Councilman **Mac Clark** presented a program at the Urban Forestry Conference held in Montgomery in March. **Barbour County Supervisor Don VanHouten** and District Management Specialist **Barry Lawrence** helped to create the slide presentation which detailed Eufaula's urban forestry work as a Tree City, U.S.A.

The **Dale County Forestry Association** held its quarterly meeting in Ozark recently with Chairman **George Wright** presiding. An informative meeting highlighting the various sources of assistance a landowner can utilize was presented. **Mrs. Mildred Pelham, ASCS; Ben Moore, SCS; Bruce Hancock, AFC; and James Estes, ACES** were among the agency speakers discussing how they can cooperatively help a landowner with his/her management needs. The next meeting will be mid-July.

The **Henry County Forestry Association** recently held its quarterly meeting with featured speaker **Bob Mitchell, ACES**, who is a newcomer to Alabama. His topic covered the variety of herbicides available to forest landowners. **Mitchell**, along with AFC personnel in the **District Office and Henry and Pike Counties** have been busy installing demonstration plots. Twenty-eight, 3-5 year-old pine plantation plots (fourteen in each county) have been marked and sprayed

with various herbicides. The purpose is to evaluate the effects of pine seedling release from hardwood competition. The results will be made available in a pamphlet.

The **Abbeville Garden Club** of Henry County got into the act recently after a presentation concerning fire prevention for children. The ladies took various pamphlets and other items and handed them out to groups of children. Thanks for lending a hand, ladies!

The **Gladiola Garden Club and Outdoor Club** in Houston County recently were given presentations on Tree City, U.S.A., tree identification, and shade trees by **Ranger Tracy Lawrence**. He utilized a couple of slide-tape programs and handouts. A question-answer session followed each presentation.

Work is beginning on the new **AFC office in Pike County!** **Great Southern Paper Company** donated two acres of land upon which an office and equipment storage and workshop area could be built. Obviously, **County Supervisor Wayne Craft and Ranger Mike Stinson** are pleased. Much work and effort by several **District Six** specialists has been instrumental in the construction. Completion is scheduled for late fall, 1986.

The **City of Geneva** was officially recognized as a Tree City in a ceremony in which **State Forester C. W. Moody** made the presentation to Mayor **Hugh Herring**. **District Forester Franklin McAliley, Geneva County Supervisor Ronnie Hickman, and Management Specialist Barry Lawrence** also attended the ceremony. Now a Ranger III in Mobile County, **Jerry Dwyer** was instrumental in working with the officials in Geneva toward certification.

DISTRICT 7 Forester **Gib Burke and Ranger Robert Knowles** assisted with the FFA District Contest in **Atmore** on Saturday April 5.

Ranger Johnny Mims will be missed by District 7 as he transferred to Montgomery County, District 10 on April 26. Hope Johnny enjoys his new county and district.

Congratulations goes to Gib Burke on his promotion to Forester II, a well deserved promotion!

On Friday, March 14, representatives from state, county, and local offices were on hand as **Sherling Lake** in Butler County was commissioned as a **TREASURE Forest**.

The **Monroe County Commission Chairman** proclaimed February 16-22 as Arbor Week in Monroe County. The **Alabama Forestry Commission and SCS** had a joint tree give away during this week and about 300 persons received trees.

A regional **Conservation Reserve Program** meeting was held in **Monroeville** at the Vanity Fair Community Center on February 18, 1986. About 150 to 200 people from different agencies attended. **Mrs. Bubba Trotman** was the guest speaker.

Agencies represented were ASCS, SCS, SCWD, AFC, ACES, and U.S. Game and Fish.

DISTRICT 8 Mobile County Supervisor Patrick Waldrop presented a program to the South Alabama Botanical and Historical Society on pine production and current forestry practices on January 31.

Clarke County Supervisor Mike Hinson and other Clarke County personnel sponsored a free tree giveaway for Clarke County landowners during Arbor Week. Both pines and hardwoods were given away.

Choctaw County Supervisor Chuck Quinn along with other Choctaw County personnel showed a film on tree care to Silas Elementary School, East Choctaw Elementary School, Lisman Elementary School, Gilbertown Elementary School, and Butler Elementary School during Arbor Week.

All foresters and county supervisors in District 8 attended a TREASURE Forest orientation meeting in Jackson on January 15. This meeting was a cooperative effort by the SCS, ASCS, ACES, AFC, Department of Conservation, and other agencies of the Alabama Forestry Planning Committee to bring about a better understanding of the TREASURE Forest program.

Forest Ranger Major Harris judged a 4-H woodworking contest for all of the schools in Mobile County on February 1.

Forest Management Specialist Larry Grable and Baldwin County Supervisor John Martin gave an Arbor Week presentation at the Old Spanish Fort Christian School for 180 students and parents. Pine seedlings were given away after the presentation.

John Martin also made presentations at Foley, Summerdale, Gulf Shores, Fairhope, and Elberta.

Mobile County Supervisor Patrick Waldrop participated in several Arbor Week activities such as planting seven trees at Orchard Elementary School

in honor of the Space Shuttle crew; twenty red maples were planted at Baker School; and two live oaks and eight red maples were planted at Murphy High School.

The City of Mobile had a large Tree City, U.S.A. celebration at Bienville Square Park. Mobile was the first Tree City in Alabama.

Baldwin County has two new Tree Cities—Gulf Shores and Bay Minette. This brings the total Tree Cities in Baldwin County to eight, leaving only three more to go in the county!

In a cooperative effort, the Mobile Tree Commission, Alabama Power Company, Alabama Forestry Commission, Girl Scouts, and 4-H Club gave away 18,000 longleaf pine, red maple, yellow poplar, and dogwood in Mobile and 3,500 of the same species in Dauphin Island. The response was TREEmendous!

Radio Operator Irene Morris coordinated a forestry poster contest for District 8. Winners were selected from four divisions according to school grades. Winners were from Nan Gray Davis, Semmes Elementary School, Dickson Elementary, and Phillips Middle School in Mobile County, and Silverhill Elementary, Robertsdale High, Elsanor Elementary, Foley Elementary, and Foley High in Baldwin County.

Patrick Waldrop also judged the botany division of a science fair held March 20 at the University of South Alabama. Seven area schools participated.

Mike Hinson conducted a class for FFA students on timber volume estimation and tree identification on March 25. Four schools participated.

Mobile County Forest Ranger Gordon Horsley made a presentation to a Cub Scout group on fire prevention on March 4.

Choctaw County Supervisor Chuck Quinn in a cooperative effort with SCS, Cooperative Extension Service and ASCS conducted an FFA Land Judging Contest on March 27.

