

Alabama's TREASURED Forests

Winter • 1991

STATE FORESTER'S MESSAGE

by C.W. MOODY



Congratulations to Governor Guy Hunt on his re-election! He has been very supportive of forestry during his first term in office and has pledged to continue to do so for the next four years. Not only has he been a good steward as governor of Alabama, but he is also managing his own forestlands according to the TREASURE Forest philosophy.

The Forestry Commission continues to make great strides in serving forestry needs in rural, as well as urban, Alabama. Our associates are carefully selected and well trained to achieve a myriad of jobs which constantly demand our attention as we work to "make Alabama a better place for people through forestry."

Our forests, which are predominantly owned by private citizens, support our number one manufacturing industry. There remains, however, significant room for improvement. With Governor Hunt's leadership and TREASURE Forest owners' continuing help, Alabama will certainly more fully realize the potential of our magnificent forests during the next four years.

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.

C.W. Moody
State Forester

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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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Volume X

Winter Issue, 1991

Number 1

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Alabama's *Treasured Forests* is published quarterly by the Alabama Forestry Commission, 513 Madison Avenue, Montgomery, AL 36130. Telephone 240-9373. Bulk-rate postage paid at Montgomery, Alabama. POSTMASTER: Send address changes to: Alabama's *Treasured Forests*, 513 Madison Avenue, Montgomery, AL 36130.

Creating a TREASURE



The Neighbors' tree planting strategy is paying big dividends in age diversity and land use.

by W. NEIL LETSON, Alabama Forestry Commission

Coosa County is not unlike other rural areas of Alabama. Its natural beauty and quiet life is unsurpassed. But often, that's not enough to keep most people—especially the young—from moving to other areas where the promise of jobs and careers is much better. As a result, the county's population of 11,000 would not match even a medium-sized town. In addition, a lot of the private non-industrial forestland that covers the county remains untended and unmanaged.

But there is an exception to this trend. Two 31-year-old Coosa Countians did not leave. Instead, Joel and Paula Neighbors decided to make their home in the county of their birth and have turned a 125-acre cutover farm into one of the state's finest TREASURE Forests.

Realizing the Dream

The Neighbors' dream turned into reality back in 1982 when they purchased the property from Joel's

grandmother. Joel and Paula quickly located their young family in a trailer on the property. After a short time, they moved into the house built in the 1920s by Joel's grandparents. Shortly afterward, their attention turned to the property itself. According to Joel, who got a forest technician's degree at Lake City, Florida and who is employed by the Alabama Forestry Commission, it was now time to practice on his own land what he had been telling others. "I'd been to school to learn how to do all this. Now I have a piece of property and it's time to see if I could put it into practice."

The Neighbors' number one objective for the property is timber management. This presented a challenge, since nearly the entire forested tract had been high-graded in 1978-79. Most of the valuable timber had already been cut, leaving plenty of poor quality hardwood but only a few young pines. Already, hefty stands of sweetgum were beginning to take over.

To counter this problem, the Neighbors adopted the strategy of breaking the cutover stands into smaller units and converting them to pine, starting with the worst areas first.

The first tract was easy to choose. It was a 13-acre Soil Bank planting that had been cut over and had sweetgum sprouts throughout. "We started with whatever was in the worst shape at first, and had to keep the acreage small so we could utilize our own labor," remembers Joel. "We couldn't have begun to have done 40 acres because I'm so meticulous. This 13 acres was just sweetgum, while the rest of the property had some timber."

To convert this tract, the Neighbors did a prescribed burn in the winter. With the help of two hired men, 10,000 loblolly pine trees were planted. But the sweetgum quickly recovered and within two years outgrew the pines, causing the Neighbors to treat the area carefully with **VELPAR**. It worked, though it has provided what became

one of the many lessons learned by the Neighbors on managing a forest. "That was one of the things we learned on site prep," said Joel. "It takes more than a winter burn."

In the summer of 1984, The Neighbors tackled their second tract consisting of 11 acres. Using a pulpwood truck purchased by themselves, they salvaged the merchantable pine and hardwood. Nothing of value escaped their chainsaw. "We got what was easiest to get and the big stuff," said Joel. "We went back and cleaned up anything that would make pulpwood, firewood or fenceposts. We utilized everything out there." Cost-share assistance helped them mechanically site prepare and plant the following year. This same process was repeated on a seven-acre tract the next year.

This land conversion technique took a slight but important change in 1985. Not entirely happy with the impact of dozers during site prep, the Neighbors began using herbicides to control hardwood competition. Both **VELPAR** and **TORDON** have been used to release planted pines.

Making It Better

In 1986, their attention began to focus on Timber Stand Improvement (TSI) along with some additional site preparation and tree planting. "That may be one of the areas where ours (forest management) would be unique compared to so many others in the area of TSI work," explained Joel. "Since our acreage is limited, we've got to really make it count and make what's there a good stand . . . and keep down the competition." TSI techniques used

include herbicides, thinning, bushhogging, weedeaters and a brush axe.

In 1989, the last tract was converted. In seven years, 55 acres have been site prepared and planted in improved loblolly pine. About 30 acres received TSI practices. Tracts are small and irregularly shaped for aesthetics and wildlife. They will be kept this way.

Emphasis on timber stand conversion has now shifted to maintenance. "Prescribed burning will be an active management tool," says Joel. "We hope to increase timber growth and make it easier for future harvests and recreation." Already the Neighbors have burned some areas twice.

Completing the TREASURE

Wildlife receives attention on the Neighbors' property as well. Fifty-two acres of 30- to 40-year-old hardwoods have been set aside to benefit game and non-game species. A two-acre food plot has been established along with 12 acres of maintained openings. Plantings include winter annuals, sawtooth

oak and apple trees. "I'll plant almost anything," says Joel.

The primary enjoyment is hunting. Joel, Paula and one of their two sons have each killed deer on the property. One of the favorite places where the



Paula and Joel stand by the last loblolly pine tree planted, completing their reforestation plans.

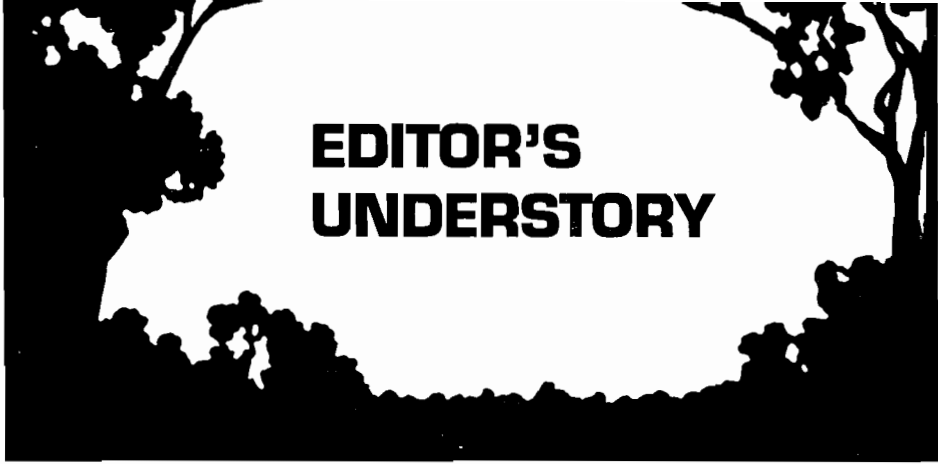
family likes to hunt is at the "cherry tree patch." This area is complete with an enclosed deer stand overlooking one of the maintained openings. But the Neighbors are also at ease just watching wildlife on the property. Many hours are spent by the family watching or photographing wildlife.

Other activities are geared toward recreational use by the family and friends. In the summer, the Neighbors enjoy picnicking, camping or traveling down one of the many maintained roads throughout the property.

The Neighbors take very seriously the educational use of their property; 4-H forestry judging contests and a forest landowners tour are two examples of this. The Neighbors realize their message is unique and can be helpful to other young forest landowners like themselves. Joel believes Alabama's TREASURE Forest program may hold the key. "Most small private forestland has a history of poor management. But I've seen an improvement over the past 10 years. I attribute this to the TREASURE Forest program." He also thinks the TREASURE Forest program is for all ages, and can be especially beneficial to younger people. "It can help teach them that to get something you've got to put something back in it." ♠



Wildlife food plots and maintained openings help the Neighbors meet their wildlife goals.



EDITOR'S UNDERSTORY

by W. NEIL LETSON, Alabama Forestry Commission

The ninth grade was pivotal for Joel and Paula Neighbors. Both were at a night football game dance. Paula's date paid her 50 cents admission while Joel and his older friend split their cost. The way Paula tells it, everyone was sitting on the bleachers. With a little encouragement from his older friend, Joel grabbed Paula and kissed her. Paula hunted her date up and gave him back his 50 cents. "And life hasn't been the same since," adds Joel.

Following a High School courtship, the couple married in September 1977. Joel's first job was as a land surveyor while Paula worked at the Coosa County Sheriff's Department. Together they saved every dime until 1978, when they moved to Lake City, Florida where Joel pursued his forest management studies. "And I helped Joel pass those college courses," Paula remembers.

They both returned to Coosa County in 1979 to be near family and to have their first son, Rance. Three years later, Joel's father died suddenly on a trip to California. This left Joel's grandmother without someone nearby to care for her. That's when Joel and Paula offered to buy her 125-acre farm and live in a trailer next to her house. Declining health has forced Joel's grandmother to move to the city near medical care. "She's doing real good," said Paula. "She comes up here once or twice a year and visits."

Now with a farm to tend and a 60-year-old house as their home, the Neighbors found an opportunity to turn their dreams into reality. The farmhouse was quickly restored and refurbished to fit their personality and needs. Family heirlooms decorate each

room. Some of the items include a wood burning stove, an old coffee grinder, a hand crank telephone (that still receives calls!) and a ten-cent solid poplar rolling pin used by Paula's grandmother. In the living room are mounted deer harvested off the farm and trophy size fish caught by family members.

The rehabilitation of the farm is another story. Since both worked full-time jobs, Joel and Paula spent many early morning and late afternoon hours improving their forest. They quickly learned the importance of common interests and support, and found they possessed both. "Joel is a thinker," said Paula. "He planned everything and had it figured out before he stepped out the door." Joel also has praise for his wife. "She gives me encouragement in a big way. The whole thing in a nutshell is this: She and I make a good team. We work together for something!"

Part of this teamwork has found its way into the rest of the family. In 1985, the Neighbors' second son (Will) was

born. Both are happy to be outdoors with their parents working. "We like being together, us four," Paula explains. "I mean, there is nothing we like better than being outside working, and we're just constantly talking." Other activities for the two sons include 4-H livestock judging, Little League, hunting and fishing. The Neighbors realize their sons have a lifestyle most other kids miss. But they are also preparing for their future. The Neighbors hope the forest will help pay for both sons'

college education. But they also hope that both sons will learn some important lessons about values, character and "that to accomplish anything you've got to work at it."

Not everything has been without disagreement. Early in their marriage, Joel bought a Mustang race car to run in local competitions. Both remember this as their only major argument which was satisfied in 1982 when they sold the race car and used the money to buy a second-hand pulpwood truck. "I help load that pulpwood truck," Paula said. "I also drive it." And the truck continues to be a mainstay of the Neighbors' TREASURE Forest.

Joel and Paula both claim that their minds often think of the same thing at the same time. "There can be something we haven't talked about in three or four weeks and we'll be in there and I'll mention it and she'll say 'I was just thinking about that, ' " Joel describes. "It has happened too many times to be a coincidence."

But not everything can be attributed to coincidence. The Neighbors just think alike. Paula attributes it to something long-term. "We just have the same goals," she said. And as the Neighbors complete this phase of their life's plans, they enter into a new phase with different goals. With the farm land converted to their desired forest types, maintenance now becomes their priority. Other goals are also falling into place. In six years, the farm will be paid off. In 15 years, each will be able to retire. By then, their sons will be on their own and Joel and Paula will be able to travel. Regardless, the Neighbors plan to make Coosa County their home base and continue working together building their lives. And who would have imagined that it all started in the ninth grade with a kiss? ♠



Paula and Joel Neighbors were honored as one of the state's 1990 Helene Mosley Memorial TREASURE Forest Award winners.

Improving Wildlife Habitat with Herbicides

This article reprinted with permission from the Summer 1990 issue of *The Forum*, a newsletter by Monsanto. The references to the South may be of particular interest to readers.

Control of competing vegetation with herbicides is an integral part of most successful intensive forest management programs. Experience has shown that the proper use of herbicides for forest vegetation management not only improves habitat for crop trees but for many types of wildlife as well.

The abundance and diversity of forest wildlife is largely determined by the quality, quantity and distribution of habitat. Habitat consists of the food, water, cover and living space available on the site. Because vegetation management affects all of these elements, it can indirectly affect wildlife, often in a positive manner. In fact, herbicides were first used in the forests by wildlife biologists to improve habitat for game species (see *Managing Wildlife with Herbicides*).

