

# Alabama's TREASURED Forests

W i n t e r · 1 9 8 7

# STATE FORESTER'S MESSAGE

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by C. W. MOODY

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In my last letter to you, I talked about Robert Sellers' suggestion regarding brown paper bags versus plastic bags. To further amplify, I read in the newspaper within the last three or four days that the manufacturing of plastic cartons used for eggs, hamburgers, and other fast foods utilizes a chemical which escapes into and is detrimental to the ozone layer. I was also reminded that there is a very brisk market for liner board and cardboard boxes, and in fact the majority of kraft paper is used in the construction of cardboard boxes. One last comment on the matter, Charles Tarver transmitted a newspaper article from Rhode Island which has a group trying to grapple with this matter. I am going to write to Jeanne Bakelar there to see what they are doing in hopes that we might join them.

The market for our timber is changing as we mentioned last issue. Hardwood trees are coming into greater demand, and the demand for pine pulpwood has diminished some. Forest landowners are well advised to review their forestry goals and objectives. My own advice would be to make minimum investments necessary to maintain productivity and to protect and/or enhance other forest resource values. Manage the assets which are on the land for maximum return. Cooperate with nature to the maximum degree possible in the growth of quality merchantable timber. The Alabama Forestry Commission is beginning a new thrust to explore this matter and refine those recommendations we make to landowners. The bottom line will be to manage in such a way as to keep maximum options regarding species and finance. I firmly believe demand for timber will be strong, even though there are fluctuations, for all the foreseeable future.

All these things come together and strengthen my commitment to the goals of TREASURE Forest. If you are not now managing according to TREASURE Forest concepts, contact any member of an Alabama Forestry Planning Committee agency, and they will be happy to help you get started!

Sincerely,

A handwritten signature in cursive script that reads "C. W. Moody". The signature is fluid and elegant, with a long, sweeping tail on the final letter.

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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: White-tailed deer roam throughout the state. This robust buck was photographed by Mark Beeler in West Central Alabama.

# Alabama's TREASURED Forests

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Squirrels thrive on the acorns from the big oaks.

Photo by Wayne Holcomb

At the Holcomb farm, it's a good investment, b

# TIMBER'S



Wayne Holcomb enjoys a rest on his nature trail.

Young turkeys were hatched under a nesting hen!



The Andrew Jackson roadbed makes an ideal firelan

Photo by Wayne Holcomb



Hummingbird feeders attract a large number of hungry guests.

Photo by Wayne Holc

Photo by Wayne Holcomb

# A SIDETRACK!

by CYNTHIA K. PAGE, Editor

**M**OST EVERYBODY IN HAMILTON reads the *Hamilton Progress*. Wayne Holcomb was scanning the print one day when something caught his eye—something about a TREASURE in the forest. Because of that story, his family found the TREASURE, and it all took place within a year!

## Land Ethic Inherited

The Holcomb family was brought up with a stewardship ethic. E. A. Holcomb had a farm conservation plan written back in the early 40's. The land meant a great deal to him. It was as if this farm had been destined for him. He and a friend had come from out West to locate a farm to buy. As Fate would have it, the train broke down near Hackleburg and they were stranded. Having heard of a farm for sale nearby, they investigated the prospect, and the rest is history!

The elder Holcomb took great care to ensure that the farming operation would be a success. He believed in protecting the land. His son, Clyde, learned a great deal from his father and continued the farm conservation practices. This philosophy was passed down to his children—Robert, Donald, Wayne, and Jean.

Wayne still lives on the farm with his

*Photo by Wayne Holcomb*



**Clover is enjoyed by the wildlife and bees!**

parents. While the cotton farming has long since ceased, the efforts to maintain the land in prime condition continue.

“A lot has changed since that first plan,” chuckled Wayne. “It not only recommended planting kudzu, but even told how to fertilize it! Now they tell us to spray it with herbicide! I’ve learned, though, that it can be effectively controlled and even killed by simply cutting it back year after year. That’s an inexpensive method, but does take a lot longer than herbicide treatment.”



**A trail is lined with bluebird houses.**

## Timber Is Secondary

One of the best features of the TREASURE Forest Program is that the landowner can pick *his own* objective. The Holcombs chose wildlife. They give primary consideration to game species, and secondary attention to nongame. Both are quite plentiful on the farm!

To list a few species, you might find the following: songbirds, deer, rabbit, quail,

and flying squirrel, bluebirds, hummingbirds, grey squirrel, ducks, osprey, turkey, and honey bees!

Managing the habitat for this large variety requires intensive planning. To begin with, the Holcomb's had already dug a seven-acre pond back in the mid-sixties. It was stocked with large mouth bass and bluegill and was fertilized regularly to maintain the balance.

A few ducks flew in and made it their home. After Wayne read the articles in the *Progress*, he decided to contact the Alabama Forestry Planning Committee agencies and to get a forest management plan which would benefit the waterfowl as well as encourage additional wildlife species on the farm. The plan was written in August, 1985.

To provide a food source for the waterfowl, Japanese millet was sown on the mud flats. In addition to the ducks, a few Canadian geese selected it for home. Six wood duck boxes were constructed and placed near and in the water. Before long, an osprey was seen feeding in the pond! Quickly seizing this rare chance, the Holcombs built an osprey nesting platform!

Another quarter acre of wheat and corn was also planted close to the pond. Not being spring fed, the pond has receded back to about only an acre of water with the extreme drought over the past year. The millet has sown itself in to cover much more than the original plot. Even though there is much less water, the ducks and osprey are still around!

Over 35 acres of loblolly pine has already been thinned, providing some income which was reinvested into other management practices. After the thinning, the area was prescribed burned which helped encourage browse suitable for deer, rabbits, quail, and songbirds. Some small areas were left untouched for the benefit of the red birds. The forest management plan calls for a prescribed burn on a three-year rotation.

To capitalize on the bluebirds already moving into the area, Wayne built and



*A nesting platform was built for the osprey.*

placed over 33 bluebird houses along a trail. He also strategically placed benches along this trail to have a place to stop and rest while out enjoying a stroll. "The flying squirrels use the bluebird boxes, too!" Wayne explained.

It appears that nothing gets in the way of the overall objective on this property. Last winter, an ice storm downed a good many limbs and debris. Wayne simply piled it up creating what he refers to as his "instant rabbitat!"

Hummingbird feeders have been scattered around. Over a gallon of hummingbird syrup is placed in the feeders every week! As many as twelve of the small-winged birds have been seen at one time feeding.

Firelanes and roads serve a dual purpose. While the pines are sectionalized and the hardwoods protected as well by the lanes, they are also seeded with ryegrass and fescue to provide a food source for the wildlife! Water bars have been put in place to keep them from eroding while the cover is established. An additional food source is provided by sowing browntop millet on the power line right-of-way. Always thinking!

Old abandoned fields had grown up already with wildflowers in the spring and summer. In addition to this, Wayne has also planted fields with sweet clover, crimson clover, and white Dutch clover. To help with the pollination, a honeybee colony was established nearby!

Martin gourds are hung high all around the property, as well as feeders for other songbirds.

The hardwoods are not to be cut according

to the plan since the main objective is wildlife. The oaks and hickories provide mast which is desired by most of the wildlife on the farm. There seems to be an unusually heavy crop of acorns this year, too! The old snags are left in place as well for den trees.

To give some insight into the affection the family has for the wildlife on the property, there is the story about the turkey eggs. A turkey nest had been destroyed by workers bush hogging under a power line. Being resourceful, the workers carried the unbroken eggs to Wayne who placed them under a nesting hen. They hatched! Now the little poult follows around after that mother hen!

Because of the intensive efforts which have been put into forest management to benefit the wildlife, the Holcombs received the Governor's Forest Conservationist of the Year Award in 1986. It is also noteworthy that they were nominated for and received the District Helene Mosley Award after only one year of following a written management plan. Not one element of the TREASURE Program is slighted on this farm.

### **Aesthetics**

"We enjoy the beauty of this place. It really means something to us," says Wayne. Even some of the wood for the house came out of the hardwood stand. The house itself is situated with the pond in the background. Dogwoods are scattered all around.

"I've got some dogwoods, in fact, quite a few, scattered throughout the pine stand," Wayne pointed out. "When I prescribe burned, I simply raked around each dogwood so that they would not be killed. It's just so pretty when they're blooming!"

Needless to say, all that white and crimson clover are lovely in full bloom, too! When

the wildflowers are covering the fields, it's almost like Holland in Alabama!

The old road bed from the Andrew Jackson Road runs across the Holcomb property. Even though it also serves as a firelane, it is part of the bluebird trail dotted with the benches along the way and also other bird feeders. When the hardwood leaves fall, Wayne uses a gas-powered blower to clear the road of all the dried leaves. It not only helps the appearance, but keeps down the fire hazard!

An older pine stand was left close to the pond. This is taken out of the timber management plan for cutting purposes simply because of the aesthetic value near the water.

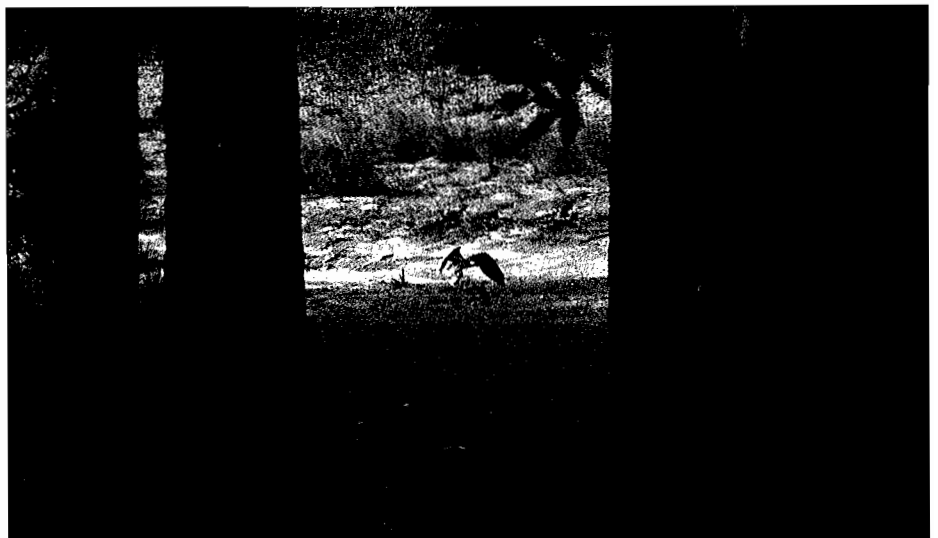
Besides the dogwoods, there are numerous flowering shrubs and water ferns. Wildflowers add a gentle touch throughout the pines and hardwoods. The entire farm is splashed with spotted color at almost all times of the year!

### **Educational Benefits**

"I learned about TREASURE Forest from someone else's story being printed in the newspaper," says Wayne. "We want other people to learn from our experience."

Already the farm has been used for a couple of landowner tours. It was also the sight for the FFA Forestry Judging Contest in Marion County. Slides of the property have appeared in slide presentations used at landowner conferences. Many of the photos appearing with this article were taken by Wayne Holcomb because he wants to document the progress on the farm with the pictures.

"This program is magnificent," he says. "We pick our objective, and then can get all the other benefits that go hand in hand with that. That's the best part. We just wish other landowners would do the same." ♣



*This osprey continues to "fish" in a shallow lake.*

# EDITOR'S UNDERSTORY

by CYNTHIA K. PAGE, Editor

Roses and elephant ears lined the walkway to the Holcomb's front door. On the door stoop offering a welcomed invitation, a little white settee was neatly placed with a hummingbird feeder dangling above. Everything so perfectly in place presented an almost dreamlike picture.

Usually, the outside of a house speaks for the nature of the people who dwell within. This would be no exception! The cheeriness outside was equally matched by the spirit of the Holcomb family!

Wayne Holcomb's large frame somehow diminished behind his broad grin. His mother, with a soft, kind face, greeted us likewise and led us down the hallway into the den where we were soon "introduced" to the rest of the family. Picture by picture, we met the other two sons—Robert and Donald—and daughter Jean. Grandchildren's smiling faces also lined the shelves along with a photograph taken almost fifty years ago of Clyde Holcomb and his wife.

"I was ill for a while," Mrs. Holcomb explained, "and Wayne thought I might be more comfortable with all of the family around me."

Clyde Holcomb soon appeared from his workshop. For a couple in their 70's with fifty years of marriage behind them, both have retained so much youthfulness both in physical stature and in mental attitude.

"This is the kind of family we all dream of," I thought. But then, they started with a dream. They had all worked in the cotton fields together and saved for their dream. They enjoy the reality of the world around them—happy with what they have, but not allowing themselves to stop looking forward to what might come tomorrow.

Wayne is the driving force behind the

TREASURE Forest. His parents' support and encouragement helped to turn the homeplace into an aesthetic showcase and wildlife haven. "Timber's a sidetrack here," says Wayne. "I used to hunt, and members of the family and some of our friends hunt here; but after I started feeding and caring for the animals, I only wanted to shoot them on film! We just do all we can to make this place appealing to them."

That's an understatement. There's a seven-acre pond for fish and waterfowl; food plots for deer, turkey, quail, and ducks; abundant mast-producing trees for the squirrels; brush piles for rabbits;

bluebird houses; wood duck nesting boxes; a nesting platform for osprey; salt blocks for deer; and a camera for Wayne to capture those rare moments on film!

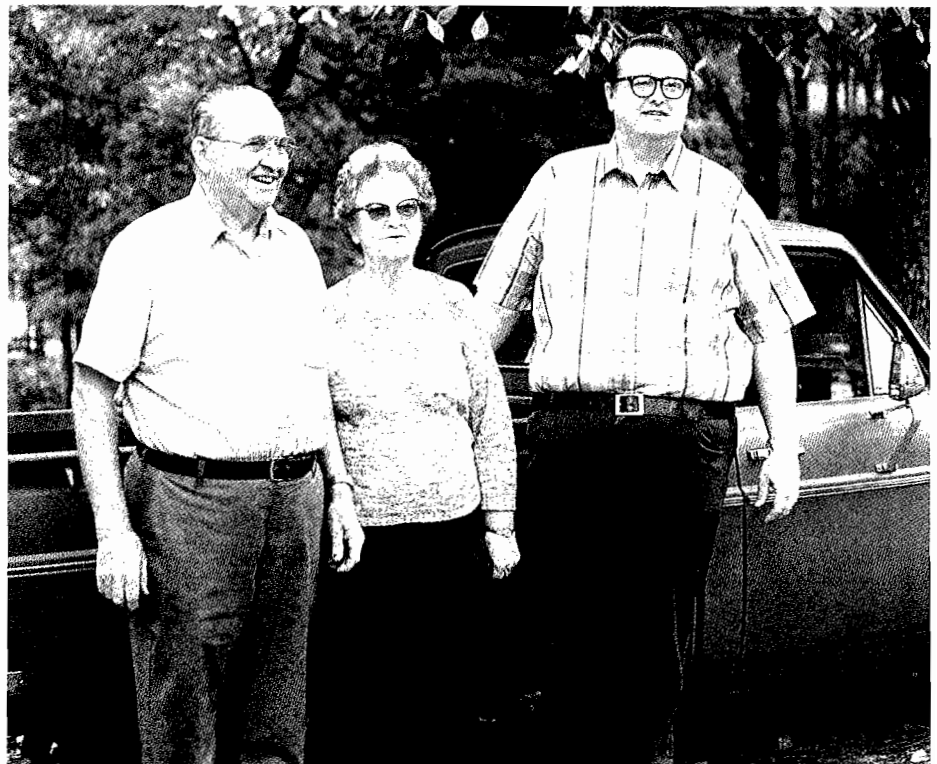
Both father and son have a lot in common. While Wayne is innovative in forest management, his father is innovative in the field of air conditioning and refrigeration. Ice is manufactured and stored next to the workshop in a large walk-in freezer designed with a chute running from inside to outside to make for easier loading onto the truck.

Making ice isn't so unusual, though. What about a can that will self-cool the contents within a couple of minutes after the cap is popped? Cool, you say? That's exactly right! A "cool can" that has been patented and is being developed for the market!

Clyde Holcomb and his wife took a small farm and a big dream. Along with their children, they turned the farm into a sight to behold in just a short while. If they have another fifty years together, I can only wonder where their dreams will take them!

As I've already pointed out, though, they are content with their station in life, and never fail to appreciate the pleasures of each day. Even when we were about to leave, Mrs. Holcomb had just put some red maple twigs into a vase to "brighten up the inside." As we walked out, she and Wayne brushed past the elephant ears. "I suppose we'll take these up soon for winter."

"*Living in reality, but looking forward to tomorrow,*" I thought. ♣



# Managing Your Forest Under THE NEW TAX LAWS

by L. LOUIS HYMAN, Chief, Forest Management

**F**OREST MANAGEMENT IS A LONG-TERM INVESTMENT. As such, it is very sensitive to changes in Federal Income Tax laws. The 1986 "Tax Simplification Act" has changed several important parts of the federal rules that affect forestry.

The best news is that the tax rates have been deeply cut. For 1986 and before, there were 14 tax rates ranging from 11 to 50%, depending on income. For 1987, married couples with taxable income of less than \$28,000 will have a tax rate of 15%. Couples with taxable income between \$28,000 and \$45,000 will pay 28% in taxes. Families with incomes between \$45,000 and \$90,000 will pay 35%, while folks with over \$90,000 in taxable income will pay 38.5%. (Not bad for a tax simplification bill!)

In 1988 things do simplify. There will be two tax rates. Married couples with taxable income less than \$29,750 will pay a 15% tax. Couples with income over \$29,750 will pay taxes at the 28% rate.

The other good news is that the *reforestation tax credit and amortization deduction* have been retained. This tax benefit allows a landowner to take a tax credit of 10% of the cost of site preparation for tree planting, up to \$10,000 in costs per year. Thus, if you spend \$10,000 on reforestation, you can reduce your taxes owed by \$1,000.

In addition to the tax credit, landowners can amortize, or deduct over time, 95% of the cost of reforestation, up to \$10,000 in annual costs. Presently these costs are written off over a seven year period.

## Capital Gains

Since 1944, federal tax law has recognized the long-term nature of forestry investments. Since then, timber sale income has been eligible for capital gains treatment. This rule allowed timber sellers to deduct 60% of the profit from a timber sale and only pay taxes on the remainder.

Thus, a landowner who sells \$50,000 worth of timber can deduct the cost of selling the timber (such as the 10%

commission to his consultant forester) and the "cost" of the trees (what he had previously invested in that forest) to get his capital gain on profit. If in our example his cost for planting the trees 25 years ago was



\$15,000, then the profit from the sale would be \$30,000 (\$50,000 less \$5,000, less \$15,000).