Baldwin County personnel judged an FFA Forestry Contest on March 20

for Robertsdale and Baldwin County High School.

Baldwin County Assistant Supervisor Lynn Booth conducted a brush fire training session for the Stapleton Fire Department in March.

DISTRICT 9 Any citizen in District 9 who reads newspapers, watches TV or listens to his radio knows about the recent serious fire situation in North Alabama. The Florence-Times Daily and other newspapers in our area gave front page coverage to this serious problem almost everyday. In addition, they ran color photographs of wildfires and the helitack operation.

"Pilot Honored for Heroism," "Rescue Pilot Recognized for Efforts," "Forestry Pilot's Actions May Have Saved Child's Life"—these were just a few of the headlines in area newspapers when District's Nine's part time pilot Phil Montgomery aided in locating a plane crash and assisted in rescue operations. The rescue operation was coordinated by George Tucker, Radio Operator II. Franklin County Sheriff Larry Plott invited all those involved to his office where he presented Phil with an award plaque. Commending all those who aided in the rescue effort, Sheriff Plott said, "It was truly an example of a cooperative effort, but one individual (Montgomery) was the key to its success."

Steve McEachron, Lauderdale County Forester, and Vernon Young, Forest Ranger, cooperated with the Florence Garden Club in an Arbor Day tree planting ceremony attended by the Mayor of Florence, members of the Florence City Council, Chairman of the Lauderdale County Commission Will Duncan, and members of the Florence Garden Club.

Don Burdette spoke to the Shoals Chapter of the Sierra Club presenting a special slide program on what the AFC does and what the USFS does. Don has also taped an interview with a local TV station on the Treasure Forest Program.

Wal-Mart stores in Florence and Muscle Shoals cooperated with the

AFC in celebration of Arbor Week. They purchased 11,000 loblolly pine seedlings to give to their customers. AFC personnel were on hand in both stores to participate in this free tree program.

Clifford Aldridge, former Lauderdale County Supervisor, died suddenly during February. Aldridge was very popular with local school children—always taking time to attend their Arbor Day programs, fire prevention programs and assisting teachers in many ways.

Louise Bone, District Secretary, has been honored by the Alabama Future Farmers of America. The State organization has conferred upon her their highest honor—the Honorary State Farmer Degree. This honor is given in recognition of her aid to education in agriculture and her interest in the development of youth.

The Marion County AFC Wildflower Trail continues to be a favorite place to visit. Tony Avery, County Forester, conducts tours for garden clubs, school groups, scouts and any interested groups.

DISTRICT 10 Lee County forest landowners met in the new agricultural office center for two nights February 25 and 27 to listen to experts in the field of forest economics and business talk about the future of their product. Dr. Bill McKee, Auburn University Extension economist, was a featured speaker, as was AFC Forester Sharon Clark and Forestry Association leader John McMillan. This was the latest in several years of Lee County Planning Committee meetings, which Supervisor J.B. Coker estimated was attended by over 70 people during the two sessions.

Burning specialists from the U.S. Forest Service in Tuskegee gave a prescribed fire demonstration to several dozen Macon and surrounding county residents in early February in a program sponsored by the local county forestry planning group. Dick Sampson and Johnny Harris, USFS, took landowners through the step by

CALENDAR*

July 7—Cleburne County, 6:30 p.m., Forestry and Wildlife Association. Call Glenn Berry, 463-2876.

July 8—Jefferson County, 7:30 p.m., Alabama Forest Owners Association, AmSouth Bank, Hoover. Slide presentation on prescribed burning and discussion on possible "self-help" burning project. Call 663-4138.

July 8-9—Lee County. Microcomputer Applications in Forestry. Call Dr. Bill McKee, 826-5330.

July 17—Dale County, 7:00 p.m., Investment Analyses with a Microcomputer. Call Barry Lawrence, 774-5139.

July 22-23—Lee County. Microcomputer Applications in Forestry. Call Dr. Bill McKee, 826-5330.

July 22-24—Athens, Georgia. Forest Appraisal Workshop, Call Dr. Hampton, (404)542-3063.

July 23-25—Mobile County. Southern Commodity Producers' Conference sponsored by Alabama Farm Bureau. Landowners welcome. No registration for non-meal activities. Call Steve Guy, 1-800-393-5705.

July 29—Macon County, 9:30 a.m., "Minority" Forest Landowner Conference. Will cover services available to minority forest landowners. Lunch provided. Call Dr. Peter Mount, 727-8776 or 777-8808.

September 11-12—Third Alabama Forest Landowner and TREASURE Forest Conference, Montgomery. Registration \$25. Call Brenda Thomas, 261-2525.

October 14-16—Cleveland, Tennessee. Seventh Central States Forest Soils Workshop. Program will feature mountain soils derived from several parent rocks, land management activities on the Cherokee National Forest, and reclamation activities in the Copper Hill-Ducktown area. Contact Jim Paugh, Soil Conservation Service, 675 U.S. Courthouse, Nashville, TN 37203, (615)736-7241; or Glendon Smalley, U.S.D.A. Forest Service, SPO Box 1290, Sewanee, TN 37375, (615)598-5854.

October 17-18—Montgomery. Whitetail Deer Management Workshop. Designed for private landowners and land managers. Registration \$50. Madison Hotel. Preregistration encouraged. Call Lee Stribling 826-4850. ♣

* Any member agency of the Alabama Forestry Planning Committee can be contacted for more information about listings in this section.

step development of a comprehensive burning plan, including consideration of parameters for weather conditions, fuels, fuel moisture, firing techniques, and all else. **Andy Hunter**, national forest employee, showed a film detailing burning by prescription. **Charles Reese** and **John Pulliam** covered planning on the particular site chosen for the burn, and the AFC's Macon Supervisor **Jerry McGhee** and District Ranger **Cliff Cobb** covered burning regulations and rules.

Money lenders and landowners got together in Montgomery February 13 at the downtown Union Bank meeting room for **Dr. Bill McKee's** seminar on forestry and land investments. Montgomery County and Urban Forester **F.B. Johnson** said the meeting was well attended, and that potential borrowers and creditors seemed to learn a lot.

Montgomery was recertified a Tree City USA at ceremonies in Oak Park during late February. **State Forester C.W. Moody** presented the plaque and colors from the National Arbor Day Foundation to **Mayor Emory Folmar** and other city officials. The presentation was part of a week-long celebration of the importance of trees in our cities and our lives, and was joined by many adults and most of the lower-grades school children of the area.

