

Alabama's TREASURED Forests



Fall • 1985

STATE FORESTER'S MESSAGE

by C. W. MOODY



Hallelujah! With your help we were successful in increasing the budget of the Alabama Forestry Commission by some \$4 million. Based on our perception of the greatest need and the commitments we made in seeking this funding, these funds have been designated to improve fire protection and our forest tree nurseries. A big thanks for your input and support!

Hallelujah number two!

We just completed the second Alabama Forest Landowner Conference. It was an outstanding success—bigger and better than last year. We appreciate your support in this effort and look forward to many future such programs each one greater than the last.

The district winners for the Helene Mosely TREASURE Awards this year were Floyd Clemons, Jackson County; Vivian White, Clarke County; and the James Hughes family, Houston County. The Hughes family was selected as the state winner and top TREASURE Forest owner of the year. A big hat is off to James, his wife Sylvia, and their sons Paul and William for being named the state winner from among these three. Many other candidates were nominated and after much deliberations this family was chosen for their exemplary stewardship and attention to the total resource value on their property.

In the category of outstanding County Forestry Planning Committees, the winners were Marion County, Macon County and Monroe County, with Monroe County being named as the outstanding winner in the state. Having had the opportunity to view all nominees, I can say they won over stiff competition. Their achievements were numerous and impressive.

We continue to get compliments on the magazine, its contents and presentation of materials. Several were especially pleased with our hardwood issue. We continue to strive to meet the needs of forest landowners for information on how to grow and care for our TREASURE Forests. If we begin missing the mark, please let us know. Also, we appreciate your continuing comments when we are on target, as well as suggestions for topics which interest you— Alabama landowners!

Sincerely,

A handwritten signature in cursive script, reading "C. W. Moody". The signature is written in dark ink on a white background. The letters are fluid and connected, with a prominent loop at the end of the word "Moody".

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

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Cover Photo: Quail Study—Reproduction of a 12 x 18 watercolor by Tucker, Georgia, artist Jan Toko whose husband is employed by the U.S. Forest Service.

Alabama's TREASURED Forests

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Even though each owns his own segment, every aspect of the Hughes' TREASURE is given equal consideration because it's...

ALL IN THE FAMILY

by CYNTHIA K. PAGE, Editor

EVERYONE IN THE BANQUET HALL stood and applauded as the James Hughes family gathered around Ken Wallis, legal advisor to the governor, who presented them with the Governor's Conservation Achievement Award for Forestry. Admiring stares were cast upon them as accomplishments were read from the podium.

James and Sylvia Hughes proudly stood with their family—son William and his wife Clarice, son Paul and his fiancée Debbie. Each has a claim in the development of the Hughes' TREASURE Forest which sprawls across the Cottonwood community in Southeast Alabama. William at 25 and Paul at 21 have planted more trees on the ten parcels of property than many people twice their age have planted in a lifetime.

The First Pines Planted

The Hughes' interest in forest management first surfaced when Sylvia's father, William M. Lewis, Jr., deeded 173 acres to the four-member family in 1978. Almost a year later, they sought professional help to reforest 110 acres.

"Up until that time," says James, "about the only tree planting had been done back in the old Soil Bank days. Our agricultural land had always been well taken care of and was in pretty good shape. Erosion was at a minimum on the farm, but some of our low-grade pasture land, we felt, could be put to a better use. That's when we decided to seek professional help before we got ourselves into a mess."

Franklin McAliley, then the Alabama Forestry Commission (AFC) Houston County Supervisor, was the first to visit the Hughes farm. After Mr. Lewis' death in 1980, the Hughes sold their half interest in the family business, W. M. Lewis and Son, and gained control of nine other parcels of land ranging from 80 to 850 acres. The total holdings increased to almost 2500 acres of row cropland, pasture, and forests. McAliley advised the Hughes to hire a private consultant.

Down in Southeast Alabama, they say that a consultant can spot smoke miles away and that's exactly what happened. "We were out prescribe burning," says James, "and two consultants came up at the same time from opposite directions. I thought they worked for the same

business, but it turned out that they didn't! Shortly after that, Norm Kinney with Chartered Foresters out of Ozark got back in touch with us. I figured if he cared that much, maybe we ought to hire him. We've never regretted that move, cause any landowner can increase his returns through a consultant."

Kinney developed a ten-year plan for each of the separate parcels in 1981. Since then, he has handled more than a half dozen timber sales, often being a major factor in getting a higher price than otherwise would have been received. "He knows the timber market, and it's made a difference to us," according to the family.

A Family That Works Together

While the consultant has given technical advice, the family has been providing the elbow grease. William works full time on the property, and Paul, a full time finance college student, spends afternoons and weekends helping out. James, also, works full time now that he is retired from banking.

Fire lanes and concrete boundary markers were the first projects. "There's

not a single corner that's not marked," says James. "It's important that a landowner know his boundaries."

Prescribed burning has occurred annually in an accelerated effort to clean up some of the existing stands. Individual planted parcels were sectionalized so that future burns and timber sales could be rotated and also to reduce the losses in the event a wildfire should start.

Each family member has his own deeded property, but all of it gets equal attention. The second pine-planting project in 1981 covered 44 acres of land belonging to Bernice Lewis, Sylvia's mother.

Dry weather had reduced the survival rate of the original tree planting project and 40 acres were replanted in 1983. "We had bought a tree planter in Atlanta the year before," says William. "Now we plant trees for our friends and neighbors. I drive the tractor and Paul plants 'cause he's much better at spacing. It gives us a little extra income." Following the replanting, another 166 acres were planted the same year.

Site preparation has been accomplished using chemicals and a drum chopper. As an experiment, the family used Timberland Harvesters to chip a small portion of nonmarketable fuelwood on a 72-acre plot planted in 1984. The chipper moved out on Wednesday and the plot was back in production on Friday! Stumps had to be sprayed, but the project was quite successful!

The family purchased another 78 acres inside the city limits which joined the largest of the nine plots. Using a chemical applicator which the family purchased and had made to their specifications, they had the plot growing trees within eleven months.

The family is always looking ahead and plans all work at least two winters in advance. All decisions have to be unanimous or they do not get approval. James says, "I was outvoted on planting pecan trees and it's good that I was because we weren't prepared. Now an irrigation well has been dug and we'll plant pecan trees next winter."

New and innovative techniques are tried such as chemical application with a helicopter. Also, William's wife, Clarice, had always wanted cattle, so 15 cows now graze in a three-year-old pine plantation.

In all, the Hughes have planted 635 acres in pines, 3 acres of poplar, and 3 of cypress. With some cost-share assistance, they have an average investment of \$70.64 per acre including the cost of permanent fire lanes.

To protect this investment, there are over 30 miles of perimeter fire lanes.

Insect-infested trees are removed promptly and burned. The family also protects one another. Following a prescribed burn which almost trapped William, they purchased two-way radios as a safety precaution.

Good Sense Makes a Strong Business

Excellent records are maintained on all activities. Working out of an office set up at home, all income and expenditures are carefully calculated. "Sylvia started buying cotton in her father's gin when she was thirteen. By the time she graduated from high school at age 16, she already had three years experience!" beams James. Her business ability, James' banking background, and the boys' naturally inherited traits all add up to success.

Slides provide a pictorial account of all

activities—even taking time to pet the dog! "We don't want to get so wrapped up in things that we forget the simple pleasures in life," says James.

One very important consideration has been estate planning since the two boys will someday inherit the land. "We've seen people who had to sell everything just to pay the taxes," say Sylvia and James, "and we don't want William and Paul to have to do the same thing. Maybe the steps we take now will keep that from happening."

"We take advantage of all we can—agencies, cost sharing, any other resource we can find—to help us to develop this land." The family attends workshops, symposiums, and landowner conferences. They also read everything they can get their hands on and ask questions. Needless to say, their "business" continues to grow!



Clarice, William, and Paul look over their cattle-timber operation.



William and Paul now plant with tree planter.



Consultant forester Norm Kinney gives valuable advice to the Hughes family.



One of the many watering holes which supply both cattle and wildlife.

Stewardship of All Resource Values

Often we see a farmer whose agricultural land is in tip-top shape or a timber grower whose forest land is at maximum production. The Hughes family feels that every acre is important. According to James, "Every acre we've got is going to work or we're going to know why it isn't."

Much had already been done in the way of soil conservation and the family has followed the same course. Agricultural lands are terraced where needed, spillways surround fields, and waterways are seeded with grass. On lands leased to other farmers, an agreement is signed to continue these practices. One leasing farmer simply could not afford to plant a winter cover crop, so the Hughes family agreed to plant a winter pasture to graze their cattle.

Drainage areas on all the land receive careful consideration. A one-half mile waterway was constructed, seeded, and then planted in pines. Other drainage ditches were widened, a move which also discouraged dam-building by beavers.

The Hughes also have an endangered pitcher plant colony which requires protection. Periodic burns keep down the competition and increase the chance that the colony will survive and spread.

Besides all this, there is the wildlife to consider. Since there is not a flowing body of water on any of the plots, water holes have been dug up to fifteen feet deep. Firelanes are disced and seeded with rye in winter. Not only does this prevent erosion,

but also provides a food source for the wildlife along with planted bicolor plots. The edge effect around the planted pine plantations is excellent for most birds. Selected hardwoods have also been left in some of the planted pines to supply wildlife mast. "Besides," says James, "it takes such a long time to grow a big oak. It just seems a shame to cut it."

Education and Recreation

The Hughes share their TREASURE with others and they also care about the future of forestry in this state. After having a catfish pond dug for fishing and for water, they decided to plant all of the pines native to Alabama around it for use as an educational arboretum.

Another plot was leased to an adjacent black community church for one dollar to use as a recreational area. All the family asked was that they give them time to burn it and get it in better shape for their use.

The Alabama Forestry Commission has progeny test sites and has also used the farm for forestry field days. Additionally, a house was given to the local volunteer fire department to use in structural fire training, and another was given to a church for a place to worship.

Hughes interest has generated a wave of enthusiasm in an agricultural dominated community. The Houston County Forestry Association was formed in 1982 and about 40 people regularly attend the meetings! Forestry seems to be up and coming in the area!

Where Does It Lead?

Reforestation efforts have produced astounding results! Just three years (1982) after acquiring those first 173 acres, the Hughes had a TREASURE Forest. Then in 1984, William and Paul were recognized as members of the American Tree Farm System. This year produced the Governor's Conservation Achievement Award and also the district Helene Mosley Award. And what greater recognition could there be than having your friends and neighbors call you or drop by to ask for your help and advice? The only honor left is perhaps winning the State Helene Mosley award. Congratulations to the Hughes family on their outstanding accomplishment! ♣

Cynthia K. Page, Editor of *Alabama's TREASURED Forests* magazine recently received the Conservation Educator of the Year award from the Governor's Conservation Achievement Program. Mrs. Page was noted for her influence, accomplishments, and demonstrated ability in the area of conservation education; her dedication to educating the public on the importance of developing, conserving, and protecting our forests; and for her role as editor of this publication.

The program, conducted by the Alabama Wildlife Federation in cooperation with Sears-Roebuck and Company, recognizes eleven individuals each year for outstanding accomplishments in the area of conservation.

When considering income from forestland, timber is not the only source

Managing Wildlife for Income

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

WILDLIFE IS VALUABLE from many standpoints—aesthetic, recreational, scientific, and economic. Wildlife in your forest is valuable from these standpoints, also, but we will discuss only the economic value.

Actually, the economic value of your wildlife is just as real and may be even more important to you as a landowner than the other values they possess. Economic value is not as obvious, however, to most landowners, so we will mention a few revealing economic facts. This discussion will be helpful to you, especially if you have a good crop of wildlife and are looking for ways to supplement your income.

Spending for Supplies

The Alabama Department of Conservation and Natural Resources makes a *Game Kill Survey* every year soon after the close of hunting season. In that survey, the department determines with some degree of accuracy how many people hunt quail in Alabama every year, how many hunt deer, and how many hunt the other game species in the state. The department also determines how often these hunters go hunting every year. The survey made in 1984, for example, reveals that Alabama had about 44,365 quail hunters during the 1983-84 season and that they went quail



hunting about 342,679 times or about 8 hunting trips for each quail hunter.

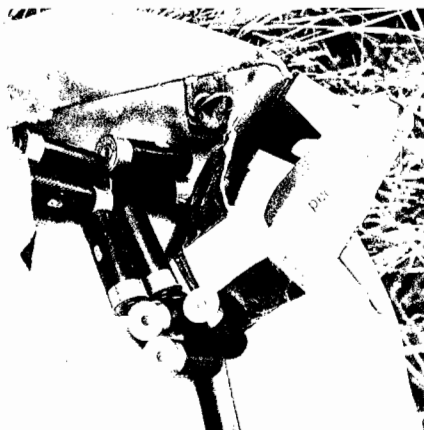
Every five years, the U.S. Fish and Wildlife Service makes a *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. In that survey, the Fish and Wildlife Service determines the average amount of money spent per hunting trip by hunters in each state in pursuit of the various game species.

The information box on this page is from the *Game Kill Survey (1983-84)* and the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*

(Alabama-1980). The information concerns only four groups of hunters—deer, small game (dove, quail, rabbits, squirrels), turkey and waterfowl.

That's a staggering total of \$11,098,758 spent in Alabama in one year by only four groups of hunters. The total is probably less than was actually spent by the four groups because the amounts spent per day are from the Fish and Wildlife Service's 1980 survey in Alabama. There was, of course, some inflation in prices between 1980 and 1983-84. Remember now that the impressive total represents only the amount spent by

Species Hunted	Number of Hunters	Hunting Trips	Animals Harvested	Expenditures per Trip	Total Expenditures
Deer	196,706	2,658,670	192,231	\$ 20.97	\$ 557,602.49
Small Game	314,934	2,022,300	6,489,278	16.16	326,807.01
Turkey	49,783	408,771	45,723	34.52	141,119.87
Waterfowl	20,393	132,163	171,832	125.10	165,346.44
Total					\$11,908,758.08



four groups of hunters. It doesn't include money spent by night hunters nor by hunters of less popular species such as woodcock and common snipe.

Let's look at only one item for which dove hunters spend money—shotgun shells. According to the *Game Kill Survey*, hunters in Alabama harvest about 3.5 million doves every year, and they have been taking about that many every year for a long, long time. According to *The Mourning Dove Study*, a 4-year research project by the Alabama Department of Conservation and Natural Resources, hunters in the state expend about six shells for each dove brought to bag. Therefore, assuming a cost of \$5 per box of 25 shells, hunters have spent a whopping \$84 million for 420 million shells to harvest 70 million doves during the past 20 years! Shotgun shells account for only one of the many items for which dove hunters spend money.