Changing Habitats

Wildlife habitats can be characterized by their plant communities, which correspond closely with the major forest types and successional stages. These stages are grass-forb, seedling-shrub, sapling-pole, young

timber, mature timber and old growth (see **FIGURE 1**).

As a forest matures and moves through these stages, the animals that it supports also change. The grouse that find food and cover in a 15-year-old conifer stand, will move to younger stands as the timber matures. When the timber is harvested the wildlife that live on the site will again change.

Harvest, whether clear or selective, dramatically alters wildlife habitat. In fact, compared to the disruption caused by harvest, the effects of herbicide treatments are minor.

Most herbicide treatments are applied shortly after harvest and planting. This means that the habitats most commonly affected by these treatments are those associated with the major conifer communities (commercially valuable) and the early stages of succession—grass-forb, seedling-shrub, and sapling-pole.

These stages are commonly populated by deer, elk, songbirds, a variety of small mammals and their predators. The fact that many of these are popular recreational species may partially explain the public concern about herbicide use.

The frequency of herbicide use varies from region to region in the U.S. and is closely related to the length of rotation. In the Northeast, herbicides

with mechanical treatments. Here, a site may receive two herbicide treatments every 30 to 40 years.

Although vegetation management treatments differ from region to region, their effect on wildlife is remarkably similar.

Food Supply Increases

“Research on the effects of conifer release with herbicides on Maine wildlife has examined everything from mice, shrews, and songbirds to deer and moose,” states R.A. Lautenschlager, forest ecologist at the University of Maine in Orono. “These studies show that habitat changes associated with conifer release sometimes cause a one- to two-year reduction in populations of a few small mammals and songbird species on the treated site. Food and cover for large game animals are also temporarily reduced. However, species composition is not changed.”

Managing Wildlife with Herbicides

Surprising as it may seem, herbicides were first used in the forest not by foresters but by wildlife biologists. Their goal was to improve habitat for game species like deer, elk, grouse, turkey and quail.

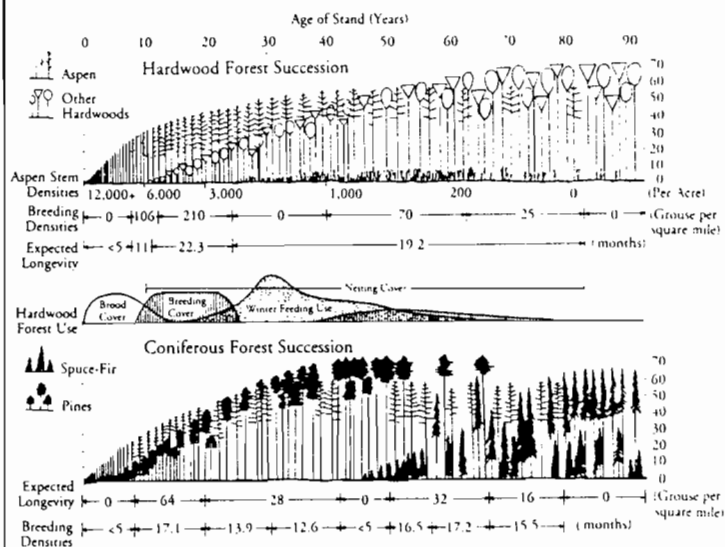
The biologists found that herbicide treatments could be used to encourage preferred browse species by selectively removing undesirable and low-preference competitively removing undesirables and low-preference competitors. Also, food sources that had grown out of the reach of animals could be brought back down to browsing height by treating them with herbicides to encourage resprouting.

Treatments designed to create openings in dense vegetative cover proved beneficial for a wide variety of species, as well. The biologists also found that herbicides could be used to solve and prevent animal damage problems by making the habitat less favorable to problem species like rabbits and gophers.

These early studies form the basis for many of the game management techniques used today.

Figure 1

Needs of Wildlife Vary



Source: Gullion, G.W. 1972. Improving your Forested Lands for Ruffed Grouse. Ruffed Grouse Society. 34 p.

are used primarily to release stands of young, naturally regenerated seedlings. On these sites, herbicides may be used only once every 40 to 80 years.

In the South the growing season is longer, rotations are shorter and the brush is vigorous. It's not uncommon for herbicides to be used both for site preparation and for release, often in conjunction

“After three years, treated areas produce as much or more food as untreated areas,” he continues. “Nine years after treatment, treated areas produce three to eight times more browse than is produced in untreated areas.” Studies in other parts of the country have reached similar conclusions.

The early stages of succession are characterized by change. Wildlife would move in and out of the site during this time even if the site was not sprayed. “In the South we’ve found that herbicide treatments set succession back only one or two years,” says Dr. Karl V. Miller, wildlife research coordinator for the University of Georgia in Athens.

Temporary Effects

Although a just harvested and sprayed area may look barren, it is not. Some plants are missed by the herbicide, some are tolerant, and some are only injured. If the herbicide has no residual activity, seeds rapidly germinate and grow.

One concern frequently heard is that herbicide use eliminates mast produc-

ing species like oaks and cherries that supply food for wildlife. Although herbicide treatments do impact these species, they never completely eliminate them.

Most chemically prepared units have mandated or volunteered buffer strips along property lines and sensitive areas. Hardwoods, including mast producers, flourish in these areas. These species also colonize untreated draws and wet areas.

Miller points out that in the South, the hardwood brush targeted by many herbicides often competes with forage like herbs, forbs, and vines that are the primary food source for deer and small mammals. These preferred plants also produce seeds for many game and song birds.

“It’s also important to remember that herbicides are used in plantations,” explains Miller. “The purpose of a plan-



tation is to produce conifers in a cost-efficient manner. Since rotations are short for most plantations, these hardwood species would never reach the size or age where they would produce much food anyway.”

Herbicide treatments have also been shown to benefit northern wildlife. Although hardwood brush is an important food source for many of the region’s species, it is only available for a limited time since most hardwood species quickly grow beyond the reach

Table 1

A comparison of estimated herbicide doses (realistic) with 1/5 laboratory acute toxicities (determined on lab animals) for Eastern bluebirds, Eastern cottontails, and white-tailed deer.

Chemical	Species	Realistic Dose Estimate (mg/kg)	1/5 LD ₅₀ (mg/kg)	Lab Animal Used for LD ₅₀
2,4-D	E. cottontail	7	84	Rabbit
	E. bluebird	35	60	Chukar
	White-tailed deer	0.9	120	Deer
Glyphosate	E. cottontail	5	760	Rabbit
	E. bluebird	26	928	Quail
	White-tailed deer	0.7	760	Rabbit
Imazapyr	E. cottontail	3	172	Guinea pig
	E. bluebird	7	430	Bobwhite
	White-tailed deer	0.2	400	Rabbit
Hexazinone	E. cottontail	3	172	Guinea pig
	E. bluebird	15	452	Bobwhite
	White-tailed deer	0.4	172	Guinea pig
Picloram	E. cottontail	1	800	Rabbit
	E. bluebird	6	40	Pheasant
	White-tailed deer	0.1	144	Sheep
Triclopyr	E. cottontail	7	62	Guinea pig
	E. bluebird	35	340	Mallard
	White-tailed deer	0.9	62	Guinea pig

Source: Final Environmental Impact Statement. Vegetation Management in the Coastal Plain/Piedmont. U.S. Dept. of Agriculture, Forest Service Southern Region. Management Bulletin R8-MB-23, p. 8-5—8-19.

How to Read This Chart

For example, if a white-tailed deer is on a site sprayed with glyphosate it could realistically receive a dose of .7 mg of glyphosate/kg of body weight. This amount is significantly less than the dose (760 mg/kg) at which the EPA **assumes potential** adverse effects exist.

Direct Effects of Herbicides on Wildlife Are Minimal

Although the direct effects of herbicides on wildlife are of concern to the public, both test data and experience clearly show that when used properly, herbicides do not endanger wildlife.

Direct toxic effects of a chemical on an animal's growth, health, behavior and reproduction are estimated by comparing the exposure of a species in a habitat treated with the herbicide to the known toxicity of the chemical in a

similar laboratory species.

TABLE 1 presents such a comparison for three species and six common forest herbicides. According to criteria adopted by the Environmental Protection Agency (1986), potential adverse effects are assumed to exist if estimated exposure levels exceed 1/5 of the LD₅₀.

LD₅₀ is the oral Lethal Dose which results in the death of 50 percent of the test population. The values are expressed in mg (milligrams) of the

tested herbicide per kg (kilogram) of body weight.

Numerous studies and risk assessments have documented that there is little direct danger to wildlife from herbicides properly applied at recommended rates.

Recently released Forest Service Environmental Impact Statements (Pacific Northwest, Southern and Southwest regions) also support this conclusion.

of browsers. In fact, herbicide treatments in Maine have been shown to increase the amount of browse and extend the length of time that it is available.

Mechanical vs. Chemical

Wildlife also fares better on sites prepared with herbicides than on mechanically prepared sites. Soil erosion is minimized, protecting the

site's potential to produce food and cover for animals.

Unlike mechanically cleared sites, herbicide-treated sites often have an abundance of dead, standing trees. Although not pleasing to the human eye, these trees make ideal homesites for cavity-nesting birds, and for predators like hawks.

Encouraging Wildlife

"Vegetation management with herbicides is simply not the threat to wildlife that some people perceive it to be," says Lautenschlager. "Local populations of small mammals and birds can be adversely affected if the treated areas are very large. However, as vegetation recovers after treatment, these species repopulate an area and persist until natural vegetation changes make the area less acceptable."

There are a number of things foresters can do to minimize the effects of forest management on wildlife habitat. Most can easily be incorporated into a forest management plan.

"Though a harvested site looks frightening to the average citizen, studies have shown that most animals find ways to adapt to the change," points out Miller. "As long as the cuts aren't too large and are distributed in a mosaic pattern to create a diversity of age classes, wildlife can thrive. Snags, den trees and mast producing hardwoods can be left within the harvest area."

The same type of rules apply for herbicide treatments. Medium sized and irregular blocks increase the amount of edge. In larger blocks, buffer strips and skips can increase stand diversity and provide alternative habitat for species that can't easily relocate after treatment.

Lautenschlager cautions, however,

against creating too much edge. "A forest that is broken into too many fragments can result in excessive predation and nest parasitism."

Habitat Management

Increasingly, foresters are turning to herbicides to help them manage wildlife. The effects of herbicide treatments on a population or species depend on the tolerance of the animals to change, the way in which a habitat is used (breeding, feeding, resting), when it is used and whether the habitat is critical to the survival of the animal. Since habitat preferences and requirements differ with species, a treatment that adversely affects one species may benefit another one.

If the forest site being managed is leased to a hunting club, it is often possible to treat the area to encourage preferred game species.

"Products that control a broad spectrum of vegetation, such as glyphosate, are a good choice if you don't want to alter species composition," says Miller. "On the other hand, picloram alone or combined with triclopyr often results in a site with a lot of grassy species. This type of habitat is perfect for rodents and raptors. Legumes and dove weed colonize southern sites treated with hexazinone and make them preferred homes for dove and quail.

"Diversity is the key, both within and among stands," he continues. "The transition areas where different communities blend together are particularly rich in wildlife. By acknowledging this fact through minor adjustments in our management plans, we can manage forests to provide a combination of improved timber production and improved wildlife habitat." ♣

Everything you ever wanted to know . . .

Want to know more about herbicides and wildlife? A new, annotated bibliography titled "Herbicides and Wildlife Habitat" by Karl Miller, Parshall Bush, John Taylor and Daniel Neary is now available.

Geographically, this covers the continental United States and Canada. Annotations consist of abstracts, conclusions, or summaries from the original reference. References are indexed by author, wildlife species, plant species, primary land use and herbicide.

The bibliography is available in printed form and as an ASCII text file on either 5.25" or 3.5" disks. Send requests to:

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The 1990 Alabama Forest Survey

*Preliminary
indications
show a
stable forest,
increased
growth, and
increased
removal*

Alabama forests are constantly changing due to pressure from man-made and natural influences. It is of particular importance to monitor these changes as they occur. The field portion of the 1990 Alabama Forest Survey has just been completed and the measurements of several thousand locations spaced on a 3-mile square grid have been collected.

As this data is being processed, misinformation about our forest continues to spread statewide. The early assessment presented here may correct some of the myths. Frequent surveys like the 1990 version assure forestry's attention to problems with responsible study and a reasonable approach. Forestry has a lot to gain or lose.

1990 Survey Completed

Alabama is divided into six U.S. Forest Service survey units (FIGURE 1). The survey results are being compiled and are in the process of being published. A mixed bag of positive and negative trends have surfaced and this report will try to identify very early returns on the state of forestry in Alabama as we enter the 1990s.

Even with the statewide survey still unpublished, I will venture to give a simple assessment. I am confident that small changes will occur but these

preliminary statistics should be made immediately available. Refinements will be made as this data is more closely studied.

Forest Acreage Stable

The new survey shows a continuing stability of the Alabama commercial forested base. The 1990 acreage by broad forest type is a carbon copy of 1982 (FIGURE 2). This stability was maintained, in part, through heavy tree planting on a regional basis. Productive pine acreage seems to be holding steady.