Bullock landowners gathered at the vocational center in **Union Springs** March 25 to learn about alternatives to row crops and cattle as income producers for their land. This was an economic development workshop sponsored by the **Human Resources Development Center** at **Tuskegee University**, and was opened by the Center's Director **Dr. T.T. Williams**. Along with forestry as an alternative, production of catfish, vegetables and fruit was considered. The facilitator for the program was **Sandy McCorvey**, a Macon resident most experienced in agricultural matters. Landowners attending also heard from **James Paulk**, former manager of the famous **Bonnie Plant Farm** near **Union Springs**; **R.F. Jones**, marketing consultant with the State Department of Agriculture and Industries, who is assisting with the opening of the farmers' market complex in Montgomery; and **Dr. Arlie Powell**, Extension Service fruit specialist, among several others. **Dr. Peter Mount**, an Extension forester stationed at **Tuskegee University**, presented the pine timber production alternative, and the AFC's Macon County forester **Jerry McGhee** served as program consultant.

On Thursday April 3 there was a landowner's gathering at the **Extension Service** offices in **Wetumpka**. **Elmore Supervisor Lynn Justiss** said the subject was wildlife management—both game and non-game species—and lots of local and area landowners are interested in this. **Extension Wildlife Specialist Dr. Lee Stribling** was the featured speaker.

Order Seedlings Now!

By **BILL PADGETT**, Chief, Nurseries Section

THE ALABAMA FORESTRY COMMISSION (AFC) began taking seedling orders on June 1 for the 1986-87 planting season. These seedlings may be picked up from any of the three AFC nurseries (see map below) beginning December 1, 1986 through February 28, 1987.

New order forms are being used this year. Any district or county office of the AFC can supply this form to you, or you may write to the Alabama Forestry Commission, Nursery Section, 513 Madison Avenue, Montgomery, AL 36130, telephone (205) 261-2532.

Below is a current price list with species available this year:

Species	Cost	Cost
	Per 1000	Per 500
PINES:		
Loblolly, Improved	\$25	\$15
Slash, Improved	\$25	\$15
Longleaf	\$30	\$18
(100,000 limit per customer)		
Virginia (Christmas trees)	\$40	\$25
HARDWOODS: (Oaks only)		
Chestnut Oak	\$70	\$38
Overcup Oak	\$70	\$38
Pin Oak	\$70	\$38
Water Oak	\$70	\$38
White Oak	\$70	\$38
LESPEDEZA	\$25	\$15

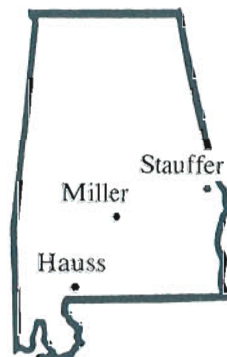
A transportation charge of \$2 per thousand seedlings will be due on orders that are picked up from the nursery by an Alabama Forestry Commission county ranger.

WE LOOK FORWARD TO GETTING YOUR ORDER SOON!

E.A. Hauss Nursery
Rt. 3 Box 322
Atmore, AL 36502
(205)368-4854

John R. Miller Nursery
P.O. Box 236
Autaugaville, AL 36003
(205)365-8333

Jake Stauffer Nursery
Rt. 5 Box 142
Opelika, AL 36801
(205)749-0636



Peter Pine
Says . . .

**Plant Trees,
Grow Jobs**

ORDER NOW!



PROTECT YOUR TREASURE FROM FOREST PESTS

by JIM HYLAND, Chief, Pest Management

IN RECENT YEARS the damage caused by insects to forest resources in the South has been frequently drawn to the attention of forest landowners and managers. Much progress has been made toward reducing such damage. Federal, state and industrial agencies have set up pest control organizations and/or programs to prevent and control pests on public and private lands.

It is doubtful, however, that prevention and control are effectively practiced on small land ownerships. Considering that 74 percent of the forest land in Alabama is owned by "forest farmers" it is readily apparent that greater effort is needed in this area of forest protection. This is the area of forestland ownership with which the Alabama Forestry Commission is concerned.

Forest farmers can do much merely by being conscious of the pest problem and its impact in dollars and cents, and by becoming familiar with simple recognition of common pests and conditions which favor their attack. Not only should the forest farmer be concerned with proper pest management, but the homeowner should be doubly concerned. The aesthetic and ornamental value of a homeowner's one or

several trees is incalculable. They even seem to become part of the family.

Several dangers are ever present in the life of a tree, the greatest being insect pests and disease organisms. Not only do they damage and destroy large and small trees, but they begin their destruction even as the seed is being formed. Millions of dollars worth of trees destined for wood products are lost each year. An untold number of ornamental and shade trees are injured or killed each year, causing large monetary losses or expenditures. Unfortunately, foresters may be creating their own problems with the planting of large areas of even-aged trees of the same species—an ideal situation for insect and disease epidemics. Natural disasters, of which there are many, and man-made disasters, usually in the name of progress, all have their effect and contribute to a happy holiday for the pests.

Insects and diseases cause more tree mortality than do the dreaded wildfires. The destructive agents affecting forests in the United States, according to the 1982 Forest Resource Inventory, shows that the mortality cause in order are as follows:

Disease—64.2 million cubic feet, *Insects*—34.2 million cubic feet, and *Fire*—2.5 million cubic feet.

In spite of the multitude of threats, it can be reported that all insects and diseases do not kill the trees they attack. Frequently only some growth loss, reduced vigor, unsightly appearance, or decay occurs. To the homeowner this is not too serious, although the initial discovery of the damage or pest at work may be a shattering experience.

Of primary importance in preventing pest losses is keeping a healthy well-managed forest. Second, early detection of pests or damage must be made so that their importance may be evaluated and control measures applied, if and when necessary, to keep losses at a minimum.

Skilled evaluation of a pest outbreak is critically important, for on it depend major decisions: whether to apply control measures, type of control to apply, the timing, and the cost of control operations measured against resource losses that the pest may cause. All too often, costly control measures have been applied unnecessarily or ineffectively because no evaluation or a poor one was made.

The control of pests has become a complex operation, particularly as it relates to the use of chemicals. Quite a number of insecticides recommended in the past are now banned for use in the forest by federal and state agencies; DDT is a prime example. All pesticides are being reviewed by these agencies, and no doubt some will be banned and others restricted because of their potential hazard to the environment.

Thus, wise decisions concerning the control of insect and disease outbreaks are now more important than ever before. It is, therefore, recommended that when an outbreak has been detected and possibly the pest recognized, specialists should be consulted for information and advice—particularly if a potentially serious insect is suspected. Assistance may be obtained from personnel of the Alabama Forestry Commission, from some forestry schools, and from private consultants.