Under the old rules, he would then deduct 60% of that capital gain (\$18,000) and only pay taxes on the remainder. At the highest tax bracket (50%), he would owe \$6,000 in taxes on a \$50,000 sale.

Under the new rules, effective January 1, 1987, the capital gains deduction is abolished. Instead, the capital gain on profit (in the example of \$30,000) is taxed at the same rates as ordinary income up to a maximum of 28%. Thus our landowner would owe \$8,400 in taxes on the \$50,000 sale example.

During 1987, the maximum capital gains rate is 28% while the maximum

ordinary tax rate is 38.5%. Thus, there is still a benefit to capital gains in 1987. In 1988, however, the top capital gains rate and the maximum ordinary tax rate will be the same.

It is interesting to note that while Congress did remove all incentives for using capital gains, it did not abolish the rules for capital gains. Thus, if the ordinary tax rates are raised after 1988, the top capital gains tax rate will stay at 28% and will again be an incentive to forestry investments.

## Management Expenses

The most complicated part of the new tax law deals with the tax deductibility of forest management costs. In 1986 as before, all costs involved in owning and managing a forest were fully deductible. Under the new law, property taxes are still fully deductible.

As of January 1, 1987, all forestland owners will be divided into three groups: timber investors, active managers, and passive managers.

Timber investors are those landowners who own timberland as an investment, selling timber only occasionally. The management costs of timber investors are recorded as miscellaneous deductions on the itemized deduction form. These costs include annual management fees paid to consultants and minor repair work. Interest costs, however, can only be used to offset income generated from the property. In other words, if the property does not produce annual income, such as hunting leases, then the interest cost of the property mortgage cannot be deducted.

A new wrinkle in the tax law, however, now sets a floor on miscellaneous deductions. Only expenses that exceed two percent of adjusted gross income can be deducted. This is similar to the way medical expenses have been handled in the past.

If a landowner sells timber on a regular basis, he can be considered in the "business of selling timber." Under the old rules, this classification had unfavorable implications



for capital gains. The tax law gives separate treatment to landowners who actively manage their timber business and those who are passive owners.

Active managers of a timber business are landowners who are deeply involved in the management of their property. This includes frequent visits to the property and making all the management decisions. Active managers can deduct all annual costs, including interest, and not have to use the two percent floor like timber investors. Active managers can use consultant foresters, but they must work closely with their foresters and make all the final decisions.

Passive managers of a timber business are landowners who do not participate in the management of their property and have frequent timber sales. The new law is very tough on this ownership class which includes estates where the heirs are not involved in management and other landowners who let consultant foresters make all the management decisions for them.

The deduction for management expenses is limited to the amount of income generated from the property only. Also, property taxes for this group are not deductible unless there is income to cover them.

To summarize this point, if you only sell timber occasionally and have a small mortgage on the land, then timber investor reporting would be best. If you sell timber more frequently, or have large interest costs, active management of a timber business might be better. However, this choice could cause problems later with the capital gains treatment of timber sale income. The worst class would be to be a passive owner of a timber business with frequent timber sales, where management deductions are limited to annual income.

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### Tax Planning

There are still tax benefits for forestry, but they require advanced planning and active management. A big problem is that

the Internal Revenue Service (IRS) has not yet defined what is a trade or business in forestry and what is active management of a timber business.

The best we have to go on is that to be an active manager requires at least annual visits to each property and written proof that the taxpayer made all final decisions on the management of the land. Consultant foresters can assist their clients by developing written proposals for each activity and having the landowner sign his approval.

If annual expenses cannot be deducted in a given year, they can be capitalized and applied against timber sale income.

The overall effect of the 1986 Tax Simplification Act on forestry is mixed. In simple terms, there is a very good tax break if you plant trees. After 1987 there will be no tax break if you sell timber. Landowners will need to increase the amount of record keeping to prove active management of their forestland. ♣

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# The Newest Forestry Tool

by TOMMY PATTERSON, Chief, Forest Resources Data Processing

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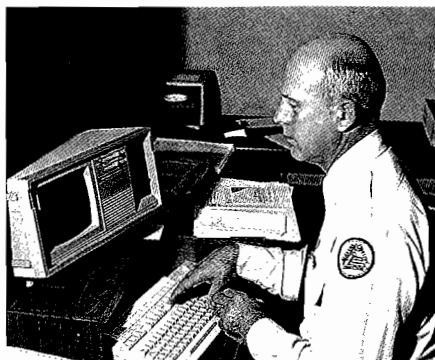
SINCE THE TIME that foresters first began to scientifically manage stands of trees, there has been a steady development of specialized tools to increase those foresters' speed, accuracy and overall efficiency. We look back with intrigue at that first handmade stick with a few pencil marks on it that was used to measure tree diameters and heights, for now we are becoming accustomed to the beeps and whines of the latest forestry tool—the micro-computer. Never before has one tool advanced the practice of forestry more rapidly.

Historically foresters had to rely upon field instruments, clipboards, longhand math and sometimes a typewriter to determine the condition of a stand of timber and then convey those findings to a landowner. This process could typically take weeks to accomplish, and time allowed only one option to be considered.

Now the speed and power of the micro-computer allows the forester to analyze timber data in a matter of minutes, try different management strategies to select the best and then give the landowner a professionally printed management plan package all within a matter of hours instead of weeks. The Alabama Forestry Commission (AFC) has been one of the leaders in

providing this state of the art technology to its clients, the Alabama forestland owner.

TREASURE Forest Plans, our name for our unique forest management plan, are produced by our foresters all across the state using our 30 strategically placed microcomputers. The process of making a computerized plan involves the use of a variety of computer programs.



The first program we may typically use is an Inventory Processor which allows us to put timber cruise data in our computer to determine the present condition of the forest stands. From the inventory processor reports we receive, we obtain information that determines what management strategies are possible for the property and the landowner.

Since various tactics can work on any property, we must determine the best possible for our client.

The AFC uses another program, developed by TVA, called YIELD, to assist us in selecting the best strategy. This program allows the forester to play "what if" games with the forest stand using tree growth and economic values to develop the optimum recommendations for the landowner. These recommendations are based, of course, upon the wants and objectives of the landowner so as to make best use of all forest resources. Once the recommendations have been established the forester is challenged to put those recommendations into a concise, readable and understandable format for the landowner to follow.

AFC foresters use a word processor computer program with designed forms to quickly produce a printed forest management plan. In addition to the word processor, another program of some 150 pre-written forestry information messages is used to supply the landowner with any additional needed information.

The Alabama Forestry Commission through the use of microcomputers is providing Alabama citizens with the most accurate and efficient forest management advice available anywhere. ♣

# COOPERATIVE FORESTRY AT THE COUNTY LEVEL

by NEIL LETSON, TREASURE Forest Coordinator

**T**HREE YEARS AGO, it would have been hard to find a forest landowner in Franklin County who wanted forest management assistance or was practicing reforestation. Very little land was being managed. Today, thousands of acres have management plans with 4,000 more on the waiting list, and 1,000 acres have been site prepared and planted in trees!

In 1984, it was discovered that many of the forest landowners in Tuscaloosa County were city dwellers. They were interested in their forests, but were often left out of the local educational programs offered. Beginning that year, a series of monthly landowner meetings were held for the urban resident forest landowner. A variety of forestry topics have been featured since then causing many urban forest landowners to begin managing their property for the first time.

In Lee County, many forest landowners wanted to plant large acreages in trees, but lacked the equipment to do so. A major project was launched last year to buy a mechanical tree planter. The tree planter is offered to Lee County landowners on a first-come, first-served basis for a small maintenance fee. Response has been good and many acres are being reforested.

Each of these counties has two things in common. First, they represent Alabama counties who have successfully solved forestry problems on the local level. And second, each has a County Forestry Planning Committee (CFPC) responsible for addressing these problems.

County Forestry Planning Committees are fast becoming an active force in helping forest landowners manage their land. CFPC's are offshoots of the Alabama Forestry Planning Committee born in 1981 when the go-ahead was given for state and federal agencies to officially meet on a needs basis to identify and solve local forestry problems (see "Teamwork in Forestry," *Alabama's TREASURED Forests*, Spring, 1983). The purpose was to encourage coordination and cooperation of the local county agencies in forestry. These agencies usually include, but are not limited to, Agribusiness Education, Alabama Forestry Commission, Alabama Cooperative Extension Service, Soil Conservation



Service, Agricultural Stabilization and Conservation Service, Farmer's Home Administration and the Forest Service. Many CFPC's also include landowners, industry foresters, and consultant foresters. To date about 45 counties have active CFPC's.

Most CFPC's operate on a needs basis. Meetings are usually called as problems or opportunities arise. These include situations best addressed by county-wide cooperation. Some of these issues include forest regeneration, landowner tours and demonstrations, insect or disease outbreaks, cost-share programs and landowners' recognition programs such as TREASURE FOREST.

In most cases, an agency representative feels a local forestry issue needs to be discussed by the CFPC. That person then contacts his agency counterparts and calls a meeting. The agency person calling the meeting usually serves as the chairman and directs the discussion. This person is expected to explain the nature of the discussion, what solutions are available and what kind of assistance is needed from each agency. Each agency offers input and available resources to cooperatively solve the issue.

Occasionally, statewide problems arise requiring all CFPC's to work collectively. One example occurred in 1984 when the Alabama Forestry Planning Committee and the Alabama Forestry Association teamed together to increase reforestation in Alabama. Ten counties were selected in a pilot project designed to intensify regeneration efforts. Each selected county had to have a potential for increased tree planting and an active CFPC. The first year showed a 28% increase in acres planted. Eleven additional counties have since been added.

Another situation occurred this year when 33 counties were declared epidemic

during a Southern Pine Beetle outbreak. Every CFPC was asked to hold special meetings to discuss and plan better ways to address the problem. As a result many held landowner meetings to explain how to combat this serious insect pest.

Since their creation, CFPC's have greatly benefited government agencies' service to landowners in the following ways:

- \* *More productive work*
- \* *Greater sense of meaning and usefulness*
- \* *Greater cooperation with other agencies*
- \* *Better organization of services*
- \* *Greater interest in multiple-use forestry*
- \* *Greater sense of fulfillment*
- \* *Fewer barriers between agencies and private sources of assistance*

Landowners have also benefited from the work of CFPC's in these areas:

- \* *Better services and landowner assistance*
- \* *Greater variety of forest management information*
- \* *Better, more comprehensive management plans*
- \* *Better landowner tours, meetings*
- \* *Better forest demonstrations*
- \* *Increased interest in forest management*
- \* *Greater desire to encourage other landowners*

Landowners can do several things to receive the full benefit of their CFPC. First, find out if your county has a CFPC. Simply call any agency representative in your county and ask him. He will tell you if there is one, where it meets and when it meets. If one exists in your county, make sure you receive all their correspondence on meetings, tours, and demonstrations. Once you know when meetings are scheduled, **attend them!** Alabama has some of the top forestry experts in the country, and many CFPC's schedule them regularly as speakers. Also, see if you can attend a CFPC meeting. Most CFPC's invite landowners to attend meetings and to serve as regular members.

CFPC's are becoming one of Alabama's best success stories in forestry. As more landowners receive CFPC assistance, our forests will continue to improve and benefit today's and tomorrow's generation.



# TIMBER AND WILDLIFE HABITAT TRADE-OFFS

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by DR. BILL MCKEE, School of Forestry, Alabama Cooperative Extension Service, Auburn University

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**I**N RECENT YEARS, intensive forest management has received considerable attention from sportsmen and concerned conservationists. Some contend that converting large areas of mixed pine-hardwood stands to intensively managed short-rotation pine plantations will adversely affect wildlife populations. Others contend that age-class

distribution of pine stands, streamside management zones (*Section 208, Public Law 92-500*), prescribed burning and thinning will increase habitat diversity and, thus, enhance certain wildlife populations. In other words, the quality of forest wildlife habitat depends upon the type of management practiced.

In the past, forest managers have been led to believe that adopting wildlife habitat enhancement guidelines will have an adverse effect on the basic business objective of maximizing profit. The industrial forest manager has been forced to make decisions oriented toward maximizing profits because tradition has led him to believe that wildlife

**TABLE I**  
**Direct costs of intensive forest management for timber production only and joint timber wildlife production.**

YEAR	TIMBER ONLY	TIMBER AND WILDLIFE	TODAY'S COST (\$/AC)
1	<i>Site Prepare</i>	<i>Site Prepare</i>	90
1		<i>SMZ installation<sup>1</sup></i>	6
2	<i>Plant</i>	<i>Plant</i>	55
8		<i>Precommercial thinning</i>	45
8 - 35 (3 yr. intervals)		<i>Prescribe burn</i>	8
12 - 35 (5 yr. intervals)	<i>Prescribe burn</i>		8
Annual	<i>Management Costs</i>	<i>Management Costs</i>	5
Annual	<i>Taxes</i>	<i>Taxes</i>	1.50

<sup>1</sup>16 acre Streamside Management Zone.

**TABLE II**  
**Per acre loblolly pine yields for timber production only and joint timber-wildlife production.<sup>1</sup>**

Management Regime	1st Thinning			2nd Thinning				Harvest		
	Age	RBA <sup>3</sup>	PW <sup>4</sup>	Age	RBA	PW	ST <sup>5</sup>	Age	PW	ST
<i>Timber</i>	15	80	12.4	25	80	9.5	1.6	35	13.3	8.6
<i>Timber &amp; Wildlife<sup>2</sup></i>	15	60	8.0	25	60	6.5	2.7	35	6.1	8.9

<sup>1</sup> Site Index base age 25 = 60.

<sup>2</sup> Precommercial thinning at age 8, residual component of 350 stems per acre.

<sup>3</sup> "RBA" denotes residual basal area in square feet per acre.

<sup>4</sup> "PW" denotes pulpwood harvested in cords per acre.

<sup>5</sup> "ST" denotes sawtimber harvested in thousand board feet (MBF) per acre, Scribner log rule.

**TABLE III**  
**Average stumpage price for various forest products, Alabama, 1980-1986.**

	Pulpwood (\$/cord)	Sawtimber (\$/MBF, Sc)
<i>High</i>	20	166
<i>Medium</i>	16	149
<i>Low</i>	12	116

habitat enhancement can only be achieved at the expense of timber production. More recently, forest management strategies have been adjusted to accommodate increasing demands for all forest resources.

The purpose of this article will be to identify the economic problems and constraints associated with the assessment of

wildlife habitat trade-offs on nonindustrial forestland and to determine the impact of habitat enhancement on dollar returns of a typical forest management strategy.

### Economic Problems and Constraints

Market value is the commonplace and

common sense approach to setting values in our democratic society. We experience it daily every time we make an exchange in the marketplace as a willing buyer with a willing seller or vice versa. Such exchanges represent most of the goods and services we acquire or provide for others. Where markets do not exist, as in the case with wildlife and other recreational activities, a proxy for market product dollar returns must be developed. Many studies discuss comparing non-market products with marketable products (Bockstael and McConnell; Gibbs 1975; Martin et al. 1974).

One technique involves assessment of investments in terms of opportunity costs. For example, if timber is produced jointly with recreation or hunting opportunities, revenues from timber normally decline. The reduction of revenues from timber is considered an opportunity cost in that income must be foregone in order to accommodate other outputs. Loss of timber revenue then becomes an estimate of value for the non-timber outputs. The opportunity cost approach will be used to assess timber-wildlife habitat trade-offs in this article.

### Assumptions

To assess economic returns for a typical forest management strategy, we must make assumptions concerning discount rates, expected costs, timber yields, and stumpage prices.

Discount rates for the analysis were set at six percent in constant or real dollars. A six percent real, or constant dollar, discount rate translates to a ten percent nominal or market rate if inflation is four percent. In other words, your next best alternative investment will yield a ten percent rate of return.

Investors in timber growing may have to buy land; prepare planting sites; plant, release, thin, protect, and prune trees; prepare and administer timber sales; install hardwood leave strips (streamside management zones); and pay annual taxes. Not every timber grower will have all of these expenses, but all will have some costs in growing timber. Such costs can be thought of as investments that must be made to grow a certain kind of timber in a certain way. Expected costs for this analysis are presented in TABLE I.

Before timber sale incomes can be derived, an estimate of what kind and how much timber will be available for sale throughout the rotation must be determined. Loblolly pine yields for average site (SI<sub>25</sub>60) land are presented in TABLE II (Hepp 1985).

The last assumption needed to assess

economic returns is stumpage price. Stumpage prices used are based on the average price reported, 1980-1986, in *Timber-Mart South* for Alabama (TABLE III). No real price increase in pulpwood or sawtimber stumpage is assumed.

**Application and Results**

Assume that we want to establish maximum financial returns as the goal of our forest manager. With this as our objective, an assessment was made for managing a 160-acre tract for timber only and joint timber-wildlife production. The management strategy and expected yields have been presented in TABLES I and II. To enhance diversity, however, 10 percent of the 160 acres will be managed as a streamside management zone under the joint timber-wildlife option.

Results are depicted in TABLE IV. If the landowner is willing to manage for both timber and wildlife, what is an appropriate lease fee? Landowners will not incur a loss for increasing their management efforts if they charge leasees \$3.52 to \$4.95 per acre per year. Results of a telephone survey of Alabama forest industry and large landowners revealed that current hunting leases range from \$1 to \$15 per acre per year with an average being \$5 per acre per year. Hunting lease fees are extremely sensitive to management services provided by the landowner and to population levels of the preferred game specie. For the moment, assume that the landowner can lease his land for \$5 per acre per year. This fee will buy the leasee the type of wildlife habitat provided by the joint timber-wildlife management strategy identified in TABLE I.



Compared to the *timber only* strategy, a \$5 per acre per year lease fee will increase landowner revenue by \$.40 to \$1.83 per acre per year (TABLE V).

**TABLE IV**  
**Opportunity cost of providing improved wildlife habitat.**

Stumpage Option	Management Regime	Present Net Worth (\$/acre)	Annual Equivalent (-----\$/acre/year-----)	Timber Revenue Foregone
High	Timber Only	175.29	12.09	4.95
	Timber & Wildlife	103.62	7.14	
Medium	Timber Only	113.46	7.83	4.34
	Timber & Wildlife	50.66	3.49	
Low	Timber Only	23.29	1.61	3.52
	Timber & Wildlife	-27.65	-1.91	

**TABLE V**  
**Joint timber-wildlife economic returns for an annual lease rate of \$5 per acre per year.**

Stumpage Option	Present Net Worth (\$/acre)	Annual Equivalent (-----\$ per acre per year-----)	Revenue Gain Over Timber Only Regime
High	181.11	12.49	.40
Medium	128.14	8.84	1.01
Low	49.83	3.44	1.83

**Summary and Conclusions**

The most apparent conclusion from TABLE V is that net revenues from timber-wildlife management strategies exceed profits from timber alone. This is of particular significance for nonindustrial landowners since it gives them the opportunity to earn annual income from hunting. The added income partially offsets a major drawback of timber investments for these owners, namely, the long time period between initial expenditures and generation of revenues.