There is an indication that most commercial timberland being lost is occurring at the point of urban interface. This conversion of forests to suburbs is quite noticeable in the Mobile, Birmingham and Huntsville units. It is felt that deforestation for farm land was insignificant during the 1980s. The Conservation Reserve Program, a federal effort to end erosion through cropland conversion, more than recouped any loss to farm land.

Recently measured units indicate that total commercial forest acreage will approach 22 million in 1990, possibly a quarter million acre increase over 1982. This represents an increase of 1.1 million acres over 1952 and 3 million acres over 1936 (*South's Fourth Forest*, 1988).

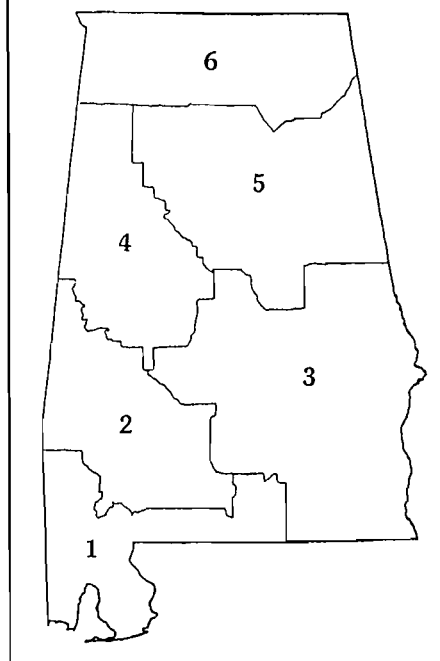
Pine acreage shows a modest 126,000-acre increase to approximately 7.5 million acres over 1982. Mixed pine-hardwood acreage should show a slight 30-year dip to 4.5 million while pure hardwood stands will increase to approximately 9.9 million acres.

This hardwood-type increase with the corresponding dip in the oak-pine type indicates that we are continuing to cultivate pine forests without reducing our hardwood forests. There has been a 2 percent increase in hardwood forestlands.

Pine Plantation Increase

A significant conversion from marginal cropland, natural pine, and pine-hardwood type to planted pine stands is taking place primarily in regions with healthy pine markets. Planted pine stands have increased by 109 percent since 1985 (FIGURE 3). Natural pine stands are down by 18 percent during the same period. Forty-six percent of Alabama's

Figure 1—Forest survey units of Alabama



pine stands are now of artificial origin as opposed to 25 percent in 1977.

Timber Volumes

Pine growing stock volumes have maintained similar levels over the last 30 years. Since 1972, there continues to be just over 11 billion cubic feet in the total pine inventory—even with the procurement pressure of 14 pulp and paper mills and numerous other roundwood users.

This 11 billion cubic foot inventory is a two billion cubic foot increase over 1963 levels. The current inventory may improve as new planted pines reach measurable size. This improvement assumes similar past procurement pressures and a static primary roundwood using industry. Historical market drain numbers measured against new and expanding industry announcements presently cloud the picture (Muehlenfeld, 1990).

Hardwood growing stock levels will increase to an all-time high with nearly 12 billion cubic feet in total hardwood inventory. This upward trend continues even with the recent increased hardwood mix used in the pulping process. Questions have arisen about continued roundwood and chip exports of hardwood (Gober/Faulkner, 1990), but in the meantime hardwood volumes in 1990 should exceed 1982 volumes by over one billion cubic feet.

Statewide growing stock volumes will reach a record high of over 23 billion cubic feet in 1990. The average per acre volume will approach 11 cords of total wood volume.

Pine Growth Level, Hardwood Growth Up

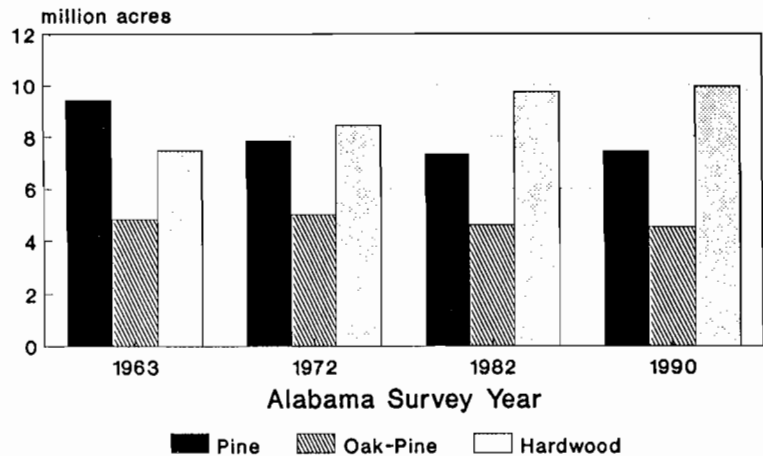
Softwood net growth per acre on growing stock is up approximately 14 percent in the Southern and Northern regions (units 1,2,3,and 6) of the state. The West Central and East Central Alabama areas (units 4 and 5) show growth down by 25 and 11 percent respectively (FIGURE 4).

Heavy planting through the 1980s (up 108 percent) in Southeast and West Central Alabama will most probably reduce this dip in growth over the next few years. There are positive planting trends taking place in several Alabama units. Restocking efforts must be maintained on all lands for adequate fiber and lumber supply (McWilliams, 1990).

East Central Alabama has not followed this pattern and is yet to estab-

Figure 2

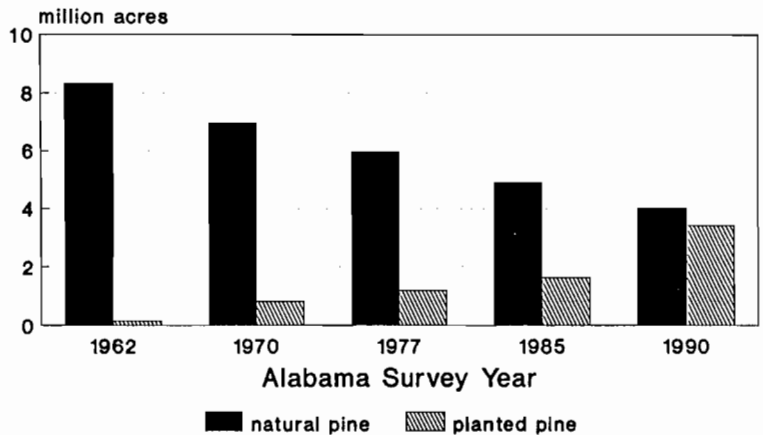
TIMBERLAND ACREAGE BY TYPE A 40 Year Comparison



Source: USDA Forest Service Surveys

Figure 3

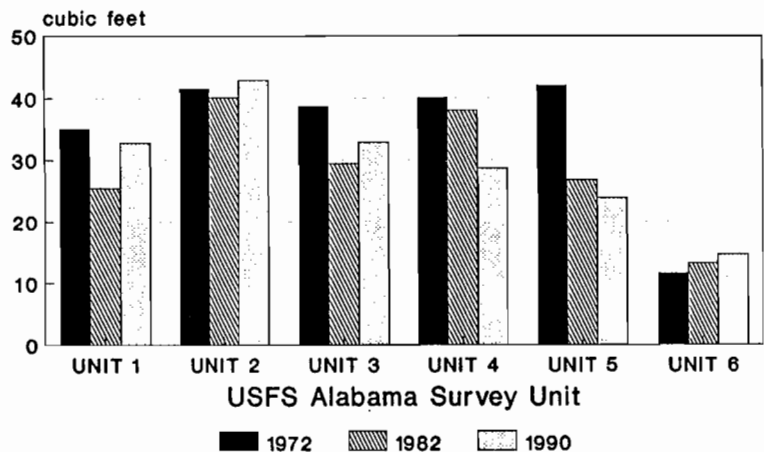
NATURAL PINE vs. PLANTED PINE A 40 Year Comparison



Alabama's Fourth Forest
1990 Alabama Forest Survey

Figure 4

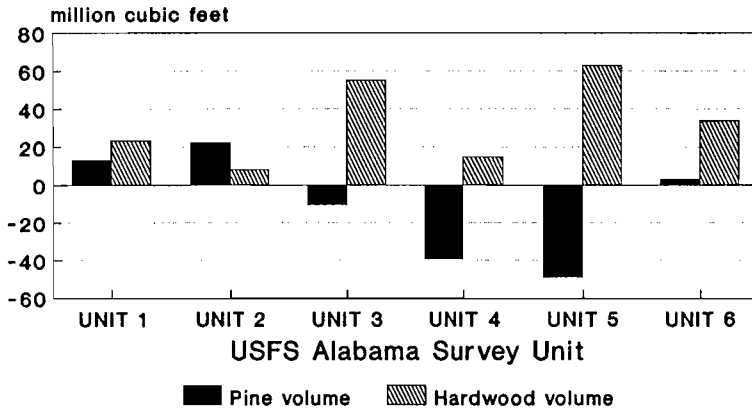
GROWTH PER ACRE, '72-'82-'90 Unit Comparison — Softwood



Source: USDA Forest Service Surveys

Figure 5

ANNUAL VOLUME LOSS/GAIN Unit Comparison — 1990 Survey Of Growing Stock



Source: Alabama 1990 Forest Survey

lish adequate pine replacement systems (up only 48 percent over the same period) that will ease the softwood removal impact. The urban loss of timberland to non-forest uses near Birmingham may also aggravate the problem. Unit 5 is in immediate need of pine regeneration efforts.

But as demand for hardwood fiber increases, as waste paper use increases, and as technology improves efficient fiber utilization (Ince, 1989), the pressure on softwood pulpwood will ease somewhat. Hopefully, just in the nick of time.

The per acre net growth of hardwood growing stock shows a rebound over 1982 in all sections of Alabama. In fact, it is showing the most growth we have seen in the last 30 years.

The Surplus/Drain Problem

There has been a heavy pine harvest in the Wiregrass and throughout the Upper Coastal Plain, Piedmont and Mountain regions. This is a very worrisome aspect of the latest 1990 data.

Even with a level softwood inventory and upward overall growth we will see a regional tightening of pine availability. This heavy harvest in West Central Alabama and East Central Alabama (units 3,4,and 5) will have Alabama cutting more pine volume than is being grown (FIGURE 5).

Indications are that during 1982 through 1990, every cubic foot of pine cut in Alabama was replaced by approximately .9 cubic feet of pine growth. This growth/drain relationship is a measure often used as an indication of the forest's capacity to supply the current forest industry with raw material. It is expressed numerically as .9 to 1.0 and suggests we are positioned between a surplus and a deficit situation. A red flag has been raised.

The growth we experienced for pine was significantly offset by the harvest of 1982 through 1990. This "sell off" was dominated by a regional harvestation of mature forests. This regional harvest is expected to subside and growth will improve over time as newly regenerated lands become merchantable and market demand levels.

Planning Committee Expands

Four organizations recently joined the Alabama Forestry Planning Committee (AFPC), bringing the total number of member agencies to 18.

Joining the Committee are the Alabama Farmers Federation; the Alabama Forestry Association; the Association of Consulting Foresters,

Inc., Alabama Chapter; and the Alabama TREASURE Forest Landowners Association.

The AFPC membership includes state, federal and private organizations which work together to promote the TREASURE Forest program and other forestry-related activities. ♣

But there must be a continued effort to regenerate our softwood resource.

There is still good news on the hardwood side. Hardwood growth is out pacing removals with a growth/drain ratio of 1.5 to 1.0 statewide. At present it looks like the hardwood resource is still enjoying significant accrual.

Highlights

- Alabama has a stable pine and hardwood forest base. Cropland conversion to pine is mitigating the acreage lost to urban sprawl.
- Pine stands of an artificial origin have increased dramatically.
- Alabama continues 30 years of sustained pine and hardwood total volumes.
- A regional pine harvest has significantly increased removals through Alabama's mid-section. Replacement systems are in place with the exception of East Central Alabama.
- Alabama is cutting 66 percent of hardwood growth as compared to 110 percent of pine growth.

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For additional background information on how the 1990 survey was conducted, see "Measuring the Wealth of Alabama's Forests," *Alabama's TREASURED Forests*, Fall 1989, pp. 10-12. ♣

SAFETY COMES FIRST

by HAROLD CLEVELAND, Safety Officer, Alabama Forestry Commission

A chain saw is a high-speed wood-cutting tool. As with any other power tool, some special safety precautions must be observed to reduce the risk of personal injury. Careless or improper use may cause serious or even fatal injuries. The chain saw is especially hazardous to use because of the many sharp cutters on the saw chain. Even if the chain is not moving you can still be cut if these cutters make contact with your flesh.

There are many makes and models of chain saws on the market. Most have different parts, controls, and safety features. Therefore, this article will deal only with those safety precautions and warnings which apply in the use of all chain saws. Three areas will be discussed: (1) proper clothing and accessories; (2) transporting the chain saw; and (3) reactive forces.