Forest pest management is an important segment of work done by the Alabama Forestry Commission. As one slogan states it, "Pest management does not cost, it pays." The public can be an important segment of pest detection in Alabama. If dying or dead trees are found, it is the duty of the public to report it to their local Forestry Commission Office. For the Alabama Forestry Commission to fully protect, conserve and increase Alabama's forest resource, the public must do their part in reporting, not only fires, but also other killers of the forest. ♣

TIMBER HARVESTING: WHICH SYSTEM WOULD YOU SELECT?

THERE IS MORE TO HARVESTING than simply cutting and removing trees from a forest. Harvesting operations can become quite complex when a number of men and machines are combined to move many different products from the stump to the mill.

"Harvesting system" generally refers to all of the various combinations of labor and machines for removing timber from a stand.

Shortwood Systems

Shortwood systems normally produce pulpwood in lengths short enough to be legally hauled crosswise on a truck. Generally, lengths of 8 feet or less are considered to be shortwood. However, stick or bolt lengths may vary regionally. In the South, 5'3" (63 inches) is standard.

The *bobtail system* is the simplest shortwood system. Trees are felled, measured, bucked, and loaded onto the truck at the stump and hauled directly to a concentration yard or mill. Because of the tremendous amount of manual labor involved, the use of this system is declining.

Another system is the *partially mechanized shortwood system*. Trees are felled, limbed and topped at the stump, and lengths moved to the landing on rubber-tired skidders. Bucking the material into shortwood occurs at the landing where it may be

loaded onto a truck or trailer or piled down for reloading and later transport.

The last system is a *fully mechanized shortwood system*, which uses a multi-function machine to perform all of the basic operations. These machines are expensive and limited with respect to specific tree size as well as the requirement for level terrain. They are designed to fell, limb, buck, and accumulate shortwood on the back of the machine. Other types of machines may only fell and forward tree lengths to the roadside.

Longwood Systems

Obviously, longwood systems produce segments longer than eight feet. These may be used for products such as pulpwood, sawlogs, veneer logs, poles, and piling.

Random length longwood systems do not cut material to any specific lengths, but normally would produce pulpwood ranging from 8-20 feet. Trees are bucked without measurement and lengths are typically determined by the length of the truck bed or trailer used for delivery.

Multiple stick length systems save time by eliminating bucking of pulpwood material into bolt lengths. Trees are measured in multiples of shortwood lengths and then bucked on-board the truck using a chainsaw after loading or later by a "bundle bucker" at the mill.

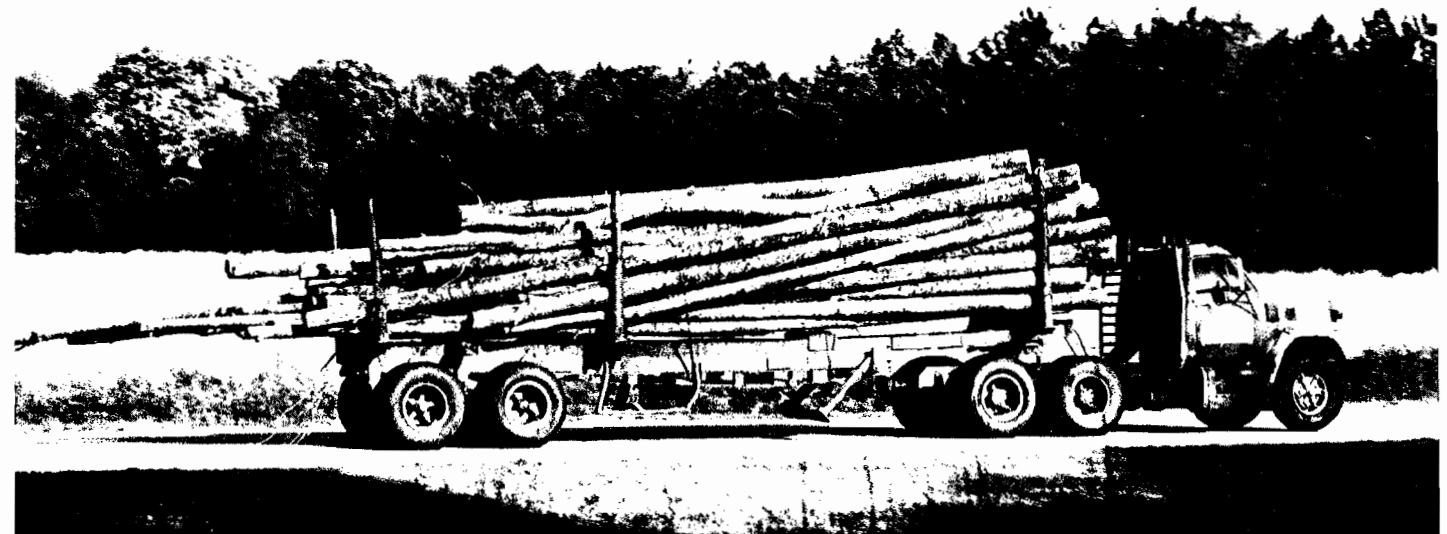
Log length systems generally produce sawlogs or veneer ranging from 8-16 feet, plus trim allowance. Measuring and bucking normally takes place at the landing where products are sorted for loading.

Tree Length Systems

Tree length systems deliver material to the mill without bucking. Usually, felling, limbing, and topping to a four-inch top with a chainsaw occurs at the stump. Then the entire tree length is skidded to the landing and loaded onto tree length trailers for hauling to the mill. Bucking into various products, if accomplished, is performed at the mill.

Full Tree Systems

Full or whole tree systems are so named because the whole tree is skidded to the landing for chipping. These systems produce chips from the entire above-ground portion of the tree. Tracked or rubber-tired feller-bunchers and grapple skidders are commonly used to move material to a mobile chipper. A fleet of trucks and van-trailers are then used to haul the material to a destination. A few operations debark limbed material prior to chipping, and then screen the material after chipping to ensure a higher quality chip. ♣



INSPECTING TIMBER SALES

by DAVID A. HOGE, Lands Coordinator

MANY LANDOWNERS ARE LEERY OF conducting timber sales on their property because of the adverse impact that improper harvesting activities can have on their land. Poorly conducted harvesting practices are not only aesthetically displeasing, they can also contribute significantly to erosion potential, reduce site quality, and damage residual trees. The extent of this impact can be dramatically reduced if the landowner desiring to sell timber remembers these four key points:

1. *To lay out the sale area so that sensitive areas are protected and avoided by the logger;*
2. *To sell only to reputable, conscientious timber buyers;*
3. *To demand a written contract which specifies the various provisions and restrictions under which harvesting activities can occur, and;*
4. *To conduct frequent inspections of the sale area to ensure that minor infractions of the contract are noted as they*

occur and corrective action can be taken in a timely manner.

