Alabama’s TREASURED Forests

Fall 1989
The Landowner Conference was great! It looks like most landowners want to go back to a field day. The planning committee will certainly consider this carefully.

For many landowners in Alabama, the Conference was a chance to gain valuable information. Too many times, though, decisions are made without the proper guidance. For instance, this is a typical situation. A timber buyer will drop by and say, "You've got some timber, and I will give you ___ dollars." The landowner is surprised that it is worth that much and sells. The buyer cuts all desirable trees and leaves the junk. The next time the landowner thinks about his forest is when the next timber buyer stops by. The junk has slowly grown and is worth something, but it has certainly not grown as it could have with desirable stocking.

This practice has been going on for many years in our forests. As a result, our forests are not nearly as productive as they could be for landowners or industry.

We especially need improved action regarding our hardwoods. It is very costly to site prepare and plant hardwoods, but with a little vision and technical advice before and during the harvesting operations, we can ensure that desirable trees have the advantage.

Those of you reading this have given attention as necessary to replenish the forest because you are TREASURE Forest owners. If by some fluke you haven't and are considering harvesting timber—pine or hardwood—please get technical help as necessary. This will not only help ensure the best price for what you sell but will help prepare the site. Your forest will be as productive following the cut as possible, and will be consistent with your financial means and desires for the land.

Sincerely,

C.W. Moody
State Forester
Alabama’s TREASURED Forests

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In 1949, John and Dene Mathews were a young couple building a future for themselves. In the fall of that year they set out 20 acres of loblolly pine seedlings. At the time, Dene's father told the couple, "Some day those trees will be worth a dollar a piece." Today those 40-year-old trees reach high in the sky and are worth much more, but the Mathews like to joke about their $1 trees!

The Mathews bought the 80 acres of land adjoining Dene's father's property in Cherokee County, and since then have bought surrounding property from heirs and others to complete their 900-acre TREASURE Forest, known to them as Cherokee Pines. Most recently the Mathews acquired a piece of property where Dene's aunt still lives in a house which was built in the 1860s.

The Mathews live in Decatur, but they make the 100-mile trip out to "the farm," as they call it, quite often.

Making Stride in Spite of Setbacks

In 1982 the Alabama Forestry Commission and the Soil Conservation Service wrote the first management plan for the Mathews, and they have found it to be a useful guideline. "They made us a master plan and we've followed it almost to the letter," John said.

One of the first things they did was to clear out roads and build firelanes. Because some of the land has very steep hills, water bars were an essential part of the plan when roads were constructed. They were placed at intervals to divert water instead of allowing it to drain down the hills. The heavy rains this past summer certainly put those water bars to a test. Although some holes were washed out, they definitely prevented some roads being completely washed away.

Because of southern pine beetle infestation on 20 acres, the area had to be clearcut. Last March, Velpar was applied to that 20 acres. During the next planting season, the Mathews will plant containerized seedlings on this land. They've never planted containerized seedlings, but want to experiment with this regeneration method to help meet their primary objective of timber production.

John says that they have experienced some setbacks because of the weather, but they take it all in stride. "We've had two years of bad weather." In 1983, a hard freeze that lasted over 10 days killed 70,000 seedlings that were to be put out over 110 acres. Then in 1985, a severe drought caused 80 acres to need replanting. "So we've experienced replanting right at 200 acres due to..."
freezing one year and drought another year,” he said.

**Future Plans**

John says there are areas that need thinning and that will be a big part of future plans for their TREASURE Forest.

A power company right-of-way runs through the property, and the Mathews say they may use it for a wildflower meadow or a food plot for wildlife. Neighbors are allowed hunting privileges. “I’ve got a good population of turkey, and I’ve got a tremendous population of quail,” John said. Dene believes that their land not only has potential for hunting, but for things such as bird watching and nature trails as well. “I think we’ve got a lot of potential for recreational activities in the woodlands,” she said.

Ten years ago they clearcut about 100 acres of mixed hardwood and pine and replanted in pine. On other hardwood areas they have practiced pine release, and then other hardwood areas have been left for wildlife purposes. Sixty acres of bottomland hardwoods have been set aside for aesthetic purposes. The area is conducive to growing wildflowers, something very close to Dene’s heart. Planting, identifying and enjoying the beauty of wildflowers is a favorite pastime of hers. She has transplanted flowers from the farm to their home in Decatur, so she can enjoy that part of her TREASURE Forest without travelling to Cherokee County. She has identified over 200 different species growing on the farm at different times throughout the year. She also enjoys photographing wildflowers (An example of her work is on the opposite page).