Proper Clothing

Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose-fitting jackets, scarfs, jewelry, flared or cuffed pants, or anything that could become entangled with the saw. Leg chaps are

recommended.

Protect your hands with gloves when handling saw and saw chain. Gloves improve your grip in addition to protecting your hands.

Good footing is extremely important in chain saw work. Wear sturdy boots with non-slip soles.

Proper eye protection is a must. Non-fogging, vented goggles or a face screen is recommended. Their use reduces the risk of eye injury.

A hard hat must also be worn. In addition, always wear ear plugs or mufflers to protect your hearing.

Transporting the Chain Saw

General: Always stop the engine when carrying the saw. Accidental acceleration of the engine can cause the chain to rotate. During operation, the muffler reaches high temperatures. Avoid touching the muffler.

By hand: When carrying the saw by hand, grip the front handle and place the muffler away from the body. The chain guard (scabbard) should be over the chain and the guide bar. The bar should be behind you (FIGURE 1).

By vehicle: When transporting in a

vehicle, keep chain and bar covered with the chain guard. Properly secure your saw to prevent turnover, fuel spillage, and damage to the saw.

Reactive Forces

General: Reactive forces may occur any time the chain is rotating. With any chain saw, the powerful force used to cut wood can be reversed and work against the operator. Reactive forces may result in loss of control which may, in turn, cause serious or fatal injuries. The most common reactive forces are:

- kickback
- pushback
- pull-in

Kickback: Kickback occurs when the upper quadrant of the bar nose contacts a solid object or is pinched (FIGURE 2). The reaction of the cutting force of the chain causes a rotational force on the chain saw in the direction opposite to the chain movement. This may fling the bar up and back in an uncontrolled arc. The greater the force of the kickback reaction, the more difficult it becomes for the operator to control the saw.

Some of the factors which influence the occurrence and force of the kickback are chain speed, the speed at which the bar and chain contact the object, the angle of contact, and the condition of the chain. Some of the safety precautions which should be observed to avoid kickback include the following:

1. Hold the chain saw firmly with both hands and maintain a secure grip.
2. Be aware of the location of the guide bar nose at all times.
3. Never let the nose of the guide bar contact any object. Do not cut limbs with the nose of the guide bar. Be especially careful when cutting small, tough limbs, small size brush and saplings which may easily catch the chain.
4. Do not cut above shoulder height.
5. Begin cutting and continue at full throttle.
6. Use extreme caution when re-entering a previous cut.

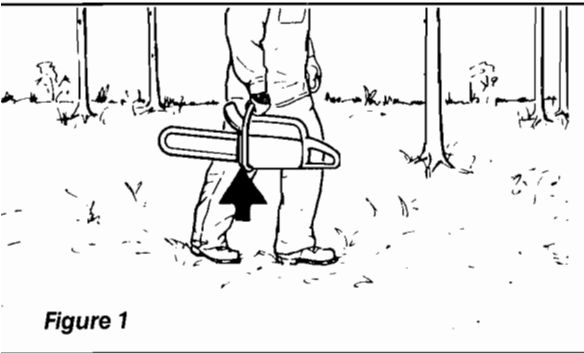


Figure 1

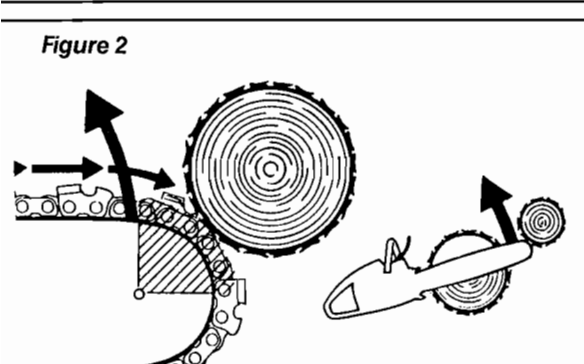


Figure 2

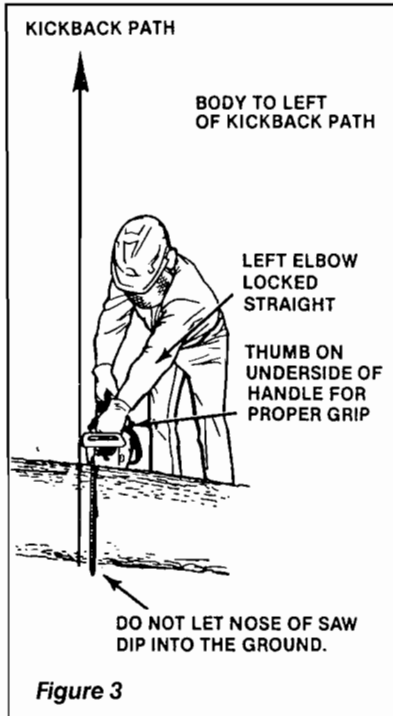


Figure 3

7. Maintain saw chain properly. Cut with a correctly sharpened, properly tensioned chain at all times.
8. Stand to the side of the cutting path of the chain saw (FIGURE 3).

Pushback: Pushback occurs when the chain on the top of the bar is suddenly stopped when it is pinched, caught, or encounters a foreign object in the wood. The reaction of the chain drives the saw straight back toward the operator and may cause loss of control. Pushback frequently occurs when the top of the bar is used for making an undercut.

Some of the safety precautions which should be observed to avoid pushback include the following:

1. Be alert to forces or situations which may cause material to pinch the top of the chain.
2. Do not cut more than one log at a time.
3. Do not twist the saw when withdrawing the bar from an undercut because the chain can pinch.

Pull-in: Pull-in occurs when the chain on the bottom of the bar is suddenly stopped. The chain on the bottom of the bar stops when it is pinched, caught, or encounters a foreign object in the wood. The reaction of the chain pulls the saw forward and may cause the operator to lose control. Pull-in frequently occurs when the bumper spike (a spiked stop plate for holding the saw against the wood) of the saw is not held securely against the tree or limb and when the chain is not rotating at full speed before it contacts the wood.

Some of the safety precautions which should be observed to avoid pull-in include the following:

1. Use extreme caution when cutting small size brush and saplings which may catch the chain and pull you off balance.
2. Always start a cut with the chain rotating at full speed and the bumper spike in contact with the wood.
3. Pull-in may also be prevented by using wedges to open the cut.

There are many other safety precautions which could apply depending on the type of chain saw being used and for what purpose, i.e. felling trees, limbing and bucking, pruning, etc. Therefore, it is very important that you read, fully understand and observe the safety precautions and warnings outlined in your owner's manual. They will help you operate your chainsaw in the safest possible manner. ♣

Seventh Alabama Landowner and TREASURE Forest Conference



The St. Clair County Forestry Planning Committee took top honors as the planning committee winner in District 1 and the state. They are pictured above with Gov. Guy Hunt. The winner in District 2 was Coosa County and the winner in District 3 was Choctaw County. The Monroe County Forestry Planning Committee was presented the Masters Award, which is given to a county who has previously won a state award for their continued good work.



The 1990 Helene Mosley Memorial TREASURE Forest Award was presented to two recipients because of a tie. Pictured from left are Paula and Joel Neighbors, Coosa County; Dr. William Sudduth, Hale County; and Gov. Guy Hunt. The runner-up was Jeff McCollum of Colbert County.



The field day at the Landowner Conference was held on the property of Ozier and Dozier Slay, TREASURE Forest landowners in Baldwin County. The Slay brothers are pictured with Larry Hamner, TVA, who presented them with a plaque to show appreciation for their hospitality.

ISO RATINGS: WHAT THEY MEAN TO YOU

by REGGIE SUMMERLIN, RCFP Coordinator

Why do you need a fire department in your area? That question has certainly been asked many times in the state of Alabama. It is probably asked each time a landowner is approached about becoming a dues-paying member of his or her local volunteer fire department. It is certainly asked when the local department comes around year after year asking for donations to help purchase some items of equipment or in some cases to just buy gas for the fire truck. I would imagine that you also ask it when you are notified that there will be a bake sale, spaghetti supper, or other type fund-raising activity held by your local department.

The obvious answer is, if you have a fire and no one is there, you could lose your house or a family member could be injured. That in itself answers the main question, but raises another question. How can you determine whether or not you are getting good fire protection from your local department? After all, fire protection is not your area of expertise.

The answer to this question ties in closely to one of the first things you will hear when you ask why you need a fire department in your area: It will reduce your insurance rates. How does this happen? The answer lies in something called an ISO rating.

The initials ISO stand for Insurance Services Office. This is a national organization set up to evaluate a fire department's capability to handle a fire once it has occurred. They do this by sending a regional representative to the fire department to actually look at the way the fire department is organized, the equipment, water supply and manpower. Points are given based on this visit. The number of points a fire department receives determines how they are rated.

These evaluations are done at no expense to the requesting department. The cost of the evaluation is covered by the insurance companies that are members of the ISO system. Once a department has been rated it will be 10

to 15 years before ISO will review the department again. However, if the fire chief decides that there has been a significant improvement in his department, he can request a review at any time.

ISO rates a department on a scale of one to 10, with class one being the highest rating a fire department can receive. TABLE 1 shows the rating classes.

There are three areas that ISO looks at when rating a department: (1) an evaluation of the fire department itself; (2) water supply; and (3) how well notification of a fire is handled. One hundred is the maximum possible score that could be achieved if all three areas are perfect. The largest portion of the 100 rating is based on how the fire department evaluation goes. A maximum of 50 percent can be earned by the department. Water supply is the next largest area. A maximum of 40 percent can be earned in the area of water supply. The final 10 percent depends on how well the notification of a fire is handled.

This appears to be a rather simple system, but each of the three areas have many sub-areas that thoroughly define each one. Points are given in the sub-areas and these points are totaled to establish the final credit in each main area. An explanation of the sub-areas is beyond the scope of this article and will not be attempted.

So, what does this mean to you the landowner? It means that the better your local department gets rated the less you could be paying for your

Table 1

ISO Class	Points
1	90-100
2	80-89
3	70-79
4	60-69
5	50-59
6	40-49
7	30-39
8	20-29
9	10-19
10	0-9

property insurance. It should be noted that not all insurance companies who write policies in Alabama subscribe to ISO, so you should talk to your local agent to see what effect an improved rating for your local department will have on your individual policy.

TABLE 2 shows an estimate that one policy owner received and the effect ISO ratings had on his policy.

Knowing about the ISO rating system is also helpful in determining the level of fire protection your local fire department provides. The higher the rating, the better the protection for you and your family. ♠

Table 2

Fire Department Rating Class	Home Value \$40,000	
	Frame House Cost of Insurance	Brick House Premium
7	\$319.14	\$265.00
8	\$378.86	\$318.00
9	\$562.33	\$472.83
10	\$773.83	\$558.67



NATIONAL

by TERRI BATES, Washington Representative, National Association of State Foresters

LANDO LEGISLATIVE ALERT

In hindsight, 1990 may be viewed as a watershed year for private forestry in the United States. For the first time ever, a Forestry Title was included in a Farm Bill with major new initiatives and significant funding increases including funds to begin implementation of the President's "America the Beautiful" initiative.

The Forestry Title includes the Forest Stewardship Program (FSP), modeled after Alabama's TREASURE Forest program, with the goal of bringing 25 million acres of private forestland under stewardship management. Specifically, the program seeks to assist private landowners in developing management plans that incorporate their personal objectives for their forest resources. Though this program was funded last year by Congress, the authorizing language provides additional support from Congress for the direction and goals of this program. Funding for this program was doubled by Congress in fiscal year 1991.

In addition to the Forest Stewardship Program, Congress has authorized and funded the Stewardship Incentives Program (SIP) which will provide cost-share assistance to private landowners for stewardship activities. SIP is similar to the Forestry Incentives Program (FIP), although a key difference lies in the goals of the two programs. The goal of the FIP program has been to assist private landowners in managing their forestlands for timber production; the goal of SIP is to assist landowners in the management of their lands for multiple forest resources, which may or may not include timber production as a primary goal.

Under SIP, cost share assistance would be available to eligible landowners for activities that might include the following: timber production and stand improvement; reestablishment, protection, and management of forested wetlands; fish and wildlife habitat management; management of recreation; management of native vegetation, and other such approved activities. This program builds upon the Forest Stewardship Program under which landowners have already

developed stewardship plans. SIP will assist landowners in implementing goals and objectives identified in the plan. To receive this assistance, a landowner would have to agree to manage according to a plan for a minimum of 10 years.

The Forestry Title also included authorizing legislation for the President's proposed "America the Beautiful" program which aims to plant a billion trees a year for the next 10 years throughout the nation's communities and rural areas. However, it is recognized that the goals of "America the Beautiful" extend beyond simply planting trees, including the management and protection of the trees after they have been planted as well. Further, it is recognized that "America the Beautiful" will be realized through a combination of new and existing programs like the Conservation Reserve Program (CRP), Agriculture Conservation Program (ACP), FIP, and urban and community forestry programs.