The four points are self-explanatory and easy to follow. If additional help is necessary, however, seek the advice of a professional forester.

Some Areas Need Protecting

Sensitive areas are those in which logging should be restricted to certain equipment limitations or not considered at all. Areas such as steep slopes, swampy bottomland, critical wildlife habitat, or those with fragile soils are examples of sensitive areas which should be flagged off or otherwise marked so that harvesting crews will be aware of their presence.

As you might find a bad apple in any basket, so, too, you may find a bad logger. Be sure of the timber buyer's and logger's reputation and sell only to those you are confident will do a good job. Advertise your sale in order to get a number of buyers interested and to reduce your chances of getting stuck with one bad offer.

Contracts Are Cost-Effective

Contracts are important documents as they protect both the timber buyer and timber seller. Contracts should contain all provisions and clauses pertaining to the timber sale, such as these:

- * *Names of the parties involved*
- * *Date and place of contract signing*
- * *Guarantee of ownership*
- * *Location and description of property*
- * *Description of timber to be sold*
- * *Conditions of payment*
- * *Cutting regulations*
- * *Contract term*
- * *Performance bond*

This list is by no means all-inclusive. Those preparing to engage in a written contract should discuss the agreement with their lawyer beforehand.

Following the contract signing and prior to the first tree being cut, it is vitally important that the landowner or his representative and the timber buyer and logging



The desired goal of a properly conducted timber sale.



The author inspecting a timber sale.

supervisor meet at the sale site and go over the contract and the sale area so that everyone has a mutual understanding of how the operation is to progress and what is expected of each party. This meeting should be a visual and verbal reinforcement of the timber sale contract. It is also appropriate at this time for the landowner to point out any hazards to the logging supervisor such as wells, septic tanks, underground cables, and the like.



Small maneuverable harvesting equipment also does little damage and is most efficient in early thinning of pine plantations.

If, as part of the contract, the seller requires the posting of a performance bond, the timber buyer and logging supervisor are more likely to adhere to the terms of the timber sale contract and listen to what you or your representative have to say during the inspection process. Performance bonds, usually a percentage of the total sale price



Using livestock for skidding causes little damage to residual trees.

(about 10-20%), are held until the operation is completed satisfactorily and all the terms of the contract have been met.

Visiting the Logging Operation

Frequent and timely inspections during the course of the harvesting operation are also very important. Minor infractions of the contract can be noted and brought to the attention of the logging supervisor and corrected quickly in a cost-effective manner.

During these periodic inspections it is important to note that the logger is adhering to the following:

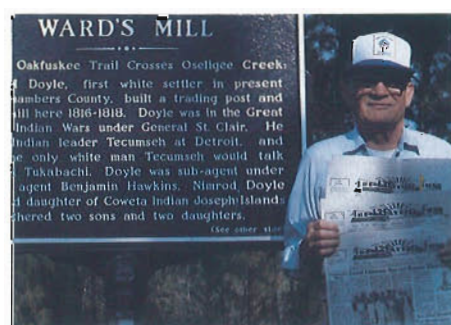
1. Staying within sale unit boundaries
2. Cutting only that which he is entitled to
3. Not damaging residual trees
4. Keeping roads, trails, and drainages free from obstructions
5. Avoiding sensitive areas

6. Protecting improvements, such as wells, ditches, fences, etc.
7. Exercising best management practices
8. Cooperating in his dealings with you

Best management practices is a term by which forestry practices designed to reduce soil erosion, protect water quality, and preserve site productivity have come to be called. Practices such as wet weather logging, skidding straight downhill or down a drainage, slash debris in streams, and poor road construction are bad management practices which you hope to avoid by nature of your contract and periodic inspections.

It is the author's contention that if the timber in question has been sold correctly and the above described points are considered and followed, that many of the problems associated with logging operations can be avoided and the timber seller's TREASURE protected and in many instances improved. ♣

DR. DAVID HALL is shown (wearing a TREASURE cap, naturally) holding a book, *Once Upon a Time* which he wrote about the Old Emory Chapel and surrounding community which once thrived on the site of his TREASURE Forest. Hall works diligently to preserve the church and surrounding cemeteries. His land is managed to promote timber production and wildlife while at the same time preserving the historical heritage.



TREASURE FOREST LANDOWNER Leonard Blanton stands with a copy of the *LaFayette Sun* in front of the historical marker for Ward's Mill, the site of the first white settlement in Alabama, which is located on his property. He and his wife, Hazel, work diligently to maintain the forest land and to retain the historical features. Blanton devotes much time to working with the Chattahoochee Valley Historical Society, writing for the newspaper, and looking after his TREASURE. ♣

YOU
Ought To Be
In Pictures!



HUNTER'S CHOICE DEER SEASON IN ALABAMA

by ROBERT E. WATERS, Biologist, U.S.D.A. Soil Conservation Service

WHAT IS A "HUNTER'S CHOICE" deer season? Is such a season of any real value to Alabama's deer resource or to landowners and hunters in the state? Let's see.

A hunter's choice deer season has existed in parts of Alabama for several years. This season allows a hunter to harvest two deer per day, but if he does, one of them must be unantlered. In Alabama, unantlered deer in fall and winter are mainly does, but a few are bucks. In essence, the hunter's choice season in Alabama permits the harvest of more female deer. This season *does not allow the harvest of spotted fawns* since they are less than six months old and simply too young to harvest.

In 1985-86, a hunter's choice season was in effect in all or parts of 54 Alabama counties. The season ranged from 2 days in parts of Jackson County to 42 days in parts of Lee, Macon, and Russell Counties. The other 13 counties did not have a hunter's choice season in 1985-86 because some of them have a low deer population and har-

vesting of does is not recommended by the Alabama Game and Fish Division. Additionally, many residents of those counties do not desire such a season. The population is high enough in a few of the counties to warrant harvesting of does, but the residents prefer to harvest only bucks.

The following statements are presented for the benefit of landowners, hunters, and others interested in the state's valuable wildlife resource. The statements are somewhat general because deer populations and habitat (food, cover, water) vary greatly within the state and even from one tract of land to an adjoining tract. These statements are generally true of the deer resource in the state today and are based on many years of research by the Alabama Game and Fish Division, Alabama Cooperative Wildlife Research Unit at Auburn, and other reputable organizations and individuals in the Southeast.

Some believe it's best to harvest only bucks and to leave the does for breeding. They hold this belief even though they are living in an area of the state that's already populated with more deer than the food supply can support year after year without damaging their own habitat, damaging the habitat of other wildlife and becoming a nuisance to landowners and others.