How much do you suppose hunters have spent during the past 20 years for four-wheel drive vehicles primarily for use in hunting deer in Alabama? That's right, a cotton basket full—a big cotton basket full! Four-wheel drive vehicles are, of course, only one of the many items for which deer hunters spend money, and deer hunters are only one of the many groups of hunters.

Besides ammunition and four-wheel drive vehicles, hunters spend a good bit of money every year for sporting arms, other hunting equipment, supplies, dog food, gasoline, automobiles, other vehicles, tires, veterinary and taxidermy services, food and lodging, and countless other goods and services. Every time a hunter buys a bag of dog food, a pair of boots, a cup of coffee, or any other good or service connected with this sport, somebody makes a profit. In fact, every time a hunter goes hunting, nearly everybody connected with his hunting makes a profit, except, in far too many instances, the landowner—the person who literally holds the key to his hunting.

Fortunately, the situation in Alabama is changing rapidly, and has been during the last 10 years. Here's a quick look at the situation in the state today.

Pay Hunting

In a few of Alabama's heavily forested counties such as Choctaw, Clarke, Coosa, and Washington, wildlife is now contributing more money to the local economy than are row crops. In hundreds of communities in nearly all other counties, deer hunting alone is adding more money to the economy than are row crops. That's different, of course, from the situation in many of those communities a few decades ago.



Wildlife, including that on your land, is indeed valuable from an economic standpoint as well as from aesthetic, recreational, and other standpoints. Far too many landowners in Alabama seem to be unaware of this contribution. Maybe it's because they have never received income from their wildlife. Are you among that group? If so, you may be overlooking a real opportunity to supplement your income by pay hunting.

Every year more landowners are using wildlife to supplement their incomes. Why? We don't know. Maybe it's because of the recession. At any rate, pay hunting has become a fairly common practice in parts of the state. Here are a few examples of how landowners in Alabama are using wildlife to supplement their incomes.

The owners of a tract of land in West Alabama plant crops in a 20-acre field and manage the crops specifically to attract doves for hunting. They provide hunters with lodging for one night. They also provide dinner, breakfast, lunch, and one afternoon of dove shooting. For that, the hunters pay \$150 apiece. The landowner can safely accommodate up to 20 dove shooters at a time.

In 1984, a farmer in East-Central Alabama sold dove hunting rights on a 20-acre field for only one Saturday afternoon to a group of hunters from Birmingham. He charged the group \$2500 for shooting rights on his 20-acre field. That's right, \$2500 for shooting rights in a 20-acre field for only one Saturday afternoon! The farmer had, of course, planted crops in the field and managed them to attract doves, and he was providing shooting for city hunters who were eager to go hunting but had no place to go.

The owner of a fairly large farm in West

Alabama plants food plots for turkey and deer. He has built blinds in or near the food plots. Daily permits to hunt are \$100 apiece, and hunting on his land is by reservation only. The farmer transports the hunters from a nearby motel after they have eaten breakfast. He delivers them to the blinds and delivers them back to the motel after sundown. According to the farmer, he nets more money each year from his pay-hunting enterprise than from his cattle or row crops.

The price of a daily permit to hunt deer and turkey in West Alabama is \$75 to \$150, depending on wildlife populations, location, roads, facilities to accommodate hunters, and other factors. Hunting rights in the state lease for \$.50 to \$10 or \$15 per acre depending on size of tract, location, wildlife populations, accommodations for hunters, and other factors.

A benefit to the landowner from leasing hunting rights—and it's often overlooked—is more control of trespass on his land. The lessee normally posts the land and patrols the area to help discourage poachers. Sometimes the lessee helps suppress wildfires, also.

Some landowners who lease hunting rights do little or no habitat improvement for wildlife. Every year, however, more landowners are planting food plots and doing other things to benefit wildlife on their leased lands. They are doing that to justify higher lease prices. It's good business.

You may need information on planting food plots and doing other things to help increase your wildlife populations. If so, you can obtain that information from the Soil Conservation Service, the Alabama Forestry Commission, the Alabama Department of Conservation and Natural Resources, your County Extension office, private consultants, and others.

Pay hunting doesn't necessarily prevent you from hunting on your lands as you have always done. Many landowners retain hunting privileges for themselves and their families.

Most people find nothing basically or morally wrong with your charging a reasonable fee for hunting on your land. You should be no more obligated to produce free wildlife for the hunter's enjoyment than you are to grow free vegetables or a free steer for his home freezer. The principle is the same—only the products are different.

Fortunately, most hunters in Alabama realize that you and other landowners hold the key to their hunting, and they are willing to pay a reasonable fee for hunting on your land. At least, the *ethical* hunters are willing to pay for their enjoyment. After all, they are the only ones you want hunting on your land, anyway. ♣

Where Did Those BEETLES Come From?



by JIM HYLAND, Chief, Pest Management Section

THE QUESTION continuously comes up as to the origin of the southern pine beetle. Just where did the beetle come from? Did Hurricane Camile blow them here? Were they here all along and no one cared? Who imported them to Alabama?

Southern pine beetles are native to the United States and to the South. Even prior to the time the southern pine beetle was first described by Zimmerman in 1868, pine mortality was described by early writers which may be attributed to the beetle. The first outbreak on record was reported by several writers in the late 1700's and early 1800's. Since it was reported in east Tennessee, coastal plain North Carolina, South Carolina, Georgia, and piedmont North Carolina, it was probably southwide.

The Moravians, who immigrated from Austria, settled in the central piedmont of North Carolina around Winston-Salem. They were extremely interested in their forests and enacted forest management regulations and appointed foresters for their settlement as early as the 1750's. In October 1796, their records report the "loss of many pines near Hope." Since this area has frequently been the center of southern pine beetle activity in North Carolina during the last several decades,

the dying trees probably were a result of beetle attack. Also significant is that the report was entered in October, one of the months in which beetle damage is most noticeable in North Carolina.

The Moravian report was followed by several reports of damage in the early 1800's that was most certainly southern pine beetle. F. Andrew Michaux reported dying longleaf pines in the coastal plain of Georgia and the Carolinas and yellow pine mortality in east Tennessee. His description leaves no doubt as to the cause of mortality.

"...From the diversified uses of the wood, an idea may be formed of the consumption: to which may be added a waste of a more disastrous kind which seems impossible to arrest. Since the year 1804, extensive tracts of the finest pines are seen covered only with dead trees. In 1802, I remarked a similar phenomenon among the yellow pines in east Tennessee. This catastrophe is also felt among the Scotch firs which populate the forests of the north of Europe and is wrought by swarms of small insects which lodge in different parts of the stock, insinuate themselves under the bark, penetrate into the body of the tree and cause it to perish in the course of a year."

The severity of the outbreak which was the subject of Michaux's report is further documented by contemporary South Carolina writers. The Charleston newspaper on January 7, 1804, reports: *"It is now upwards of two years since it was observed that an unusual disease had made its appearance amongst the pine trees in the northern and eastern parts of this state... in many places there are thousands of acres where nine-tenths of the best trees are killed. The cause of the evil has been carefully sought after and found to proceed from the small black winged bug... No attempt has yet been made to remedy the evil which if it continues, threatens to destroy the most valuable timber this country possesses. A gentleman lately from the county asserts that on a tract of two thousand acres of pine land which he owns on the Sampit River near Georgetown at least ninety trees in every hundred have been destroyed by this pernicious insect..."*

John Drayton of Charleston in a letter of the American Philosophical Society dated October 9, 1803, reported the loss of hundreds of acres of pines on his plantation on the Santee River. His analysis of the problem shows some knowledge of the life cycle of the beetle.

He reports, "...this mischief is affected by a bug which flying from tree to tree perforates a hole in the bark to the sap and lays an egg which in a little time originates a worm which feeding on the sap immediately destroys the life of the tree.

A letter from General Charles C. Pinckney read to the American Philosophical Society on October 5, 1804, reported the information of a committee by the South Carolina Agricultural Society to investigate the cause of the problem. No final report of the committee has been located, but this is probably the first attempt at research on the southern pine beetle. He also states, "We are very uncertain whether the worms you allude to are the cause or the effect of the death of the trees..." This astute observation is still debated today.

Pinckney also commented on the strength and useability of recently killed timber and advocated its use. He predicted a short term market glut followed by shortages. In his letter, Pinckney illustrated the severity of the problem by reporting the loss of 5,000 acres of 7,000 acres on a plantation 26 miles north of Charleston.

Scattered references indicate that a number of southern pine beetle outbreaks occurred during the 1800's. Peters reported dying trees in three counties of southern Pennsylvania in 1914. Wilson reported an outbreak in 1831, and "worms" were reported killing "much of our best pine timber last summer" in Orange County North Carolina in 1834. Mac Andrews reports an outbreak in 1842. The next serious series of outbreaks began in the late 1800's.

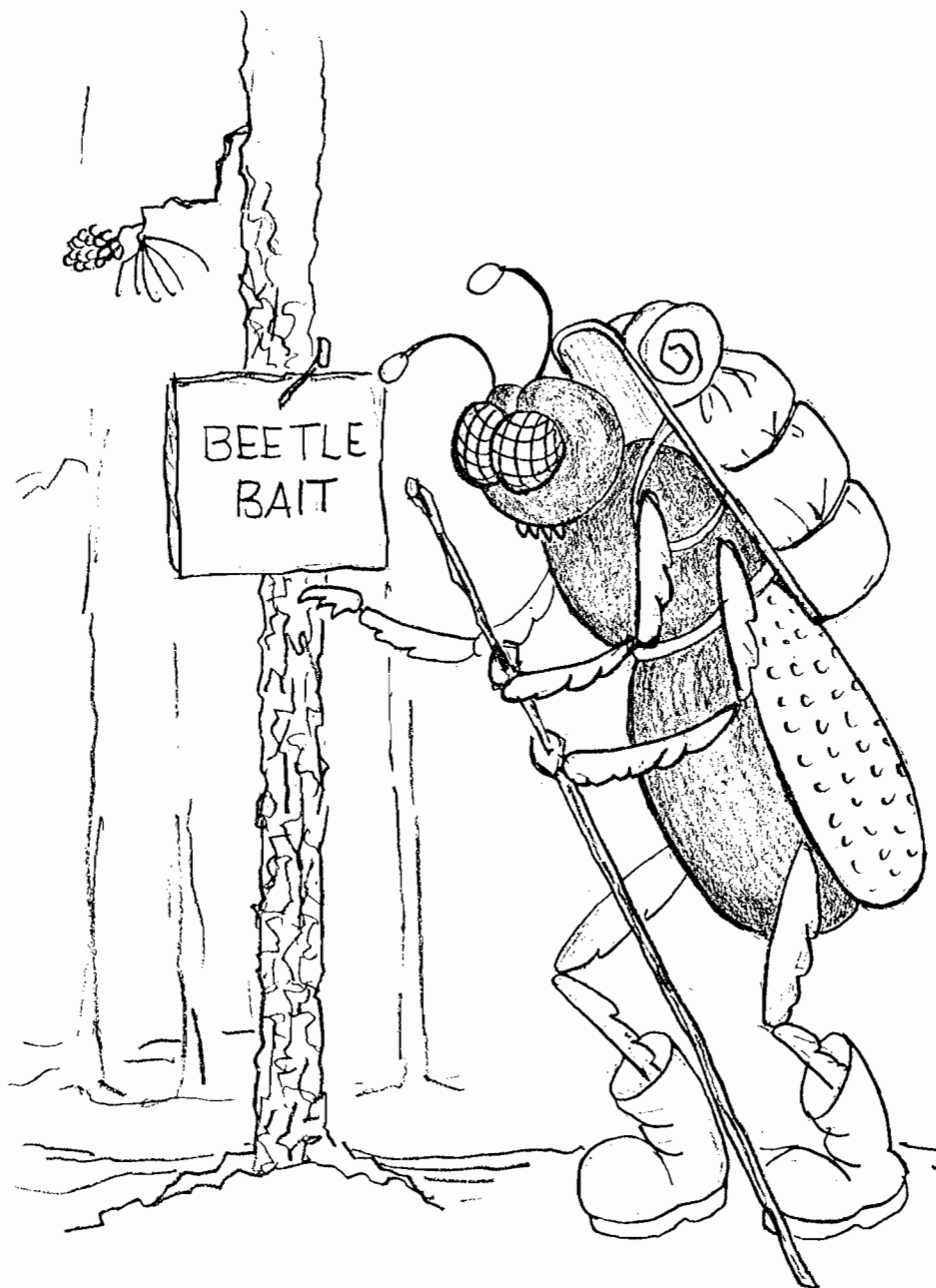
Beginning in the early 1960's, improved survey techniques and expanded pest control organizations allowed improved survey and damage data collection. This allowed for better survey to find the beetles. This boils down to not where did they come from, but where are they hiding? Up-to-date survey techniques and more frequent flights have discovered in which stands the beetles can be found.

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The Alabama Forestry Commission— Your State Tax Dollars At Work

By DON BURDETTE, Forester, Information and Education

PRIVATE FOREST LANDOWNERS can increase the quantity and quality of benefits from their forests by utilizing forest management services available from the Alabama Forestry Commission. The majority of these services are free for the asking at almost anytime of the year depending on the availability of the personnel which provides them.

The Treasure Forest Plan

The most comprehensive service offered to landowners by the Alabama Forestry Commission is the formulation of a TREASURE Forest Plan. The plan helps to facilitate better forest management by scheduling activities that will improve forest goods and services.

The plan is based on the landowner's personal objectives for owning the land—whether they include timber production, outdoor recreation, wildlife habitat improvement, erosion control, water quality protection, aesthetic appeal or a combination of these and other uses. Data gathered during a cruise of the property is analyzed by a forester, using a computer. The forester takes into account the landowner's goals and financial condition as well as current market conditions to produce the plan.

The resulting plan contains a map of the landowner's property showing the forestland divided into management compartments as well as both present and proposed roads, trails, firebreaks, ponds, fields, structures and other improvements.

The heart of the plan is an easy to read schedule of recommended treatments that will provide the desires of the landowner according to his own priorities. Such recommendations may include timber



harvests, site preparation, reforestation, hardwood control, prescribed burning, food plot establishment, road construction and others. Estimates of costs for implementing recommended practices and income for timber sales are shown to give an idea of the cash flow over the period of time covered by the plan.