A new program with a bright future established in the Forestry Title is the Forest Legacy Program. This program will provide landowners of unique forest resources threatened by conversion or development to have alternatives by allowing these forests to be placed in conservation easements. An important aspect of this program is that forest management and practices would continue according to a management plan agreed to by the landowner. The landowners would also be eligible to participate in SIP. Initially, this program will begin as a pilot program in the New England region, but the legislation allows for projects to be established in other regions of the country. Although not funded this fiscal year, with ever growing pressures on private lands in urban areas, the Forest Legacy Program has great potential for providing solutions to land use issues that many regions of the country are facing.

Several other programs established or expanded under the Forestry Title that were not funded this fiscal year include national expansion of the Forest Service Forest Health Monitoring Program which will assess the condition of

the national forests both public and private; additional financial assistance would be provided to states with integrated pest management programs for suppression of southern pine beetle, gypsy moth, and other threatening insects; and authorization of the National Fire Forces Mobilization Act, which would provide up to \$70 million annually in additional funds to rural volunteer fire departments and state forestry agencies for training and equipment to better fight wildland fires. The outlook for future funding of these programs is very positive.

Under the Conservation Title of the 1990 Farm Bill, the Conservation Reserve Program (CRP) was continued through 1995, though its direction is modified to target the most highly erodible lands and respond to growing water quality issues. Alabama has been very successful in contributing towards the tree planting goals under this program. In the future, marginal pasturelands would be eligible for CRP enrollment if trees are planted in land in or adjacent to riparian areas or land that would contribute to the protection of water quality. Additional incentives are provided to increase tree planting in other regions of the country and are directed primarily towards hardwood trees, windbreaks and shelterbelts. These incentives include 15-year contracts, higher establishment cost share assistance, cost share for maintenance practices during the first three years, and after establishment. The acreage goals of the program were not expanded by Congress beyond the 45 million acre cap and the next sign-up is not expected until the summer of 1991. To date, only about 6.5 percent of all CRP acres have been enrolled in trees.

The Conservation Title also includes provisions which reestablish and protect wetlands, including a wetlands reserve program which establishes a voluntary program to enroll cropped wetlands into paid, 30-year or longer conservation easements. The program cap is one million acres and priority is given to wetlands which enhance wildlife habitat. ♦

WINNERS

by FRANK SEGO, Legislative Liaison, Alabama Forestry Commission

STATE



The election of 1990 is history. The period of transition has begun for the Alabama Legislature.

As promised in the Fall issue of *Alabama's TREASURED Forests* magazine, we present here the complete roster of the 1991-94 legislature, which features 23 new House members and nine new senators.

In early January 1991, these 32 new lawmakers will join 108 returning members for an organizational session during which committee assignments for the quadrennium will be determined. The opening gavel falls on April 16 for the Regular Session.

The forestry community is maintaining a watch on the final composition of a number of these committees and their chairmanships. Committees always vital to the Alabama forestry program include Ways and Means; Rules; Agriculture, Forestry and Natural Resources; and Judiciary in the House. Senate committees paramount to forestry are Finance and Taxation; Rules, Agriculture, Conservation and Forestry; Natural Resources; and Judiciary.

Eighty-two Democrats and 23 Republicans will greet the new term in the House of Representatives. Twenty-Eight Democrats and seven Republicans will answer the call of Lt. Gov. Jim Folsom, Jr. in the Senate.

Now let's meet them:

HOUSE

*Morris Anderson (D), Decatur
*David Barnes (D), Birmingham
John P. Beasley (D), Columbia
Jack Biddle, III (R), Gardendale
Lucius Black (D), York
*Marcel Black (D), Tusculumbia
Harrell Blakeney (D), Thomasville
W.C. Bowling (D), Hanceville
Michael Box (D), Mobile
Morris Brooks, Jr. (R), Huntsville
Jenkins Bryant, Jr. (D), Newbern
June Bugg (D), Gadsden
Ralph Burke (D), Fort Payne
James E. Buskey (D), Mobile
John L. Buskey (D), Montgomery
Tom Butler (D), Madison
*Johnny Cagle (D), Nouvoo
James M. Campbell (D), Anniston
*Jim Cams (R), Birmingham
Joe R. Carothers (D), Dothan
Tommy Carter (D), Elkmont
James S. Clark (D), Eufaula

William Clark (D), Prichard
George H. Clay (D), Tuskegee
W.F. Cosby (D), Selma
Bobby C. Crow (D), Anniston
*James T. Cullins (D), Alexander City
Johnny L. Curry (R), Hueytown
*Jeff Dolbare (D), Bigbee
Tom Drake (D), Vinemont
Sundra E. Escott-Russell (D), Birmingham
Steve Flowers (D), Troy
Joe M. Ford (D), Gadsden
Dwayne Freeman (D), Meridianville
William Fuller, Jr. (D), LaFayette
*Mark Gaines (R), Homewood
Victor Gaston (R), Mobile
J.W. Goodwin (D), Muscle Shoals
George W. Grayson (D), Normal
Jane Gullatt (D), Phenix City
Albert Hall (D), Gurley
James H. Hamilton (D), Rogersville
Seth Hammett (D), Andalusia
Taylor Harper (D), Grand Bay
Bob Harvey (D), Oneonta
*John H. Hawkins (R), Birmingham
Clarence E. Haynes (D), Talladega
G.J. Higginbotham (D), Opelika
Mike Hill (R), Columbiana
Thomas E. Hogan (D), Jasper
*Hugh E. Holladay (D), Pell City
Jimmy W. Holley (D), Elba
Alvin Holmes (D), Montgomery
Perry O. Hooper, Jr. (R), Montgomery
Ronald G. Johnson (D), Sylacauga
Yvonne Kennedy (D), Mobile
Al J. Knight (R), Shelby County
Ken Kvalheim (R), Mobile
Richard J. Laird (D), Roanoke
Allen Layson (D), Reform
*Sam Letson (D), Moulton
Richard J. Lindsey (D), Centre
Nathan Mathis (D), Newton
Edward B. McClain (D), Brighton
*Frank McDaniel (D), Albertville
Bobbie G. McDowell (D), Bessemer
Bob McKee (R), Montgomery
Stephen A. McMillian (R), Bay Minette
Bryant Melton (D), Tuscaloosa
Mike Mikell (R), Millbrook
*Michael J. Millican (D), Hamilton
*Johnny M. Morrow (D), Russellville
*Albert G. Morton (R), Birmingham
Max Newman (D), Millport
Charles Newton (D), Greenville
Demetrius C. Newton (D), Birmingham
Paul Parker (D), Hartselle
*Timothy Parker, Jr. (D), Tuscaloosa
Arthur Payne (R), Birmingham
Walter E. Penry, Jr. (R), Daphne
George Perdue (D), Birmingham
Tony Petelos (R), Pleasant Grove
Phil Poole (D), Moundville
*Horace Powell (D), Prattville
*Kerry Rich (R), Arab
Ben T. Richardson (D), Scottsboro
*Lois Rockhold (D), Mobile
*Frank Rogers (D), Graysville
John E. Rogers, Jr. (D), Birmingham
Howard Sanderford (R), Huntsville
*Allen H. Sanderson (R), Birmingham
*Curtis Smith (D), Clanton

*Roy E. Smith (R), Gadsden
Lewis G. Spratt (D), Birmingham
Nelson R. Starkey, Jr. (D), Florence
James L. Thomas (D), Selma
J.E. Turner (R), Citronelle
Pete Turnham (D), Auburn
Jack B. Venable (D), Tallassee
Claud Walker (D), Montgomery
James E. Warren (D), Castleberry
Frank P. White (D), Flomaton
Nolan Williams (D), Dothan
Gerald Willis (D), Piedmont
Mary S. Zoghy (D), Mobile

SENATE

John Amari (R), Birmingham
Chip Bailey (D), Dothan
Lowell Barron (D), Fyffe
Ann Bedsole (R), Mobile
Jim Bennett (D), Birmingham
*George Bolling (D), Fayette
Ray Campbell (D), Town Creek
Danny Corbett (D), Phenix City
Ryan deGraffenried (D), Tuscaloosa
Bobby Denton (D), Tusculumbia
Gerald Dial (D), Lineville
Larry Dixon (R), Montgomery
Frank Ellis (R), Columbiana
Michael Figures (D), Mobile
*Jack Floyd (D), Gadsden
Crum Foshee (D), Andalusia
*Doug Ghee (D), Anniston
Don Hale (R), Cullman
Earl Hilliard (D), Birmingham
Fred Horn (D), Birmingham
Charles Langford (D), Montgomery
*W.H. Lindsey (D), Butler
Albert Lipscomb (R), Robertsdale
*T.D. Little (D), Auburn
*Wendell Mitchell (D), Luverne
Hinton Mitchem (D), Albertville
*Walter Owens (D), Centerville
Mac Parsons (D), Hueytown
James Preuitt (D), Talladega
Henry Sanders (D), Selma
Bill Smith (D), Huntsville
Jim Smith (D), Huntsville
*J.T. Waggoner (R), Birmingham
*Robert Wilson, Jr. (D), Jasper
Steve Windom (D), Mobile

*New Members

John Hawkins formerly served in the House and Senate. Curtis Smith, Sam Letson and Kerry Rich were members of the House, but not during the last quadrennium. Ted Little and Pat Lindsey are former senators. Walter Owens and Jabo Waggoner come to the Senate with previous service in the House. ♣

ALABAMA'S TREASURED FORESTS

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 SU—Summer
 F—Fall
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 Transplanting SP90-28

Alabama Forestry Commission

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 Cleanup SP88-14
 Giving Returns on Your
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CALENDAR

January 16—Macon, Autauga Counties. Tour of Union Camp Paper Mill near Prattville leaves from Tuskegee Extension Office at 9 a.m. Contact Dr. Peter Mount, 727-8809.

January 18-19—Pine Mountain, GA. Sawmill Management Seminar at Callaway Gardens. Contact Karen Lavender, (912) 681-8809.

January 22—Atlanta, GA. Endangered Species Conference. Contact Chip Murray, American Forest Resource Alliance, (202) 463-2782.

March 4-8—Durham, NC. Basic Groundwater Hydrology, a Duke Univ. professional development course covering the basic principles, concepts, and methods of groundwater hydrology. Contact Julie D. Gay, (919) 684-2135.

March 5-7—Macon, GA. Southern Region of the Council on Forest Engineering Annual Meeting, Hilton Hotel. The topic of the meeting, which includes a full-day field trip, is "Advances in In-Woods Delimiting and Processing Technology." Contact Dale Greene, (404) 542-6652.

April 17-19—Athens, GA. Natural Regeneration of Southern Pine, a Univ. of GA short course. Contact the GA Center for Continuing Education, (404) 542-1585.

May 9-10—Auburn, AL. Seventh Alabama Urban Forestry Association Convention, Auburn Convention Center. Contact Neil Letson, 240-9360.

June 20-22—Missoula, MT. National Forest History and Interpretation, a symposium/workshop. This program will focus on the historical origins and significance of the National Forest System and the techniques of interpreting its rich history. Contact the Center for Continuing Education, Univ. of Montana, (406) 243-4623. ♣



Memorial

Butler County TREASURE Forest landowner Calvin Poole died September 20 at the age of 97. A World War I veteran, Mr. Poole practiced law in Greenville from 1902 until his retirement in 1987. During his lifetime Mr. Poole served as a member of the State Bar Commission, the Greenville and American Bar Associations, the Alabama State Bar and the American Judicature Society.

He was a member of the Board of Directors of the First National Bank and also served as chairman of the board. ♣

To feed or not to feed—this seems to be the question a lot of people are asking these days. Answering this question is not as simple as it might sound. Before I give a few steps on how to construct a low cost feeder, I feel a little background information is needed. A key question would be: are feeders a form of welfare for wildlife?

Collectively, most wildlife biologists refer to feeders as “artificial management techniques.” The most innocent use of feeders is aimed usually at a few animals on a given area of land. It is my contention that feeders should only be techniques aimed at individuals and not at whole populations. In other words, they are not an end in themselves, but a temporary means of filling in missing gaps in habitat. However, those missing gaps may only be **perceived** as missing.

Supplemental feeding (feeders) usually is not successful on a large scale. However, their use on limited areas can be worthwhile. Most wildlife managers would prefer to see money, manpower and energy spent on more long-term measures such as habitat improvement. It seems that well-intentioned citizens on an almost worldwide basis view these “welfare assists” as the only humane thing to do. Especially when food is perceived to be in short supply, the question rings often on area biologists’ ears. Any efforts to feed on a large-scale for extended periods of time have a well-documented history of failure.

By now you are probably convinced that I am against the use of feeders. Not so—they can be very useful wildlife management techniques. The use of these techniques are not well-defined in the state of Alabama. Some states put no restrictions whatsoever on the use of feeders. In Texas, feeders are accepted semi-permanent habitat management tools. They bring game to the eye of the beholder, to the eye of the camera and to the eye of the peep-sight. Alabama allows you to use feeders for the first two but does not allow game to be harvested near a feeder. Before our state could—or probably would—advertise the use of feeders, an effort would have to be made to clarify the vague rules on baiting and feeding. The bottom line on feeders should be the following: never substitute the use of feeders for real habitat manipulation and improvement.