Being absentee landowners is difficult sometimes, the Mathews say. Not being there can make it hard to keep night hunters and trespassers off the property. Being so far away and keeping up their TREASURE Forest is a lot of work, something that goes without saying. But it’s also something that John and Dene both delight in doing. Knowing it will always be the same when they go there, yet being able to enjoy the changes that they made happen, are part of the reason they return so often. Right now, just the opportunity for relaxation is often what brings them to Cherokee County. “We come down here and there’re no telephones or problems. “It’s a different world,” John said, and Dene agrees with him. “It gives you something to look forward to.”
John and Dene Mathews both grew up in the country, he in Clay County and she in Cherokee County. In fact, some of the land now comprising their TREASURE Forest has been in her family for five generations.

After high school, John immediately joined the navy. He spent two years in the service and although he did not see active combat during World War II, he was stationed on a mine sweeper near Japan after the war. After serving his country, he met his future wife at Jacksonville State University. Dene graduated from there with a degree in math and science. They married in 1947, after which John transferred to Auburn. He graduated in 1949 and taught vo-ag for four years. Dene also became a teacher; she is now retired after a 30-year career.

John has been employed by the Alabama Farmers Cooperative, Inc. for the past 31 years. He serves as general manager at the headquarters operation in Decatur, a job that keeps him steadfastly busy.

They have raised three children, two boys and a girl, and now have five granddaughters.

The Mathews first heard about the TREASURE Forest program from Stanley Anderson, who was then Alabama Forestry Commission County Supervisor in Cherokee County. Stanley has since moved on to become District Forester in Bay Minette, but Dene remembers how he would always identify different species growing on their land and sparked her interest in learning more. In fact, a bottomland hardwood area they now call the “Anderson Preserve,” because Stanley recommended this area to be set aside for aesthetics. They have maintained good relations with the AFC through Kevin Taylor, who is now county supervisor.

Dene, a petite, vivacious woman, just bubbles over when she talks about her wildflowers. She is a member of the Huntsville Wildflower Society and the Huntsville Botanical Gardens. She has had an interest in wildflowers all her life. Her mother loved flowers and since they lived in the woods, “she was always telling me the names of them.” In college she took botany classes, and has acquired about 15 books which help her identify different varieties of wildflowers.

In 1982, the Mathews were honored by winning the Helene Mosley Memorial TREASURE Forest Award for District 1. John now serves on the TREASURE Forest Advisory Committee. He, along with other landowners appointed by State Forester Bill Moody, meet and discuss the TREASURE Forest program and then make recommendations.

John and Dene Mathews feel they are lucky to have a place like Cherokee Pines to visit and get away from it all. Keeping the 900 acres in good condition is hard work, but it’s also a great deal of pleasure. “Some of it’s to enjoy,” Dene said. And enjoy it they do. The Mathews look forward to the time when John retires and they can spend even more time in Cherokee County. But in the meantime, they will continue to enjoy watching their timber—and their wildflowers—grow.
A View on TREASURE Forest

by FREDERICK A. BUSCH, TREASURE Forest Coordinator/Wildlife Specialist

As a relative newcomer to the TREASURE Forest Program and the State of Alabama, my observations and comments may seem rather simplistic to those of you who are veteran participants. But with apprenticeship comes the ability to be objective when evaluating a project and perhaps my thoughts will shed a different light on TREASURE.

Through my past experiences in forestry and wildlife management, I am familiar with the concept and practice of multiple-use forest management. The benefits of considering all forest resources as an integrated package accrue to the landowner, the land, and society in general. These benefits include, but are certainly not limited to, the following:

- optimal timber production
- improvement in wildlife habitat
- diversification of forest products available for sale
- more uniform annual incomes
- maximization of recreational opportunities
- improvements in water, air and environmental quality

When I first came to Alabama to become a part of the TREASURE Forest team, I assumed that the program was simply a multiple-use educational program featuring integrated forest and wildlife management. I discovered that I was partly right, but that TREASURE is really much more than that.

I found, to the gratitude of my conservationist ethic, that TREASURE recognizes and emphasizes land management considerations for wildlife, recreation, aesthetics and a clean environment as well as timber production. Agents of the groups comprising the Alabama Forestry Planning Committee encourage an integrated approach to land management through their respective technical assistance programs. Agency foresters, wildlife biologists, soil and water conservationists, agriculturalists and others stimulate landowners to manage their forests to provide a maximum contribution to Alabama specifically and America in general.