An appendix at the end of the plan contains an inventory of timber by species and size present in each stand during the cruise. "How-to" information about all of the recommendations and other subjects of interest to the landowner are also included.

Prescribed Burning and Fireline Plowing

Once a management plan has been completed and delivered to the landowner, the Alabama Forestry Commission's

foresters and rangers can help in other ways as the landowner proceeds through each step.

Of the many services provided, two are for a fee—plowing firelines and prescribed burning. Providing they are not hindered by wildfires or other restricting conditions, county supervisors are authorized to use their crawler tractors to plow firelines for private landowners using the following rates:

Small Tractor (JD 450 and equivalent)	\$17.00/hour
Large Tractor (JD 450 and equivalent)	22.00/hour
Small Tractor Transport	.45/mile
Large Tractor Transport	.50/mile
Tractor Operator	7.10/hour
Helper	5.10/hour

TABLE I

Size of Tract	Initial Burn	Repeat Burn or "Light Loading"
Less than 40 acres	\$4.50 per acre to maximum of \$180.00	\$4.00 per acre to maximum of \$140.00
40-100 acres	\$4.25 per acre to maximum of \$375.00	\$3.50 per acre to maximum of \$275.00
Over 100 acres	\$3.75 per acre	\$2.75 per acre

There may not be a choice as to size of tractor to use if lines are to be plowed in a county which only has one tractor. If there is a choice, the smaller tractor would probably be effective in open woodland and the larger tractor would be best in thick or cutover woodland. A minimum charge for one hour of plowing time is required. The fee covering the approximate cost of transporting and operating the heavy equipment goes back into the county budget for fire protection. Requests for this service should be made well in advance of the time to burn to give the plowing crews ample opportunities to do the work.

Alabama Forestry Commission employees are authorized to carry out prescribed burning on lands that have a *written forest management plan* that recommends prescribed fire as a routine practice on such lands. A detailed *prescribed burning plan* must also be prepared by a Commission forester or ranger who has been certified as a burning prescriptionist before any tract can be burned. A maximum of 160 acres of prescribed burning is allowed per landowner per year. Individual landowners managing their lands under the TREASURE Forest Multiple Use Concept, the Forestry Incentives Program (FIP), or Agricultural Conservation Practice (ACP) are given priority.

Charges will include fireline plowing rates plus per acre rates where both services are offered. If the landowner has already established the control lines then he is only charged the per acre charge for the prescribed burning. See **TABLE I**

An *initial burn* means the tract has not been burned since the stand was established. *Repeat burn* refers to a stand that already had one or more prescribed burns within the last five years and *light loading* means fuels have not built up so heavily that control of the burn would be difficult.

Requests for prescribed burning should also be made early to allow the fire crews ample time to plan and prepare the burn.

Other Services

Alabama Forestry Commission personnel provide other services which are necessary for proper forest management. For example, they can help landowners locate reputable timber buyers and vendors who provide such services as site preparation, prescribed burning, tree planting, herbicide application, boundary line locating and marking, road construction and others. The usual procedure is to submit the names of at least two or three vendors which provide the same service. The landowner is then encouraged to contact each vendor, discuss his business with each and select the one which he feels will do the most satisfactory job.

For those who wish to plant a particular site themselves, Alabama Forestry Commission foresters can help to select the correct species and approximate number of trees to order. When planting season arrives, the Commission foresters can show the landowners how to plant the trees correctly to assure a high survival rate.

In some counties the county supervisor is able to make periodic trips to the nursery to pick up several seedling orders at one time. The orders are then brought back to a single location in the county to be picked up by the owners. The charge for this service is an additional \$2.00 per thousand trees above the cost of the seedlings themselves. If you would like your seedlings brought from the nursery, contact the county supervisor before you order to determine if he is able to provide this service.

The Alabama Forestry Commission is well known for its vigilance in regard to wildfires. Commission personnel are equally dedicated to reducing losses of timber to forest insects and diseases and to problem populations of beavers. The Commission is constantly on the lookout for southern pine beetles and promptly reports possible beetle spots to the landowner. Southern pine beetle and annosus root rot hazard ratings are

automatically made during reconnaissance cruises for TREASURE Forest Plans. Management recommendations aimed at reducing the threat to timber stands from these two pests are incorporated into the plan when appropriate.

Most often, the only way that Commission employees can help landowners with their forest pest problems is when the problems are brought to their attention. Then they can evaluate symptoms and recommend appropriate treatments if the malady is fairly routine. For difficult cases, the state entomologist or pathologist may be called into an area to diagnose a problem and prescribe a suitable cure.

Some timber sale assistance is available in the form of either helping the landowner to locate a consultant who will execute every aspect of the sale or the landowner can be taught some of the basics of selling his own timber. Whenever a landowner requests assistance in selling his own timber, a Commission forester may demonstrate how to mark the trees and determine the volume of the timber. The landowner will then be assisted in drawing up a contract to cover the terms of the sale. Tips are offered on how to market the timber to receive the highest price under the terms of the contract. The Alabama Forestry Commission recommends that a landowner hire a consultant forester when selling timber.

How To Use The Services

Once you've decided to utilize the Alabama Forestry Commission's advice or assistance, the first step is to contact the county supervisor at the county office. His number is usually listed in the yellow pages of the phone book under the heading of *GOVERNMENT OFFICES—STATE*. The county supervisor will be able to provide most of the services provided the Alabama Forestry Commission. If for some reason, he or his crew is not able to fill your request within a reasonable amount of time he may refer your request to be handled by a member of the district staff. The foresters and rangers of the district office are responsible for assisting the county staff in a five to seven county area. In cases where a specialist is needed to satisfy a request, personnel from Montgomery may be called upon to assist the district and county offices.

Don't let the complexity of forest management stop you from managing your woodlands for all the uses to which they are suited. You have friends with the Alabama Forestry Commission who can help you realize the full potential of your forest *one step at a time!*



Plan Prescribed Burning Now

by HUGH MOBLEY, Chief, Fire Control

IF YOU PLAN to do any prescribed burning this winter—*Now* is the time to start getting ready. This is especially true if you plan to burn in an existing stand (understory burning). These type burns are critical because very few days occur when all the weather conditions are within a range that will keep the fire from being so hot that it damages the overstory stand, yet hot enough for the fire to carry and consume the litter and debris that you need to eliminate.

Do your planning and preparation before the time you plan to burn and be ready when that day arrives. If you need assistance in planning or conducting your burn, contact the local Forestry Commission office or call the number inside the front page of your telephone directory.

Some things to consider in planning and conducting successful prescribed burns are as follows:

1. *Landowners' objectives.*
2. *What is the fire to do to help meet these objectives (purpose of burn)?*
3. *Can it be confined to the area needing to be burned?*
4. *What time of year and day is best?*
5. *Help needed in making plans or preparing fire lines.*
6. *Kind and amount of fuel.*
7. *Height to bottom of overstory crown.*
8. *Intensity of fire needed.*

9. *Location of nearby areas sensitive to smoke.*
10. *Changes needed to keep the smoke from impacting these smoke sensitive areas.*
11. *Firing techniques to use.*
12. *Type of weather needed.*
13. *Type and location of control lines.*
14. *Written plan and map.*
15. *Other advance preparation.*
16. *Equipment and personnel needed to do the burning.*
17. *Neighbors who need to be notified.*

18. *Burning permit secured.*
19. *Latest weather forecast.*
20. *Test fire.*

Once all of these considerations are examined and your plan is made, you are ready to burn! Your local Alabama Forestry Commission office can provide further information on this procedure.

Above all, remember that *any* fire is potentially dangerous. Safety precautions are a necessity. Exercise caution and your burn will be an effective forest management tool! ♣



LANDO

LEGISLATIVE
ALERT

NATIONAL



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

CONSERVATION PROVISIONS of the 1985 Farm Bill is the dominant legislative issue of interest to Alabama forest landowners. The House and Senate Agriculture Committees have been engaged in protracted debate on the farm legislation, extending to Congress' August recess. The debate centers on the price and production levels for the government's support program for agriculture commodities.

One provision, however, has apparently been resolved within the Committees—the establishment of a new conservation program. This program would consist of a “sodbuster” requirement that would deny USDA payments to farmers who begin tilling lands that have not been in

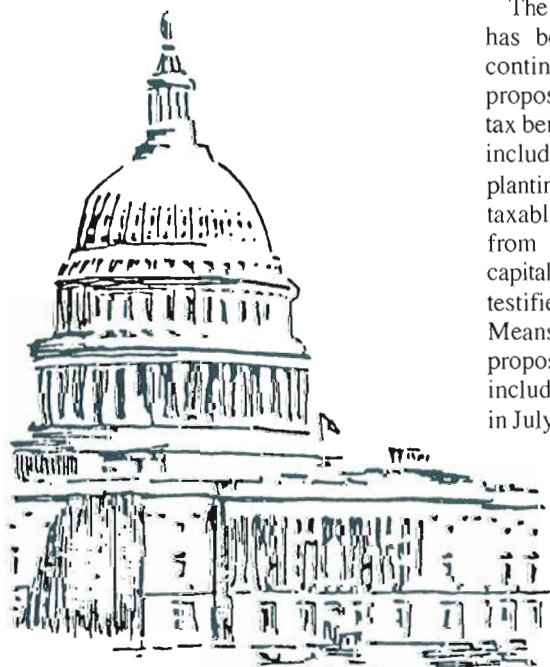
production in previous years, and a “conservation reserve” program to retire highly erodible croplands and place them in a permanent vegetative cover. The Committee's actions have not been made available yet, but it is generally understood that the Conservation Reserve Program would consist of a 20 to 30 million acre program of eligible lands on which the Federal Government would pay the landowner an annual rental fee and share the cost of establishing the permanent vegetative cover, including pasture, permanent grass or legumes, and trees. The Committees were to resume their work on the Farm Bill in early September. Passage of the bill would be in the late fall.

The Administration's tax reform proposal has been the subject of extensive and continuing Congressional hearings. The proposal calls for the removal of certain tax benefits available to forest landowners, including those that allow the cost of tree planting to be deducted from a landowner's taxable income and the income received from timber harvests to be treated as a capital gain. The Department of Agriculture testified before the House Ways and Means Committee in June describing the proposal's effect on agricultural interests, including forest landowners. In hearings in July, this Committee received testimony

from other nongovernment witnesses, some of which expressed strong opposition to the timber tax provisions. Tax reform is a high priority concern to both the Administration and Congress. With the press of other significant legislative issues, however, it is unlikely that any legislation will move through Congress until late this year.

The Fiscal Year 1986 Federal budget passed the House on July 31 and the Senate action will occur in September. Appropriations for Federal programs are closely tied to Congress' efforts to reduce the Federal budget deficit and as such have received intense scrutiny by the Appropriations Committee. Those programs that provide funding for cooperative programs with the State forestry agencies will be affected by the need to reduce Federal spending. While the Administration's budget calls for the elimination of financial assistance to states for forestry, the House has restored most of the funds for these programs to last year's level. Funds for the Forestry Incentives Program have likewise been restored to the 1985 level.

Congress has several major legislative issues to resolve before adjourning in the late fall. It will be a busy period on Capitol Hill.



WINNERS

STATE

by FRANK SEGO, LEGISLATIVE LIAISON, ALABAMA FORESTRY COMMISSION

ALABAMA VOTERS WILL face another major election year in 1986. Before all the candidates hit the stump, however, there must come another regular session of the legislature.

Since 1986 is an election year, the regular session will, by law, begin on the second Tuesday of January. Act 79-22, adopted in the first special session of 1979, reads as follows:

"The legislature shall convene on the second Tuesday in January next succeeding its election in organizational session and shall remain in session for not longer than ten consecutive calendar days. Commencing in the year 1979 the annual sessions of the Alabama legislature shall commence on the third Tuesday in April of the first year of the term of office of the legislators, on the first Tuesday of February of the second and third years of such term and on the second Tuesday in January of the fourth year of such term. Such annual session shall not continue longer than 30 legislative days and 105 calendar days."

What to Expect

Now that we know when to expect them to return to Capitol Hill, what can we expect in the way of forestry legislation?

One bill certain to be prefiled deals with the creation and establishment of a forest industry development board. Forestry leaders throughout the state believe that such a board would best provide the

impetus and leadership necessary for full realization of the potential of this vital industry.

A similar bill was introduced in the 1985 regular session by Senator Perry Hand of Gulf Shores. It was cosponsored by 20 of his colleagues. After passage in the Senate, it moved to the Special Order Calendar in the House and was six bills away from final consideration when midnight came on the last legislative day and all proceedings ended.

The bill would focus attention on a long-term industrial development plan concerning the forest product market. Particular emphasis would be placed on a wood energy marketing philosophy. The board would be charged with the responsibility of coordinating wood energy activities through appropriate agencies.

One of the most notable developments in this area came about during the summer when the Alabama Legislative Forestry Study Committee directed a major thrust toward the use of wood to generate energy either in the form of heating, cooling and/or electricity.

Wood Energy for the Capitol?

In a letter to Governor Wallace on July 16, Committee Chairman Representative Jimmy Warren of Castleberry pointed to wood energy developments by Scott Paper Company, Alabama River Woodlands, and the University of Montevallo. The

letter appealed to the governor to consider the use of wood as an energy source for the entire Capitol Complex. A request was made for the governor to designate members of his administration to employ necessary consultants to evaluate the possibility and make recommendations to him regarding further steps that might be taken.

It was emphasized that the use of wood for energy could not only potentially achieve cost savings for the state, but it could also provide markets for currently unused materials from the forest, thus providing income to forest landowners and jobs for the harvesting and transportation of the forest biomass.

The governor was reported to be vitally interested in this concept and was expected to act favorably on the Study Committee's request.

Editor's Note

State Forester C. W. Moody and this columnist toured the state during the summer expressing their personal appreciation to lawmakers who worked to get vital legislation passed for the Forestry Commission in the 1985 regular session. A great big "THANK YOU" also goes to all landowners and others who made contacts with their legislators in an effort to gain support for this successful legislation.

You Can Have Your TREASURE And Tree Farm Too!

by RONALD E. TRUE, State Tree Farm Chairman

ALABAMA IS BLESSED with an abundance of renewable natural resources such as water and timber. Her 21,658,800 acres of timberland rank as our nation's fourth largest forested state. With 66% of the state forested, it is no wonder that forestry is our number one economic activity.

Alabama's bountiful supply of trees extends from the majestic longleaf pine forests along the coast to the noble stands of cove hardwoods in the Tennessee Valley. Her mild climate, ample rainfall

and fertile soils make Alabama one of the world's fastest timber growing regions.