In most of the state today, there's a real danger of saving too many does for breeding. If the population continues to grow at the present rate, what will happen in a few years to deer and their food supply in more of the state? What will happen if we do not harvest the doe deer? The answer to both questions is obvious--the deer population will outgrow its food supplies!

Research in Alabama and other parts of the Southeast has revealed some other interesting facts. In some instances, it is good management and wise use of the resource to harvest only bucks. That's especially true if the population is low and suitable habitat is plentiful. The state's deer population was low a few decades ago, and suitable habitat was abundant, meaning that it could safely support more deer. At that time, it was good management to harvest only bucks and to save the does for breeding purposes.

Today in Alabama there's an abundance of deer in most places and an overabundance in many others. According to esti-

mates by the Alabama Game and Fish Division, there are now 1,005,000 deer in the state. If they were placed in a line with the tip of one's nose touching the tip of another's tail, the line would extend about 800 miles or the distance between Montgomery and Washington, D.C.! Also, according to research, it is good management to harvest some of the does. Thus, the current hunter's choice season is beneficial.

Research also indicates that harvesting about one-third of the deer in a fall population such as we now have in Alabama is advisable. Further, about equal numbers of both sexes should be harvested each year. For example, if the fall population on a tract of land is 60 deer, 20 of them should be harvested during hunting season. Ten should be bucks; the other ten should be does. The hunter's choice season easily allows this to occur.

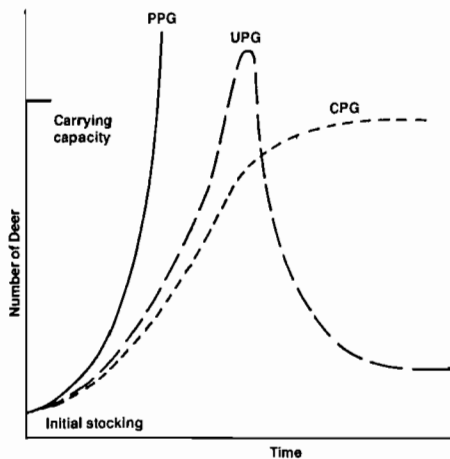
It's very difficult to harvest one-third of a fall population in most of the state unless about equal numbers of both sexes are harvested. Failure to do this will result in an even greater increase in the population. Why? There is no effective predator in Alabama such as the mountain lion (cougar, panther) to help keep deer populations under control.

If man doesn't control the deer population through sport hunting, Nature will do it for us. She will control it by excessively high death rates when the population outgrows its food supply. This is already occurring in many parts of the state.

If Nature is allowed to control the deer population, then bugs, buzzards, and opossums will benefit from the valuable deer resource. If we control it by sport hunting and by harvesting both bucks and does, deer will provide human food and a great deal of wholesome recreation for thousands of people. The latter is by far a better choice.

Here are some characteristics of an area that's overpopulated with deer:

1. *Choice deer foods are eliminated.*
2. *The fawn crop is smaller.*
3. *Death rates are higher, especially among fawns and the older deer.*
4. *Average weight in various classes decreases.*
5. *Bucks have smaller antlers.*
6. *Harvestable bucks (those with bare antlers visible above the natural hair-*



The white-tailed deer has a high potential for increasing its numbers. Its population would increase at a very rapid pace if there were no deaths except from old age. That rapid potential is illustrated by line PPG, potential population growth. That potential increase never occurs, though, because there are also deaths from accidents, diseases and other causes.

If a population of deer in Alabama is not deliberately controlled by man, preferably by sport hunting, deer numbers soon exceed carrying capacity or the ability of the areas to support deer in good condition year after year. When that occurs, the deer's food supply is drastically reduced which results in a massive die off of deer as indicated by line UPG, uncontrolled population growth.

Controlled population growth, as represented by line CPG, in which the population is maintained somewhat below carrying capacity by hunter's choice or other either-sex deer hunting, prevents massive die offs and results in high sustained yields annual yields of high quality deer.

line) make up a smaller percentage of the population.

7. In farming areas, crop damage is more serious.
8. Parasites and diseases of deer are more prevalent.
9. Forest reproduction is heavily browsed.
10. Young planted pines, especially those grown under fertile conditions in nurseries, are heavily damaged.

Since landowners control the hunting on their lands, they play a key role in whether these undesirable characteristics become more prevalent in Alabama. Hunters and the general public can exercise some control as well. Landowners and hunting clubs sincerely interested in the best management of their deer resource are encouraged to cooperate in the state's deer management



Three white-tailed bucks feeding in an overgrazed food plot. The plot is planted in wheat and winter clover. The sanctuary is over-populated with deer.

program. Information on this program is available from the Alabama Game and Fish Division, 64 North Union Street, Montgomery, AL 36130 (205)261-3469.

The hunter's choice season is a real opportunity for many landowners in the state to supplement their income from pay

hunting, and at the same time, help to control the deer population on their lands.

More information on deer is available from the Alabama Game and Fish Division, the Soil Conservation Service, the County Extension Chairman, the Alabama Forestry Commission, and others. ♣

HATS OFF TO THE AFC!

by SAM GRAVEL, District Forester, Huntsville

YOU CAN "HATS OFF", salute, or applaud, but you must admire the members of the Alabama Forestry Commission who are so dedicated to a resource as to give of themselves so completely year after year, to develop and protect the forest resource for Alabama's citizens, their children and Alabama's greatest manufacturing industry. We have again this year had the opportunity to observe some of this dedicated spirit put to the test. Through the driest January on record, a warm February, a warm and dry March and April, fires have resisted control, and these men and women have worked continuously in order that Alabama's citizens and the forest resource might be safe.

As the annual migration of birds is observed to move north in the spring, so do the wildfires appear to march from South Alabama to North Alabama. As the sun warms the earth further and further north, the March winds begin to blow and make fires of all sorts more at risk for getting out of control. The winter has killed the vegetation that will make up the fine fuel for burning, and the cold dry air prepares it for ignition.

During the normal activities of the earth for farming operations, gardening, cleanings of the home-place, some fires accidentally escape to threaten the owner's forest or the forest of another nearby landowner. Some fires are a result of carelessness. These include those

deliberately set by persons who through lack of consideration for other members of the community take no precautions for their fire's control. Other fires are deliberately set by psychoneurotic persons.

Whatever the cause, the Forestry Commission member drops what he is doing, like the "Minutemen" of our country's early days, and becomes a fire fighter in the highest order. The training and experience provided in the Commission's training programs and through years of on-the-job training immediately are put into play as the fires are sized up, attack plans formulated and plans put into motion.