Where joint timber-wildlife production is the goal, a careful analysis of market opportunities for lease hunting should be made. If the markets are there, all indications suggest that management for joint production of timber and wildlife is more profitable than timber alone. The possibility of hunting lease income should provide additional incentive to nonindustrial private owners of forest lands. On industrial lands, however, wildlife habitat enhancement imposes direct and indirect costs. The benefits created by these costs—improved wildlife habitat and potential

for increased wildlife populations—do not contribute to the basic goals of industrial forestry organizations.

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# Wood Duck Nest Boxes

by DAVID A. HOGE, Wildlife Coordinator

**P**OSSIBLY THE MOST BEAUTIFUL DUCK IN THE WORLD, the wood duck (*Aix sponsa*), is Alabama's only "native" species of waterfowl which breeds throughout the state in significant numbers. Wood ducks were on the verge of extinction in the early 1900's. Overharvesting, loss of habitat through drainage of wetlands, and removal of large, hollow trees that provided nesting cavities were the reasons for the decline of the species. Appropriate legislation and conservation measures undertaken since that time have allowed the wood duck to recover to the point where the annual harvest of "woodies" is second only to mallards in the state's total duck harvest.

## Importance of Nest Sites

The wood duck is more dependent on forests than any other species of American waterfowl. Wood ducks prefer to breed in places where trees provide nesting cavities and food near permanent freshwater lakes

and streams. Availability of nesting cavities is the major factor which limits wood duck populations over most of its range.

In areas where insufficient suitable natural cavities are available for maximum production, placement of artificial nest boxes should be part of the landowner's management plan. Wood ducks readily nest in boxes that are provided as substitutes for natural cavities.

## Artificial Nest Boxes

Before initiating a wood duck box program, it is essential that the landowner be certain that the selected area contains adequate brood rearing habitat, that the boxes be made predator-proof, and that the boxes be cleaned and properly maintained. Predation rates for eggs, ducklings, and hens can be high when hens are induced to nest in unprotected boxes or in submarginal brood rearing habitat. Nest boxes may not be used if they are not cleaned and maintained annually.

## Construction of Nest Boxes

Many variations in design have been developed for wood duck boxes. Two box types, the wooden box and the vertical metal box, have been proven effective and relatively easy to construct.

*Wood boxes* should be built with rough-cut lumber, preferably cypress, though a cheaper lumber can be used provided it is treated with a preservative to resist decay. If planed or smooth lumber is used in box construction, a "stairway" of hardware cloth should be attached to the inside front of the box to assist ducklings in leaving the box. Boxes should be 12 inches wide and 22 inches high in the front and 24 inches high in the rear. An elliptical entrance opening 4 by 3 inches should be cut in the front about 4 inches from the top. The entrance hole is protected by a 2-inch overhang on the roof sloped from back to front. Either the roof or one of the sides should be installed with hinges and hook and eye attachments to allow for periodic

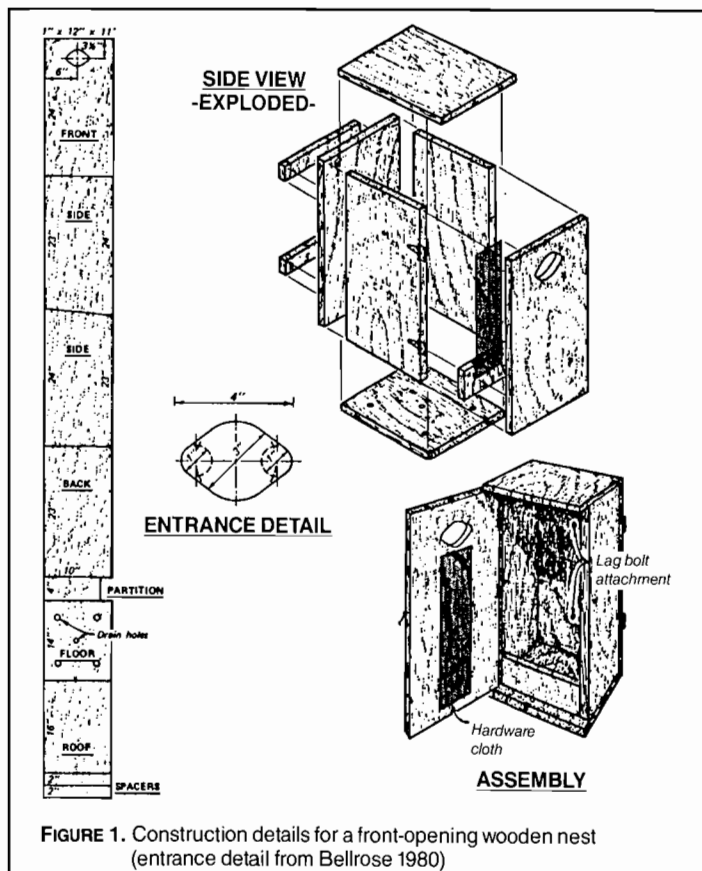


FIGURE 1. Construction details for a front-opening wooden nest (entrance detail from Bellrose 1980)

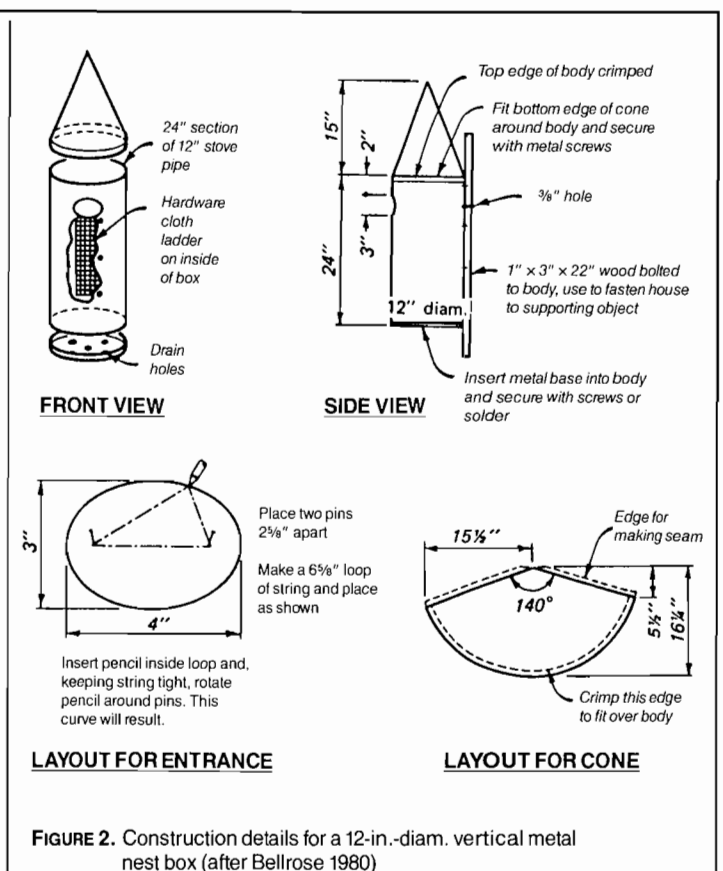


FIGURE 2. Construction details for a 12-in.-diam. vertical metal nest box (after Bellrose 1980)

inspection and maintenance (FIGURE 1).

The vertical metal box consists of a 2-foot section of round galvanized furnace pipe 10 to 12 inches in diameter with a conical top and a circular floor. This box design was developed in an attempt to reduce predation on wood duck nests by fox squirrels. These boxes are readily accepted by wood ducks and are lightweight and durable. Metal boxes also should have a 4 by 3-inch elliptical entrance hole. An inverted cone, 19 inches high, is used for the roof and is attached to the pipe section with 2 or 3 metal screws. The bottom is formed either by a circular piece of galvanized metal crimped to the lower end of the pipe section, or by a round block of wood inserted into the end and secured by screws. Hardware cloth or automobile undercoat seal should be used beneath the entrance hole on the inside of the nest to provide "toeholds" to aid ducklings in leaving the nest (FIGURE 2).

**Predator Guards**

All nest boxes should be protected from predation. Predators may develop a search instinct for nest boxes. Unprotected, conspicuous artificial nest boxes may actually cause local population declines as a result of increased predation (Bellrose 1980). A number of guards are in common use and are effective against climbing predators (FIGURES 3 and 4). Guards should be stiff and mounted securely to the nest box or support to prevent passage by snakes or to prevent being pulled down on the side by raccoons. In addition to protecting boxes from below, be certain to place boxes sufficiently away from crowns of adjacent trees to prevent predators from reaching the nest boxes from above.

**Supports**

Wood duck boxes may be mounted on trees, poles, posts, or pipes. Generally, nest boxes should be mounted over open water. Supports should be stable and boxes and guards should be firmly attached. Boxes that wobble excessively may be rejected as nest sites. Nest boxes may be attached to their supports in any number of ways. Commonly used methods include hanger bolts, lag screws, and nails.

**Placement**

Wood duck nest boxes should be installed over open water in good brood rearing habitat, but they can be effective when placed along shorelines and streambanks. Boxes should never be more than one-half mile from suitable brood areas. Boxes

should be mounted at least 15 feet above ground level. In areas subject to flooding, ensure that the bottom of the predator guard is at least 3 feet above the highest recorded flood stage. Boxes should be placed in areas of relatively open understories to insure that they are easily seen and accessible to wood ducks. Any overhanging limbs should be removed from the front of the box. For best results boxes should be erected in clusters of from 5 to 10 and spaced at regular intervals of 50 to 100 yards. Along shorelines, install boxes so that the entrances face the water.

As the wood duck does not carry nest material to the nest site, three to six inches of nest material should be placed in each box when it is installed. Woods ducks use this material to cover their eggs before incubation begins. Hardwood sawdust is preferable but other suitable nest material includes shavings, Spanish moss, and soft hay. Drainage holes in the bottom of the nest box are also recommended, as are appropriate precautions against stinging insects and fire ants.

**Maintenance**

Wood duck boxes should be inspected two to three times annually. The most

important check is to be made about the first of January to remove old nest material, egg shells, and other material. Fresh nest material should be added at this time and structural flaws corrected. Additional checks should be made in late March and early May.

**Logistics**

Construction and installation time will take about three hours per box whether wooden or metal. Costs, depending on local availability of required materials, will range around \$15-\$20 per box.

**Conclusions**

Patience is a needed virtue if a landowner desires to have a successful wood duck program. Many programs have failed due to lack of proper maintenance of the nest boxes or lack of predator-proofing.

A number of nontarget species will also utilize wood duck nest boxes. Their presence can be either positive or negative depending on the landowner's perspective. For those so inclined, a great deal of added satisfaction can be gained by hunting the waterfowl using the nests occasionally to harvest the surplus crop. For others, just

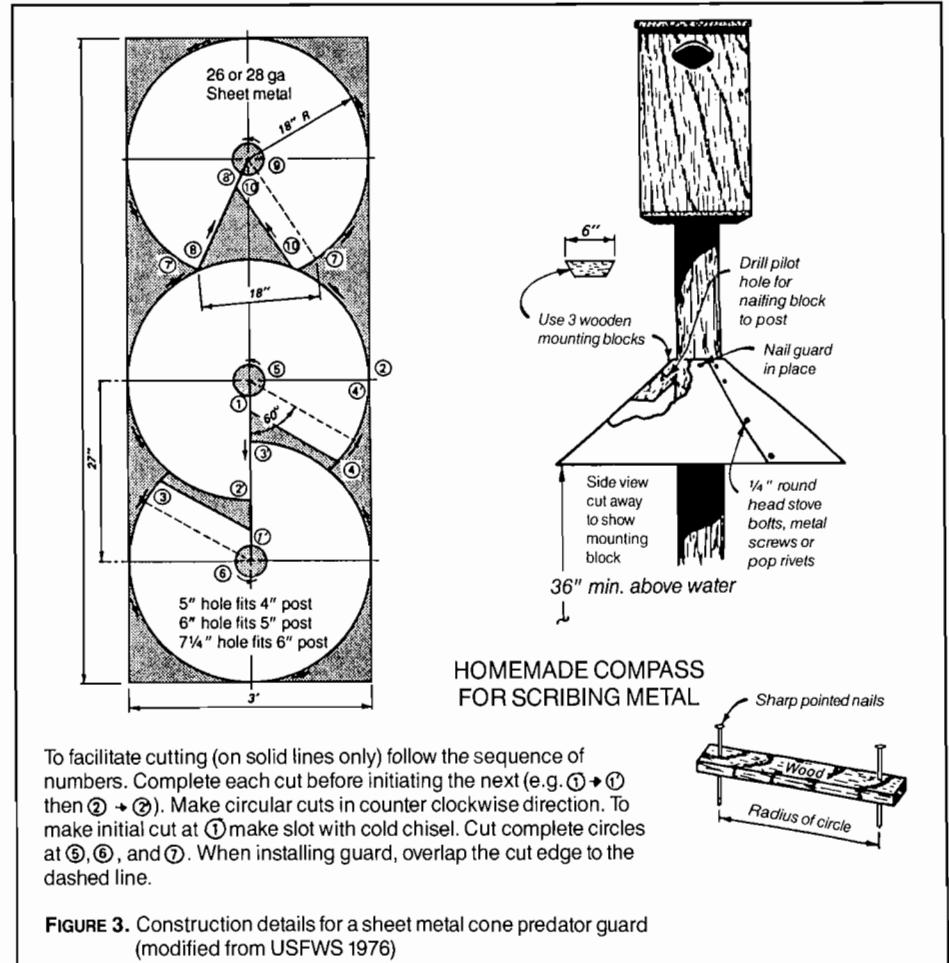


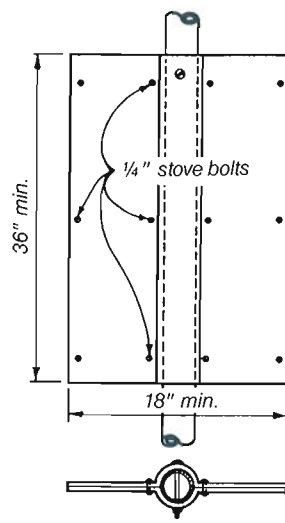
FIGURE 3. Construction details for a sheet metal cone predator guard (modified from USFWS 1976)

seeing the beautiful wood duck is pleasure enough.

For those readers desiring additional information about nest boxes or the wood duck in general, the author urges you to contact the Wildlife Section of the Game and Fish Division, Alabama Department of Conservation and Natural Resources, 64 North Union Street, Montgomery, Alabama 36130, telephone number (205) 261-3469.

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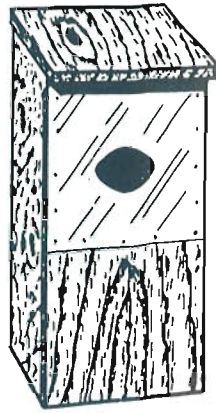


Predator Guard for steel post or pipe. Made from two 18" x 36" pieces of 26-ga metal bolted around post.

### SHEET METAL SANDWICH



### ALUMINUM NEWSPRINT BAND



### SHEET METAL FACIM (26 GA)

FIGURE 4. Types of predator guards commonly used with wood duck nest boxes

# LANDO

LEGISLATIVE ALERT

by MELINDA COHEN, Legislative Liaison, National Association of State Foresters

**T**HE BIG NEWS IN WASHINGTON, D.C. is the Democratic takeover of the Senate. There is much speculation as to what the new committee chairmen will mean for forestry, but it is clear the South should have a stronger say in the Senate with four new democrats being from Southern states.

A Southerner will be Chairman of the Appropriations Committee, John Stennis (MS); Budget Committee, Lawton Chiles (FL); Energy and Natural Resources Committee, Bennett Johnston (LA); Armed

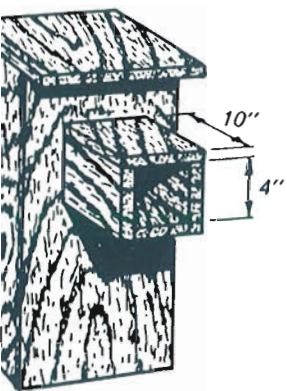
Services Committee, Sam Nunn (GA); and Finance, Senator Lloyd Bensten (TX). West Virginia is also considered a Southern state by many and Senator Byrd will be the new majority leader.

### Tax Reform

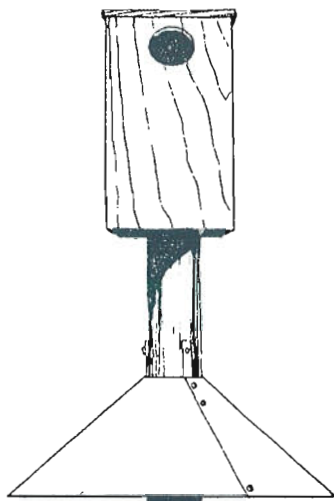
An effort is under way already to amend the new tax reform act and Senator Bensten has been a long standing supporter of capital formation provisions in the tax

code, or in simple terms he supports capital gains. The effect of tax reform on private non-industrial timber owners who currently receive a variety of tax incentives to manage their forests is unclear. The current tax reform proposal is certain to have an effect on private nonindustrial timber owners, because it eliminates preferential tax treatment for capital gains. However, it also retains current tax law allowances for annual expensing of timber management costs, preserves the refores-





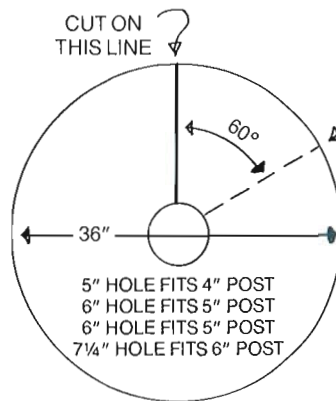
WOODEN TUNNEL



SIDE VIEW

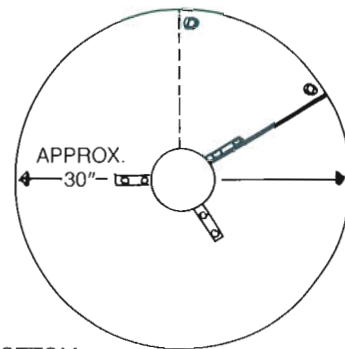


METAL CONE

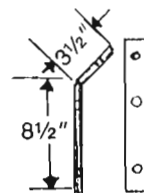


OVERLAP CUT EDGE TO DOTTED LINE

1/4" ROUND-HEAD STOVE BOLTS OR ROUND-HEAD RIVETS



BOTTOM VIEW



SUPPORTING BRACKET  
3/16" x 1" STRAP IRON

# WINNERS

## NATIONAL



tation tax credit, and lowers overall income tax rates. As a result it is unclear whether the law will prove positive, negative or neutral for the private nonindustrial timber owner. This measure also eliminates the investment tax credit which affects the forest products industry.