The October 1984 Department of Commerce report showed over 75,000 people derived their living from just the manufacturing phase of forestry alone. Other reports suggest that another 10,000 plus people are employed in other forestry related businesses, ranking it as the state's second largest employer. With such impressive statistics, one may falsely conclude that forestry can sit back, relax and enjoy the good times.

Major Problems

On the horizon, forestry's role as the state's most important crop is in serious trouble. Please consider these major obstacles facing forestry in our state. From the period 1972 to 1982, (1) Alabama's annual growth of timber declined from 55 cubic feet to 45 cubic feet per acre, (2) mortality increased from 4.9 cubic feet/acre annually to 9.5 cubic feet/acre, (3) and timber removals increased from an annual average of 34.7 cubic feet/acre to 39.5 cubic feet/acre. This information was derived from the U.S. Forest Service surveys of Alabama for 1972 and 1982. The 1982 survey indicated that over the preceding decade, 15 percent of the acreage in upland pine sites reverted back to low grade hardwoods. This survey also revealed that there were dramatic declines in trees of small sizes. These declines emphasize the fact that the regeneration of timberlands statewide has decreased significantly over the last decade.

Today, private nonindustrial landowners and farmers retain 74% of the state's commercial woodlands. Forest industry holds about 20% and the government the other 6%. Many of the state's more than 220,000 woodland owners are not actively managing their forests. Previous studies reveal that on the average only 1 in 4 acres of the landowner's property is purposefully regenerated after harvest. Still other studies suggest that the woodlands of farmers and private owners yield only half of their potential in terms of wood products. Clearly, if Alabama is to grow



more trees for products and related benefits, then the private nonindustrial landowner's problems have to be addressed.

55,000 in Program

In 1941, the American Tree Farm System grew out of a need to encourage landowners to plant trees. Industry coined the words "TREE FARM" to describe landowners concerned about growing trees. Alabama, in 1942, became the first state to adopt a Tree Farm program statewide. In 1985, there are over 55,000 Tree Farmers in all 50 states. These dedicated and conservation minded private landowners manage over 87,000,000 acres by Tree Farm standards.

By March of 1985, Alabama counted more than 2,390 landowners in its Tree Farm program. In Alabama, the Tree Farm has been sponsored by the Alabama

Forestry Association since the early 1950's. In the South, the Southern Forest Institute administers the program for 13 southern states, and nationwide the American Forest Institute has responsibilities for the program. The Alabama Tree Farm Committee is represented by the Alabama Forestry Commission, Alabama Cooperative Extension Service, Soil Conservation Service, Alabama Farm Bureau, U.S. Forest Service, forest industry and consultants. The Tree Farm Committee has inspectors in each county to assist private landowners. The ten district Tree Farm chairmen coordinate activities with the county inspectors.

Landowners interested in becoming TREE FARMERS (1) must own at least 10 acres of forestland, (2) must have owned the land for 1 year or longer, (3) must make a reasonable effort to protect it from fire, insects, diseases and erosion, (4) and

grow trees for future harvests. As you can see, many of the same factors are critical to having a TREASURE FOREST. After a Tree Farm inspector has examined the owner's property, qualifying landowners are then certified as Tree Farmers. Certified TREE FARMERS receive (1) a numbered certificate, (2) Tree Farm sign and (3) the American Tree Farmer Magazine. Landowners joining the Tree Farm program *do not* have to pay one cent and they are not obligated to anyone. Today many of Alabama's Treasure Forest owners also hold membership in the American Tree Farm Program.

If you would like to learn more about TREE FARMING or would like for an inspector to contact you, write: TREES, 555 Alabama Street, Montgomery, AL 36104 or call 205-265-8733. Why not join the Tree Farm program and manage your woodlands for profit, pride and pleasure?

Foresters' Guide to Herbicides Available Soon

THE AUBURN UNIVERSITY School of Forestry in cooperation with the Alabama Forestry Association is offering for sale *A Guide to Silvicultural Herbicide Use in the Southern United States*.

The guide will contain an introductory chapter on Forest Vegetation Management and chapters on Silvicultural Herbicide Uses, Application Techniques and Equipment, Writing Herbicide Prescriptions, Personal and Environmental Safety, Preparations for Herbicide Treatments, Communication, and Laws and Regulations. Information included in these chapters include, but is not limited to, toxicity and hazard of silvicultural herbicides, herbicides registered for various uses, application techniques and equipment, calibration, environmental conditions and considerations for making herbicide applications, site analysis and treatment selection procedures, planning and record keeping, spray contracts, labels and labeling, buffer zone requirements, flight line installation and flagging, transporting,

mixing, storing and handling herbicides, rinsing and disposal of containers and excess herbicides, protective clothing, on-site safety precautions, treatment evaluation, public relations programs and federal and state registration and regulation of herbicides and applicators.

An extensive appendix includes lists of names and addresses of poison control centers, state pesticide control officials, hazardous wastes contacts, extension pesticide education specialists, chemical companies, pesticide applicators, state foresters and Extension forest specialists. The appendix also contains supporting information on the characteristics of silvicultural herbicides, calibration and recommended rates for some selected herbicide uses.

The core of the guide is the prescription process and associated data base and key. The prescription process describes the intricacies of herbicide prescription development, including site selection, analysis, problem identification and

quantification, treatment selection and treatment evaluation. Some of these steps have been developed into a key which is directly linked to a herbicide data base. The data base contains available vegetation control data that is summarized in a table format allowing for easy access with the data base key. Data are indexed by physiographic region, objective, weed species, herbicide, crop species and application technique.

The Guide is scheduled to be published by mid-October of 1985 and will cost \$35. Contact:

Rick L. Cantrell
Editor, Herbicide Guide
School of Forestry
Auburn University, AL 36849-4201
(205) 826-4050

**MAKE CHECKS PAYABLE TO:
AUBURN UNIVERSITY SCHOOL OF
FORESTRY** ♣

ACTIVITIES

DISTRICT 1 Donald Cole and Gary Sanders received an award from Choccolocco Council, Boy Scouts of America for recognition of services rendered to the Boy Scouts.

Donald Cole presented grant checks to eleven of his volunteer fire departments. Representative Ralph Burk attended the presentation.

DeKalb County Forestry personnel taught a two week tree identification course for ecology trail at Camp Comer.

Ed Eldridge has just attended three weeks of law enforcement academy at Tuscaloosa and completed his 7 weeks minimum law enforcement standards school in Tuscaloosa. Ed came out top in the class—congratulations!

Larry Parker, Marshall County, presented a forestry program to the third grade students of Guntersville Elementary School.

Etowah County Association meeting was held at the courthouse. Bid lists were passed out for equipment. The association went over the problems they are having with money from the 3 mil bill.

Ed Eldridge held the first Tree Commission meeting in Scottsboro to devise a plan of work for the newly formed committee.

In Madison County, Operation Soil Facelift Revisited at the Bragg Farm property was held July 17. Tours were held to give those visitors an opportunity to see the difference the work done on the property one year ago had made in control of soil erosion. The AFC also had a stop on the tour showing the effects of a recent ice storm on a small pine plantation and some of the salvage techniques a landowner can use after a storm to clean up his property. Thanks to all of those who had a part in the demonstration.

DISTRICT 2 Some 19 Fire Departments in Jefferson County received a total of \$12,000 in RCFP Grant Checks. The checks were presented by State Representative Hoyt Trammell at the July 1 meeting of the Jefferson County Association of Fire Departments. The occasion was marked by the addition of three new fire departments to the association's membership.

The Forestry Commission assisted in

kicking off a county-wide reading program. The program was initiated on June 2 and is being spear-headed by Jefferson County's Library System.

During the month of May, Cullman County participated in the County Student Government Day and also the District FFA Forest Judging Contest, which has been held in Cullman for the past 4 years.

Two potential TF Landowners' property was inspected by the District Treasure Forest Coordinator and Mr. Robert Waters, SCS Wildlife Biologist.

During the month of June, Shelby County Supervisor Daryl Lawson graduated from the University of Alabama Law Enforcement Academy. Mr. Lawson was elected to serve as Secretary/Treasurer for the 72nd Session.

Johnnie Tidwell, Rob Rimer and Daryl Lawson all received a letter of commendation from the State Forester for work performed on the "Chuck" Lewis property.

New London, Branchville and Shoal Creek Fire Departments have met all requirements to become certified as Volunteer Fire Departments. The chiefs of these departments were given their certificates at the May 21 meeting of the St. Clair County Firefighters Association in Pell City.

DISTRICT 4 In District 4 all the counties were flown for SPB in June and July including the Talladega National Forest. Infestation was light with the exception of Chambers and Tallapoosa Counties and the Shoal Creek Ranger District of the Talladega National Forest where some very active spots were found. All 7 counties will be flown again in August; landowners having active infestations will be notified.

Linda McCord, RO, reports that our computer is finally receiving the weather. It had refused all efforts until we had an ATNET line installed and now we are able to give a comprehensive weather report (relative humidity, visibility, wind speed and direction A.M. and P.M., temperature, precipitation, and stagnation index at least by 7:30-8:00 each morning.

John Tyson assisted with the Clay and Randolph County FFA Forestry Contests; he worked with 55 youngsters in the Calhoun County Forestry Field Day—FFA and 4-H. John also participated in the St. Clair Prison

Wood Energy Meeting.

District 4 sent two men to the fires in California and Idaho. Skip Turner went with the group to fight the brush fires in California; Joel Neighbors, FRU, Coosa County went to the mountains of Idaho.

The Cleburne County and Clay County offices are a reality. Clay is still finishing the rock work for the big wood burning heater in the foyer that will furnish the main source of heat in the winter. Cleburne's office was begun a little earlier than Clay's so they are finished and already in theirs. The Cleburne County office is located in Heflin on Hwy. 78 (the old Birmingham and Atlanta Highway) on the left about 2 miles out NE from the heart of Heflin. The Clay County office is located facing the street behind the District Four Shop in Lineville just off Hwy. 9.

Clayton Schwind had several articles in the LAFAYETTE SUN; one, diseases in trees, one, the rewards of a TREASURE Forest, and one reported on a Forestry Tour on May 23. Clayton also presented a program on Forest Practices in Chambers County to a group of 30 people. The AFC participated in the PINE TREE FESTIVAL held August 23-25.

Earl Smith reports that work is continuing on the new AFC office in Lineville in Clay County. The office is being constructed using AFC personnel from District 4.

Also, Clay County Personnel plan to participate in the first Clay County Fair on September 27, 28, and 29 by having a TREASURE Forest Exhibit at the Fair.

Cleburne County Association of Volunteer Fire Depts. monthly meeting was held at the Abernathy Fire Dept. on June 20. Ray Tucker presented the program; grant checks were also presented.

Cleburne County Forestry and Wildlife Association July meeting was held at the new Forestry Commission office on July 1. Larry Clay, Fisheries Management, gave the program.

The AFC personnel participated in the Randolph County 4-H Club Camp. Part of the program was an actual prescription burn. Hardwood control was explained to 12 counselors and 150 4-H-ers.

Wedowee First Baptist Church Vacation Bible School benefited from a program done by AFC personnel on Fire Safety and Outdoor Safety; there were 40 children present.

Summer Reading Program for library users also began with a Fire

Safety-Outdoor Safety program by AFC personnel—20 children and each received Smokey Bear book marks.

Randolph County Association of Volunteer Fire Depts. was presented with grant checks in June with 30 Volunteers from 13 Departments attending. Rep. Richard Lair spoke to them about State funding.

The Randolph County Forestry Planning Committee met to select delegates to the second annual Forestry Conference; they also planned a County Forestry Field Day. Smokey Bear invited the children to attend the Summer Reading Program on WELR Radio.

The Extension Council (Randolph Leaders Banquet) was held in May with a kickoff of new Extension projects for 1985 and integrated AFC work with County Extension Leadership.

A banquet was held in honor of H. E. Coe of Roanoke managed by Steve Nix (AFC) and Tom Burnside (Cooperative Extension Service). This was to present Mr. Coe with the Kelly Mosley Environmental Award. He had been nominated by Tim Boyce (AFC) and Sheryl Parker (SCS). About 50 couples were present.

Roanoke's TREE CITY qualifications have been completed and compiled for application for TREE CITY status.

County Forestry Field Day was held at Piedmont Substation, Camp Hill, and Guy Slayden demonstrated a prescribed burn to about 150 landowners.

Guy and Scott Philips assisted in the planning and organization of the District 4 Volunteer Firemen's Competition which was held this year at Wedowee in Randolph County. Daviston RCFP (Tallapoosa County) won the trophy that Skip Turner made.

DISTRICT 5 On May 20th, a slide program on Alabama Hardwoods was presented to the Wilcox CRD Committee.

Wilcox Co. personnel helped train Pine Hill High School students in tree I.D., tree volume estimating, and use of a compass for District 4-H forestry competition held in June.

A fire prevention program was presented to the 2nd Grade students at the Camden Middle School on May 27th and to the Annemarie Girl Scout Troop on July 3rd.

Twenty-five students attended the

Wilcox County 4-H fish and wildlife short course field day on June 21st at the **U.S. Corps of Engineers Resource Mgt. Office** in Wilcox County.

Smokey Bear fire prevention programs were presented to the **Clanton and Jemison Day Care Center** preschool children during June.

Autauga County personnel taught a forestry course to **Cub Scouts at Camp Tuckabatachee**.

Fusiform Rust survey data was collected in **Wilcox Co.** during the week of July 15th.

Eighteen members of the **Camden Fire Dept.** completed the Wildland Fire Suppression Course on June 24th.

Clanton Volunteer Fire Dept. received State certification.

On May 23, **Rep. Ed Grouby** and **Probate Judge Jim Corley** presented checks totaling \$24,000 to the **Autauga County Firefighters Association** to upgrade the County communication system.

DISTRICT
6

The **Henry County Forestry Planning Committee** recently held a meeting to re-organize their Forestry Association

which is one of Alabama's original County Forestry Association's. **Brian Bradley**, RC&D Forester, spoke to the group about activities and organizations in other Wiregrass counties. Chairman **Ralph Reynolds** discussed the original Association's formation in 1970, its incorporation and some of their activities (i.e. the purchase of a drum chopper, tree planter and miscellaneous hand tools for loan/rent, annual field days, etc.).

The **Henry County Rural Development Committee** was chosen as one of the top six RD committees in the state and representatives were presented framed certificates recognizing their efforts to improve the County.