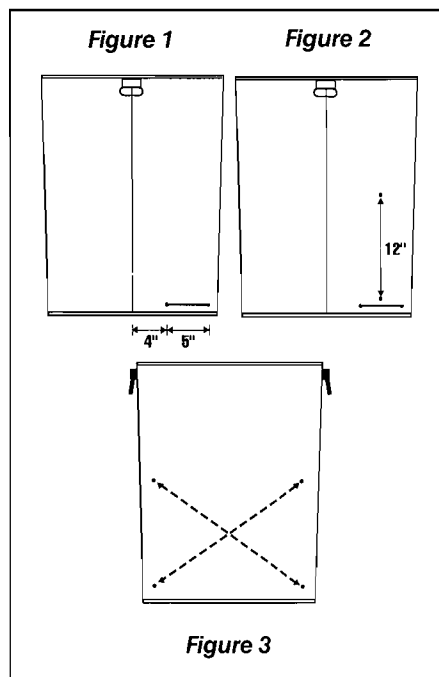
Before I start the step-by-step procedure for building a feeder, let me remind you of a few helpful do’s and

Wildlife on Welfare

Building A Turkey Feeder

by MICKEY EASLEY, Wildlife Biologist, Graduate Forester

don’ts. Never begin supplemental feeding unless you are willing to give the time, interest, energy and money needed to keep the welfare food coming or until critical weather and food shortages are over. Also keep in mind that feeders should be constructed and fastened so that livestock, deer, coyotes, raccoons and weather won’t knock them down or over. They should be easy to get to and refill. They should also be located in openings large enough to allow escape before a predator can make a sprint to its victim. One of the two main reasons for **not** using feeders is that they can become death-traps to wildlife if some care is not taken to avoid this happening. The second reason is more indirect: if not moved around some during the year, continued use in the same spot could lead to disease problems.



Building the Feeder

One of the simplest and least expensive turkey feeders used today can be homemade. The one I will describe is made out of a metal trash can and has two five-inch openings cut into opposite sides of the bottom of the can. The items needed are the following:

- 20-gallon, metal trash can with a lid and handles on the side
- 4 elastic pull stops
- 2 1/4 x 28" threaded rods
- 6 1/4" regular nuts and 2 1/4" wing-nuts
- an electric drill with a 3/8" bit
- a jig-saw with a metal cutting blade
- optional cans of spray paint (green-tan-black)

Step 1. Most metal trash cans have their lap seams running beneath the handles on both sides. The lap seam is a line made on the can when it was put together. Holding the can with the handle facing you, measure and place a mark four inches to the right of the lap seam, and 1 1/4" up from the bottom of the can. Use your drill to drill the first hole, then measure a line five inches further to the right, parallel to the bottom and make another mark 1 1/4" from the bottom. Now drill another hole. Using your jig-saw, cut parallel to the bottom and connect the holes with a sawed line (see **FIGURE 1**). Repeat this procedure on the opposite side of the can. You should have two five-inch slits cut near the bottom of the can on opposite sides of the can.

Step 2. Drill a hole halfway between and 3/4" above the sawed line. Drill another hole 12 inches directly above the hole just drilled (see **FIGURE 2**). This procedure will be repeated on the opposite side also. These holes will be for the threaded rods to be used in Step 3.

Step 3. Insert one of the threaded rods into the upper hole and attach a wing-nut to the end opposite of the end that is in the can. Direct the rod into the first hole drilled in Step 2 and screw it into the hole far enough to get one of the regular 1/4" nuts on it. Mark the spot on the rod inside and outside the can. Screw the rod back into the can and put a stop nut on the rod and screw it up the rod until just past the second mark. Return the rod to the hole and screw it through until the stop nut is against the inside wall of the can. Put another regular nut on the threaded rod and tighten until snug against the out-

side wall of the can. Repeat this for the other side. By tightening up on the wing nut and a little pressure on the saw slit you can control the width of opening from the bottom. Notice that after a period of time you may have to put a lock-nut on the upper inside wall. This becomes necessary when the metal fatigues due to animal racking. At any rate, adjust the opening $\frac{3}{4}$ -1" wide on each side of the can. This should be wide enough for the feed (corn, gram sorghum, wheat mixture) to gravitate into the opening and keep down on the nontarget species use. When finished, your rods should make an X, running from the upper holes down to the lower holes on the opposite sides (see FIGURE 3).

Step 4. Use whatever measure necessary to keep the can approximately 15-18 inches above the ground. Use a support that can cause a slight tilt away from or toward the tree or stakes. This will help to keep rain water from running down into the side slots so readily. Now stick a knife blade into the bottom of the can in four or five places around the lowest points inside the can bottom. Make sure they are wide enough that the paint will not stop them up but narrow enough so that the feed will not fall out of the holes. These holes will let off any excess water that gets into the can. Remember to paint the inside bottom about 7 inches up and the same height on the outside bottom and sides. This will help reduce rusting.

Step 5. Secure the can by putting the stretch straps around the can, through the handles and around a tree or stake back-stop. Fill the can with the feed of your choice and secure the top with the other stretch strap by running it through the top and handles. This strap should be 16-18 inches in length.

Step 6. Scatter more feed around and under the feeder. Check the feeder often the first few days to make sure all is working well. If you use wheat as your grain choice you may want to put 10-15 charcoal bricks into the feeder at the top level. The charcoal will help keep down excess moisture build-up, therefore reducing the sprouting of the thinner seed-coated wheat seed.

Some managers feel inclined to paint the entire can, but the game will use it shiny or painted. Painted feeders do not stand out so much when pictures are taken.

This is game management the American way—wildlife on welfare. ♣

Controlled Burning Users in the Alabama Wiregrass Region

by D.W. MCCONNELL II, Ph.D, TREASURE Forest Manager,
Coosa County

Editor's note: The material presented in this article is based on information from the author's doctoral research. The data collected was made through personal, structured interviews with 145

different landowners in the Wiregrass area. The landowners were randomly selected from county tax records.

Figure 1

OWNERSHIP OBJECTIVES

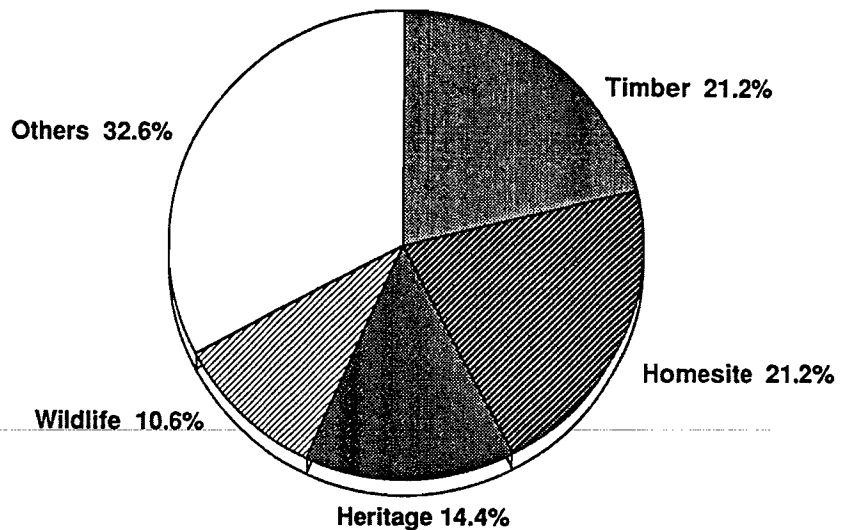
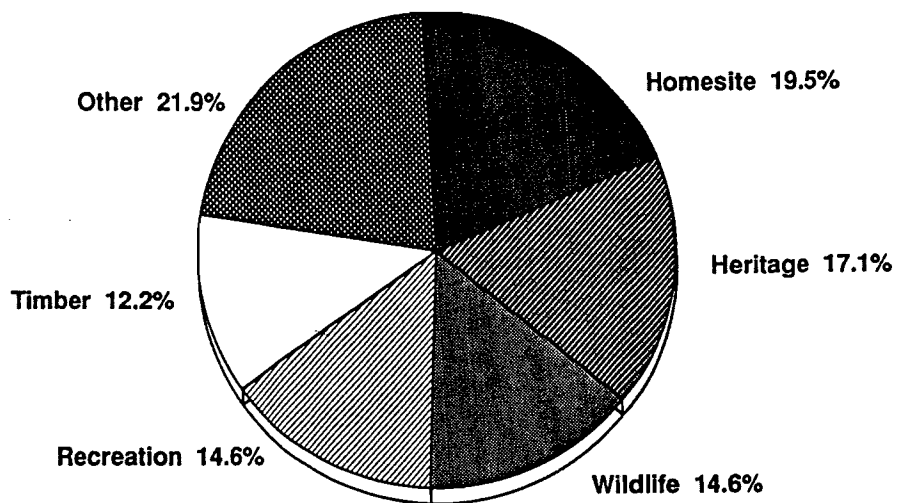


Figure 2

OWNERSHIP OBJECTIVES



Controlled burning is used by a wide variety of forest owners to help meet several different management objectives. The use of fire has both an environmental and an historic logic. Scientists in Alabama noted throughout the 1800s and into the early 1900s that there appeared to be a positive relationship between periodic burning and healthy southern pine forests. In the eight southeastern counties of the Wiregrass region of Alabama (Escambia, Conecuh, Covington, Dale, Henry, Houston, Coffee, and Geneva), forest owners have a variety of perceptions and uses for controlled burning for forest management.

In the eight-county area there are over 20,300 forest owners who have between five and 500 acres of forestland; this is just under half of all the forestland in these counties. The majority of owners live on farms or in rural, non-farm locations. A majority reside on their forestland, and of those who do not, most live within 10 miles of their land. Most owners are male. The average size of their forest holdings is 75 acres. Forest owners in the area are generally in their late 50s, but range in age from their 20s to 90s. Occupations of forest owners range from teachers, construction workers, and barbers to government employees, housewives, and ministers. Just over a third of owners are retired businessmen or farmers.

Approximately three-quarters of this population of forest owners feel that controlled burning is a useful forest management practice on their land. They feel that controlled burning is useful in helping clear understory brush and "trash" trees, fire-proofing their land, and allowing pines more growing room. **FIGURE 1** shows the primary ownership objectives of these forest owners who feel controlled burning is a useful forest management practice.

Forest owners in the eight county area who do not feel controlled burning is a useful forest management practice on their land tend to have smaller land holdings and are more often non-resident owners. Their perceptions of controlled burning in forests include that it destroys small trees, damages timber, runs off wildlife (especially songbirds), or that it is inappropriate because their land is predominantly a hardwood forest. **FIGURE 2** shows the

primary ownership objectives of forest owners who do not feel controlled burning is useful.

Approximately 30 percent of forest owners in the eight-county area first learned about controlled burning utility through some type of personal experience or observation. These persons recall noticing smoke, following it to its source, and watching the actions of the fire and the individuals tending it. They often returned to the area at some later date to judge the effects of the burns.

When forest owners in the area want specific information about the use of controlled burning, over half identify Alabama Forestry Commission foresters as their most dependable information source. Questions they ask of AFC personnel include: What are the short and long-term effects from controlled burning? What seasons and weather conditions are the most appropriate for burning? What control measures are needed? And what assistance can AFC personnel provide?

Almost half of all forest owners in the area know of other private owners who use controlled burning for forest management. Further, most owners are favorably impressed with others' experiences with controlled burning. Through talking with neighbors, seeing the effects of burning, and gathering specific information from AFC foresters, forest owners can plan uses of controlled burning on their own land.

Forest owners who are interested in managing their land for wildlife feel that their careful use of controlled burning promotes better food for deer, turkey, and other animals. People who see their land as a heritage for their children and grandchildren, or who use it as their homesite, see controlled burning as a means for preventing catastrophic damage to their land from wildfires. Owners who are primarily interested in managing their land for timber use controlled burning to help prepare their land for natural or artificial regeneration and to reduce the possibility of economic loss caused by wildfires. But in so doing, this third group meets the same goals as the previous two. Wildlife habitat can be nurtured throughout the life of a timber stand by using controlled burning. By working to protect the productivity of the resource, be it of trees, turkey, or



both, landowners are providing a heritage for future generations.

Controlled burning is a very visible forest management activity. Its effects can be observed in a short time period compared to many other forest management efforts. While it is not always appropriate, it is suited for use in many different circumstances. For example, it can be applied on small or large areas, which is important considering the range of private forest ownership sizes.

Alabama Forestry Commission foresters in the Wiregrass Region encourage the appropriate use of controlled burning. Successful controlled burning can in turn lead to the use of other forest management activities by private owners through their communication with these foresters. In addition, neighboring forest owners are encouraged to undertake more forest management activities by observing the successes of their neighbors, speaking with them about forest management goals, and eventually contacting AFC personnel themselves. Because of its visibility, controlled burning serves as a communication tool by helping bring forest owners and AFC personnel together in the interest of forest management. ♠

Containerized Seedlings Offer Alternatives

by MARK ELLIOTT, International Forest Seed Company

Natural regeneration, direct seeding, and planting bare-root seedlings have for many years been used to regenerate southern pine stands. Recently, however, operational planting of containerized pine seedlings has become a fourth viable alternative for southern landowners.