### Forest Service's Overall Budget Increases

After a long, torturous process, the

House and Senate finally reached agreement and passed the Continuing Resolution (C.R.) on October 15. This year's C.R. appropriates funds for the entire federal government in FY '87. Despite the tight budget atmosphere, Congress actually approved a slight increase for the Forest Service's State and Private Forestry Program (SPF), from \$55.3 million in FY '86 to \$58.9 million in FY '87.

Much of the increase is in Forest Pest Management which increases by \$2.8

million over FY '86. Most of the other line-items remain at FY '86 levels. The slight funding increase given to the SPF program was indicative of the Forest Service's overall FY '87 appropriation.

The total Forest Service appropriation rose slightly, from \$1,625.0 million in FY '86 to \$1,665.5 million in FY '87. This \$40.5 million increase was primarily made, however, in the controversial Forest Road Construction line-item, which jumped from \$180.9 million in FY '86 to

\$228.8 million in FY '87. The high appropriation for Forest Road Construction was a victory for Senator James McClure (R-ID), chairman of the Senate Appropriations Interior Subcommittee, who fought hard for the increase against strong opposition from environmental groups and his counterpart in the House, Rep. Sidney Yates (D-IL). The House's approved Forest Road Construction funding level before conference was only \$148.1 million, \$60.7 million less than the final number.

Other Forest Service programs were funded as follows: *Forest Research* increased to \$128.9 million in FY '87 from the FY '86 level of \$120.1 million. Within this category, *Fire and Atmospheric Sciences Research* received \$8 million, up slightly from \$7.7 million in FY '86; *Forest Insect and Disease Research* received \$21.5 million, up slightly from \$20.2 million in FY '86; *National Forest System* decreased to \$1,158.3 million in FY '87 from \$1,198.9 million in FY '86. The \$40.6 million decline is due to the difference in funding for *Fighting Forest Fires*, which received \$166.7 million in FY '86 but only \$125.0 million in FY '87. However, this item is likely to receive a supplemental appropriation during the year and could easily increase to make up the difference. Other line-items within this program remained at or slightly above FY '86 levels.

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### **Drought Money May Be Available for Seedlings**

USDA may make funds available to landowners who planted seedlings destroyed in the drought. Senator Howell Heflin (D-AL) was one of the original sponsors of the drought relief legislation. It is unclear at this time whether USDA will follow the intent of Heflin's legislation and provide cost-share monies to landowners to replant their trees lost by drought. One USDA proposal to earmark \$5 million of ACP (Agricultural Conservation Program) for replanting lost seedlings is currently being reviewed by the Office of Management and the Budget (OMB).

Tree growers whose seedlings were destroyed by drought or floods in 1986 may also be eligible for emergency direct grants. The grant program makes \$400 million available to farmers who suffered "substantial loss of production due to drought, excessive heat, flood, hail, or excessive moisture." A "substantial loss" means damage exceeding 50% of the anticipated crop yield. To be eligible,

the loss must also create a state of "economic emergency for the producer." Payments will be made in the form of generic certificates that are exchangeable for government-owned surplus commodities and could be available as soon as January. USDA, however is still working on the regulations for this program and it is unclear whether tree growers will be eligible. The American Forestry Association estimates that over 350 million seedlings have been destroyed this year by drought in the Southeast and Mid-Atlantic states.

In addition, there is \$11.9 million available in FY '87 under the Forestry Incentives Program, which provides funds and technical assistance to private landowners for forestry related activities.

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### **Tariff Placed on Canadian Softwood**

The Administration in October imposed a 15% duty on Canadian imports of softwood timber into the U.S. The decision follows a "preliminary" ruling by the Commerce Department that Canadian timber production is heavily subsidized. The subsidy allows Canadian exporters to sell timber in the U.S. at an artificially low price, enabling them to take markets away from the U.S. forest products industry. Canada's share of the U.S. lumber market is now estimated at 33%. Not everyone was pleased with the ruling, however. According to the *Oregonian*, a spokesman for the National Lumber and Building Material Dealers Association told a Congressional Committee that a U.S. tariff would cost his industry 27,000 jobs due to the higher price of wood.

The decision was not completely welcomed by the Coalition for Fair Lumber Imports, either, which represents the U.S. forest product's industry. They recommended a higher, 32% tariff on Canadian imports. The Coalition is hoping that the Commerce Department will increase the tariff before it makes a final ruling on December 30. Once the final ruling is made, the tariff must still be approved by the International Trade Commission (ITC), an arm of Congress. The ITC must make an "injury determination" within 45 days of the Commerce Department's ruling. Until then, the import funds taken as a result of the tariff are held in escrow. The money could be returned to Canada if the ITC rules against the Department.

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### **Conservation Reserve Threatened by Diversion**

The announcement of a one-year, voluntary paid diversion program by the Agri-

culture Department in October may dampen farmers' interest in the Conservation Reserve Program in 1987. While the Conservation Reserve Program would pay farmers a maximum of \$90 per acre for 10 years for setting-aside their land, the new diversion program could give farmers, especially those in Corn Belt states, an average of \$200 per acre for a one-year set-aside. Furthermore, farmers would have to apply less conservation on the set-aside land under the diversion program. Conservationists are guessing that the farmer will choose the more valuable, short-term diversion over the Conservation Reserve Program in 1987.

To qualify for current federal price-support programs, farmers must already set-aside 20% of their total cropland base. Under the voluntary diversion program, farmers would be paid to remove an additional 15% of their cropland from production in 1987. The payments would be based on a farmer's average yield of a commodity. For example, a farmer could receive \$2 for every bushel of corn that would have grown on the set-aside land. At one time, Deputy Secretary of Agriculture Peter Myers had indicated to conservationists that the paid diversion would be linked to the Conservation Reserve, allowing farmers to enroll the same land into both programs. However, the Department has not announced such a linkage.

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### **President Vetoes Clean Water Act**

President Reagan pocket vetoed the Clean Water Act by not signing the bill in 10 days after the legislation was sent to the White House. This bill had strong bipartisan support and passed by over a two-thirds majority before Congress adjourned. The administration pointed to the high price tag attached to the bill, but the Democrats failed to pass this popular legislation again in the new Congress and send it quickly back up to President Reagan's desk. There are provisions in the bill to provide funds to states for work on non-point source pollution, which is the type of pollution commonly associated with the harvesting of trees and necessary road building. Non-point source pollution is Best Management Practices (BMP's) which are voluntary in Alabama. If a new Clean Water Act is passed, the Environmental Protection Agency (EPA) will review state plans to deal with non-point source pollution. ♣



**I**N OUR LAST ISSUE OF *Alabama's TREASURED Forests* we profiled candidates for the Alabama Senate and promised to do the same with aspirants for the House of Representatives.

Now that the November general election has come and gone, we can give you the winners of all seats for the 1987-90 legislative terms. First, we'll consider the final box score and how it reflects the overall makeup of the new legislature.

Twenty-nine incumbent senators and six newcomers will take their places in the seventh floor State House chamber. Four of the new solons are coming over from previous terms in the House. Two ran successfully in the statewide political arena for the first time.

Thirty senators are democrats. Five are republicans. There are 34 men with one woman ready to answer Lt. Governor Jim Folsom, Jr.'s gavel when the regular session opens in April. Thirty senators are white. Five are black.

### Eighty-two House Incumbents

The House welcomes 23 new members who will join 82 incumbents in the lower chamber. The 105-member House lines up with 89 Democrats and 16 Republicans. There are 98 men and 7 women. Ninety whites and 15 blacks were elected.

Most noteworthy in the new House alignment is the return of every member of the Mobile area delegation. Democrat Representative Beth Marietta will chair this delegation with Democrat Representative Bill Clark as vice chairman. Only one new face appears in the Montgomery County House delegation where Democrat Claud Walker mounted a successful campaign against incumbent Republican John Starr, Jr. for District 75.

Two former House members return after being away for one term. Representative Gerald Willis, the Piedmont lumberman who served on the Forestry Study Committee, gets his old seat which was held by Glenn Browder for the past four years. Browder vacated the District 34 post to make the race for Secretary of State, which he won by upsetting the veteran Annie Laurie Gunter.

Representative Nolan Williams of Newton left the House four years ago to campaign for the State Board of Education. He won, but opted to run for the legislature and was victorious in his 1986 bid for House District 88.

### Senators from the House

The four new senators with previous legislative experience in the House are Loyd Coleman of Arab; Rick Manley of Demopolis; Jim Preuitt of Talladega; and John Rice of Opelika. Manley was speaker pro-tem of the House during the Fob James administration. Coleman, Preuitt, and Rice come to the Senate after serving a four-year House term. All are democrats.

The defeat of Sister Strong by Manley in District 22 left Ann Bedsole of Mobile as the lone female survivor in the Senate. Senator Bedsole won a second term by trouncing former Representative Tommy Sandusky.

Here are the new faces who will join incumbents in the 1987-90 legislature:

**SENATE**—Ray Campbell, Decatur; Don Hale, Cullman; Loyd Coleman; Jim Preuitt; Rick Manley; and John Rice.

**HOUSE**—James Harold Hamilton, Rogersville; Ernest Dillard, Courtland; Herman Marks, Decatur; Tom Hogan, Jasper; Ed Frazier, Jasper; Allen Layson, Reform; Steve Logan, Hamilton; Dwayne Freeman, Huntsville; Gordon Moon, Guntersville; Clarence Haynes, Talladega; Al Knight, Birmingham; Mike Hill, Columbia; Bill Slaughter, Birmingham; Tony

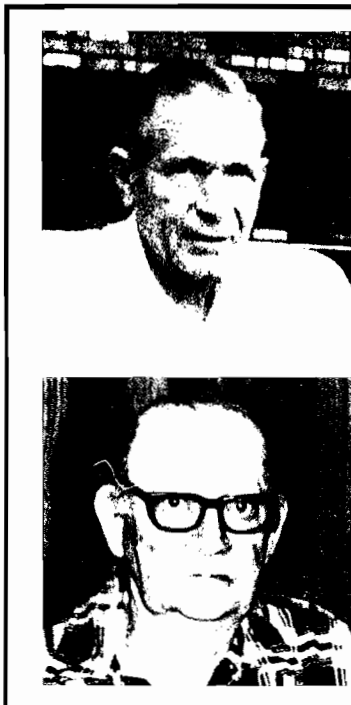
Petelos, Birmingham; Johnny Curry, Bessemer; Jim Wright, Birmingham; Edward E. B. McClain, Birmingham; Mike Breedlove, Jackson; Lewis (Pig) Headley, Clanton; Claud Walker, Montgomery; G. J. (Dutch) Higginbotham, Opelika; Gerald Willis; and Nolan Williams.

Like Williams, Freeman returns after a four-year absence from the House. Former House member Higginbotham succeeded Supreme Court Chief Justice Bo Torbett for a Senate seat back in 1977 and was elected to a full Senate term in 1978. He comes back to the House after defeating former member Shelby Dean Ward of Opelika.

### Layson—Friend of Forestry

Layson is well-known to the forestry people of Alabama for his service as timberland and raw materials manager at Weyerhaeuser and as a five-year member of the Alabama Forestry Commission.

The 140-member legislative body will be operating under a republican administration for the first time in 112 years. In his January 19 inaugural address, Governor-elect Guy Hunt called for a working agreement between democratic and republican members of the legislature to facilitate his pro-business, pro-jobs platform. ♣



## MEMORIAL

George A. Finley, retired Alabama Forestry Commission Wilcox County Supervisor, died September 4, 1986. George worked many long, hard hours on the fire line with a rake or flap prior to the advent of tractors with plows. A truly dedicated servant, he rendered over 25 years of appreciated forestry assistance to the landowners in Wilcox County.

Charles J. Swanson, TREASURE Forest landowner in Mt. Vernon, died October 11, 1986. According to those who knew him, he was a gentle owner of the land, a generous feeder of wild birds year round, and exceptionally skilled at growing flowers and trees. His combination of character, interest, and friendship will not be duplicated again. All of mankind has suffered a loss with his passing.

# ACTIVITIES

## DISTRICT

### 1

Wildfires have long been a problem in the northern parts of Alabama and Georgia along the state line. Illegal forest fires are a common problem, as

though the state line did not exist. Most of this area is sparsely populated and has a history of wide-ranging intrastate crime. A group of forestry-interested people first met in 1978 in Rome, GA to address this problem and develop a plan to relieve the wildfire situation. Members of this group represented the Alabama Forestry Commission, the Georgia Forestry Commission, the U.S. Forest Service, Georgia Kraft Company, Hiwassee Land Company and Kimberly-Clark Corporation. The efforts of this committee have sparked an interest from Tennessee. The Chairman of the Tennessee Forestry Commission attended the June meeting. Recent accomplishments of the N.E. Ala. and N. W. Georgia Fire Prevention Committee include the following: (1) encouraging the hiring of a law enforcement/fire investigator in Georgia; (2) a law enforcement/fire investigator to work in Calhoun, Cherokee and Cleburne Counties of Alabama; (3) a law enforcement roadblock/blitz in Cherokee County last fall; (4) better coordination of fire prevention, wildfire suppression, fire investigation and law enforcement efforts; (5) better cooperation among state and industry units; and (6) meetings with counterparts in industry and the Georgia Forestry Commission to exchange information toward more effective forest fire control. The most recent meeting was held in Piedmont on October 22. Law Enforcement Chief Walter Vest outlined the Alabama Forestry Commission's plan for the 1986-87 fire season: (1) increased personal contact with residents in the problem area; (2) multi-agency law enforcement roadblocks; (3) utilization of law enforcement/fire investigator to investigate and report all fires in the area; (4) response to all fires with a sense of urgency; (5) utilization of a law enforcement team for increased law enforcement presence; (6) efforts to locate, investigate and enforce laws relating to illegal dumping; and (7) development of news articles on related stories.

An area-wide TREASURE Forest field day was held October 30 in Marshall County on the farm of TREASURE Creed signer **Sonny Mitchell**. The County Planning Committee sponsored the event which consisted of a walking tour of several stops including hardwood management, wildlife habitat development, prescribed burning, erosion control and a demonstration of the portable sawmill. **Stan Cook**, forest ranger in Calhoun County, operated the sawmill which was the focal point of the tour. The local legislative delegation and county commissioners in Marshall County attended along with approximately 60 other people who were served lunch provided by the local chapter of the Farm Bureau. Excellent assistance was provided by **Neil Letson** and **Patty Welter** of the State Office, **Ed Eldredge** of Jackson County, **Donald Cole** and **Gary Sanders** of DeKalb County, **Edith Allen** from the District Office, **Mitchell McClendon** of Etowah County, **Mark Roberts** of Madison County, and **Stan Cook** of Calhoun County.

**Mickey Easley**, wildlife consultant who is on contract with the AFC, was in District One recently advising landowners on methods to improve their wildlife habitat. He met with three landowners in Jackson County and visited their property to give

on-site recommendations. We hope to incorporate wildlife biologist recommendations into all Treasure Forest Plans made for our creed signers.

## DISTRICT

### 2

On August 3, three St. Clair County volunteer fire departments received certification. Joining the ranks of the St. Clair rural fire fighting force are **White's Chapel**, **Cool Springs**, and **Friendship**.

St. Clair County Supervisor **Gary Hamilton** and Ranger **Randy Hurst** spent August 20 at Camp Chula Vista where they presented a fire prevention program to approximately 40 Cub Scouts.

District Forester **Bart Williams** attended the Middle Managers Workshop August 27 in Montgomery. Presentations on organizational excellence and multi-agency teamwork were offered to district supervisors of various governmental agricultural agencies.

The **Blount County** landowners' meeting was held September 9 at 7 p.m. at Round the Clock Restaurant in Oneonta. The topic of discussion was the southern pine beetle and the recent drought.

**Chester Black**, Chairman of the Walker County Soil and Water Conservation District, was the recipient of the **Kelly Mosley Environmental Award**. Everyone in Walker County and District 2 commends Mr. Black for the outstanding work he is doing. Congratulations.

The Alabama Volunteer Firemen's Competition and Field Day was held September 27 at Pratt Park in Prattville. **West Blount** and **Dallas-Selville** fire departments from Blount County participated in the events.

District Forester **Bart Williams** announced that District 2 completed one of the most hectic wildfire seasons on record as of state fiscal year 1985-86. From October 1, 1985, through September 30, 1986, District 2 responded to 2,379 wildfires that burned 23,935 acres of land. Mr. Williams pointed out that in spite of the lengthy record breaking drought conditions and the unusually high number of wildfires which lead the state, the District 2 fire suppression team held the average fire size to 10.06 acres per fire!

**Leon McLemore** is the most recent TREASURE Forest landowner in Walker County. Mr. McLemore's 918 acre farm was certified during the Services Subcommittee meeting on September 15 of this year. He is managing his land for wildlife and timber. Keep up the good work, Mr. McLemore.

District Forester **Bart Williams**, District Secretary **Mary Cruce**, Forest Rangers **Rick Hofmeister**, **Cary Rhodes** and **Kenny Thompson**, and Shelby County Secretary **Johnnie Tidwell** attended the open house ceremony of the new Shelby County Agriculture Office Building September 28. The county owned building contains the offices of all of the Shelby County agricultural agencies along with an auditorium. State Forester **C.W. Moody** and **Mrs. Moody** attended the reception. Mr. Moody participated in the opening ceremonies with other agency heads, Shelby County Commission Chairman **Tommy Snowden**, and associate commissioners. Auburn University President **James Martin** presented a keynote speech as part of the ceremony.

Cullman County Forestry Supervisor **Darrell Johns** presented a fire prevention program for the **Webloes** and **Cub Scouts** of West Elementary School in Cullman

on October 20. Approximately 20 boys attended.

The Walker County Community Resource and Development Committee and the Walker County Forestry Planning Committee both won awards for being the most outstanding committees in their respective districts. We are very proud of Walker County and the time and effort they put forth to make this happen. Walker says they are not stopping there. They want to win the most outstanding committees in the state again next year.