The **Dale County Forestry Planning Committee** is busy planning a Forestry Field Day for late October on **H. C. Jordan's** TF east of Ozark. The interagency program will highlight natural regeneration, wildlife habitat development, erosion control practices on woods roads, permanent firelane construction and selective thinning tips. Landowners from all seven counties in the District will be invited.

The **Pike County FFA Forestry Judging and Land Judging Contestants** both placed first in State Competition and will go to the National Competition in Kansas City, MO scheduled in November.

A prescribe burning tour was recently held with 15-20 people attending in **Coffee County**. The Forestry Advisory Committee organized and sponsored the tour with AFC Forester **Bob DeVaughan** the featured speaker. The participants also saw a large shear in action as it clipped 50-75 foot tall pines.

The **RC&D Forestry Committee** with

assistance from **Pilot Walker Modlin** and **Ranger James Gavins** revised and printed the Wiregrass Forestry Directory which consists of two pamphlets: one of Forestry Vendors and one of Timber Buyers. Funding for the project was a joint effort by the RC&D Council and AFC.

District Six sponsored a workshop in Troy in early September to instruct AFC, SCS and ASCS personnel in the intricacies of the new state cost-sharing program, the **Alabama Resource Conservation Program**.

Urban Forest Coordinator **Barry Lawrence** and Geneva **Ranger Jerry Dwyer** recently conducted a Street Tree Inventory and developed a management plan for the city of Geneva. Together with a Tree Committee and local tree ordinance, TREE CITY USA designation is not far away.

The **Coffee County Forestry Advisory Committee** with another of its innovative projects, has established an outdoor demonstration plot of chemical timber stand improvement. A four year old pine plantation which had significant competition from sprouting oak trees was treated with liquid Velpar at the rate of 1 gallon/acre.

The **James Hughes Family** of Houston County was selected as one of the three regional winners of the Helene Mosley Award for 1985. **H. C. Jordan** of Dale County was runner-up in the Extension District II and gave the Hughes a good run for their money. Even though Houston County has the smallest forest acreage in the District, it shows that excellent management occurs even in the "Peanut Capital of the World".

Barbour County participated in two parades recently with Smokey Bear appearing in both Springhill and Clayton communities.

More than 150 people attended the **Southeastern Hardwood Symposium** in April at the Olympia Spa in Dothan. This event was sponsored by the U.S. Forest Service, Cooperative Extension Service and the Alabama and Mississippi Forestry Commissions.

DISTRICT
7

Seventy foresters, delegates to the World Forest Congress, visited in **Butler County** on Thursday, June 27, for a tour of the **A.M. Middleton TREASURE Forest** in Georgiana. A.M. Middleton, host for the Butler County tour, met and welcomed the visitors at his lakeside cabin adjoining the Middleton TREASURE Forest. County Supervisor **Brandon Burkett**, Rangers **Bobby Parmer** and **Mike Farmer**, and **Crenshaw County Supervisor Tim Money** conducted the tour.

All of District 7 extends their "congratulations" and "best wishes" to **Monroe County Supervisor Gary Cole** on his recent graduation from Auburn University with a degree in forestry. Gary graduated with very high academic honors.

democratic honors.

District 7 personnel assisting in fire fighting on Western Fires during the month of July were **Ranger Lesley Williford**, **Equipment Operator Tommy Barrentine** from 7-Headquarters, **Ranger Richard Royce** from Escambia County and **Dwight Rathel** from Covington County.

Escambia County Supervisor **Robert Knowles** along with the **Escambia County Forestry Planning Committee** assisted with the fourth annual Escambia County Forestry tour that was held on May 30, 1985. The tour group saw use of herbicides in vegetation control, site preparation for planting of pines and hardwood control in existing pine stands on **Robert Hawkin's** farm. Planting of longleaf pine and natural regeneration by the shelter-wood method was covered on **Huxford Trust land**. Multi-age stand management of pine was reviewed at the US Forest Service Longleaf Pine Experiment Station near Dixonville. Mrs. **Durant Sheppard** was presented a tree farm sign to post on her property at McGowin Bridge in recognition of her management of loblolly pine plantations. The tour concluded at the US Forest Service Experimental Station where everyone enjoyed a cookout. Ranger **Richard Royce**, AFC; **George Ward**, US Forest Service; and **David Elliott**, Soil Conservation Service prepared the lunch which was donated by several timber companies in the Brewton Area.

DISTRICT
8

Patrick Waldrop, Mobile County Supervisor, conducted a slide program for a history class at the **University of South Alabama** on "The History of Mobile's Trees," on April 11, 1985.

A **Forestry Poster Contest** was conducted at the **Old Spanish Fort Christian Academy** on April 16, 1985, by **Larry Grable**, Staff Forester, from the Bay Minette District Office. All entries were very good.

On April 19, **Clarke County** Personnel conducted a program on "The Care of Shade Trees" for a local garden club.

Patrick Waldrop assisted **Cub Scout Pack #126** with their Forestry Merit Badges on May 18, 1985.

The **Fort Morgan Volunteer Fire Department** held an organizational meeting on June 4, 1985. Officers were elected for the new department.

Mobile County Farm Bureau conducted a landowner tour of the **Solon Dixon Forestry Center** on June 4, 1985. **Mobile County AFC Personnel** also attended.

All **AFC Personnel** in the **Bay Minette District** attended First-Aid, Defensive Driving, and C.P.R. training in June 1985.

AFC Personnel in **Baldwin, Mobile, and Washington Counties** have been busy putting out and checking traps for

Gypsy Moths; no Gypsy Moths have been caught.

Patrick Waldrop presented a program to the **Dauphin Island Fire Department** on "The Activities of the AFC" on June 12, 1985.

Patrick also presented a program to a Boy Scout Troop in Mobile on "Forestry as a Profession."

David Frederick, District Forester, of the Bay Minette District and **Keville Larson** a consulting forester in Mobile, presented a program to 15 Brazilian foresters in Mobile on July 8, 1985. The Brazilians were on tour of Alabama's Forestry Industry and were being hosted by **Mr. Harry Murphy** a consulting forester from the Birmingham area.

Vivian White of Coffeeville and **Mack Vines** of Bay Minette were selected as finalists in the "Helene Moseley Awards Program" for the southern one-third of Alabama. Both properties were outstanding. The **Vivian White** property was selected as the winner for the Southern Region and will be awarded \$500, and go on to the State competition.

DISTRICT
9

A hardwood management training seminar was held in District 9 with **Tom Cambre** and **Jim Hyland** in charge of instruction.

Howard Swanner, **Larry Lee** and **Roger Nichols** represented the AFC at the 4-H Club camp held at Guntersville.

Steve McEachron was among a group of representatives from agricultural agencies attending the groundbreaking for **Cypress Creek Watershed** dams in Lauderdale County.

Lauderdale County RCFP departments held their Third Annual Fireman Competition and Mall Show on August 16 and 17 at Regency Square Mall. This event is coordinated by **Steve McEachron**, Lauderdale County Forester.

The **Wildflower/Nature Trail in Marion County** has attracted a lot of attention. Marion County Forester **Tony Avery** had led numerous interesting tour groups such as Scouts, Church groups, school groups and members of the Audubon Society.

District 9 employees **Danny Deaton**, **Rick Banks** and **Tony Avery** assisted with the **Agribusiness Teachers Workshop** held at the Bear Creek Educational Center. The Workshop was attended by Agribusiness Teachers from all over Alabama—concentrating on the Forestry Judging Contest. Plans are well underway for a similar workshop for FFA students to be held in November. Contact District 9 Headquarters for more information.

Tree City USA received a boost by **Lorene Frederick's** full page feature story on Historical Trees at the University of North Alabama. These trees honor

World War I soldiers killed in action.

Danny Deaton, Rick Banks and Mike Lanier were among the Alabama Forestry Commission employees joining forces with the USFS during the recent outbreak of fires in Western states.

District 9 Headquarters has been nominated for the **Florence Beautification Board's Annual Awards**. The **Garden Club of Florence** has also been nominated for the Wildflower Trail located on District 9 grounds. The Wildflower Trail has also been entered in National Competition for Garden Clubs.

District 9 employees hosted an Awards Presentations at the Holiday Inn in Sheffield. Mr. Moody presented Smokey Bear Commemorative Stamp plaques to members of the legislature.

An awards luncheon was held in **Russellville** with representatives from **Tennessee River Pulp and Paper Company, Champion International** and local **RCFP** departments represented. Awards were presented to **Representative Charlie Britness** and **Senator Roger Bedford**.

A Treasure Forest Tour was held in **Marion County for Agribusiness teachers**.

DISTRICT 10

A demonstration for forest landowners of the capabilities of the Whitfield heavy-duty open land tree planter was held on the **Marvin Fiala** property in Macon County, on Wednesday Jul. 31. The planter, manufactured by the **Whitfield Forestry Equipment Co.**, Mableton, GA, is designed for Class I and II farm tractor hitches. The showing was set up by management forester **Bob Wiggins**.

Quarterly re-inspections of **TREASURE** Forest properties have been completed for this term, with four **TF's** submitted to the September Committee to review. Two new **TREASURES** were nominated during this period also for September consideration.

The Opelika police firing range was the site of the quarterly practice weapons firing session on Aug. 14. All enforcement officers attended and met qualification standards.

Preparations are underway for District participation in the next Forest Academy. All courses have been outlined, and training aids are being gathered. This time the District will supply more instructors

than students.

The inspection of all **District RCFP** departments and vehicles has been completed. This year inspectors were looking for one representative brush fire fighting truck for entry into the Alabama Forest Firefighters fieldday at Pratt Park in Prattville (Autauga Co.) on Sept. 28.

The Outstanding County Forestry Planning Committee Award for District 11 (Southeast Alabama) goes to **Macon County**.

Two District fire fighters went West to join the crews trying to control wildfires in California and Idaho last month. **Cliff Cobb** (Mont. 8) and **Jim Foreman** (Elmore 11) went with other men from the Southeast, but were assigned to separate fires.

F. B. Johnson, Montgomery Co. forester, received his 15-year service pin during the July District meeting. **Choppy** has been with the Tenth AFC District since it was formed, working as CFM forester in Bullock and Macon counties while they were part of old Dist. 6. He moved into the State Headquarters for several years serving as State reforestation chief before returning to his present field job.

TF DEATH

Gordon W. "Pete" Main, Bullock Co. TREASURE Forest No. 086, died Aug. 5, 1985, in Baptist Hospital in Montgomery after a brief illness. Mr. Main was a pharmacist and Rexall drug store proprietor in Union Springs for 50 years, and was one of the first and the most enthusiastic **TREASURE** landowners in this District. He always had some project to improve the forest stand on his 550-acre farm, and the results of his efforts are clearly visible. The interest he took in forest management has been handed to his sons who indicate they intend to carry on where Pete left off. He is buried in Union Springs, and is survived by Mrs. Betty Bell Main, widow, and his three sons, two of whom were in business with him at the time of his death. ♣

CALENDAR*

October 4—Jackson County, 9:00 a.m., Forestry Tour of Kampmeir Farm. Improvement thinnings, pine & hardwood regeneration. R C & D Project. Contact Ed Eldredge, 574-3217.

October 5—Tuscaloosa County. Forestry Field Day. Call Mark Beeler, 333-1590.

October 7-11—Starkville, Mississippi. Hardwood Regeneration Shortcourse. Fee \$175. Contact Dr. Tom Monaghan, (601) 325-3150.

October 8—Jefferson County, 7:30 p.m., AFOA, AmSouth Bank, Hoover. Lou Hyman, Forest Management Chief, Forestry Commission, will explain how forest owners can apply for cost-share assistance in the new **AGRICULTURAL & CONSERVATION DEVELOPMENT PROGRAM**. Pre-program dinner with Mr. Hyman at Shoney's, 6:00 p.m. For further information, call Lee at 663-4138.

October 10—Chattanooga, Tennessee, 8:00

a.m., Woodland Owners Field Day. Many activities planned. Call Richard Evans, (615) 483-3571.

October 13-16—Traverse City, Michigan. Private Forestlands: Centerpiece of America's Forest Resource. Annual Meeting of American Forestry Association. Call (202) 467-5810.

October 18—Mobile County, 7:00 p.m. Effects of Proposed Federal Tax Law on the Timber Industry. Refreshments served after program. Sponsored by Cherry, Bekaert & Holland. Contact Jack Sassaman, 476-6300.

October 22—Dale County, 9:00 a.m., Tour Jordan Treasure Forest. Lunch will be served. Contact James Estes, 774-2329.

October 26—Lawrence County, 8:30 a.m., Blanche Dean Chapter of Wildflower Society will tour Sipsey Wilderness Area. Bob & Mary Burks will lead tour. Contact Lillian Naumann, 871-0081.

October 30-31—Hinds, Mississippi. Annual Meeting of Mississippi Forestry Association. "Global Perspective: What's in it for U.S.?" Top level national figures invited. Call Bob Izlar, (601) 354-4936.

November 2-3—Southwest Alabama Forestry and Wildlife Festival. Jackson, Alabama, will buzz with excitement the first

weekend in November as thousands of people gather for the third annual Southwest Alabama Forestry and Wildlife Festival sponsored by the Chamber of Commerce.

Festivities begin at 8:30 Saturday morning with the 10K run, followed immediately by a 1-mile fun run. Festival fun begins at 10:00 when youngsters participate in games such as pine cone toss, wood bingo, sack races, and wood ball golf. Wooden toys are given as prizes for their efforts. Adult competition includes tobacco spitting, chain saws, axe and crosscut saw cutting, and pole climbing for which cash awards are given.

Added features will include equipment dealers showing the latest in tree harvesting and transportation equipment, a gun show and sale by the Southeastern Gun Dealers Association, an antique car show and parade, firefighter competition, and a variety of local talent throughout the day.

Beginning concurrently with the Festival, the Jackson Arts and Crafts Association Show and Sale brings craftsmen and artists from near and far to display their wares for the entire weekend, November 2-3.

For more information contact the Jackson Chamber of Commerce, 215 East Church Street, Jackson, Alabama 36545, or call (205) 246-3251. ♣

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

EDITOR'S UNDERSTORY

by CYNTHIA K. PAGE

THE TABLE SETTING indicated that today commemorated a special occasion. After all, it's not everyday that the youngest son turns 21! "He's asked for fried chicken," Sylvia said, "so I'm not going to go out on the farm with you all."

In this family, everyone is treated with respect and consideration. "Whatever it is, 'we' do it," says James. "It's never on an 'I' basis."