A prospective TREASURE Forest landowner makes known his land management objectives to the natural resource professional. To qualify for TREASURE Forest certification, a landowner must declare one primary and at least one secondary objective. With the landowner's objectives in mind, his progress is evaluated in accordance with the program minimum standards and basic guidelines. Though a landowner may do much more, he must show a specified minimum level of accomplishment toward his objectives. In addition, a special category, called "non-objective accomplishments," has been created containing criteria that all TREASURE Forest landowners must meet regardless of objectives.

In effect, participating landowners are truly practicing multiple-use forest management and TREASURE provides acknowledgement of that fact. By giving public recognition to those landowners who have chosen such a management regime, others are inspired to follow suit.

Our forests are America's greatest natural resource and can give us needed products forever if they are cared for properly. Since 75 percent of our southern forests occur on private, nonindustrial lands, good stewards like TREASURE Forest landowners are vitally important to our way of life. Some may remember what happened to our forests when little thought was given to good land stewardship. The lumbering boom of the early 1900s totally exploited the original forests. As the forest disappeared, so did much of our wildlife. Soils that had been protected by the forest for so long were seriously depleted through erosion; waterways became silted and wildfires completed the devastation.

But through the next few decades, cooperative ventures by federal and state agencies and private landowners restored our forests to the southern region's largest single land use. Conditions were created that were and are conducive to fertile soil, clean water and abundant wildlife. It is my opinion that this restorative effort lives on in the management activities of our TREASURE Forest landowners.

Aldo Leopold once wrote an essay entitled The Land Ethic, in which he said: "the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to cooperate (perhaps in order that there may be a place to compete for)."

"The land ethic simply enlarges the boundaries of the community to include soils, water, plants and animals, or collectively: the land. This land ethic changes the role of humans from conquerors of the land—community to plain member and citizen of it. It implies respect for his fellow members, and also respect for the community as such."

The degree of stewardship displayed by our TREASURE Forest landowners is high indeed. Perhaps even more significant, however, is the respect that is time and again shown for the community of the land.

Animal Inns

During a TREASURE Forest inspection, one characteristic of the forest evaluated by the wildlife biologist is the number of den and snag trees existent on the property. It is well recognized that dead trees serve a useful purpose for wildlife when left in the forest.

In order to increase public awareness about the importance of dead trees and even downed logs, the U.S. Forest Service has launched a publicity campaign entitled Animal Inns. The message behind the Animal Inns Program is not aimed at stopping the cutting and removal of dead trees, but rather at recognizing and saving those trees that have particular wildlife values. Initiated in 1986 on the Deschutes National Forest in central Oregon, plans are to launch a national venture in 1989. State and federal resource management agencies as well as conservation groups and commercial organizations are expected to participate.

FALL 1989
If you are struggling to make things grow in your garden, maybe nature is trying to tell you something. Plants should not be difficult. Just look around—our world is covered with them.

Of course not every kind of plant grows in every place. Each habitat is characterized by the presence of certain species. There are species ideally suited for your place too, that are easy to grow and beautiful to see. And they are probably natives.

Growing wildflowers will not eliminate all of your gardening problems—despite the claims in some seed catalogs. Succession always occurs, seasons change and shade increases. But natives, in their proper habitat, reduce the amount of spraying, weeding, watering, fertilizing and mowing required. This benefits the environment even more than it helps your back.

We Alabamians live in one of the richest and most favorable regions of the world for growing plants. About 3,500 species occur naturally here. These are perfectly suited to our soils, seasons and climates. Yet most growers surround themselves with exotics from the farthest places on earth.

Too much time and money are spent trying to grow plants that nature intended to thrive in China or Brazil. We exhaust ourselves trying to turn the perfectly good Alabama environment into the environment of some other places. Then we struggle to protect the poorly adapted plants from local conditions or we struggle to protect ourselves from invaders gone wild—like kudzu and water hyacinth—because no natural controls exist here.

An ecosystem is a unit, a whole made of many close-fitting and finely tuned parts. Our ecosystem is designed for Alabama parts. Trying to fix it with exotic parts makes as much sense as trying to fix your old Chevy with Mercedes parts. They might look great, but they just don’t fit.