**Hugh Mobley**, AFC Fire Control Section Chief, has assisted **Hayes D. Brown, II** of the Alabama Forest Owners' Association in the organization of a nine session prescribed burning shortcourse. In addition to helping with the organization efforts, Mobley is acting as instructor at four of the sessions. Other instructors are **Daryl Lawson**—Woodland Services Company, and **Monty McKinley**—Timber Managers Company. The first session was attended by approximately 20 forest owners eager to learn more about the fire tool.

**Lee Laechelt**, urban forester District 2, attended the National Urban Forestry Conference in Orlando, December 7-11.

## DISTRICT

### 3

Six landowners in District 3 recently certified as TREASURE Forest landowners are as follows: **Helen Collins**, Fayette County, 200 acres; **Paul Crump, Jr.**, Lamar County, 553 acres; **Winston Ferguson**, Pickens County, 690 acres; **M. H. Lee**, Pickens County, 283 acres; **E. M. Sparkman**, Sumter County, 400 acres; and **Sumter Farm and Stock Company**, Sumter County, 13,500 acres. We are proud to have them added to our family of TREASURE Forest landowners.

District Forester **Wayne Strawbridge**, Pickens County Forester **John Sutton**, Sumter County Forester **Philip DuBois** and Hale County Forester **Landre Tomlinson** served as volunteers on the Society of American Foresters Arrangements Committee of the 1986 National Convention held in Birmingham. The SAF Fisheries and Wildlife Tour went to the Sumter Farm and Stock Company's TREASURE Forest in Sumter County. Some 20 people from across the nation attended. **Danny Everett, Ph.D.**, Sumter Farm's wildlife biologist, did an outstanding job talking and explaining their wildlife management program. **John Pritchett**, head of the Department of Zoology-Entomology at Auburn University, told about the wildlife research in this area, and **Keith Causey**, professor of wildlife science at Auburn University, talked about deer research in Alabama. **Jim Davis**, Wildlife Division Chief, Department of Conservation and Natural Resources, told about the deer management program in the state. **David Nelson**, district biologist with the Department of Conservation, talked about his work. We appreciate his assistance in our TREASURE Forest program. District Forester **Wayne Strawbridge**, AFC Contract Wildlife Biologist **Mickey Easley**, and Development Division Director **Tim Boyce**, each gave a talk on the tour. Sumter County Forester **Philip DuBois** helped coordinate this very enjoyable tour. The SAF Utilization Tour visited the **Weyerhaeuser Sawmill** complex at Millport in Lamar County and the **Aliceville Lock and Dam** on the Tennessee-Tombigbee Waterway in Pickens County—stopping to eat lunch at the **Smith-Westervelt Tower** site/nature trail in Tuscaloosa County.

Fayette County Supervisor **George Lowrey** was one of the speakers in a presentation to the Forestry Planning Committee session at the Third Annual TREASURE Forest Landowner Conference held in Montgomery on September 11 and 12.

**Jack Honeycutt**, Chief, Solid Waste

Section, Alabama Department of Environmental Management, was guest speaker at the Fayette County Fire Fighters Association meeting on October 9 and presented a slide program on the history of the solid waste program and problems of rural illegal dumping in Alabama. The volunteer fire departments sponsored a county-wide "clean-up day" in Fayette County on August 16, which was very successful. District 3 plans to expand this litter clean-up program involving volunteer fire departments district-wide.

The Fayette County Forestry Planning Committee met October 16 with 30 people attending. Forest Economist **Bill McKee** of Auburn University was guest speaker. All participants involved in the cost-share programs and vendors who do contract work in Fayette County were invited to this public meeting. All certified TREASURE Forest landowners in Fayette County were also invited and have been invited to become members of the Forestry Planning Committee.

The Hale County Forestry Planning Committee held a TREASURE Forest landowner tour on **Bill Wagner's** property one mile south of Akron. **Tim Sharp**, a DuPont representative, was there to talk on various forest herbicides and how they should be used. A new four-wheeler prototype herbicide sprayer was also shown and discussed by Mr. Sharp. Other activities shown and discussed on the tour included tree injection of herbicides, a soils pit, an area that had recently been thinned, a young plantation that had recently been treated with OUST, and food plots for wildlife. A good group of forest industry consultants and private landowners were on hand for the tour.

District 3 has two new foresters on the district headquarters staff. **Patrick Waldrop**, who transferred from Mobile County, replaced **Mark Beeler** as district forest management specialist and **John King** replaced **Benji Elmore** as rural forestry assistance forester. They are looking forward to working with landowners in this area.

## DISTRICT

### 4

Pilot **William C. McClelland** is on duty; he has flown several SPB flights and some fire reconnaissance also.

**James E. Spradley** attended the Academy in Selma; Jim will be Dadeville 9 in District 4 replacing **Ray Jones** who is with the State Office now.

**Thomas V. Cambre**, AFC hardwood specialist, has made numbers of trips over the state to meet with landowners to help them plan the hardwood management of their lands.

Radio Operator II **Linda McCord** has been "flying bugs" this summer. Linda, who was a forest ranger before she became a radio operator, is quite good as an observer and unlike most of our personnel does not suffer from a queezy stomach and equilibrium problems while flying.

The Forest Management and I and E Sections in Montgomery do so much good work, but one of the things—no, two things—that are outstanding and have affected everyone in the state and made our professional lives so much better are the two slide-tape programs "Birds of Alabama" and "Wildflowers of Alabama." **Dr. Douglas McGinty's** fine work in "Wildflowers" is most outstanding. He is one of District 4's TREASURE Forest landowners (Coosa County), Huntingdon College.

Another one of the commendable "doings" that directly affects and helps all of us "in-the field" is **Anita Benton's** special project, the annual Champion Tree Listings. This has come from a little listing of a few sheets which was sent on to the DHQS to the nicely bound and much, much more complete listing which goes out to each county as well as the district

offices.

District 4 had several foresters working at the annual meeting of the Society of American Foresters in Birmingham—Glenn Berry, Tom and Linda Cambre, Steve Nix, and Guy Slayden.

Skip Turner, fire specialist and safety coordinator, conducted a one-day safety meeting for equipment operators in Talladega County.

E. O. Moore, district forester, attended the law enforcement meeting in Piedmont along with Skip Turner and Glenn Berry.

The Chambers County Forestry Planning Committee held a wildlife program on August 18. About 35 people attended and heard speakers talk on wildlife species (deer, turkey and dove), hunting leases, and Alabama hunting laws. The guest speakers were Robert Waters, SCS biologist; Robert Seidler, Dept. of Conservation, Game Fish Division; and Dr. Lee Stribling, Auburn University, Alabama Cooperative Extension Service.

The Annual Pine Tree Festival was held in LaFayette August 22, 23, and 24. Commission employees set up a booth and showed slide-tape programs on a wide variety of issues; they also gave away Smokey Bear material to the children.

On August 23 the annual Chambers County Firemen's Competition was held in Lafayette. Five teams competed. They were Five Points, West Chambers, Ridge Grove, Union Hill and LaFayette Fire Departments. FRII Ronnie Ray acted as MC for the event and Scott Phillips, District Four staff, was the judge with Jeff Abney and Clayton Schwind as time keepers. LaFayette won the overall competition with Five Points in second, and Union Hill in third place.

The new Chambers County Champion Tree markers were picked up in Montgomery and delivered to the landowners. The LaFayette Sun ran several pictures of the Champion American Elm, Mimosa, and Oriental Arborvitae.

Clayton Schwind gave a program on the southern pine beetle epidemic to 40 LaFayette Rotary Club members on August 19. The program was well received by the Rotarians.

Ronnie Ray and Jeff Abney have been working hard all summer on the southern pine beetle situation. Chambers County SPB spots have dropped from a high in July of 127 spots to 20 spots in September. They have ground-checked the spots reported by the District's monthly SPB flights and then advised the landowners to see that the spots were harvested. Chambers County would like to thank all our cooperators for cutting and harvesting these spots. Without your help, we could not have controlled the SPB outbreak as well.

Ronnie Ray has also been busy with TREE Farm inspections and reinspections. He has checked most of the reinspection TREE Farms and will turn in fifteen new farms for certification.

The Chambers County Forestry Planning Committee held a wildlife tour on October 16 with 30 people attending. The tour began at the Chambers County Farm Bureau Building and then moved to the property of Bill Callahan. Mr. Callahan spoke to the group on fire lane construction and woods road repair. Robert Waters, SCS wildlife biologist, spoke to the group on prescribed burning for wildlife habitat improvement, harvesting wildlife, and use of salt licks. On another area of Mr. Callahan's property, a food plot was studied; at this location 500 pounds of 13-13-13 fertilizer was used and 50 pounds of wheat, 50 pounds of rye grass, and 20 pounds of crimson clover had been planted. Mr. Waters then discussed the advantages and disadvantages of this type of food plot. The next stop on the tour was on the property of East Alabama Lumber Co., Inc. An upland oak-hickory stand was visited and Mr. Waters spoke on the

importance of mast-producing trees in a wildlife management plan. The Wheeler Estate provided the next stop. Clayton Schwind, Chambers County forester-supervisor, talked about managing a beaver pond for duck habitat. He talked about lowering the water in the pond and planting Japanese millet. Mr. Waters discussed the benefits of beaver ponds for the surrounding wildlife. The last stop on the tour was on the property of Dr. David Hall. Here the group saw a brown top millet field being managed for mourning dove. Dr. Hall spoke on the management of the fields and Mr. Waters discussed early and late season dove hunting. The Chambers County Forestry Planning Committee would like to express appreciation to Mr. Bill Callahan, Dr. David Hall, and Mr. Robert Waters for their time and help in making this an interesting and informative tour.

The Clay County Volunteer Fire Fighters Association met August 11, and Earl Smith and W.N. McCollum attended. The Hon. Richard Laird (State House of Representatives) was also there to present the RCFP grant checks; he presented checks to fifteen departments.

On August 30 the District 4 RCFP Firemen's Competition was held at the Clay County Saddle Club Arena. Attending were W.N. McCollum, Guy Slayden, Scott Phillips, Tom and Linda Cambre, Ray Tucker (State HQs) and Wesley Cain (State Fire College), and Earl Smith. Twelve teams were represented, 4 of which competed for trophies and \$500 prize money. Tom Cambre and Ray Tucker selected Mountain Volunteer Fire Department (Clay County) brush truck to represent District 4 at the State Competition in Prattville on September 27.

Earl Smith, Clay County forester-supervisor; FRII Keith Medforth, and Smokey Bear participated in a Radiothon at the Clay County Farmer's Market to help raise funds for the Clay County Learning Center.

The Clay County Fair was held September 22-27. The Forestry Planning Committee and the Alabama Forestry Commission had a booth to exhibit the reasons for and the objectives to be achieved through the TREASURE Forest Program.

On September 27 FRIII W.N. McCollum took the District 4 Champion Brush Truck to the Firemen's Appreciation Day in Prattville. Four departments from Clay County attended.

The Cleburne County Forestry Wildlife Association held their bi-monthly meeting at the Cleburne County Forestry Commission office in Heflin on September 8 at 6:30 P.M. Glenn Berry used the "Birds of Alabama" slide-tape program for this meeting; FRII Forrest Johnson and FRI Darrell Durham were also present.

The Heflin Garden Club had as its speaker Glenn Berry who presented a program on wildflowers using the slide-tape program "Wildflowers of Alabama."

During Fire Prevention Week programs on fire prevention and safety were presented to four Cleburne County elementary schools—Heflin Elementary, Pleasant Grove Elementary, Ranburne Elementary, and Fruithurst Elementary. Forrest Johnson, Darrell Durham, and Smokey Bear were in charge of each program.

A county law enforcement meeting was hosted by the Alabama Forestry Commission in Heflin on October 28. Glenn Berry, Forrest Johnson, and Darrell Durham all participated in this meeting.

FRIV Ralph Woolley, Coosa County supervisor, attended a meeting on October 2 at the Courthouse in Rockford to assist in organizing a Coosa County Volunteer Firemen's Association. The Hon. Jim Pruitt presented a check to each Rural Fire Department in the county.

On October 7 FRII Joel Neighbors presented a program on Fire Prevention (Fire Prevention Week) to 125 children at the Indian Valley School. He gave out Smokey Bear material to the children.

Kate Prater, RO II; and FRIV Ralph T. Woolley attended the Coosa County Forestry Committee meeting in Rockford. There were 30 present.

FRII Joel Neighbors and Kate Prater presented a program on Wildflowers and Birds using the two slide programs we have to 15 members of the Town and County Garden Club of Sylacauga.

The Frog Level Ledger of Randolph County carried Steve Nix's article in his Forestry News column on the Firefighter's Competition, Senate Bill 151 and its importance to Randolph County, and Superior Gas Company's fire demonstration. The Ledger has a circulation of 5,500 readers. Nix also wrote articles concerning the SPB problem and the Gypsy Moth traps that had been set early in the summer. He gave a report on the completion of the Gypsy Moth traps when they were taken up.

The Wadley Kiwanis Club, 20 members, met on September 9 with Steve Nix presenting a program (slides) on the SPB epidemic and a 15 minute talk on the drought effects on forestry in Randolph County.

The Randolph County Forestry Planning Committee met September 9 at the Alabama Forestry Commission Office in Wedowee. Charles Sikes presented a program on the SPB situation in Randolph County. There were 10 members present. David Stephens of Stephens Forestry Service was elected Chairman.

Steve Nix presented a program on drought and its effects on forestry in Randolph County along with a slide program to 20 members of the Roanoke Kiwanis Club.

John Tyson, Talladega County forester-supervisor, and the AFC personnel presented an exhibit on forestry at a folk festival in Waldo. This was the 13th annual.

John taped a TV show on rural fire defense to be shown on Anniston's WJSU-TV sometime soon.

John also worked with local groups to assist in the passing and acceptance by the Talladega County Commission of the Forestry Assessment Tax.

District 4 sponsored a Firefighter Competition on August 28 at Ashland in Clay County. Daviston Fire Department, Tallapoosa County, won first place OVERALL in the events. Union Fire Department, Tallapoosa County, won the "Fire Department of the Year Award" for District Four.

FRII Jim Money presented Smokey Bear at Lakeshore Community Hospital's Health Fair on October 11.

FRII Ben Parrish has been assisting as observer in most of the SPB flights in District 4; then on the ground in Tallapoosa County he makes quite a lot of the ground checks and notifies landowners of their SPB problems and the proper methods to use for control.

The number of forest management plans for District 4 follows: Chambers County—55, Clay County—20; Cleburne County—10; Coosa County—16; Randolph County—11; Talladega County—7; Tallapoosa County—20.

The Autauga County Forestry Planning Committee came away from the Third Alabama Landowner and TREASURE Forest Conference as the state winner for their outstanding forestry accomplishments.

Autauga County held their 5th Annual Forestry Tour on October 22. Eighty-two people enjoyed the tour stops which involved site preparation, wildlife man-

agement, seedling survival, and the TREASURE Forest Program.

Bibb County TREASURE Forest landowner Dan James of James Bros. Farm is the state winner of the 1986 Helene Mosley TREASURE Forest Memorial Award. Dan accepted the award on Sept. 12 in Montgomery. The James Bros. Farm hosted two SAF tours on Oct. 9. Approximately 100 foresters from all over the world were impressed with the multiple use land management on James Bros. property. Dan James did an excellent job explaining his management philosophy to the visiting foresters.

The Bibb County Forestry Planning Committee continued a busy month with their annual tour on October 23. Over 40 people attended. Joe Barton, county supervisor; Tommy Counts, SCS; Macon Tidwell, ACES; Frank Roth, ACES; and Doug Link, Hammernill Paper Co., were responsible for setting up the tour.

The Perry County Association of Volunteer Fire Departments was formed in Sept. The organization hopes to improve fire protection for rural Perry County.

Smokey Bear visited Marion Elementary School first graders. Smokey shook hands and the kids saw a film about his origin for the kickoff of Fire Prevention Week.

Salvage of the southern pine beetle killed timber paid off for Perry County landowners this summer. A reduction from 77 spots in June to 29 spots in October shows the effort by everyone involved.

District 5 welcomes Ruth Kaylor as its new secretary. Ruth has transferred over from Alabama State Vocational Rehabilitation Service. She has been with us since June and is doing a fine job.

Forest Management Specialist Tom Lang and Dr. Frank Roth (ACES) appeared on Channel 8 News Program "Profile" on October 14. They discussed the SPB problem, forestry's impact on Alabama's economy, and cost-share programs.

On June 16, Camden, Alabama was officially awarded Tree City, USA certification by State Forester Bill Moody. On hand accepting the award were Camden's Mayor Johnny Mott and Camden Tree Commission members Mrs. Gayle Shorter, Mrs. Lula Lee Tait, Mrs. Rachel Dyess, Mrs. Edwina LeCroy and Mr. J. C. Martin.

**DISTRICT 6** The Sutton Farms of Ariton, Alabama recently became Barbour County's eighth TREASURE award recipient.

The Dale County Forestry Association held its quarterly meeting with Attorney-at-Law Anne Laura Parker and Consultant Forester David Adams as guest speakers. Mrs. Parker spoke on timber sale contracts, while Mr. Adams told of the various services available from a consultant forester.

Dale County Supervisor Bruce Hancock and Dale County landowner H. C. Jordan attended the 3rd Annual Landowner Conference. At the conference, Mr. Jordan received his painting for being the District 2 Helene Mosley Award winner.

TREASURE seeker Gene Baldwin, landowner in Dale County, attended the tour part of the landowner conference. Afterwards, he said that it was a very informative tour and was valuable to him.

Wildlife Biologist Stan Stewart and County Supervisor Bruce Hancock recently made pre-inspections on two TREASURE seekers in Dale County.

Dale County AFC personnel are actively working with the Daleville FFA Chapter on their property offering help

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Autauga County held their 5th Annual Forestry Tour on October 22. Eighty-two people enjoyed the tour stops which involved site preparation, wildlife man-

so that they can become a Junior TREASURE Forest.

The **A. L. Faulk Estate** in Geneva County was awarded its TREASURE award at a Forestry Planning Committee meeting recently.

Geneva County Supervisor **Ronnie Hickman** has been real busy lately conducting tours on various TREASURE Forest farms in the county. Several local landowners have been given individual tours to see what is being done on these farms in order that they may do some of the same on their farm.

**Willie Mae Whitehead** of Abbeville, Alabama recently became Henry County's fifth TREASURE award recipient.

District Fire Specialist **Bruce Bowden** and Henry County Ranger **Tommy Haynes** have been busy putting in permanent firelanes on several TREASURE seekers' properties.