"And when we gather for a meal," says Sylvia, "we talk shop, cause we all have an interest in the farm."

Even though each family member has his own deeded land and rental houses, the work is carried out as if it is all one unit with priority established for first consideration. Unselfishly, each works to maintain the total farm. William, 25, works full time with a "conservative" salary. Paul, 21, a full-time college student in finance, spends afternoons helping out. William openly admits, "I'd rather do most of the physical labor, and let Paul do the thinking!" Paul, also unselfishly, gave up his interest in 15 head of cattle "since William and Clarice have to look after 'em."

The boys haven't always been so "affectionate" toward each other—what brothers four years apart have! "But since I was 15," says Paul, "we've had to work together and that's brought us closer."

This is a working family. James, an ex-electrical engineer - turned - banker - turned-forest landowner spends much time working with the boys. "Seems I'm always with one of 'em, though, when we get the tractor bogged down!" he said showing a hint at his superb sense of

humor. "Sylvia had to pull me out one day!"

Sylvia, too, started buying cotton for her father's gin when she was 13. When asked how they met and subsequently married, Sylvia said, "He had a WRAP Plan!"

Both boys had jobs at age eleven. The work ethic established then continues to be strong.

They strive to improve themselves and the farm. The first time I met James Hughes, he and William had taken a day off to attend a hardwood symposium. Even though most of their land is in planted pines, they wanted to know how to manage their hardwoods, too.

Sylvia best sums up the family's

philosophy. "Basic to all we do is a business-like approach tempered by a love for and appreciation of all God's Creation—from the smallest wildflower to the largest oak tree. We are concerned about being good stewards of what is entrusted to us."

From forestry-related science projects for the boys, James' involvement in dogwood giveaways while bank president, and Sylvia's long-time desire to plant trees, stewardship for the land is instilled in each. Not much thought was ever seriously given to someday being entrusted with the land. James said, "you daydream and you think, but we didn't have any thoughts about someday we'd have it. But then one day we did have it and already having the desire, it just came natural."

As consultant forester Norm Kinney pointed out, "The family is young and they look at everything—not just in terms of cost, but in terms of time and the total benefits."

It seems to me that the benefits are even beyond the resource values.

As I studied the faces of each family member, an expression of optimism, happiness, humor, and love was apparent in their eyes and their smiles. Even the affectionate humor in telling Granny that her rocker was playing a tune indicated their respect and care of each one's individuality and feelings.

This is not "daddy's farm" or "mother's inheritance," or even necessarily "the 'ole home, place." It's the James Hughes' family's farm, their legacy, their contribution to Alabama's resources. "Their" family is the TREASURE. ♣



Utilization of Low-Grade Hardwood

by FRANK SHROPSHIRE, Hardwood Specialist, USDA Forest Service, Region 8, Jackson, MS.

Utilization of Low-Grade Hardwoods Seminar, July 20-21, 1983, Jackson, MS.

SIGNIFICANT IMPROVEMENTS in hardwood utilization and new markets for products from hardwood sites would be a welcomed change for forest landowners and managers in Mississippi and the rest of the South. Management intensity on hardwood sites in Mississippi has improved significantly during the last five years. However, along with the rest of the South, we are far short of the management intensity we should be practicing if we plan to meet projected future demands for veneer, high quality sawlogs, pulp and fuel wood.

In a paper, *Changing Philosophies of Hardwood Management*, Second Hardwood Symposium on Southeastern Hardwoods, April 20-22, 1977, R. C. Kellison said, "It is a truism that no one is managing existing natural stands on an operational scale to increase yield or improve quality. Despite the many wails against the practice, high-grading is still the most prevalent method of harvesting hardwoods." This statement was true in 1977 and is still true today.

Hardwood silvicultural practices are seldom evident for various reasons.

1. *Lack of research*—This is an often heard excuse, but is it a real reason? I think it is more of an excuse than a reason. It is true we need more research. Examples of needed research are additional information on yields of natural stands on the various sites and species mixes, manipulation of existing stands to ensure adequate desirable species near the end of the rotation for the future stand, and rotation recommendations by products and sites. There are many more, but there are reams of completed and proven research on the shelf that could revolutionize hardwood silviculture if it were applied. It is not my purpose here to minimize the need for additional research, but we need to start applying some of the recommendations already provided.
2. In the past, *schools and universities in the South have failed to offer hardwood silvicultural courses*. This fact has defied comprehension when one realizes 70 million acres of the South's 200+ million acres are hardwood sites and should remain in hardwood.

Mississippi alone has 5 million acres of good hardwood sites that would be most productive in hardwood. Significant progress has been made toward this goal during the last 5 years. At least 3 major universities in the South now offer good hardwood silvicultural instruction and their efforts are intensifying.

3. *Lack of markets or economic incentives*—Approximately 70 percent of our commercial forestland is owned by non-industrial landowners. It is on these lands that the lowest levels of management is being practiced. Markets are nonexistent or seriously limited for all products except sawlogs. Unlike industrial owners who often benefit from the sale of finished or partially finished products, these landowners must operate solely from stumpage prices. Regeneration efforts are hampered because the removal of undesirable stems remaining on the site following a final harvest represents an up-front, out-of-pocket cost that is effectively preventing site preparation.
4. *Declining vigor and quality*—Repeated high-grading has removed the higher quality and faster growing trees from many stands. Each successive cut is yielding lower quality and quantities. This practice leaves less money for management even if the landowner is aware of the need. Considering the cost of shearing or removal of undesirable stems by hand, it is not so difficult to understand the poor condition of hardwood stands on non-industrial lands.

Although present hardwood markets are weak and management enthusiasm is low, the future looks brighter. One bright spot in improving market conditions that has been with us several years now is wood for energy. This market seems to have leveled off for the present; but as oil prices return to their "pre-glut" levels, wood energy markets show promise of being one of the biggest consumers of low quality, previously unsalable materials from hardwood stands. Another very promising market is oriented fiberboard. You may recall Georgia-Pacific Corporation's recent announcement of their plans to build an oriented fiberboard plant

near Grenada, Mississippi. If these plans come to fruition it will prove to be a much needed boost to local landowners. The real sleeper is the fact that several large paper companies are currently spending several millions of dollars to convert their paper machines to use a significantly higher percentage of hardwood in their mix. This is very significant, for these machines are being prepared to increase percentage of hardwood used from 18-25 percent up to the 50-60 percent range. These markets are rapidly developing and we should start making plans now to take advantage of them.

Impacts of Markets for Low-Grade Hardwoods

For many years now, many of the European countries have had excellent markets for both softwood and hardwood forest products. France has some of the most intensively managed forest resources in the world. Landowners in France were receiving \$10,000 per thousand board feet in 1980 for high quality white oak. The French are firmly committed to the even-aged management system. Their rotation lengths are longer than we would consider feasible—180 years for beech and as long as 240 years for white oak. During intermediate thinnings they *always* thin from below and leave the best trees for later harvest. No damage is tolerated to leave trees during intermediate thinnings. Their seemingly extreme dedication to thinning early and often, and to making certain only the least desirable trees are taken and the best are left, produces some interesting results. The average per acre volumes at final harvest is 18,000 bd. ft. for beech and 24,000 for oak.

The French rely on natural regeneration at the end of the rotation. They use a three and sometimes a four-step shelterwood system to achieve the desired number of stems/acre. They like to grow almost all of their hardwood species in pure stands and use early precommercial thinnings to control species composition. They no longer believe it is possible to grow pure ash stands, and they will accept oak and some beech in their ash stands. Planting is used only as a last resort. If they have not been successful

in achieving natural regeneration in seven years, then they go in and plant.

The French, when asked why they use the even-aged system, say they tried uneven-aged management for several hundred years. They were finally convinced about 200 years ago it could not be done. They had the same experience we have had. Continued attempts to apply the uneven-aged system opened their stands too slowly and did not allow sufficient sunlight to obtain and maintain sufficient numbers of desirable regeneration. Continued uneven-aged management caused their stands to gradually convert to the slower growing, more shade tolerant and less valuable species. It is important to note they grow their beech stands using the even-aged management system.

Management on Hardwood Sites with Improved Markets

During the last 16 years I have worked with the State Forester's Management Staff and Industrial Management Foresters in all of the 13 Southeastern states. It has been my privilege to visit and examine, on the ground, several hundred hardwood ownerships. An estimated 75 percent of these hardwood sites were owned by non-industrial owners and 25 percent by various forest industries. A conservative 80 percent of the hardwood sites were in a serious state of degradation; and if silvicultural needs were the only consideration, they should have been regenerated.

The stands that were not seriously understocked and contained vigorous desirable species resulted mainly from abandoned agricultural lands, very hot fires in the past, and had not been entered for cutting. Only a very few resulted from sound, planned silvicultural practices.

There are several valid reasons why all of the hardwood sites presently in need of regeneration should not be regenerated immediately:

1. Age-class distribution would be out of proportion.
2. Loss of income from the regenerated area for a 25-30 year period.
3. No markets for most of the material presently on the site.
4. High cost of site preparation for natural regeneration.
5. Many sites needing regeneration do not presently have desirable natural regeneration potential.
6. Would cause a "glut" on the market for products we can sell.

There are other reasons offered that are not valid.

1. I don't believe in clear-cutting.
2. Clear-cutting is harmful to wildlife.

TREASURE SEEKERS • TREASURE FINDERS TREASURE KEEPERS

This column will be devoted to keeping you updated on current participants in the TREASURE Forest Program. TREASURE Seekers have signed creeds, TREASURE Finders have recently been certified, and TREASURE Keepers have been recertified.

TREASURE SEEKERS

Creed Signers
(Between 3-7-85 and 7-10-85)

SEEKERS

R. S. Hawkins (Tuscaloosa)	Douglas Fuller (Chambers)
Charles Kendrick-Holmes (Chambers)	Sam Moss (Chambers)
Paul Hutto (Bullock)	George and Sybil Parker (Chambers)
Saint Bernard Abby (Cullman)	Guy Henry (Wilcox)
Robert Henry Rich (Blount)	Jim Watson (Wilcox)
H. M. Harvey, Sr. (Blount)	John Herrod (Autauga)
William Rodgers (Cullman)	Bud, Sandy and Stephen Smith (Geneva)
Lyle Dabbs, Jr. (Cullman)	Marshall Aldridge (Henry)
Clifford Johnson (Cullman)	Cecil Prescott (Conecuh)
Joe Robertson (Chambers)	Helen Williams (Covington)
Barron Jackson (Clay)	Jay Johnson (Pike)
Baker Pinkston (Tallapoosa)	Cyril Newman (Pike)
Roy Granger (Tallapoosa)	Mrs. John Dee Garrick (Clarke)
Herbert Norred (Tallapoosa)	James Young (Choctaw)
John Merrill (Tallapoosa)	Allen and Kyla Ross (Clarke)
Ralph and Jean Lockett (Tallapoosa)	Brian Randle (Lauderdale)
John Harris (Tallapoosa)	Douglas Boatright (Lauderdale)
Roy Hamby (Tallapoosa)	J. G. Everett (Colbert)
John Clark (Tallapoosa)	Lesley McCullough (Colbert)
Charlie Harper (Tallapoosa)	Dr. John Hackman (Montgomery)
Glenell White (Clay)	Cecil Dorsey (Montgomery)
Joseph Rose III (Montgomery)	C. W. Rittenour, Jr. (Montgomery)
Luther Heath, Jr. (Chambers)	Larry Esco (Elmore)
George Zachry (Chambers)	Herbert Kennedy (Elmore)
David Hall (Chambers)	Parker Grey Mount (Montgomery)
Gene Hodnett (Clay)	Edgar Harlin (Montgomery)
Jack Wheelchel (Cleburne)	Homer McGough (Elmore)
V. F. Bible (Cleburne)	I. D. McCluskin (Montgomery)

TREASURE FINDERS

Certified TREASURE Forest Landowners
(7/10/85)

FINDERS	OBJECTIVES	ACRES
John McCrary	1-Timber 2-Wildlife	66
Maurice Hudson	1-Aesthetics 2-Timber	238
Charles Lewis	1-Timber 2-Wildlife	338
Camp Cosby	1-Recreation 2-Environment	137
Douglas McGinty	1-Environment 2-Timber	82
Janie Jordan	1-Timber 2-Wildlife	550
Petelinski Brothers	1-Timber 2-Wildlife	1600
Robert & Carolyn Brown	1-Timber 2-Wildlife	649
John E. Hall	1-Timber 2-Recreation	3500
C. N. Robbins, M.D.	1-Timber 2-Wildlife	800

TREASURE KEEPERS

Re-certified TREASURE Forest Landowners
(7/10/85)

Robert Snyder (originally certified September 10, 1980)	1-Timber 2-Wildlife	1930
Dorothy and Bud Davis (originally certified November 20, 1980)	1-Timber 2-Recreation	209

3. The landowner would put it in soybeans.

For discussion purposes we will assume you have been requested to manage an 800 acre hardwood tract on a long term basis. The landowner instructs you to maximize income over the long term in a manner consistent with sound forest management practices without serious impact on the wildlife resource.

The first step toward management is a thorough inventory of the ownership. The inventory data should identify stands, stand size, species, age classes, overall condition of the stands, grade, regeneration potential of the stands and soils information. After consulting with the landowner, the data gathered during the inventory should be incorporated into a long range management plan that reflects both the landowner's objective and the site potentials.

It is often necessary to conduct a stop-loss sale over the entire ownership to harvest trees that are in danger of dying before they are scheduled for sale. Normally, any host trees for diseases and harmful insects are removed during the stop-loss sale.

A reasonable rotation length would be 60 years if sawlogs are part of the landowner's objectives. If 60 years is the rotation length, then allowable regeneration acres per year would be 13.33 (800 acres ÷ 60 years = 13.33). A reasonable cutting cycle could be 5 years (it could be more or less, depending on the condition of the stands and how often the landowner wants income). If 5 years is the cutting cycle, then 66.66 acres is the allowable regeneration area during each cutting cycle. The entire ownership—800 acres—should be divided into 12 compartments of 66.66 acres each (800 acres ÷ 12 five year cutting cycles = 66.66 acres per compartment). The order of entry into each compartment should be determined by the degree of stocking and site quality of the stands in that compartment. Compartments made up of stands that are below minimum stocking should be entered first. Those compartments at or near minimum stocking should be scheduled for entry near the end of the rotation.