Fire season is also that time of year when many other jobs are being performed in conjunction with the minutemen role. Each of these must be dropped and almost forgotten until the emergency is past. Forest management recommendations are being formulated through consultations with the management specialists, plans are being written, tree planting assistance is rendered, seedlings are being transported, Arbor Day ceremony plans are in progress, FFA Forestry Judging Contest teams are being trained, and insect and disease detection surveys are in progress that will provide early indications of summer's problems.

Firefighters also drop anything having to do with personal life, too. Family life and relations with their wives, husbands, and children are put on indefinite hold until all the fires are contained. Many of their

young children wonder where the parent is as he/she leaves before they get up in the morning and comes home after they have been put to bed at night—if he/she gets home at all. Mom moves in to do all the family chores usually shared by Dad and vice-versa in some cases. Along with keeping the car running, the bills paid, and the children in school comes an extra burden. Washing those smoke filled clothes several times to get them clean and having them ready for the next fire only adds to the problems.

These Forestry Commission personnel become so involved in this one important job that they will go night and day in pursuit of a wildfire's control and ignore their own health. Very often they will get colds or other ailments from being in the heavy smoke on the firelines too long, but like the old snapping turtle who has latched on, will not release his prey until it thunders.

I must say, these men and women do a tremendously good service for Alabama and I could not be any more proud that I have the opportunity to be a part of the Alabama Forestry Commission and to be associated with them. They do a fantastic job and my hat is off to them, I salute them, I applaud them and admire their strong dedication. If the world were made up entirely of people like them, we would have a better world in which to live. ♣

It'll Take You Where You Want to Go

THE ROAD TO TREASURE

by ROBERT L. WIGGINS, Forest Management Specialist, AFC, Montgomery



IN THE INFANCY of any forest management program, the landowner may be totally frustrated by the seeming unhospitality of an unmanaged forest tract. After that very first attempted reconnaissance through briars, brush, and bugs, a landowner's enthusiasm about the great southern outdoors may be reduced to unprintable opinions! There is certainly little similarity between the dense jungle-like woodlands which often pass for forests and our idyllic dreams of open woodlands—towering timber shading the crystal streams and mossy green carpet where abundant wildlife thrives.

Follow the Grassy Green Road

Access is such an obvious requirement for forest management that we seldom elaborate on its importance. After several years of working with and learning from TREASURE Forest landowners, I realize that the development of the land almost always begins with good access, not just a narrow trail here and there through the woods. Once the "jungle" becomes an easily traversed retreat for the landowner in his spare time, the all-important thought processes can then follow. Specific questions arise: How can I improve the growth of this stand? How can I open up that spot? Does this stand need thinning? Can that site accommodate a pond?

When Is a Road More Than a Road?

Access roads can often double as fire lanes. How nice it is to have the benefit of access to the property as well as protection against the spread of fire, benefit to wildlife, aid to timber sales, recreational opportunities, aesthetic enjoyment, and help with the overall management objectives. These benefits are so intertwined that the best way to discuss them is from an ecological viewpoint.

Creation of a Fire Ecosystem

Much of the South's forests as we know

it—upland pines, bottomland hardwoods, and strong population of deer, turkey, and small game—is often referred to as a pyric ecosystem (Perkins, 1982). Quite simply, the composition of the ecosystem is related to and somewhat dependent on the occurrence of fire. Not only does fire create openings by burning the matter in its path, but it also changes the vegetation upon which all animals depend. Wildfire burning indiscriminately in our woods can be harmful, but the beneficial aspects are needed to economically maintain the environment we know. Controlled and applied at the right time under exacting conditions in pine stands by experienced people, *prescribed fire* can help to accomplish these benefits. Do not attempt to prescribe burn in hardwood stands as they will not withstand the fire. Fire lanes not only help to keep damaging fire from spreading, but also facilitates prescribed burning.

Once a burning regime is established, the tender young growth which springs up (browse) is ideal for deer or even cattle. In addition, the pine stands will have an open, more pleasing appearance, and will also attract wild turkeys.

The Wider the Better

Even with a prescribed burning program, there often is a scarcity of grassy openings with seed bearing annuals on timber tracts. Anytime that an opening is made in the tree canopy (logging, disease, wind storm, etc.) a rapid succession of vegetation will sprout. First will come the annual weeds and grasses, then woody brush, and finally trees again! The early grass stage is beneficial to the wildlife by providing abundant insects, seeds, and cover in many cases. Simply by widening the fire lanes the width of a disc harrow on each side of the woods road, enough sunlight will reach the ground to ensure the growth of these grasses. Additionally, annual discing will also improve the fire protection quality of the lane without softening the road in the center.

Winter browse is not easily accessible in

most well managed forests. By maintaining food plots at points along the fire lanes, the wildlife would have an ample winter food source. The lanes themselves could even be seeded with rye or clover.

At even greater widths—30-50 feet or more—fire lanes can double as pastures for supplemental grazing for cattle on many TREASURE Forests. A correctly stocked cattle operation on timberland can become an opportunity for additional profits while waiting for harvest time (*Alabama's TREASURED Forests*, Spring, 1986, p. 15).

Cost Can Be Modest

Often the timber removed to make room for the wider fire lanes can be used to pay the cost of construction of the lane itself. A basic 10-foot lane can be constructed for as little as \$150 per mile. Improvements such as crowning, ditching, stream crossings, or seeding can run the cost up considerably. Recommendations on the planning and construction of fire lanes can be obtained from the Alabama Forestry Commission, U.S.D.A. Soil Conservation Service, and many private forestry and wildlife management specialists (*Alabama's TREASURED Forests*, Fall, 1983, pp.18-19).

There is magic in traveling a fire lane. Maybe it's the mystery of the lane winding out of sight deeper into the woods, the pleasant appearance of a well-maintained lane itself, the anticipation of spotting a deer or turkey on the open ground, or maybe just the serenity of the experience. Many TREASURE Forest landowners have already found the road to multiple use management through the establishment of a system of permanent fire lanes. You can get on the right road, too!

References

Perkins, J. *Need, Philosophy, and Types of Prescribed Burning*, Alabama Cooperative Extension Service Circular ANR-375, 1982. ♣

CONTROLLING EROSION PROVIDES A BETTER ENVIRONMENT FOR BOTH MAN AND TREES



Temporary roads can be protected from erosion by water breaks and vegetation.

by JERRY JOHNSON, State Staff Forester, U.S.D.A. Soil Conservation Service

SOIL EROSION is usually not considered a problem on forestland, but, like many other things, becomes real only when it occurs on your property. Roads that have turned into small gullies become problems because you can't drive through your property. This is a real hindrance to managing your forest. Sediment from eroding roads can also pollute nearby lakes and streams. Mechanical site preparation makes tree planting easier but it can also reduce tree growth because of the pushing

of topsoil into windrows and because of soil erosion.