**John Mixon** of Gordon, Alabama became Houston County's most recent TREASURE award recipient.

State Forester **C. W. Moody** made two presentations on TREASURE Forest to the local **Kiwanis Club** during the last few months in Houston County.

**Mr. and Mrs. Alex Whaley** and **Mrs. Dot Green** of Troy, Alabama received their TREASURE awards recently.

The **Coffee County Forestry Advisory Committee** was recognized as the District 2 outstanding committee for promoting forestry in the Wiregrass area at the Landowner Conference in Montgomery.

County Forester **Bob DeVaughan** has been busy certifying new Tree Farms in Coffee County. We hope that these Tree Farms will eventually become TREASURE Forest winners.

#### DISTRICT

# 7

The **Butler County Forestry Tour** was held October 21. There were approximately 45 landowners and agency people present. After a very interesting tour, lunch was served by **Alabama Farm Bureau** at **Sherling Lake**. **State Forester C.W. Moody** presented a TREASURE Forest Certificate to **James Alexander**. After this ceremony, the tour continued to **Albert Middleton's** property where a prescribed burn was demonstrated.

On October 28 **Union Camp** gave a supper for 13 **RCFP** departments in **Butler County**. About 150 volunteer firemen attended. The supper was given in appreciation for the fine job done on the fire that destroyed the **Union Camp Planer Mill**.

The **Concuh County Forestry Tour** was held on October 28. There were about 30 landowners present on this tour. Forester **Tom Cambre**, **Alabama Forestry Commission**, gave a talk on the management of flatland hardwoods. **Lee Stribling**, Extension Service, talked on wildlife, and a representative from **Pioneer Company** gave a demonstration on chain saw safety.

**Concuh County Supervisor Victor Howell** presented **Henry Wiggins** with a Tree Farm certificate. **Concuh County** recognized two new TREASURE Forest landowners, **Grayson Simmons** and **Dr. Salem Saloom**.

The **Monroe County Forestry Tour** was held on October 23. The keynote speaker for the occasion was **State Forester C.W. Moody**. **W.C. Nicholas** was presented a TREASURE Forest certificate and **Margarite Booker** was presented a **National Champion Tree** certificate for a mocker nut hickory.

#### DISTRICT

# 8

In addition to district 8 personnel mentioned in the previous issue, **Washington County Supervisor Lynn Sullivan** and **Ranger Wyatt Hendry** successfully

completed the **Spring Forestry Academy**. Congratulations!!

On July 14 Forester **Lynn Sullivan** attended a **County Forestry Committee** meeting and presented a program on **Southern Pine Beetles**.

**Mobile County Supervisor Patrick Waldrop** and all **Mobile County personnel** hosted the **Mobile County Fire Departments** with a shrimp dinner. Over 60 people attended including **Sen. Bill Menton** and **Rep. J. E. Turner**. Grant checks were distributed to the departments.

**Choctaw County Supervisor Chuck Quinn** visited the **4-H Club** in **Butler** on August 6. The topic was **Forestry in Alabama**.

**Washington County Supervisor Lynn Sullivan** and **Asst. County Supervisor Otis Evans** attended the **Washington County Association of Volunteer Fire Departments** meeting and distributed grant checks. Also present were **County Probate Judge Armstrong** and **County Commissioner Jack Rivers**.

**Baldwin County personnel** worked very hard to set up a booth in **Robertsdale** for the **Baldwin County Fair**, which started **September 29** and ended **October 4**. **Ranger Otis French** was much admired by children and adults alike in the new **District 8 Smokey Bear** suit.

District 8 would like to recognize and congratulate **Washington County Supervisor Lynn Sullivan**, **Baldwin County Supervisor John Martin**, **Clarke County Supervisor Benji Elmore**, **Mobile County Asst. Supervisor Jerry Dwyer** and **Fire Specialist Jake Gibbs** for successfully completing eight weeks of training at the **Southwest Alabama Police Academy** in **Bay Minette**.

The **Clarke County Annual Forestry Tour** was a big success. Local forest industry provided lunch. Approx. 80 landowners were present. The tour was held on **Treasure Forest** landowner **Leon James'** property. The theme was **low-cost reforestation** and **timber marketing**. A **skidder** was demonstrated as well as the **AFC portable sawmill**.

#### DISTRICT

# 9

"Awards are rewarding," especially when your district receives two national awards in one month. The **Florence Garden Club's Potpourri Trail**, located at **District 9 Headquarters**, was honored by the **National Federation of Garden Clubs**. The **wildflower garden** project was selected for second place honors in the **wildflower** category. Along with the award goes \$5000 to be spent for maintenance of the trail.

The second national award went to **Amanda Ray**, a student at **Russellville Middle School** in **Franklin County**. **Amanda** won first place in the **Smokey Bear/Woody Owl Poster Contest**. This contest which is open to all ages—both students and adults—is sponsored by the **National Council of Garden Clubs**. **Amanda's** drawing of clouds, rainbows and butterflies was judged best in the seventh grade category both at state and national levels.

The **Franklin County Forestry Planning Committee** and **Champion International** hosted a landowner meeting to discuss the southern pine beetle problem. After a video presentation on "What Can Happen If Beetles Are Not Controlled," the group enjoyed a picnic by the lake.

**Dr. Frank Roth**, **Forest Management Specialist** from **Auburn Extension**, was guest speaker for the recent **Marion County Forestry Planning Committee** meeting. This was a joint meeting of the **County Planning Committee** and the **Farm Bureau Forestry Committee**.

**Royce Mann**, **Marion County's** newest **Treasure Forest** landowner, was presented his certificate at the **Marion County Forestry Planning Committee** meeting. **Marion County** now has 14 **Treasure Forest** landowners!

Congratulations to the **Clyde Holcomb** family. Their **Treasure Forest** has been selected winner of the prestigious **district Helene Mosley Treasure Forest Award**. The certification committee visited the **Holcomb** property in July. They were accompanied by the **Marion County Forestry Planning Committee**, **County Forester Tony Avery** and **District Forester Gerald Steeley**.

The **Marion County CRP** has thirty-eight applications to convert 900 acres of marginal cropland to trees.

**Neil Letson** and **Gerald Steeley** attended a meeting of the **Florence City Planning Commission**. **Neil** explained the **Tree City USA** program to the Commission. The city planner has asked the **Forestry Commission** to do a street tree survey.

**Don Burdette** presented the **Tree City USA** program to the **Red Bay City Council** at their July meeting.

On July 8, the **Zip City Volunteer Fire Department** held its annual hamburger supper and hosted the monthly meeting of the **Lauderdale County Volunteer Firefighters Association**.

**Chief Butch Tucker** welcomed the association members to **Zip City** and **County Forester Steve McEachron** announced that the grant checks were ready to be distributed.

#### DISTRICT

# 10

**Elmore County TREASURE forest landowner Ed McCullers** has entered into an agreement with local officials for use of a small crawler tractor and equipment with which he plans to plow fire breaks for other small land holders like himself in his area who otherwise might not be able to afford that service. This all came about because other **Titus** community residents saw **McCullers'** enthusiasm for his 100-acre **TREASURE** and the benefits of pre-suppression fire line construction. **Ex-AFC supervisor ranger Ray Carpenter** is also a partner in this deal.

**Planning Committee** representatives from 5 East-central Alabama counties met in **Hurtsboro** Nov. 6 to set down details for their big **TREASURE** event on **April 21, 1987**. **A Natural Resources Field Day** will cover bottomland hardwoods, herbicides, wildlife and fish pond management, pine beetles and other subjects. **Forestry chemical and machinery** companies will sponsor the day to be held on the **George Watkins** property near **Rutherford** in **Russell County**. **TREASURE-type** landowners from all surrounding counties in Alabama and some from across the river in **Georgia** are expected to attend. **Don Bice**, **Russell County Extension Service**, chairman, (205) 298-6845, is the working coordinator for the event and is gathering all the details.

Serious thought and consideration is being given **hardwood species** in their own right across **District 10**, not as trees to occupy sites not suited to pine, but as trees to be grown on sites best suited to them. This is coming about in part because of the **TREASURE** emphasis on landowner interest, best use of land resources, and the true application of multiple-use forest management principles. Economically and symbiotically the soundest recommendations for **AFC** advisors of the next 20 years may be **hardwood production** and the seemingly associated recreational benefits accrued from "bottomland" management.

**Non-contractual agreements** between landowners in **District 10** and **AFC prescription burners** are being used more often these days. All of an individual's property to be burned is divided into smaller handier plots, and these are fired at the best time for both the owner and the **AFC**. This method yields a long-term commitment to good forest management on the part of the landowner, is easier on his pocketbook, and is more convenient for local **AFC** folks than all-acres burns. Of course, an actual contract signing is done for each time fire is prescribed.

## CALENDAR

**January 5**—Cleburne County, 6:30 p.m., County Forestry and Wildlife Association meeting. Contact Glenn Berry, 463-2876.

**January 6**—Jefferson County, 7:30 p.m., Alabama Forest Owners' Association meeting, AmSouth Bank, Hoover. Prescribed Burning Short Course: Session VII—Planning and Preparing for the Burn.

**January 6**—Walker County, 9:00 a.m., Forestry Planning Committee. Call Paul Kennedy, 486-9064.

**January 13**—Barbour County, 7:00 p.m., Impact of New Tax Laws, Dr. Bill McKee. Dutch treat. Contact Dr. Peter Mount, 727-8809.

**January 15**—Dale County, 7:00 p.m., Forest Landowners' Association meeting. Call Bruce Hancock, 774-8112.

**January 17**—Jefferson County, 8:00 a.m., Alabama Forest Owners' Association field trip. Prescribed Burning Short Course: Session VIII—Writing the Prescription and Executing the Burn.

**January 20**—Randolph County, 7:00 p.m., Impact of New Tax Law with Dr. Bill McKee. Contact Tom Burnside, 357-2841.

**January 27**—Jefferson County, 7:30 p.m., Alabama Forest Owners' Association, AmSouth Bank, Hoover. Prescribed Burning Short Course: Session IX—Course Wrap-up and Graduation.

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

# PLANTING SOUTHERN PINE SEEDLINGS

by BILL PADGETT, Chief, Forest Nurseries

**S**OUTHERN PINE SEEDLINGS have been planted in increasing numbers in Alabama over the last several years. The plantings have met with varying degrees of success for many reasons. The matching of the correct species with site conditions to get the best growth plus following proven planting procedures are essential to planting success.

The cost of planting seedlings has increased over the years, but when this is compared to the cost of a successfully established plantation or fully stocked acre, then the cost is not out of line. The land manager can expect greater planting success if he will follow five simple rules of planting: 1) *choose the right tree species for the site*, 2) *plant quality seedlings*, 3) *protect seedlings obtained from nursery throughout the planting*, 4) *use proper methods in planting*, and 5) *seek professional advice for local conditions*.

In Alabama, most of the pine seedlings are planted from December through February. However, in many cases, the planting season is extended when seedlings have been stored in coolers at 34 degrees Fahrenheit to 41 degrees Fahrenheit. Seedlings that are kept in coolers or out-of-storage should not be allowed to freeze since this could result in high mortality when the seedlings are out-planted. Freezing weather plus a cold, dry wind can have disastrous effects on out-planted seedlings, and the planting operation should be stopped until conditions are more favorable for planting. Soil that is hard from freezing, drought or is excessively wet should be avoided. Planting in poor soil conditions results in reduced growth and poor survival.

The spacing of seedlings will determine the number of seedlings per acre that is needed. Some suggested spacings and number of trees per acre are shown:

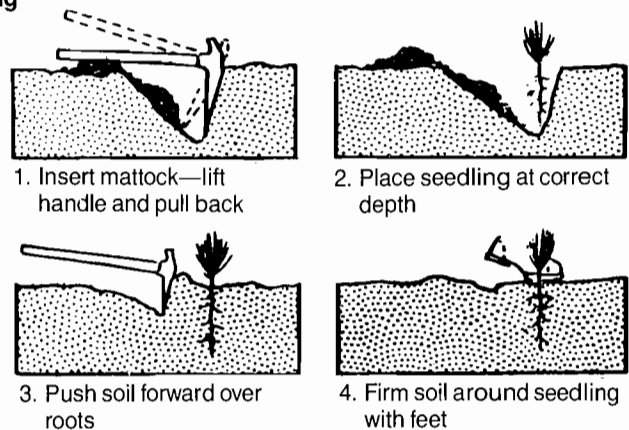
Once the planting operation begins, seedlings that are to be planted should be in a bucket, bag or planting tray. The seedling roots should be covered with moss, sawdust or other material to prevent them from drying out. The roots should not be exposed for more than five minutes. Seedlings that are left in the bundles should be protected from the sun,

wind or dry air by covering the roots and placing the seedlings in a protected area. It is a good rule to carry only those seedlings that will be planted in one day to the field; leave the remainder in a protected area or in storage.

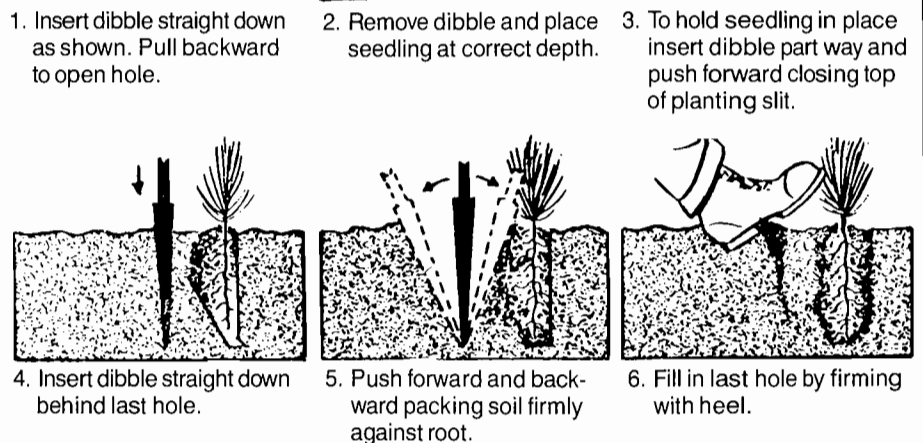
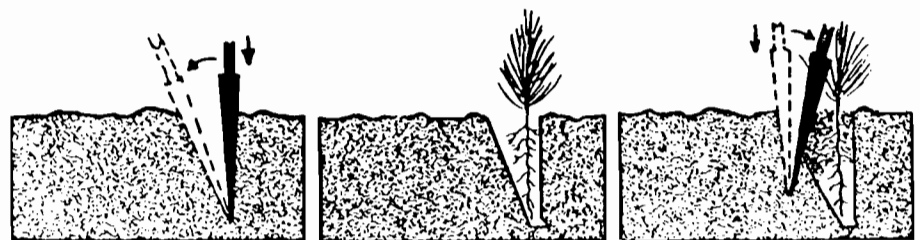
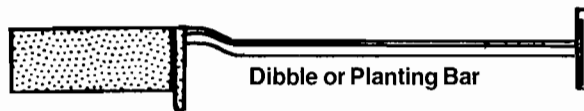
Seedlings can be planted either by hand or with a mechanical planter. In hand planting,

FIGURE 1—Hand Planting

**Mattock (Grub Hoe).**



**Dibble.**



Spacing (Feet)	Seedlings Per Acre
6x8	908
6x9	806
6x10	726
7x7	889
7x9	691
7x10	622
8x8	681

the dibble or planting bar must be 10 inches long or the plantings will be too shallow. The planting bar can be lengthened by welding a new tip on the bar. Once the bar is worn too severely, it should be discarded. Follow the directions in **FIGURE 1** for successful hand planting.

No one machine is acceptable to all planting situations. However, there are several machines available and the landowner can find one to cover his particular need. In machine planting, the seedlings need to be protected at all times to assure a successful planting. Follow the directions as outlined in **FIGURE 2** to have a successful planting operation.

Good supervision is a must in either hand or mechanical plantings. Poor performance in any phase of the planting needs to be corrected promptly.

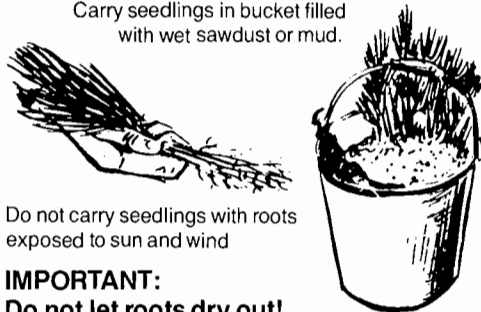
The land manager should have a well established plantation after following the procedures outlined. Planting is an investment which offers high returns, so remember to plan for protection from fire and damaging agents in the future!

### HOW TO PLANT TREES

Study the planting diagrams carefully and follow all instructions and precautions if you want your trees to grow and thrive. Be sure the seedlings are planted at the right depth, which should be at least 1/2" deeper for medium to large stock and 1" deeper for small stock than the depth they grew in the nursery. On most soils longleaf pine seedlings should be planted around 1/4" deeper than they grew in the nursery. Avoid cramping or bending the roots. Pack soil well around the roots. Air pockets around the roots will cause the tree to die.

### Handling Seedlings in Field.

Carry seedlings in bucket filled with wet sawdust or mud.

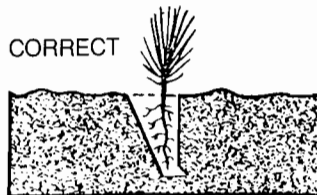


Do not carry seedlings with roots exposed to sun and wind

**IMPORTANT:**  
Do not let roots dry out!

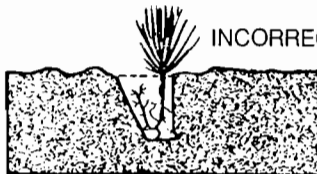
### Planting Depths.

CORRECT



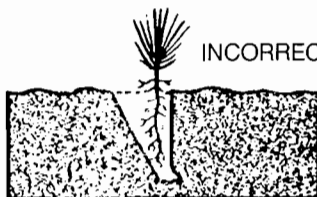
Seedlings with root collar at ground level. Roots spread.

INCORRECT

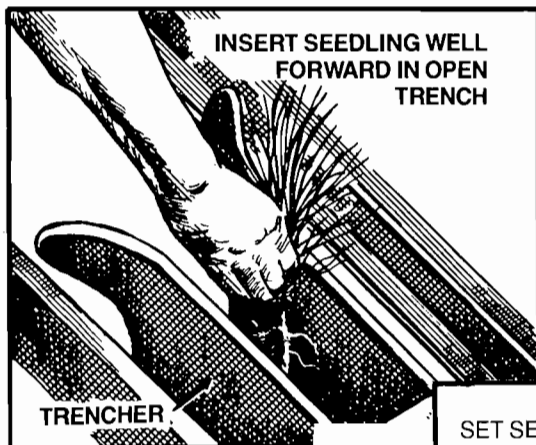


Cramped roots may develop into poor root system.