One of the best diagnostic tools for deciding what should be done with stands that have been mismanaged in the past is a curve based on the relationship between stand age and basal area/acre of desirable hardwood species for determining stand fate. The curve was developed by R. C. Kellison, et al., and published in a North Carolina State Bulletin #463, entitled *A Guide for Regenerating and Managing Natural Stands of Southern Hardwoods*.

Another very useful tool for determining a stand's regeneration potential is Robert L.

Johnson's *Reproduction Inventory*.

It is not generally recommended that complete age class distribution be achieved during the first rotation.

During the first rotation, while age class distribution is being accomplished, our hypothetical 800 acre ownership will have a 66.66 acre silvicultural clear-cut every 5 years. In addition, other areas may need an intermediate thinning. There is no way to predict acres needing an intermediate thinning during the first rotation as the need will depend on the stocking and condition of the various stands at the beginning of the rotation.

The second rotation will be different in that compartments needing intermediate thinnings are known. For example, during the first cutting cycle of the second rotation, 66.66 acres will need regenerating, and 333.30 acres are in the 0-20 year age class and will not need any treatment. However, 133.32 acres will be in the 25 and 30 year old age class and will need thinning from below, leaving the best trees; and 266.64 acres will be in the 35-55 year age class and will need thinning, taking out pulpwood and small sawlogs. This thinning also leaves the best trees.

In France, foresters enter their newly regenerated stands at a very young age and begin selecting the preferred species to leave and cutting out the undesirable species by hand. Even in France there is no market for the results of these very early thinnings, but when the stems reach two to two and a half inches in diameter the material removed is marketable as firewood. Each thinning thereafter results in a profit for the landowner.

In this country, markets are sparse for stems that should be removed from young stands until the average diameter of the stems reach seven to eight inches diameter breast height. Where markets exist for hardwood pulpwood, no one has been able to find buyers who are willing to enter these young stands and selectively thin from below. A stand can quickly be ruined for the rest of the rotation at this age 25-30 years. All that is necessary to ruin the stand at this point is to allow the removal of a few of the biggest and best oak, ash, or gum. This is often done in order to tempt the operator on the site to remove the other less desirable stems and species. The same problem exists during the next thinning when the stand is between 30-40 years of age. The stand will contain pulpwood-sized trees that should be removed, as well as some sawlogs that need to come out. It is extremely critical during these early thinnings that at least minimum basal areas be left and this residual basal area must be composed of the very best the stand has to offer. Ideally, thinnings should

be conducted early and often. With existing markets, stands should be entered the first time when the stand is approximately 25-30 years of age and thereafter at 7 to 10 year intervals. Recommended minimum residual basal area by class are as follows:

Age	Residual Basal Area
25-30	50
30-40	65
40-50	80
50-60	90
60-70	90
70-80	90
80-90	90
90-100	90

Depending on species composition of the stand and the species desired for regeneration, it may be necessary to apply a shelterwood cut prior to the final harvest. If the present stand is largely yellow poplar or sweetgum, no shelterwood would be needed. However, if oak is a component of the present stand (and oak is the desired regeneration species), then a shelterwood cut will probably be necessary at least five years prior to the final cut.

Rotation lengths may be increased if the landowner, through improved markets, can sell undesirable material commonly left on the site after a commercial clear cut.

In the South, we have been unable to conduct thinnings properly because of lack of markets. Where markets do exist, damage to the selected crop trees have been unacceptable. Bob Kellison says, "Thinning cannot usually be recommended for improving natural stands of sawtimber size and quality. Damage wrought to crop trees from felling and skidding, in addition to soil puddling from wheeled logging equipment, often offsets returns from wood removed and from value added to crop trees as a response to thinning. A case can be made for thinning high-value crops but only if care is exercised in logging."

Where markets do not exist for the material that needs to be removed from our intermediate stands and/or damage to the high value trees left is too great, the best alternative could be to stay out of them altogether until final harvest.

SUMMARY

Present management conditions in our hardwood stands are deplorable, but the future does look brighter. Improved hardwood utilization and markets will enable us to get away from our present helter-skelter, uneven-aged attempts, and allow us to begin a systematic approach to management—even-aged management.



More than a half million acres of marginal cropland in Alabama need conservation treatment.

A HELPING HAND

The Alabama Resource Conservation Program

by LOUIS HYMAN, Chief, Forest Management

TREE PLANTING IS a good investment. Studies have shown that growing trees on land that you already own can yield rates of return between 14 and 21 percent. Besides the income, planting trees can improve the wildlife and aesthetic values of your land, as well as eliminate soil erosion.

If it's such a good deal, why don't more

people plant trees? A survey of landowners Southwide done by Jack Royer of Duke University asked that very question. The three top reasons given were as follows: *the trees will come back by themselves; the potential income is too far into the future; and it costs too much to site prepare and plant an area.*

The 1982 Alabama Forest Survey

indicated that the first factor is not really true. In most cases cut-over pine land is coming back in inferior quality hardwoods and brush. In fact, neglect of our pine forests is a major problem facing not just Alabama landowners, but landowners Southwide.

The second factor, the length of time until the stand produces income, is rapidly



Landowners may use the cost-share funds to plant trees on marginal cropland.

being shortened by genetic improvement and changes in utilization standards. New plantations can now produce income from their first thinning at ages 10 through 12.

The third factor is the hardest to answer. Site preparation and tree planting can cost between \$50 and \$200 per acre, depending on the amount of brush and debris left on the site. In Alabama, both the State and the Federal governments are trying to help this problem in two ways: tax incentives, and cost-sharing.

Federal Tax Incentives

Tax incentives for tree growing only apply to Federal taxes. The major incentive is the **Reforestation Tax Credit and Amortization**. This law allows a landowner to take a 10 percent tax credit on the first \$10,000 of reforestation cost. This \$1,000 credit is deducted directly against the amount of taxes owed. In addition, the landowner can amortize, or gradually deduct, the first \$9,500 of his reforestation expenses over a period of 84 months. That is, you can take a deduction of one-seventh of your site preparation and

planting costs for the next seven years.

Other tax incentives that help the TREASURE forest owner are the **Capital Gains** treatment of timber sale income, and the deductibility of annual management

costs. Capital Gains lets you deduct 60 percent of the "profit" from a timber sale. Thus, taxes are paid on only 40 percent of the profit, after deducting the cost of the timber and the sale expenses.

TABLE I

ALABAMA AGRICULTURAL AND CONSERVATION DEVELOPMENT COMMISSION MEMBERS

The Governor (Governor's Representative)	B. A. Real
Commissioner of Agriculture & Industries	Albert McDonald
President, AL Farm Bureau Federation	Goodwin Myrick
President, AL Cattleman's Association	Dr. George Smith
Chairman, Soil & Water Conservation Committee	Marion Sanders
Member, AL Forestry Commission	Homajean Grisham
Member, AL Agricultural Stabilization & Con. Comm.	William G. Guice
President, AL Association of Conservation Districts	Martin Moates
Citizen of State/Active Farmer	Billy W. Bryant
Citizen of State/Active Farmer	Jimmy Holley
Chairman, Senate Agriculture, Conservation and Forestry Committee	Chip Bailey
Chairman, House Agriculture and Forestry Committee	Curtis Smith
Member, House	Bob Harvey
Member, House	J. E. Turner
Member, Senate	Roger Bedford
Member, Senate	

The U.S. Congress is presently involved in a tax reform effort. The **Treasury II** proposal calls for the repeal of the reforestation credit and amortization. It also would restrict Capital Gains to those landowners who only occasionally sell timber. This would raise the effective tax rate on those landowners who frequently sell timber from the present maximum of 20 percent to 35 percent. Several groups, including the Alabama Forestry Association are working to stop these changes and protect TREASURE Forest landowners.

Alabama Resource Conservation Program

Cost-sharing is a direct payment to a landowner for doing some conservation action. There are two Federal cost-sharing programs: **Forestry Incentives Program (FIP)**, and **Agricultural Conservation Program (ACP)**. Both of these programs can help a landowner cover the cost of planting trees. Applications are available at your county ASCS office.

A brand new state cost-sharing program has just gone into effect October 1, 1985. This program is called the **Alabama Resource Conservation Program (ARCP)**. The purpose of the ARCP is to provide financial assistance through cost-share grants to owners of farm or forest land for soil conservation, water improvement, reforestation, or forest improvement practices.

The ARCP is an unique program in that it does not use tax money to operate, but is supported from Alabama's Oil Windfall Trust Fund. In 1984, Alabama received a windfall of \$358 million when the oil and gas drilling rights to parts of Mobile Bay were leased at auction. Governor Wallace and the legislature took this opportunity to use money produced from the state's natural resources to improve all the state's natural resources. The Governor's package was approved in a special referendum on May 14, 1985, with the first \$2 million in cost-share grants becoming available October 1, 1985.

The ARCP is administered by the Alabama Agriculture Conservation and Development Commission (ACD Commission). This board, appointed by the Governor, contains representatives from nearly all conservation agencies and groups (see TABLE I). The day to day operations of the program will be handled by the State Soil and Water Conservation Committee and the various county Soil and Water Conservation Districts. The USDA Soil Conservation Service (SCS) and the Alabama Forestry Commission

(AFC) serve as technical advisors to the ACD Commission and the Conservation Districts.

There are five major forestry practices approved for ARCP cost-sharing. In rough order of priority, these are *planting trees on marginal cropland*, *planting trees without site preparation*, *site preparation and tree planting*, *forest tree stand improvement*, and *site preparation for natural regeneration*. The various activities allowed under these practices are shown in TABLE II. The major difference between this program and FIP or ACP is the inclusion of cost-sharing for firebreaks and prescribed burning.

How to Get a Grant

The cost-share rates and acceptable practices will be decided each year by the

TABLE II

FORESTRY PRACTICES APPROVED FOR ARCP

- | | |
|--------------|---|
| ASE-1 | Permanent Vegetative Cover Establishment <ul style="list-style-type: none"> • Planting Trees on Marginal Cropland |
| AFI-1 | Forest Tree Plantations (Without Site Prep) <ul style="list-style-type: none"> • Tree Planting • Herbicides used within one year • Firebreaks |
| AFI-2 | Site Preparation and Forest Tree Plantations <ul style="list-style-type: none"> • Essential Site Cleaning and Preparation • Tree planting • Firebreaks |
| AFI-3 | Forest Tree Stand Improvement <ul style="list-style-type: none"> • Cull tree deadening or removal • Seedling release • Initial prescribed burning • Firebreaks |
| AFI-4 | Site Preparation for Natural Regeneration <ul style="list-style-type: none"> • Cull tree deadening or removal • Shearing of residuals • Soil scarification • Prescribed burning • Firebreaks |
-

ACD Commission. For 1985-86, the cost share rate is 60 percent of actual cost up to a limit of \$3500 per applicant. To be eligible for cost-sharing, the person must own or lease at least 20 acres of land. Government agencies and non-family owned corporations are not eligible.

To receive an ARCP cost-share grant, a person must follow several steps. First he must *fill out an application* at the county SCS office. The Conservation District Supervisors, a board of five local landowners elected within the county, screen the application to make sure the person is eligible. Next the case is referred to the SCS or AFC for a *management plan*. The plans will contain general information and detailed specifications for the project.

The District Supervisors then review the application and management plan and give approval to those plans that fit the district's priority system. The priority system is developed by a joint effort of the district, the ACD Commission, and the technical agencies. The person then *carries out the plan*, following SCS or AFC specifications. The SCS or AFC will certify when the practice is completed correctly and the acres involved. The person has until March 1 of the year following approval to do the work, (ie. March 1, 1987 for grants during fiscal year 1985-86). To receive his money, the applicant *supplies proof of cost and signs a maintenance agreement*.

The amount of money per county will vary each year. The ARCP is funded with \$2 million for fiscal year 1985-86. The tentative budget for 1986-87 is \$3 million. Each county should receive about \$28,000 for this first year. At the maximum rate, this should handle about 8 applicants per county. The amount of money put into forestry projects will vary by county needs and priorities.

Any money not obligated by March 1 of each year is returned to the ACD Commission for reallocation to areas where it is needed. Any applications not funded by October 1 of each year are **not** carried over, so the landowner must reapply.

The ARCP has the potential to really help us solve our two greatest land-use problems, soil erosion and reforestation. If you think that this program can help you on your TREASURE, apply at your local SCS office. ♣

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Timber Production on Marginal Cropland

by JERRY L. JOHNSON, State Staff Forester, USDA-SCS, Auburn, AL and WILLIAM B. HUGHES, Agricultural Economist, USDA-SCS, Auburn, AL

ALABAMA HAS 500,000 ACRES of marginal cropland in the state that need conservation treatment. There are an additional 200,000 acres of marginal cropland protected by orchards, hay crops and conservation systems.

Marginal cropland is land that will not provide net returns (profit) above production costs and the cost of a conservation system. Alabama farmers who are farming marginal cropland are barely recouping their out of pocket expenses and are wearing out their equipment, wasting labor and devastating their land without receiving an economic return. In short they are working for nothing. The depressed farm economy and high cost of production has resulted in many acres of marginal cropland being left idle. There are alternatives to cultivating this type of land. One of these is growing trees.

Money Does Grow on Trees

“Trees are like money in the bank, they are growing interest,” says Mrs. Bernice

T. Smith, of Pike County, Alabama. Mrs. Smith owns 1300 acres of forestland and 200 acres of cropland. The farm was once a cotton plantation which has passed down through the family and is very important to Mrs. Smith. The first trees were planted by the Civilian Conservation Corp (CCC) in the 1930's and several hundred acres of land were planted to trees during the Soil Bank Program of the 1950's.

Mrs. Smith has seen the planting, growing and harvesting of trees on her property and has benefitted from the monetary returns of these investments. She recently planted 65 acres of the cropland to trees and plans to plant the remainder in the near future. Why? “I know trees are a good investment with a minimum of time required for management,” says Mrs. Smith.

Mrs. Smith also feels that her forests are a good hedge against inflation. The 20 year history of timber prices shows a two percent net annual price increase over inflation. The Smiths are now harvesting timber annually as retirement income.

Other Benefits of Tree Planting

Landowners are now planting marginal cropland to trees for several reasons. The most common reason is that people have recognized that forestry is a good investment. The conversion of cropland to trees requires a low initial investment—usually about \$50 to \$60/acre. Trees grow rapidly and are easier to manage than row crops. Genetically improved trees planted on highly productive soils may be thinned in 10 to 12 years. Low prices for agricultural crops and cutbacks by farmers have made it more difficult for landowners to rent marginal cropland. For this reason landowners—especially absentee landowners—should seriously consider planting trees.