Use of containerized seedlings is not new. Foresters in Scandinavia, Canada, and the Pacific Northwest have used containerized planting stock since the early 1960s. Now this technology is readily available to southern landowners.

And it looks promising. There are three primary advantages to using containerized southern pines for reforestation: a longer planting season, higher survival, and faster hand planting. Evidence for these advantages has been found by several researchers.

Longer Planting Season

Use of container-grown seedlings can add up to eight months to the normal three-month bare-root planting season. In other words, containerized stock can be planted almost year around.

Landowners should remember that seedlings planted in the fall enjoy an initial growth advantage over winter planted seedlings. In fact, differences in first-place height growth of one-foot or more have been noted. This is due to the additional root growth that occurs prior to full seedling dormancy in early winter.

Why the increase? Containerized seedlings are planted with their root system intact; furthermore, they suffer no shock from being lifted out of a nursery bed. With this reduced transplant shock and extra root growth, container-grown seedlings can even be interplanted—in the fall—six to nine months following an original bare-root planting.

Because of their established root system, containerized seedlings do not fall behind the survivors of the original bare-root planting. This kind of interplanting might be used to help maintain a uniformly spaced stand at the desired stocking level.

It's possible to extend the planting season in spring as well as the fall. This is beneficial to the landowner because some sites are often too wet to plant during the winter. The trouble is that seedlings on these sites are often covered by silt left behind by flood waters. But these sites can be planted with containerized seedlings in late spring after flooding ceases. The seedlings then have one year to grow before the next flood season.

An extended planting season also allows greater scheduling flexibility for forest farmers or their land managers. Planting crews can stay together longer, resulting in a higher quality planting job.

Survival

The most commonly accepted advantage of container-grown seedlings is higher survival. Seedlings grown in containers develop numerous lateral and fine roots that absorb needed water and nutrients.

Their higher survival also results from being planted with intact root systems that haven't suffered transplant shock. Only a portion of the root system is briefly exposed to the air during planting. Higher and more predictable survival rates help reduce the risk of planting failures.

Per acre stocking is also affected by the higher survival. Because fewer seedlings are needed to reach stocking goals, overall seedling costs decline. Economic analysis suggests that planting 25 percent fewer seedlings could reduce planting cost about 5 percent. Fewer seedlings per acre allow a wider spacing which usually promotes the growth of more valuable, larger diameter trees.

Planting Speed

The third major benefit of containerized seedlings is faster hand planting. Planting speed is increased because the trees are easier to plant and there are fewer seedlings to plant per acre due to improved survival.

Here's how it works. A specially designed hand planting tool cuts a hole

the same size and shape as the root system. Each root system is perfectly shaped to fit neatly into the hole. This eliminates problems such as J-rooting, twisted roots, and air pockets. Moreover, planters use less physical effort than with a traditional dibble.

Daily planting rates of 1,500 to 3,000 seedlings per person, depending on skill and motivation, are common. Our research suggests that faster planting combined with a reduced stocking level may reduce total planting cost up to 50 percent.

Additionally, containerized seedlings are being successfully planted by standard planting machines. Small adjustments are needed, however, to ensure proper seedling placement.

Other Considerations

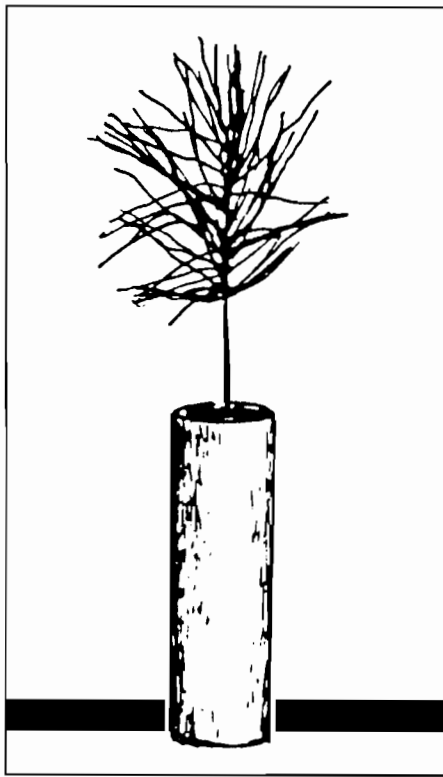
Containerization is an efficient use of genetically improved seed. A good sowing and growing regime in the nursery can result in more plantable seedlings per pound of seed.

In addition, hard-to-establish species such as longleaf pine benefit from containerization. First year survival of up to 98 percent has been noted in recent U.S. Forest Service research. International Forest Seed Company trials show an average of 93 percent survival.

Forest farmers must remember, however, that reforestation is a matter of choosing among many alternatives. And each landowner must weigh the good and bad points of each alternative. Nobody claims that containerized seedlings solve all the problems related to reforestation.

In fact, the initial price of container-grown seedlings is higher than bare-root stock; however, that price should not be the only consideration. Evaluation of the cost of an established seedling and its contribution to harvest income are the final considerations.

Seedlings shipped in their original reusable containers are bulky. But the containers protect the root system longer and allow for easy storage until planting. A pickup truck can carry a day's planting for one person.



Reusable containers may cause a problem for planters new to the system. Containers may be lost or damaged so they cannot be used in the nursery again. And planting super-

visors will have to alter their operations to accommodate handling the containers.

What To Look For

Not all containerized seedlings are alike. Each has characteristics that may or may not work in your situation.

What characteristics make a "good" containerized seedling? Basically, the same as for bare-root stock. Select seedlings grown from the best seed source available. Do not, of course, accept seedlings that are diseased or of low vigor.

Additional guidelines particular to container seedlings may help. Look for seedlings grown in containers that encourage proper root development. Vertical ribs reduce root spiraling, a condition which may reduce the seedlings' vigor. An air hole in the container's base will reduce the problem of roots becoming pot bound. A fibrous root system composed of nutrient- and water-absorbing lateral and fine roots should be chosen.

Additionally, the container should be appropriate to the species being grown. It should have a large enough cavity to grow a root system that will

support the shoot. Also, seedlings should not be grown so densely that stem diameter is affected. Optimal growing density is different for each species.

Seedlings should become accustomed to new climates before planting. Beware of moving seedlings from a warm climate, such as a greenhouse, directly to the field.

Finally, make sure the planting tool used is matched to the seedling's root system. The tool should not compact the soil. Instead, it should cut a hole that exactly matches the seedling's root system. This prevents air pockets and makes planting easier.

Containerized seedlings are meant to supplement other methods of regeneration. The advantages of a longer planting season, higher survival, and faster hand planting suggest that forest farmers should consider this innovative means of reforestation.

Certainly containerized seedlings have limitations, but these problems should diminish as forestry researchers continue to develop the system and as landowners gain experience using it.

This article was first published in *Forest Farmer* magazine. ♣

Dogwood Anthracnose Raises Concern in Alabama

by JAMES R. HYLAND, Chief, Forest Health Management, Alabama Forestry Commission

Since the late 1970s, a new disease called dogwood anthracnose has been causing mortality of flowering dogwoods. By 1986, the disease had been found in nine Northeastern states and had moved as far south as West Virginia. In 1987, it was found in northern Georgia and western North Carolina. In 1989, it was confirmed in three trees in Alabama. These single trees were in Winston, Lawrence and Lauderdale counties. There is also a suspect in Jackson County.

This disease is caused by a newly identified fungus—*Discula sp.* Initial symptoms are small, purple-rimmed leaf spots or larger tan blotches that may enlarge to kill the entire leaf. Infected leaves often cling to stems after normal leaf fall. The fungus also can infect twigs, killing them back several inches, and in some cases to the main stem. The dead portions of twigs are tan and may be covered with orange *Discula* spores. There may be a purple

border between dead and healthy twig tissues. In infected plants, numerous epicormic shoots often form up and down the main stem and on major branches. These become infected and die. When they do, the fungus often grows into the main stem, causing annual cankers.

Trees are often killed two to three years after the first attack. Weather factors may determine whether the dogwood anthracnose will lead to tree death. Other diseases, such as armillaria root rot, may accelerate dogwood mortality.

Control in the forest: There is no practical control in the forest situation.

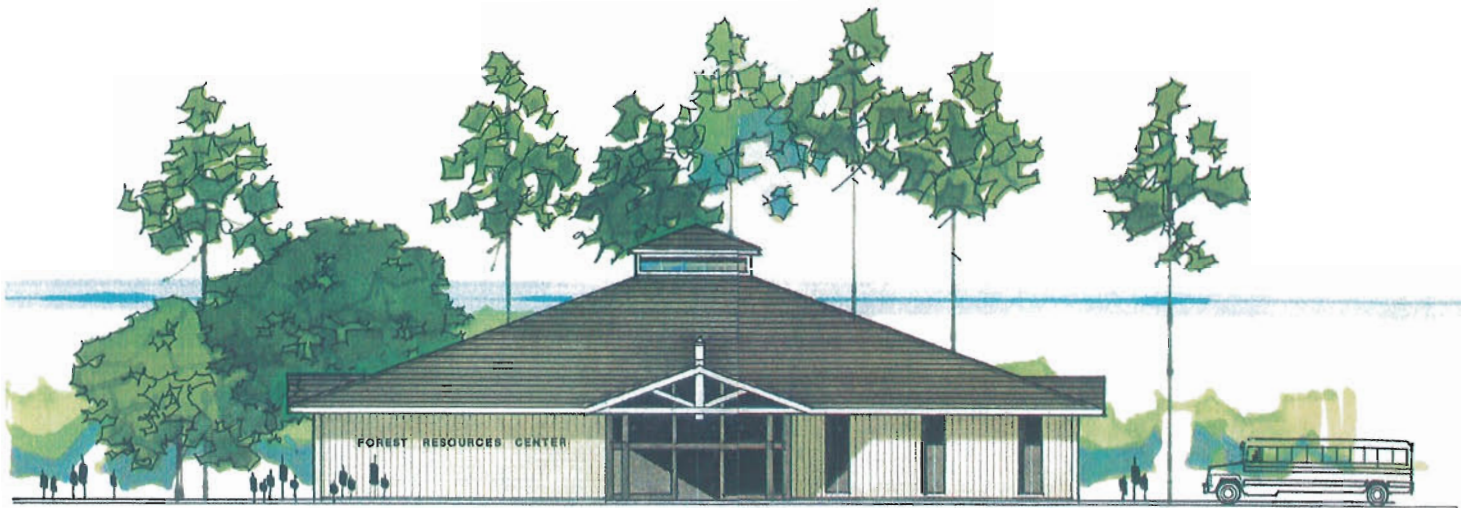
Control in the urban forest: Control of this disease is difficult. Dogwood trees that are adjacent to natural stands of dogwoods may be more susceptible. Prune any dead wood in the tree before it reaches the main trunk. Destroy the pruned wood to eliminate any sources of fungus from the area. Water during

droughts, protect the root zone with a mulch and fertilize with a high nitrogen content on trees with anthracnose. These steps can help keep the disease incidence low.

The Forestry Commission has installed a permanent plot grid in Winston, Lawrence, and Lauderdale counties. These plots will be checked annually to detect changes in spread and/or intensity of this disease. Dogwood anthracnose is not a problem in Alabama at the present time. But because of its potential, close monitoring of dogwoods, especially in North Alabama, will continue.

References

- "A Killer of Dogwood: Dogwood Anthracnose," Pest Alert, Protection Report R8-PR10, 1988.
- "Growing and Maintaining Healthy Dogwoods," USFS, Forestry Report R8-FR14, 1989. ♣



Mobile College Announces Forest Resources Learning Center

Because of a joint effort between Mobile College, the Mobile County Public School System, the Alabama Forest Resources Center and forest industry, students in the South Alabama area will soon have an opportunity to experience first-hand the benefits that forests provide to their community. Dr. Mike Magnoli, president of Mobile College, has announced plans to construct an 11,000 square foot instructional building surrounded by 125 acres of forestland near the college, which will be known as the Forest Resources Learning Center.

Working with Senator Ann Bedsole and the Alabama Forest Resources Center, the Board of Trustees at Mobile College began two years ago to put together a proposal for a center to teach stewardship in a non-traditional learning environment to elementary, secondary, and college students. The Mobile County School Board has an agreement with the college whereby 12,000-15,000 students in the system will receive on-site instruction at the center. The school system will also provide

Commemorative gift opportunities are available for those who desire to make a major investment in the Forest Resources Learning Center. The educational building and a number of rooms have been set aside for the purpose of honoring substantial benefactors.