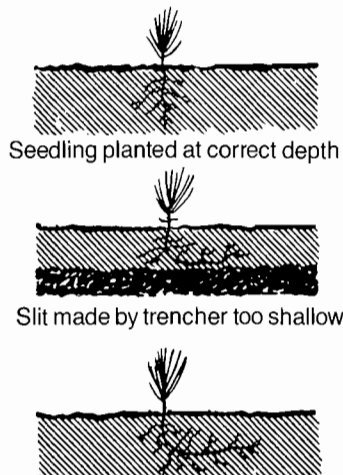
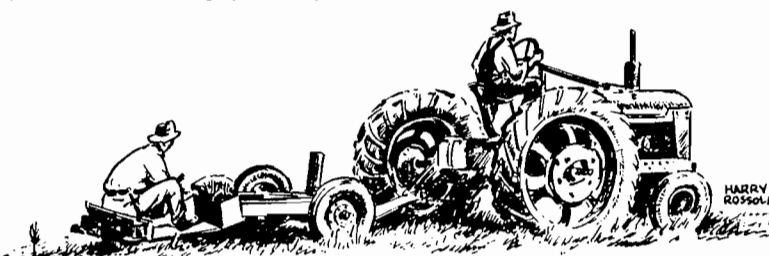
INCORRECT



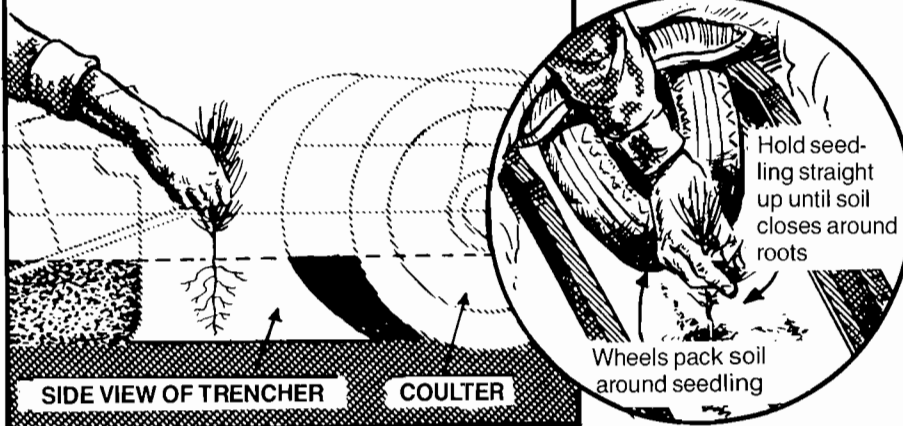
Root collar too high—survival chance poor—may dry out.



**FIGURE 2—Mechanical Tree Planting**  
Speeds planting of tree seedlings  
(About 1000 seedlings per hour)



SET SEEDLING AT CORRECT DEPTH  
RELEASE WHILE STRAIGHT UP



**PLANTINGS SHOULD BE PROTECTED FROM FIRE**  
Technical Information from Forest Service—U.S. Department of Agriculture—Atlanta, Georgia.



# YOU Ought To Be In Pictures!

State Forester C. W. Moody, Probate Judge and Chairman of the Blount County Commission Frank Green, Blount County Park Board Chairman Dalton Moss, and Blount County Forestry Supervisor John Rice stop at a scenic view at Palisades Park near Oneonta. This park became the state's first county-owned TREASURE Forest on November 9, 1986. The 90-acre park is being managed for aesthetics and recreation.



## SPORT HUNTING AND ITS EFFECT ON WILDLIFE



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

**H**AVE YOU WONDERED what effect sport hunting is having on your wildlife? Are you reducing your next year's crop by harvesting too much game during hunting seasons? Should you and other landowners allow no hunting whatsoever as the anti-hunting groups advocate? Should you continue sport hunting but restrict total harvest by reducing daily limits, length of season, or both? Perhaps you believe the state should liberalize hunting regulations to allow the harvest of more game every year. These questions to which you need answers will be addressed in this article.

In answering the questions, we will stay away from the emotional aspects of hunting. That's the realm of the antihunters; so, we will stick to fact and leave the fiction to them.

Let's start by defining sport hunting. For our purposes, sport hunting is harvesting legal game animals by legal means during legal hunting seasons. All other harvesting of game animals is illegal except those taken by special permit and a few taken every year for

research. We are concerned here with only sport hunting and with the few game animals taken every year by special permit from the Alabama Department of Conservation and Natural Resources. All other shooting of game is illegal, and it should be reported promptly by calling the toll-free number, 1-800-272-4263.

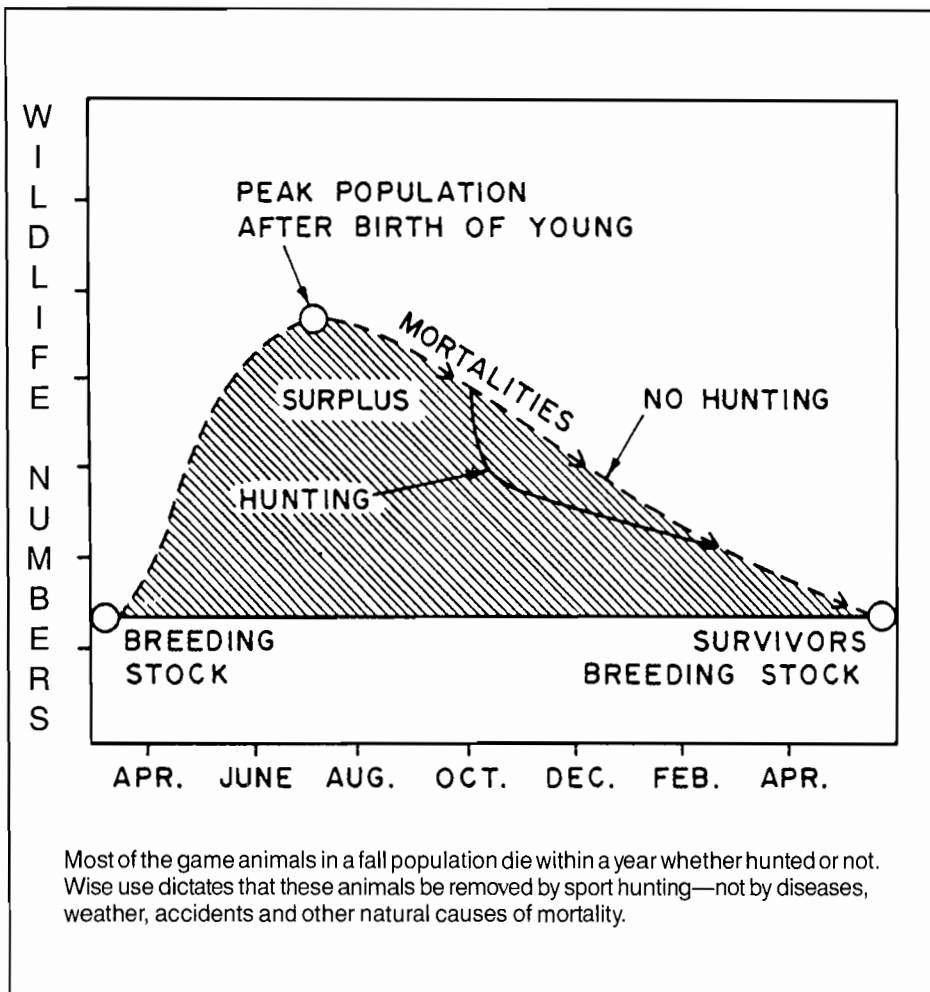
Only the hardened violators seem to favor illegal hunting. Unfortunately, we have more than our share of these violators whose actions are causing some landowners and other concerned people to look with disfavor on sport hunting—the kind that's as much a part of our American heritage as the Fourth of July.

Let's see what wildlife biologists say about sport hunting and its effect on wildlife. These biologists have spent many hours in research on the subject. Their statements are based on fact, not emotion. They are neither for nor against anything related to wildlife until they know for sure how the wildlife is being affected.

Here's what they say about the effect of sport hunting on wildlife. Game animals cannot be stockpiled, and a majority of each species dies before reaching a year old regardless of whether it is hunted. Wildlife biologists call these deaths "annual mortality" or the yearly rate at which wild animals normally die. Annual mortality is Nature's way of harvesting surplus animals from the yearly crop of wildlife. Surplus animals are those not needed to produce next year's crop. Here are the rates at which Nature harvests some of our valuable wildlife:

- Bobwhite quail—80%
- Cottontail rabbit—70% or more
- Gray Squirrel—60%
- Mourning dove—70%
- Wild Turkey—70%
- Wood duck—70%

What do these percentages mean? They mean that 8 of every 10 quail in a fall population die before the next fall even if they are not hunted. Seven or more of every 10 rabbits in a fall population die before



the next fall whether anybody fires a shot at them. They mean, too, that 7 of every 10 doves in a fall population die before the next fall whether they are hunted. Furthermore, according to wildlife biologists, 50 percent of the young doves die within 90 days after they leave the nest. This 50 percent dies regardless of whether the birds are hunted. Therefore, we are not only justified in harvesting doves during fall and early winter, we are also justified in taking them in early September as was legal in parts of Alabama in 1986.

Since these high death rates occur every year regardless of whether the animals are hunted, would it be better for wildlife if sport hunting were stopped—if no hunting whatsoever were permitted? Would that ensure more breeders to produce the next year's crop? The answer to both questions is a resounding "no." Why? According to wildlife biologists, it's almost impossible to harvest more animals of a species by sport hunting during the year than Nature is going to harvest through annual mortality. Besides, when hunters take a certain percentage of the game population every year by sport hunting, annual mortality takes an additional toll until total mortality for the year equals, but doesn't exceed, the percentages indicated earlier.

For instance, if hunters take 50 percent of the quail in a fall population, mortality from all other causes will be 30 percent or a total of 80 percent for the year. If hunters take 20 percent, mortality from other causes will be 60 percent or a total of 80 percent for the year. Also, if hunters don't fire a single shot at quail, annual mortality will still be a whopping 80 percent. Therefore, mortality from all causes—sport hunting and all others—will be 80 percent for the year. In other words, if one thing doesn't get a majority of the game animals in a fall population, something else will. Wise use of the resource dictates that you and other sport hunters get them—that they be used for recreation and human food and not be used as food for bugs, buzzards, and opossums.

For the most part, hunters take animals that otherwise would be harvested by Nature. When harvested by sport hunters, game furnishes human food and wholesome recreation. Frequently, game provides supplementary income from the lease of hunting rights or the sale of daily permits to hunt. Such things as beetles and maggots receive the most benefit from Nature's harvest. Obviously, then, harvest by Nature is not the best use of each year's surplus game crop.

Your land has a definite carrying capacity for a particular species of wildlife—the same as a pasture has a definite carrying capacity for a particular kind of livestock. You may know that carrying capacity is the maximum number or weight of a particular kind of animal that an area can support during the least favorable season, usually winter. Carrying capacity for game can be increased by improving either the quality, the quantity, or the distribution of food, cover, and water for desired game. Nothing else will increase carrying capacity for wildlife.

Failing to hunt improves neither food, cover, nor water for wildlife; consequently, it doesn't increase carrying capacity. On the contrary, carrying capacity may actually be reduced if a large portion of the game animals is not harvested every year by hunting. That is especially true of deer, a species that often damages its own habitat if not heavily harvested each year by hunting. Why is it so true of deer? For the most part, the mountain lion (cougar) and other large natural enemies of deer have been eliminated from Alabama, so today we have no predator that's capable of keeping deer numbers in balance with their food supply. Therefore, if man doesn't harvest the surplus deer every year, preferably by sport hunting, they soon become overpopulated. Additionally, their food supply is eventually exhausted which results in death to many deer, especially to the young and the older deer.

Sport hunting tends to keep game populations at carrying capacity or slightly below carrying capacity. Reproduction is more successful in such populations—it's less successful when the number of breeders either exceeds or is about to exceed carrying capacity.

What do the above facts mean? They mean that you and others can continue sport hunting and that you can use your game crop every year for food and wholesome recreation. They mean, too, that if you don't hunt, yourself, you can supplement your income by leasing hunting rights or charging a daily fee for hunting. Furthermore, they mean that you can do those things without endangering in any way the welfare of your valuable wildlife not only for yourself but also for future generations.

More information on sport hunting and its effect on wildlife is available from the Soil Conservation Service, your County Extension coordinator, the Alabama Department of Conservation and Natural Resources, the Alabama Forestry Commission, consultants, and others. Technical assistance in managing habitat (food, cover, and water) for your valuable wildlife is available from the same sources.

# PRESCRIBED BURNING IN PINE STANDS

by HUGH E. MOBLEY, Chief, Fire Prevention

**T**HE MAJOR commercial timber stands in the South are pine. Fire has been a part of these southern pine forests as far back as we can determine, and probably always will be. We cannot completely eliminate wildfire from the forests but we can reduce the damage from such fires by the use of "prescribed fire."

Unlike hardwoods, southern yellow pines have a thick insulating bark that protects the cambium layer underneath from the heat of fires. This bark is generally thick enough to protect the pines from low to moderate intensity fires by the time the trees are as large as four to five inches in diameter at the ground level. The needles, however, are still susceptible to being killed by the heat. Consequently, the higher the needles are from the ground, the more intense the fire can be without damage to the overstory.

Periodic, low-intensity fires actually improve many of the benefits we get from these southern pine forests. However, it must be used under certain weather conditions and with burning techniques that do not damage the timber or cause a smoke problem. The skillful use of such fires can improve forest resources such as wildlife habitat and forage for cattle. It will also help control undesirable plants and forest diseases.

Fires can be prescribed to prepare a site for a new stand of trees with much less costs than other site treatments. Prescribed fires can protect trees, wildlife, and the environment from the danger of wildfires by consuming the brush, dead wood, and other debris on the ground. Used properly fire can increase timber production and improve the other forest resources. Today it is used by all federal and state resource agencies, forest industries, and private forest landowners on millions of acres. In the southern pine forests, it is one of the most important tools of the forest resource manager.

## Reduction of Hazardous Fuels

of the more prevalent uses of prescribed fire is the reduction of hazardous buildup of fuel in the stand. This fuel is made up mostly of needles, leaves, cones, limbs, grass, and various types of brush. Reduction of this fuel reduces the chance of wildfires. Also, wildfires that do occur burn less intensely and cause little or no damage. However, the prescribed fire

should not burn up all of the lower layer and completely expose the soil. The bottom part of the litter should be moist enough so it will not burn. Large amounts of fuel will mean a more intense fire; consequently, the overstory will need to be taller so that only a small percent of the needles are scorched. Some scorch (generally up to 30%) is not harmful to southern pines.

## Wildlife Habitat Improvement

her major use is the improvement of wildlife habitat by creating openings, bug-ging areas, eliminating the high brush that restricts movement, and encouraging more annuals and sprouts that are preferred food for deer, quail, and turkey. Most other wildlife prefer similar habitat. Prescribed burns produce succulent sprout growth which is within the reach of browsing deer. The growth of annuals preferred by turkey and quail are increased.

## Control of Understory Hardwoods

quality, weed-type tree species such as scrub oaks will encroach onto pine stands at an early age. They are more shade tolerant than the pines and will compete for moisture and nutrients. If not controlled, they will take over the stand in time. To regenerate a stand after the final harvest, expensive equipment has to be used which also tends to reduce the site quality and cause erosion. The use of periodic prescribed burns on a three-to-five year basis (depending on soil type and condition of stand) is a cheaper method of controlling the brush and is not damaging to the site.

The prescribed burn should be started before most of the hardwoods exceed one inch in diameter. Prescribed fire can kill hardwoods up to four inches, but in most cases, a fire intense enough to kill them cannot be used without damage to the overstory. Consequently, if the prescribed burns are not started soon enough, many of the larger hardwoods will not be killed and will have to be eliminated later by chemical or mechanical means. To kill the rootstock, summer burns are used after the initial prescribed burn during the winter which reduces the fuel volume that has been building up since the stand was established.

## Improved Accessibility

ing off underbrush prior to the sale of forest products improves the efficiency of timber marking and harvesting. The improved visibility and accessibility will usually increase the stumpage value of the products. Removing accumulated material before harvesting provides greater safety for timber markers and loggers due to better visibility and less underbrush. The greater risk of wildfires from the increased activity is also lessened. Hunters and hikers also benefit from easier travel and increased visibility. Other activities such as stand inventory are also quicker, more efficient, and cheaper.

## Appearance Enhancement

cribed burning under pine stands, for whatever reason, also helps to maintain an open, park-like appearance in the forest which contributes to recreational and aesthetic values. New vegetative types will appear with an increase in the number and visibility of flowering plants. A diversity of vegetative types attracts a wider variety of bird and animal life. It also makes them more visible. Variety can be increased further by leaving unburned islands. One disadvantage is that the area will look worse temporarily due to the smutty appearance of the stems and the burned litter left on the ground. This effect will disappear after the first "green up" in the spring. Fires will tend to burn more intensely along roads and other openings causing more scorch and bark char. This should be considered and a "cooler" fire used along these areas to reduce the temporary smutty and scorched look.

## Natural Regeneration of Pines

cribed burning is a must in most pine stands to get a good stand of natural seedlings established. Pine seed need sunlight, access to bare soil, and freedom from hardwood competition for establishment and growth. If the stand has been prescribed burned periodically, one more burn in advance of seed fall is all that is needed.

## Site Preparation

to the high volume of logging debris

left, the availability of genetically improved planting stock, and the importance of getting a fully-stocked stand, most sites are planted after the final harvest in order to establish a new stand rather than using natural reproduction. Fire is used to reduce the large amount of logging debris, cull trees and other debris, and to prepare the site for planting or, in some cases, to prepare for direct seeding. On open sites, fire alone may expose adequate soil and control competing vegetation until seedlings become established. On most sites, however, some form of mechanical or chemical treatment is also needed.

In such cases where there is a large volume of logging debris, the smoke produced becomes a real problem. This is due to the high volume and larger size material which takes longer to burn. Consequently, it may take several days for the material to be completely consumed. A lot of residual smoke is produced which is not lifted off the ground. It also flows down drainage at

night and collects in low spots, drastically reducing visibility rather than being lifted off the ground and dispersed by the winds as is generally the case during the day.