There are also tax incentives for planting trees. The reforestation tax incentive includes a 10 percent tax credit on reforestation costs of up to \$10,000 and the remaining costs may be amortized over a seven-year period. Landowners may also take advantage of capital gains treatment for timber.

Forestry is a long-term investment. However, with genetically improved trees and good management, optimum annual equivalent income which can be compared to net returns of farm crops ranges from \$30 to as much as \$85 per acre.

Some landowners are concerned about the hazards of fire and weather. The probability of a stand of trees being totally destroyed is one-tenth of one percent which is less risky than most investments made in stocks, bonds or precious metals. When comparing the inflation and tax advantages of forestry over other investments, the slight risk is worth it.

If you have marginal cropland, consider planting trees—*it is a good investment!* For more information on planting trees on marginal cropland contact the Soil Conservation Service, Alabama Forestry Commission, or the Alabama Cooperative Extension Service. ♣



The conversion of marginal cropland to trees requires a low initial investment.

LOG CABIN FEVER!

by GARY FAULKNER, Chief, Industrial Relations & Utilization

WHO COULD RESIST the warm pleasing appearance of a log cabin seen while driving along a country road—smoke curling out of the chimney, a lazy dog sleeping near the swing on the porch, all nestled in a wooded grove partially hidden within its shadow. What a picturesque scene!

Log homes are becoming reality and the choice of many prospective home buyers in the Southeast, and throughout the U.S. The log home industry has emerged as a popular and significant portion of consumer choice for housing due to relative inexpensive cost, simple construction characteristics, natural insulating ability, and general aesthetic appearance, among many factors. These homes vary from principle places of residence to recreational housing.

In Alabama, based on the Alabama Forestry Commission's 1983 Primary and Associated Secondary Forest Industry Survey, there were three log home manufacturers reported in 1982 contributing approximately \$1.1 million of product value. Add to this the many dealers of manufactured "kit" log housing in the state, and the popularity and magnitude of the log home industry becomes even more apparent.

But how practical is a log home? Are there construction and maintenance problems uniquely associated with log homes? What questions should a prospective log home buyer ask regarding log home "kits?" These and other questions will be briefly addressed and are offered to stir objective thought toward the decision to build a log home.

Early Log Homes in Alabama

During the early years of settlement in



Alabama, the term "cabin" was used to describe any temporary dwelling. It is said that the traditional American log cabin was the product of the British single room "one bay" cottage constructed with logs. This particular construction method was learned from early German settlers. The log cabin was gradually replaced by a more carefully built and durable log house, many of which have survived for a century or two.

Some of the early local log home structures were categorized into specific types such as the single pen house, the dog trot house, the double pen house, the saddlebay house, the cradle house, and the two-story house. These local or "folk houses" had no carefully measured plans. But these houses were a part of a log history based on medieval forms that were a part of

the West European culture. These builders of log houses and their later frame counterparts relied upon standardized features and it seemed everyone knew how a particular folk house type was supposed to be built. By the middle part of the nineteenth century the single and double houses were being built of frame although the traditional single and double log houses continued to be built until about World War II.

The Decision to Build

As previously mentioned, the popularity of log home construction has grown in recent years. Young "white collar" professional couples may envision a log

home as a more natural environment to establish a family. Some may feel a "country" lifestyle will be complimented by a log home structure. Others may just see a log home as more of an extension of a relaxed pace of life, such as for retirement or recreational use. Whatever the reason, log homes are becoming prevalent among home construction. How sound is the decision to build a log home? Many log homeowners are very satisfied and have no major structural or maintenance problems. Others have reported, often within a short period of time after completion, different types of problems such as insect infestation and decay. These are unique considerations which should be reviewed before an individual commits toward the purchase and construction of a log home.

Wood Species Choice

The quality and choice of wood species is very important in the decision to purchase a log home. In fact, it has been said that a log home is as durable as the quality of the logs used to construct the home. The emphasis should be on the quality of the logs being used rather than the species choice, although species selection is an important factor. Construction can be completed utilizing susceptible species but must be protected by good design (adequate roof overhang, porches) and proper maintenance of the logs used to construct the home.

There are wood species which can be utilized in the construction of a log home which have naturally better decay resistant qualities than others. A Forest Service report has shown that the heartwood of such wood species as bald cypress, cedar, redwood, black locust, red mulberry, white oak, osage-orange, black walnut, and Pacific yew produces a natural resistance that repels most decay organisms (although not practical for construction except for perhaps cypress). The most commonly used species are southern yellow pine, white cedar, eastern white pine, cypress, and northern white cedar, among others. Regardless of the species, there must be a minimal time before debarking of the log and the logs must be protected from wetting during storage.

Moisture and Insect Control

It is very important that a log home be designed for dryness as "dry wood does not decay." Many log homes are constructed so that decay will occur as the builder either overlooked or did not utilize basic construction techniques unique to the

prevention of decay in log homes. As in any conventional home a log home should be well planned before construction begins. Where moisture occurs, decay fungi can flourish. Log home construction should also provide for protection from rain and ground moisture. It should also be noted that moisture can be a problem through poor design (Western U.S. designs vs. Southeastern), careless workmanship, and by improper or poor maintenance. There are several classes of problems caused by moisture related to fungal damage: sapstains which cause almost no strength losses in wood but might create objectionable color changes in the wood; mold discolorations which are usually a surface stain which can be removed by clorox solutions; soft-rot fungi that cause a more severe type of wood degradation; and brown and white rot fungi which are the most severe types of wood rotters and can cause extensive damage.

The principle to prevent deterioration is to utilize construction techniques that reduce water wetting to a minimum and that keep the log home dry. Moisture problems can be eliminated by proper roof overhang, roof vents, adequate crawl space ventilation, properly designed log walls, porch utilization, concrete, brick, or stone foundations with good drainage, and other techniques. Porches all around the house are best.

Insects can also cause extensive damage. A responsible manufacturer will take special precautions to utilize a log freshly cut from the stump as quickly as possible in the manufacturing process to minimize colonization of insects and fungi. Bark



Log shrinkage misaligns corner of structure.

should be removed as soon as possible in the manufacturing process as it can facilitate insect infestation. Logs should also be protected during seasoning and storage. Logs left unprotected during harvest, machining, and transit can be a potential problem in later years. Beetles are often found in log homes by their emergence within one to five years after final construction. But these adult beetles cannot successfully attack dry wood (20 percent moisture or less). Proper treatment against fungal decay can also help a log home resist insect damage.

Log Seasoning and Treatment

Logs should be dipped with a preservative chemical and stored, protected, and left to air dry by the manufacturer. This treatment is designed to protect the logs while they dry and not for permanent protection. It is recommended that logs **not** be treated with pentachlorophenol. Manufacturers of log homes vary in their drying techniques of logs. Some kiln-dry, others partial kiln-dry, many prefer to air dry, while some use unseasoned logs. Kiln-drying is recommended, although any log which has been dried should not be re-exposed to moisture. It should be mentioned that since logs do shrink, allowances for such shrinkage should be taken during the actual construction of the log home. After machining, the logs should be treated again for protection during storage and transit to site and construction. Water repellent chemicals can be used, but not sealers. Water repellent chemicals on the exterior are okay to use but the interior surfaces should be kept breathable for one heating season. Dipped or soaked logs are good treatments but does not protect the interior of the log as compared to pressure treatment. Many firms use pressure treatments with chromated-copper-arsenate (CCA). Treatment with CCA protects the interior of the log and will kill beetle larvae or fungi present in the log. A disadvantage of CCA is the grayish-green coloration the treatment leaves. Application of a stain can alleviate this color.

Home Site Location

A log home should be located where rain water can be drained from the site from all sides of the house. It is important that careful planning prevents water accumulation under the house. Also, proper treatment of the soil in contact with the foundation of the home by a licensed pest control operator should prevent subterranean termite damage. Any contact of wood to the ground facilitates

the potential for decay fungi and insect attack.

Log Home Maintenance

Once a log home has been completed, proper maintenance should follow. It is recommended that the exterior of the log walls be treated with a wood preservative which contains a water repellent. This should not be applied to the interior surfaces. The exterior should be retreated after construction, sixth month (first heating season), eighteenth month, and second and third year intervals in the South. All untreated wood should be treated as the interior of the logs is exposed through checks and cracks. Sealers and film-forming finishes are not recommended for at least one year as the logs should be permitted to breathe to dissipate excess moisture. Finishes, particularly those applied to both the interior and exterior, may trap water in the logs and further enhance decay.

Log Home Research and Assistance

To aid the log home consumer, there are forest product research laboratories that can provide information and professional opinion on log home construction. Dr. Terry L. Amburgey, a Professor at the Mississippi Forest Products Laboratory, Mississippi State University, has performed many tests on model log homes and has provided important research information in the Southern region (note Suggested Reading Materials). Also, the Forest Product Laboratory of the Auburn University School of Forestry at Auburn, Alabama, has expert wood technologists and a research staff which can provide information and experience regarding log home construction. A final source of assistance would include the U.S. Department of Agriculture, Forest Service, Forest Products Laboratory, at Madison, Wisconsin, where national research has been done on log cabins and associated construction and maintenance.

Consumer Protection

There have been various cases reported where consumers have developed major problems with their log homes. Of course, to avoid these situations the principle preventive measure would be consumer education regarding the product they intend to purchase. It is recommended that anyone considering purchasing a log home should first learn of the historical service and financial aspects of the dealer or manufacturers with which they plan to conduct business. A few questions which should be asked include the following: how

long has the firm been in business, what type of product warranty does the firm have, how much product knowledge do the representatives have concerning log home construction in the South, is the firm a member of a nationally recognized trade group (such as Log Homes Council, National Association of Home Builders, North American Log Builders Association, etc.) and many others. One practical suggestion would be to talk to several log homeowners and gain an understanding of the advantages and disadvantages of a log home structure. The main idea is to thoroughly investigate a prospective log home manufacturer or dealer and to gain product knowledge.

For those individuals who desire additional consumer protection information or who may need legal advice, the State of Alabama, Attorney General's Office of Consumer Protection can provide possible relief. A few tips provided by this office are to ask about the financial stability of the business with which you are dealing, to negotiate terms of the sales contract (i.e., avoid large deposits or a majority payment of sale), to see if a warranty, if provided, will stand the test of time and extend to damages in the future. If you desire further discussion regarding these and other points of concern, please write to the Attorney General, Office of Consumer Protection, 560 S. McDonough Street, Montgomery, Alabama, 36104.

Summary

As in any type of construction, log home structures should be marketed, planned, purchased, built, and maintained correctly if the vision of a picturesque retirement cottage, recreational cabin, or principal place of residence will be accomplished and will stand the test of time. Also, the consumer must educate himself regarding the log home construction market as in any consumer product. To build in the South, with its hotter climate and humid conditions, one must take into account a higher risk for potential insect and decay problems. The bottom line is to objectively consider all factors when deciding between conventional versus log home construction. It is easy to catch log cabin fever, but don't get burned!

I would like to thank and acknowledge Dr. Terry L. Amburgey of Mississippi Forest Products Laboratory, and Dr. Harold O. Beals of the Forest Products Laboratory at the Auburn University School of Forestry for their assistance in this article. For literature citations see Suggested Reading Material Section.

Suggested Reading Material

The following is a suggested reading list concerning log home protection, construction techniques, insect control, and wood species selection. These publications are available from the individual authors and the principal agencies involved in the research. Also, various individual states' forest product utilization staffs, such as the Alabama Forestry Commission's Industrial Relations and Utilization Section, can provide copies of this information if available. Also, acknowledgment and credit to much of the material in this article is given to the following authors and articles.

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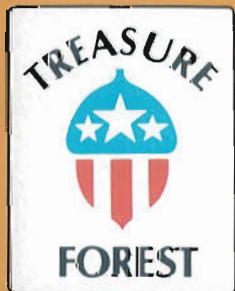
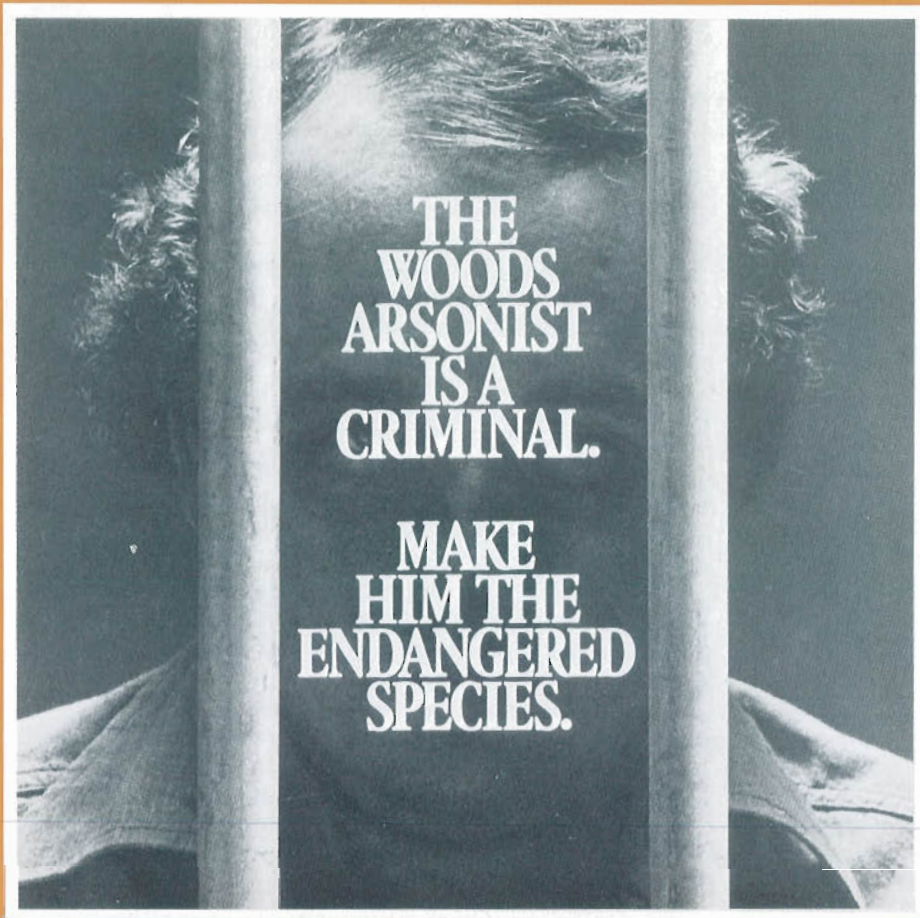
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