About 500,000 acres of forestland in Alabama have erosion problems. The major sources of erosion on forestland are roads, skid trails, landings and areas that have been site prepared. Damages may be prevented or reduced by applying erosion control practices and using site preparation practices that minimize soil disturbance.

Roads are one of the major sources of

erosion on forestland mostly because of improper location, poor construction and lack of maintenance. Several hundred tons of soil may erode from roads annually, and sediment from eroded roads can damage or kill trees. Large gullies may develop on woodland roads as a result of erosion, and when this happens several acres of land plus the use of the road can be lost.

Erosion can be controlled on woodland roads by water breaks, broad based drainage dips and ditches. Water breaks are



Mechanical site preparation may cause severe erosion on soils that are highly erodible.

mounds of soil built diagonally across a road to divert water off the road. The concentration and overland flow of water is the major cause of erosion on woodland roads. Water breaks are best suited to roads not heavily traveled or to roads with grades greater than ten percent. A series of water breaks may be needed on long, steep grades.

A broad based drainage dip is a broad based dip in the road which collects water moving down the road and diverts it off the road. Dips are easily crossed and are best suited to heavily traveled roads with grades less than ten per cent.

Ditches with turnouts are usually needed on heavily traveled roads. The road surface should be crowned to divert water into adjacent ditches. Turnouts are needed to prevent erosion within the ditch and should be placed at points where water leaving the ditch will not cause gullies.

Stream crossings are an important consideration in building woodland roads. Culverts and bridges are needed for crossing natural drains or streams. Fords should be used only in streams with rock bottoms and stable banks.

Establishing vegetation is an important part of controlling road erosion. Temporary roads should be vegetated before closing, and the roadbanks of permanent roads should also be vegetated. There are several grasses, legumes and other plants suitable for vegetating woodland roads or disturbed areas. Lime and fertilizer should be applied and the land prepared to provide a good seedbed. If you need help in selecting the proper plant, contact your local representative of the Soil Conservation Service, Alabama Cooperative Extension Service or

the Alabama Forestry Commission.

Roads can be maintained by grading and shaping. Traffic should be limited during very wet seasons. Culverts and bridges should be inspected and replaced as needed.

Erosion can be controlled on skid trails by keeping the grade gentle, constructing water breaks and by establishing vegetation after logging. The number of skid trails should be kept to a minimum to reduce soil disturbance.

Erosion on landings can often be controlled by establishing vegetation but sometimes a diversion terrace may be needed to divert runoff water. Vegetated landings can easily be managed to provide food and cover for wildlife.

Another major cause of erosion on forest

land is mechanical site preparation. Erosion rates vary according to the method of site preparation. The use of straight blades and shear blades expose the soil and create conditions highly favorable for erosion. Several inches of topsoil may be pushed into windrows. Disking is another method of mechanical site preparation that can cause soil erosion. Soil erosion rates of 50 tons or more per acre can occur during the first year after site preparation when these methods are used. The loss of two inches of topsoil from certain soils can reduce tree growth by as much as 50 percent.

Chopping is a mechanical method of site preparation which produces low erosion rates. The soil is protected by the remaining surface vegetation and litter.

Herbicides and prescribed fire are other methods of site preparation which generally produce little or no erosion. An extremely hot prescribed fire creates conditions favorable for soil erosion by removing all of the litter layer. Care should be taken to avoid this problem.

Many landowners in Alabama are taking positive action to control erosion on forestland. The TREASURE Forest Program has played a major role in making people aware of soil erosion. The "E" in TR"E"ASURE stands for environment which includes soil erosion. Erosion of soil not only has an adverse effect on the environment, but it also results in a reduction of tree growth.

Controlling erosion on forestland is important in developing a forest into a TREASURE. If you need technical assistance in applying erosion control practices on your forestland, contact your local Soil Conservation Service, Alabama Cooperative Extension Service, or Alabama Forestry Commission representative. ♣



Erosion control measures can prevent roads from becoming gullies.

MEMORIAL

The memories of these people will stand forever in the minds of those who knew, loved, and respected them. Their presence in the forestry community will be missed.



Mayo Guthrie, retired AFC Supervisor in Walker County, died May 1, 1986. He was a man of action whose contributions to forestry as well as his community will stand forever as a reminder of the work and dedication he put forth. The love and influence he generated is reflected in the hundreds of friends who knew and respected him.



Ell Smith, nursery worker at E. A. Hauss Nursery in Atmore, died March 30, 1986. Ell had worked at the nursery for thirty-six years and always was known for his reliability and dedication. Fellow employees respected him and appreciated his optimism in carrying out his job.



Mooney Nalty, TREASURE Forest landowner and Tree Farmer in Escambia County, died March 5, 1986. His contributions to forestry went beyond the county in which he lived to extend to all Alabamians. Those in the forestry community considered it an honor to have worked with such a man so dedicated to improving the forest resource.



Watrous Garrett, TREASURE Forest landowner in Clarke County, died March 11, 1986. He was always proud of his designation as a TREASURE Forest and took every opportunity to pass his forestry knowledge on to his family, friends and neighbors. His love for the land was clearly exhibited through his actions of good stewardship.



Ned Folmar, TREASURE Forest landowner in Crenshaw County, died May 15, 1986. Totally dedicated to the improvement of the forest resource, he was innovative in his approach to finding new techniques for managing his woodlands. Chairman of the Forestry Advisory Committee in Coffee County, he worked diligently to promote forestry in that community even though his home and forestland were in another county.



Nancy Jordan, wife of TREASURE Forest landowner Roy Jordan, died April 27, 1986. She was an inspiration to her family, friends and the children she taught. Her religious convictions were evident in her life and reflected in her unselfish devotion to her family and their interests.

REGISTRATION FORM
THIRD ALABAMA LANDOWNER AND TREASURE FOREST CONFERENCE
CIVIC CENTER
MONTGOMERY, ALABAMA
SEPTEMBER 11-12, 1986

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NOTE: There will be a \$25 registration fee. (This fee includes banquet and lunch attendance.) **Make check payable to Alabama Forestry Conference**

I will attend the banquet on Thursday night.

I will attend the lunch on Friday.

Additional banquet tickets for spouses and guests are \$15 each.

Additional lunch tickets for spouses and guests are \$5 each.

REGISTRATION FORM AND FEE MUST BE SUBMITTED BY AUGUST 31, 1986 TO:

Mrs. Cynthia Page
 Chief, Information and Education
 Alabama Forestry Commission
 513 Madison Avenue
 Montgomery, AL 36130

A detailed program and information on motel accommodations will be mailed to each person who registers.



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