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### Pros and Cons

cribed burning has multiple benefits. Burning for one reason will also benefit other resources. The cost is very reasonable, only averaging a few dollars per acre. When planned and conducted properly, there are no adverse effects to the soil, timber, or any other part of the environment. There are, however, some disadvantages. It is a complex technique requiring qualified people to use it properly. Suitable days are also limited and will vary by the size and condition of the stand. Smoke can also be a problem if weather conditions are not right or the smoke is allowed to drift across highways. This is especially true when burning logging debris or burning at night. Many accidents, injuries, and fatali-

ties have been caused at night or early morning by smoke.

Because of the complexity and limitations of prescribed burning, prior planning is needed to ensure that it is done at the proper time and in a way that accomplishes your objectives. Major factors that must be considered include the following:

- Amount, type, and condition of fuel.
- Type and size of overstory.
- Management (owner's) objectives.
- Various weather factors.
- Burning techniques to use.
- Time of day.
- Smoke dispersion.

By following these suggestions, a landowner can make use of one of the most inexpensive and beneficial tools available. Before burning, however, he should contact his local Alabama Forestry Commission for technical advice from qualified people. ♣

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# Where There's Fire There's



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by HUGH E. MOBLEY, Chief, Fire Prevention

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**T**HE USE OF FIRE BY MAN has a long history dating back to the days of the Indian. Properly used prescribed fire is an effective forestland management practice because of low cost and compatibility with other use objectives of forestlands. Today it is used in managing our forests for many reasons. But no matter when or how it's used, prescribed fires produce *smoke!*

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### Smoke Behavior

This smoke can have a drastic impact

on areas close by that are sensitive to smoke. Communities, airports, and highways are the most obvious smoke-sensitive areas, and the major problem is a reduction in visibility, especially at night. Smoke from prescribed burns has resulted in many accidents (resulting in millions of dollars worth of damage), injuries and even deaths. Most fatalities have occurred on major highways and *at night*.

Why is this? During the day, smoke will be dispersed by the wind. It will also be

lifted by the heat of the fire and the unstable conditions of the atmosphere. Most problems during the day occur when the atmosphere is stable with overcast conditions and little wind. At night, however, the atmosphere becomes very stable, the wind dies down, the temperature drops and the relative humidity is drastically increased resulting in potential fog in low areas at times or with conditions close to it.

Fires at night also burn "cooler" resulting in little lift from the heat of the fire. As a result of these conditions, smoke will *not* be dispersed downwind. Instead, it will flow down drainage and settle in low areas. Instead of spreading out, it will also be concentrated and channeled down drainages such as creek bottoms.

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### Logging Debris

The burning of logging debris is the major cause of smoke problems from forestry burning, particularly windrows. Windrows cause the worst smoke problem because they burn and smolder for days (*and nights*). This is due to the large volume of fuel, the fact that large sized material retains moisture longer, the compacted pile permits little air circulation, and a large amount of dirt will be included in the windrows. A large proportion of the smoke will be produced at night.

In fact, windrow burning causes more problems than it solves! In addition to causing a dangerous smoke problem, it

may have the following adverse effects:

- Reduce site quality by compaction and removal of topsoil.
- Expose soil causing a complete drying out of the top layer.
- Cause erosion on slopes.
- Area lost to production because all of the debris is not consumed.
- Barrier to equipment and wildlife.

Logging debris should be left scattered if it will carry the fire. Use as much of the large material as possible. Give it away as fire wood. If you must pile the debris in order for it to be consumed, do the following:

- Use small piles, not windrows.
- Pile when the debris is dry.
- Shake to remove the dirt.
- Burn when the material is dry.
- Burn when atmospheric conditions are unstable (low stagnation index).
- Do not burn at night.
- Start as early in the morning as possible, as soon as material will burn.
- Look down drainage for smoke-sensitive areas.
- Seek expert advice.

#### Guidelines to Reduce Impact of Smoke

By following these guidelines, you can reduce the smoke from your prescribed burn:

1. Obtain and use weather forecast.
2. Don't burn during pollution alerts or high stagnation index.
3. Comply with fire control and air pollution regulations.
4. Secure a burning permit before burning.
5. Notify adjacent landowners.
6. Use test fire to confirm intensity and smoke behavior.
7. Burn when conditions are good for rapid dispersion of smoke.
8. Determine direction and volume of smoke—especially at night.
9. Determine location of any smoke-sensitive areas.
10. Use caution when upwind or up drainage of any smoke-sensitive areas.
11. Have necessary equipment and stay with fire.
12. Burn during the middle of the day.
13. Burn in small blocks.
14. Be **extremely cautious** of nighttime burning and piled debris.
15. Have a contingency plan. Be able to plow out the fire if necessary or control traffic on nearby roads.

Remember, smoke can become a problem! In performing prescribed burns on your property, consider the conditions not only for the burn, but also for the dispersment of the smoke! ♣



# FIRE BUG

## A Deadly Killer in Alabama's Forests

by WALTER VEST,  
Chief Law Enforcement Officer, Alabama Forestry Commission

**T**HE STATE OF ALABAMA is fortunate to have the most beautiful forestland that can be found anywhere in our nation. Forests cover over 66% of Alabama, provide over 67,000 jobs annually, and contribute \$3 billion to the state's economy annually. Another product of the Alabama forest is an abundance of wildlife. Over 500,000 hunters take to the woods in Alabama each fall in search of deer, turkey, squirrels, quail, dove, rabbits, and many other small-game species that make their home in the forest.

These are just a few of the benefits our forest has to offer the citizens of Alabama. Now let's look at what man offers in return to our woodland. During the period October 1, 1985 to September 30, 1986, 12,787 fires burned 127,086 acres of Alabama's forests.

Of these fires 98.8% were caused by people, which means we have a few citizens of our state trying to destroy the forests we are trying to protect. A total of 7,462 fires burning 88,143 acres were incendiary (intentionally set) fires, which is over 50% of the total number of fires occurring during that time. The Alabama Forestry Commission has nine different types or causes of wildfires: lightning, campfires, smoking, debris burning, incendiary, equipment use, railroad, children, and miscellaneous. When we have nine different causes of wildfires (remember that incendiarism causes more than 50% of all the number of fires), it seems it is the proper time to take a serious look at incendiary fires and try to reduce the number of fires and acres burned by this particular

problem. Incendiary fires are defined as *the malicious or willful burning of land not owned, leased, or controlled by the person doing the burning*. This is a felony offense under the 1975 Code of Alabama.

Most of the time it is very difficult to determine the motive that causes individuals to intentionally set forest fires. Some of the motives are fires resulting from personal grudge, employer-employee grievances, timber rights, property line disputes, and land management grievances. The most common example relates to game management. This includes dissatisfaction due to posting of land against hunting, fishing, trapping, and other forms of trespassing. On many of the larger landownerships there are additional regulations in the form of group hunting, assigned areas, open and closed periods, and hunting and fishing clubs. Ignorance of the value of the forest or of the damage to those values blinds the responsible party to little or any feeling of guilt from his destructive act. He may realize that he is breaking the law, but does not regard the act as a crime in its true sense.

Drunks and irresponsible people may not have a motive in setting fires other than pure disregard for other people's property. This group also includes the Sunday afternoon rider that may set a series of fires for thrill. These fires often do not have a pattern. Many times the lack of planning and skill causes them to go out before any damage is done. In many of these cases the only motive is to see a fire burn, to get a thrill out of starting it, and to watch fire control personnel in action.

If the Alabama Forestry Commission is to ever get control of the incendiary fire problem in Alabama, we must have more support from our citizens. The watchful eye of the general public is the best control measure we have and the best tool we can use to go to court to get convictions of this type action. In many areas of Alabama where an incendiary fire problem is the greatest, we have a lot of concerned people in the communities that are afraid to testify in court in fear that their home and property may be burned by the person they report setting fires. The Alabama Forestry Commission realizes this is a problem and has recently installed a toll-free number, **1-800-222-2927** (1-800-222-AWAR), that people can call to report incendiary fire activity. This is a new program initiated in cooperation with the Alabama Forestry Association called Alabama Wood Arson Report. This enables people to report their information over the telephone in secrecy to our dispatch center here in Montgomery. Incendiary fires in Alabama are everyone's problem; therefore, it is necessary that everyone get involved and work together in solving it.

# Purple Martins Deserve Better Homes

by ROBERT A. WIGGINS,  
District Biologist, Wildlife District III

**T**HE PURPLE MARTIN (*Progne subis*) captivates many songbird fanciers throughout the United States. This bird has accepted humans and is highly dependent on them for its nesting place. Choctaw and Chickasaw Indians were the first to notice that martins would nest in human settlements if provided with suitable habitat. American settlers copied these Indians and erected hollowed-out calabashes (bottle gourds). Later, someone discovered how to attract martins by building bird houses.

The purple martin is a predator on insects which are pests to people and livestock. One martin will consume hundreds of insects a day. A most cheerful morning sound is the brisk chirping and tweeting of purple martins which have found a well-managed home. Yet many Alabamians fail to enjoy one of our most graceful and beautiful songbirds because of poor nesting-house management. To successfully attract and maintain a colony of purple martins, it is important to consider their requirements.

## Nesting Habitat

The birds' sailing, take-off, pole, and ground-alighting space should be open and free from overhanging vegetation or buildings. A 75-foot circular or 100-foot semi-circular radius from the base of the nesting pole is recommended for sufficient flight space.

Areas having an abundance of flying insects such as mosquitoes, flies, gnats, ants, beetles—even stinkbugs—are ideal for martins. Horse or cattle feed lots, animal or fowl pens, large pastures, cultivated fields, ocean beaches, sports fields

and open parks all make good feeding areas. Ideally, there should be an open body of clean, unpolluted water within five miles.

Most Alabamians who have successfully attracted purple martins to their property began by erecting a system of pole-supported, properly presented and prepared gourds. A metal pole or a metal shield affixed to a wooden pole will discourage most climbing predators.

Some martin enthusiasts have hung gourds to tightly strung wire or rope between poles or trees, often using barbed wire to prevent the gourds from sliding. Whatever system is used should be easily accessible for maintenance. Place the nesting facilities at least 10 feet above the ground.

## Choosing and Preparing Gourds

Gourds have been used successfully to attract scouting purple martins ever since Indians roamed Alabama. Many martin fanciers believe real gourds are still the best attraction devices. Some commercially manufactured ceramic gourds have attracted purple martins, but their weight makes them difficult to manage on a pole. Plastic gourds are also available, but the infrared light which penetrates the plastic results in detrimental heat build-up.

Real gourds, if available, should be carefully selected and be at least eight inches in height. Purple martins prefer much larger gourds, but all must be prepared properly with separate holes bored for the entrance, air supply and water drainage. Thick-skinned, properly cured gourds with short necks are ideal because they will last longer, provide insulation from heat and cold, and not waste hanging space on the suspension system. Sand any black mold off the gourds before varnishing or painting them. White, or a light color, helps reflect the sun's rays and prolongs the usefulness of the gourds.

## Entrance, Drainage, and Ventilation

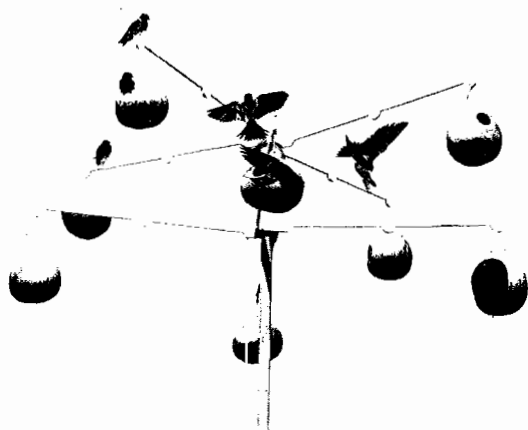
Cut a 2¼-inch, round entrance hole in the side of each gourd, 3 to 5 inches up from the inside floor. Remove all pith and seeds. For drainage, bore at least four ¼-inch holes at the lowest point of the gourd's floor. Be sure these holes are free of any debris. Approximately three inches down from and encircling the neck of the gourd, bore at least four ¼-inch holes for air circulation. High temperatures of uncirculated air can be fatal to martins in improperly prepared gourds, causing the nestlings to suffocate or the young birds to leave the nest before they are ready to fly. Adult martins will actually pull the nestlings out

of "hot boxes." If these young are unable to fly, many become victims of ground predators.

### Starting a Colony

The attraction of purple martins can begin with at least six to eight gourds on a pole. Areas in which martins are already nesting successfully provide excellent potential. Erecting similar housing and using the same type of pole design as those in the vicinity tend to attract a neighbor's "overflow" birds. The lack of sufficient available housing at the hatching site, however, will encourage them to seek similar accommodations nearby. Records from

*Photos by Dr. Joseph M. Meyers*



*Martins flock to gourds for nesting sites.*



*A purple martin perches above its new home.*



*This newly designed pole system for gourd martin houses is easy to check and maintain.*

banded purple martins indicate the birds will return year after year to the same nesting place if the housing facilities are properly maintained. To begin attracting these birds in Alabama requires housing to be erected for them from January through May.

### Menaces to Martins

The most common menace to purple martins in Alabama occurs when English sparrows or starlings are allowed to nest in purple martin boxes. Successful establishment of a martin colony requires control of the sparrow and starling species, which are believed responsible for mite infestation in

healthy martin colonies. Removal and winter storage of nesting boxes or gourds or plugging the holes in the off-season help discourage nesting attempts by other species. Mites will cause the death of fledglings and prompt adult birds to leave the nest before hatching their eggs. Mites can be controlled by sprinkling a tablespoon of powdered sulphur or sevin dust in each compartment before martins build their nests, or even during the fledgling state if infestation occurs later.

### Successful Colony Establishment

Colony establishment depends on clean housing provided each year. All old nests should be removed shortly after the birds have left the area in late summer. Removal and winter storage of nesting boxes or gourds helps to discourage nesting attempts by other species. If the housing is to be left on the poles year round, clean and plug the holes until the martins' arrival.

Once established, a martin colony can be transferred from gourds to more modern, healthier box housing in a gradual change-over. Erect new houses on a separate pole near the gourd-established birds before or shortly after the year's young "crop" of martins begins to fly. Young martins will "imprint" on the new housing and will roost in these new facilities. Additional nesting places can be erected to provide for increased colony population.

Violent weather may eliminate food supply, or destroy nesting accommodations, and a good martin "landlord" should be prepared to help a lost colony to begin again.

### Maintenance

After successfully attracting and establishing purple martins, proper maintenance of housing facilities is a must. Nesting accommodations should be cleaned and dilapidated housing replaced prior to each nesting season. Easy-to-follow plans for building and maintaining proper housing facilities are available from the Nongame Wildlife Coordinator, Department of Conservation and Natural Resources, Game and Fish Division, Wildlife Section, 64 North Union Street, Montgomery, AL 36130.

Providing for purple martins does take a little effort on the part of humans, but the rewards of having these songbirds as "tenants" on your property are worth it. Minor effort can provide major enjoyment for years to come.

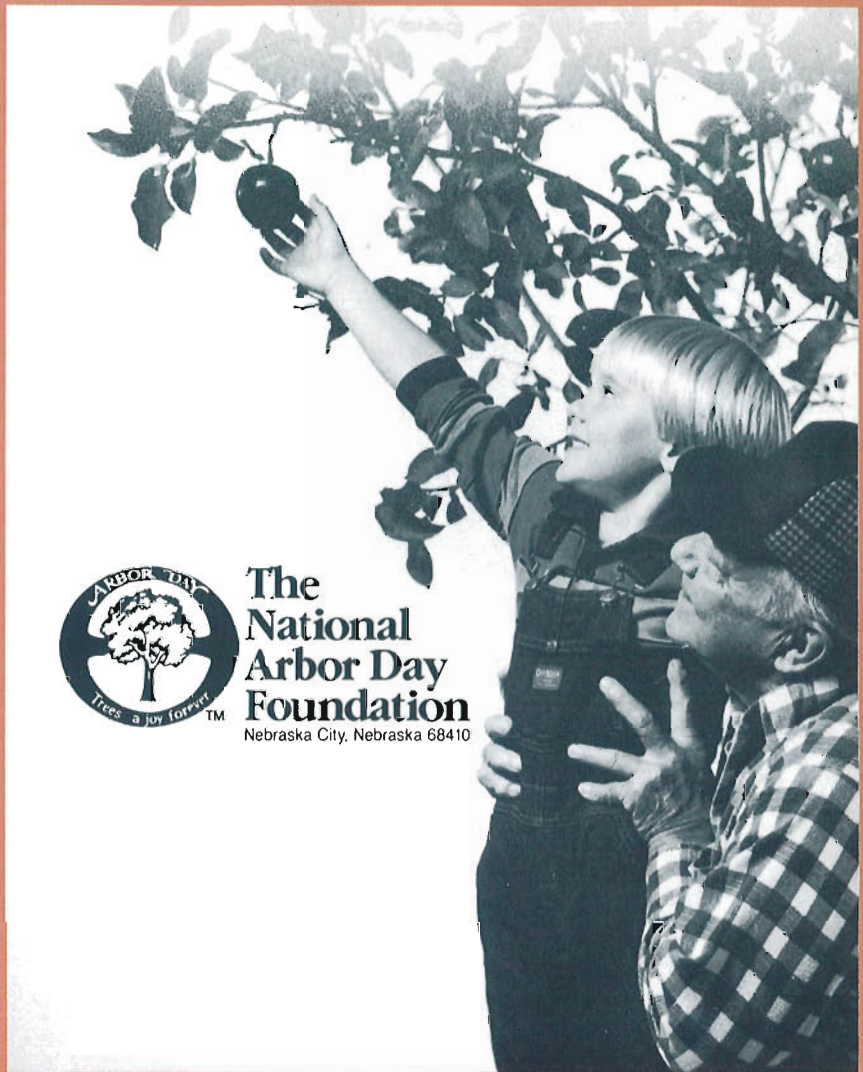
*(This article was reprinted by permission from Alabama Conservation Magazine).*

# Keep A Great Thing Growing AMERICA TREE CITY USA

Go ahead, reach for the apple. Take a crispy crunch. Trees are vitally important to the survival of our planet. They provide us with oxygen...and an apple to eat. They give us shade on hot sunny days. They create pleasant places to relax and get away from the hustle and bustle. They are great places to play.

The National Arbor Day Foundation is dedicated to the planting and care of trees. Our nationwide urban forestry program, Tree City USA, is designed to help hundreds of American cities large and small care for their trees.

Get involved and support Tree City USA where you live. For more information, write: The National Arbor Day Foundation, Nebraska City, NE 68410.



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