Specific Area	Investment Required to Name
Forest Resources Learning Center (Entire Complex)	\$500,000
Instructional Building	\$300,000
1. Auditorium for community & professional meetings	\$100,000
2. Classroom designed for large groups of elementary & secondary students	\$100,000
3. Research laboratory—college level	\$100,000
4. Environmental studies laboratory—college level	\$100,000
5. Field studies laboratory—college level	\$75,000
6. Library dedicated to forest resource studies	\$75,000
7. 2,400 sq. ft. Exhibit hall for forestry displays	\$75,000
8. Seminar room for small group meetings	\$50,000
9. 1,600 sq. ft. Observation deck & boardwalk	\$40,000
10. Laboratory preparation room	\$30,000
11. Faculty office suite	\$20,000
12. Director's office	\$15,000
13. Secretarial office	\$10,000
14. Faculty lounge	\$10,000
Outdoor forestry museum	\$75,000
Forest demonstration/wildlife habitat areas (4), each	\$25,000
Amphitheater	\$25,000
Nature trails/boardwalks (4), each	\$20,000
Picnic area	\$10,000
Display cases for instructional building (5) each	\$5,000
**"The Planters Society"	\$1,000

*In addition to these specific gift opportunities, individuals making a minimum investment of \$1,000 will be recognized as members of "The Planters Society." The names of all members of the Society will be prominently displayed on a permanent plaque in the lobby of the instructional building.

Anyone interested in providing assistance for this endeavor should contact Ed Williamson, Assistant to the President, Mobile College, P.O. Box 13220, Mobile, AL 36613, (205) 675-5990.



three teachers who will be based permanently at the facility.

Besides K-12 students, college students will also receive instruction at the center. Teachers, school administrators, and the general public can attend seminars and other workshops.

According to Dr. Magnoli, the center will be the first of its type in Alabama and will serve as a model program which can be adapted for use throughout the state. "We have involvement and support from the public school system, forest industry, and government," Magnoli said. "This combination should enable our program to have a significant impact both environmentally and economically." ♣

YOU Ought To Be In Pictures!



L-R: Harold Hill, Society of American Foresters, and James Hughes

Houston County TREASURE Forest landowner James Hughes has been selected by the Alabama Chapter of the Society of American Foresters as the 1990 Non-Forester of the Year.

The award is made annually to non-foresters who have made significant contributions to the forestry field. Hughes manages family farms in Houston County which are certified as TREASURE Forests as well as Tree

Farms. He and his family were named the 1985 State Helene Mosley Memorial TREASURE Forest Award winner. In 1988 they were named Alabama's Tree Farmer of the Year, receiving the runner-up award for the Southern Region Tree Farmer of the Year in 1989. Hughes is very active in many forestry-related organizations and currently serves as chairman of the Alabama TREASURE Forest Landowners Association. ♣

1990: Year of Drought and Flooding

1990 may well be known as a year of extremes. Both severe drought and flooding occurred in Alabama. Landowners who had plantations damaged or destroyed as a direct result may be entitled to deductions on their 1990 income tax returns.

The Alabama Cooperative Extension Service has prepared a bulletin on the subject of "Income Tax Treatment of Flood and Drought Losses in Young Tree Plantations." To obtain a copy contact your county Extension agent. ♣



Hidden TREASURES

With this issue *Alabama's TREASURED Forests* introduces a new department which will be a regular part of the magazine. In place of the District Activities we have chosen to start a series of feature stories about TREASURE Forest landowners across the state. We hope you will enjoy reading about these "Hidden TREASURES."

A Cabin to TREASURE

by MADELINE W. HILDRETH,
Alabama Forestry
Commission, Brewton

Mr. Barnett King, a lifelong resident of Crenshaw County, is proud of his TREASURE Forest. He began buying land about 15 years ago. By implementing multiple-use management practices, he has taken thrown away land and utilized his 537-acre TREASURE Forest to its fullest, managing for timber and wildlife as well as personal enjoyment.

Since he loves the land and its resources, Mr. King wanted a special place where he could enjoy the benefits of nature. After his retirement, Mr. King and a friend decided to build a cabin. "I knew this was the perfect place for a cabin before I even bought the land," Mr. King says about the cabin site. The cabin is nestled on a hill between two ponds. The ponds were built and stocked while the cabin was only a dream.

The cabin looks like a part of the land. In fact, it *is* part of the land. Most of the lumber used to build the cabin came from the land. Although the cypress on the outside of the cabin was purchased, the walls and framing are homegrown. Each wall in the house utilizes a different species from the area. Ash, pine, yellow-poplar, maple, red oak and white oak were used on the walls. Even the doors were built with oak lumber cut from a nearby stand. Mr. King and his friend supplied almost all the labor used to build the cabin.

From the wooden swing (made, of course, from lumber off the property) on the cabin's screened porch, you feel a part of nature. Dogwoods, maples,

hickories and pines encompass the area. Duck boxes and bluebird houses scattered around the site make sure wildlife is welcome. Flowers, both wild and domestic, add to the surrounding beauty.

Some areas of Mr. King's property are managed primarily for timber. The area around the cabin, however, is dedicated as a showcase for nature and the beauty she offers. Aesthetics is part of this TREASURE, too! ♣

Christmas Tree Farming at Shalimar

by MELANIE CURRY, Information Specialist, Bay Minette

Every year people come from all over to buy their Christmas tree from Shalimar Tree Farm and TREASURE Forest.

Mack and Marie Vines own 204 acres in Baldwin County affectionally named Shalimar. Growing Christmas trees takes up most of their time. Each year approximately 600-700 trees are sold from their farm.

Christmas trees from Shalimar are known for their beauty. Mack doesn't spray his trees to make them green. He applies fertilizer and nitrate to the soil. After a good rain, the trees have a natural green color. Although growing Christmas trees is a tremendous job, he has enjoyed it over the years. With a laugh he will tell you "I'm probably the oldest Christmas tree farmer in the country."

Mack has stories about people and their Christmas trees. He has some customers that come every year and he has trees already in mind for them. He has learned that not only are the tall, full and green trees popular, the small somewhat unique trees are just what some people have in mind. Mack

knows that like other things, it can be said of Christmas trees that "beauty is in the eye of the beholder." The Vines' primary objective for their TREASURE Forest is timber.

When they purchased the land it was cutover and needed some work. During 1950-55 Mack hand planted over 160 acres in slash pine. He says now that he wishes he had planted longleaf, but back then everyone recommended slash.

In 1979 Hurricane Frederic caused some damage to his trees, but through some work, his forest remains productive.

Whenever it's time to harvest, Mack does most of it himself. He goes in and cuts the trees and drags them to the access road where the logger comes in and loads them. He feels this way he is sure things are done the way he wants them.

An active prescribe burning program is an important part of his management plan. His access roads serve as firebreaks. He keeps the roads clean with a converted horse drawn hay rake he pulls behind his tractor.

When he's not busy with his Christmas trees or his timber, he is taking care of his pecan trees. This year has not been the best for pecans, but in the past he has had great success with his eight acres of pecan trees.

Like all other TREASURE Forest landowners, Mack and Marie care for their land in a special way, making sure that what they do today will have a positive affect on tomorrow. ♣



Customers receive special attention at Shalimar.

“I Didn’t Plant Most of the Trees That I Cut”

by JOHN TYSON, Alabama Forestry Commission, Dadeville, and
BETH KENNEDY, Soil Conservation Service

I didn’t plant most of the trees that I have cut, and I won’t cut most of the trees that I have planted,” is the way Bill Thomas sums up his philosophy of forestry. Mr. Thomas, of Minnow Branch Farm in Chambers County, has about 1,000 acres of forestland in his TREASURE Forest. He has been managing the land for about 20 years, but it has been in the family since the 1940s. Mr. Thomas says that his father-in-law planted the first trees that were planted on the tract with a mule-drawn plow. He plowed out a furrow, dropped the seedlings in the row, and then made another pass with the plow to cover up the seedling’s roots. Things have changed a lot on Minnow Branch Farm since then, but Bill’s approach is still a “hands-on, do-what-works” kind of thing.

Thomas’ primary objective is timber production, with wildlife management running a close second. “I want to leave this place in better shape than it was when I started,” he says, “but we like to eat, too.” The timber stands on Minnow Branch Farm are living proof that you can improve forestland and get an income from it at the same time. Bill uses regular farm labor to do as much of his own harvesting as he can. He also sells some of his timber on the stump.

He has used single tree selection, shelterwood, and clearcutting as forms of harvesting different stands. He is a strong believer in using the cutting system that best suits the needs of the individual stands. He gets advice on his management practices from many sources. He feels that the Extension Service’s Farm Analysis Program has been especially helpful to him. This is a program that uses a computer to assist landowners in their decision making process. Bill also has visited the U.S. Forest Service’s Farm 40 experimental tracts at Crossett, Arkansas and thinks he learned a lot from the studies that have been carried out there during the last 50 years.

Besides harvest cuttings, Bill takes out timber in regular thinnings and for insect and disease control. He also has prescribe burns, site prep and chemical

tree release on his list of regular forest management activities, and he made a pine straw sale in 1989. He prefers to use natural regeneration, but plants trees when this seems to be the best way to establish or regenerate a stand.

Mr. Thomas believes that a good system of logging roads is essential to managing timberland. He has a small crawler tractor of his own that he uses to build and maintain the roads on his land. This makes getting logs out and men and equipment used for management work into the forestland much easier. He also says that you have to be able to block off access to these roads by unauthorized people. “If you don’t put a cable or gate across the end of the road,” Bill pointed out, “you’ll have people on your land that shouldn’t be there. They dump garbage, park, poach, or mudride.” Some of the woods roads are also seeded with wildlife food plants and double as food plots. He plants many acres each year in wheat, clover, rye, and corn for the native animals on his land.

About half of the forestland is leased to a hunting club who hunt deer on the tract. The lease specifies that only deer may be taken. Bill doesn’t think that he has quite enough turkeys yet to allow them to be hunted. The turkey population is increasing, however, and by next year or the year after he hopes to have a large enough turkey population so they can be hunted also.

He is also interested in fox squirrels and he believes that their numbers are increasing on his land. He puts up bluebird houses and protects song birds.

Thomas has liability insurance for the people who lease his land and says that he wouldn’t lease hunting rights without insurance. “There are just too many people around that will sue you now,” he explained.

Stream bank protection is not overlooked in the Minnow Branch Farm management system. Bill is concerned with maintaining the quality of the water on his land. When he sells timber on a written contract, there is a clause on stream protection in the contract. The non-leased part of the farm is hunted by Bill and his family and friends.

The pastures and hay fields that adjoin the Thomas woods also provide food and habitat for wildlife. The land is often used by various groups for tours and demonstrations. The FFA has held their county forestry judging contest on Minnow Branch Farm for the last five years.

Bill Thomas is a former SCS engineer. He is a member of the Alabama Forestry Association, the American Forestry Association, Chairman of the Coosa Valley RC&D Forestry Committee, a member of the Alabama Forestland Owners Association, the Alabama Wildlife Association, and Chairman of the Chambers County Soil Conservation Department. ♣



Bill Thomas beside a white oak in a stand of hardwoods preserved for wildlife.



Tree Stands: Are They Hazardous?

By JAMES W. THORNHILL, Hunter Education Coordinator,
Alabama Department of Conservation and Natural Resources

What's the first thing you think of when you hear someone say "tree stand"? The fall you had? The fall you almost had? Or the friend who fell?

Tree stands are elevated platforms used by more than 140,000 Alabama hunters each year. For the past five years, the number of tree stand accidents has increased. As Safety Education Coordinator for the Game and Fish Division, I'm concerned about what we can do to prevent these accidents, and I have strongly suggested to volunteer hunter education instructors that they stress the use of tree stand safety belts in their hunter safety classes.

There are basically three types of

tree stands—climbing, permanent and ladder. Regardless of which type you use, basic safety measures apply. Study these facts carefully:

1. Build your stand early and use good materials.
2. Inspect the stand frequently for loose nails or bolts.
3. Replace rotten or damaged wood.
4. Secure the stand to a good mature tree.
5. Clear the area around the stand of limbs and loose brush.

6. Make the stand visible—not too well hidden.

Even in a well-built stand, hunters must observe rules for their own safety.

1. Use a cord to move your gun or bow and arrow to and from the stand and the ground.
2. **Always** unload your gun.
3. Use a safety belt—a good one.
4. Use caution when moving about in your stand.
5. Watch the weather.
6. Alcohol and some prescription drugs cause drowsiness—don't try to climb tree stands while using them.

Last year more than 40 percent of reported hunting accidents in Alabama were self-inflicted. Fourteen of these were serious tree stand accidents. If you're one of the more than 140,000 Alabama hunters using elevated stands to hunt from but don't follow safety guidelines, you're a prime candidate for a tree stand accident.

Insure your safety and that of your hunting partners by insisting that all the rules of safe hunting are followed. Have a safe hunting season. Take that extra few minutes and **be safe**.

For more information on tree stands and hunter education, contact James Thornhill, Safety Education Coordinator, Alabama Game and Fish Division Annex, 913 South Perry Street, Montgomery, AL 36104; (205) 261-3623.



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