There are no more beautiful plants anywhere than natives such as butterfly weed, showy primrose, phlox, blueberry, swamp azalea or dogwood. Not every wild plant is a desirable garden specimen. As in all gardening, we select the best and weed the rest. The idea is not simply to let nature take over, but to distill out the finest nature has to offer in an ecologically, as well as aesthetically, meaningful way.
We can sometimes improve upon nature, but only by working with it, not by trying to beat it into submission. Growing plants, whether pines for pulp or wild roses in the dooryard, should be a renewing, rewarding and enlightening experience. Plants are the foundation of life on this planet. Working with them can teach us much about the world in which we live.

So where do we start? Look around. What was the land like before it was "developed?" Was it woodland? Prairie? Bog? Whatever it was, it was covered with fascinating creatures and beautiful flowering plants. It provided food and shelter for birds and other wildlife. By following nature's cues you can restore, and even improve upon, those days.

The choice of plants will depend upon your site, soil, sun, shade and slope. Let nature, not the marketing division of a nursery, decide. If the land has been drastically changed or is now covered with exotic perennials, restoring it will take some time. Relax. Nature will do most of the work—with some guidance from you. But nature is in no hurry. The quickest way to become discouraged is to try and do too much too fast.

Begin by adapting a traditional garden. Eliminate a patch of lawn and plant wildflowers. Introduce a few natives at the borders. Each year replace an exotic shrub with a well-chosen native.

Put your mind to work, not your back. Start creating habitat where natives will thrive again as they did for eons before man started to "improve" the land. Learn about our wildflower heritage, learn to identify native plants and where they grow. Learn about their requirements, benefits and shortcomings as landscape specimens.

The discussion above has concentrated on growing wildflowers in special, small spots around the residence. At least 50 species of native plants have recently become extinct. Perhaps one Alabama species in 10 is in danger. Worldwide, thousands of species are being lost. Almost all species could be saved, used and enjoyed, if people care enough to do a few simple things.

(1) The best way to "manage" wildflowers is to conserve the places where they live. On a global and national scale this means preserving millions of square miles of functional ecosystems—not as untouched wilderness, but as places where nature's rules are followed. Every landowner, even a suburban homeowner, can make important contributions. Edges, fence rows, stream banks, wet meadows, rocky hilltops and many other small, marginal spaces can provide essential refuges for both plants and wildlife. We should make a commitment to setting aside some places like this, if for no other reason than to say "thanks" to the natural system that supports us. More pragmatically, these little preserves provide real economic benefits, are aesthetically pleasing, and save species which might prove useful to future generations.

(2) Be very careful about collecting plants from the wild. Many transplant poorly and, in any case, natural populations have too often been decimated by thoughtless plant lovers. Some hardy, common species can be safely transplanted and there is the dubious blessing of "plant digs" in areas condemned to development which can provide specimens. Seed collecting is usually the best means of starting your own plants.

(3) Be wary of purchasing native plants from dealers. Some are excellent, using nursery propagation for all sale plants and even returning some to the wild. Other dealers are responsible for "strip mining" native plants—often illegally—from millions of acres of public land. A dealer who sells large cacti and native orchids should be examined very carefully. These plants are almost always taken from the wild and almost never survive after the sale. Ask dealers where they get their stock.

(4) You can become an activist on behalf of native plants. Many organizations will help and will benefit from your support. Some examples are The Rare and Endangered Native Plant Exchange, which needs volunteers to grow rare plants and save seeds; The Nature Conservancy, which is dedicated to the preservation of natural habitat; and The Alabama Wildflower Society, promoting wildflower education and preservation in our own state. A partial list of organizations and known reliable wildflower sources is given below. Persons with specific questions or who have unusual wildflower sites are welcome to contact me at the Biology Department, Huntington College, Montgomery, Alabama 36106.

Sources of Native Plants and Seeds

Native Gardens
Route 1, Box 464
Greenback, TN 37742

Sunlight Gardens
Route 1, Box 600-A
Hillvale Road
Andersonville, TN 37705

Natural Gardens
113 Jasper Lane
Oak Ridge, TN 37830

We-Du Nurseries
Route 5, Box 724
Marion, N.C. 28752

Passiflora
Route 1, Box 150-A
Germanton, N.C. 27019

Woodlanders, Inc.
128 Colleton Avenue
Aiken, S. C. 29801

Organizations Concerned with Native Plant Conservation

Alabama Wildflower Society
c/o George Wood
Rt. 2, Box 115
Northport, AL 35476

Natural Resources Defense Council
1725 I Street, N.W.
Washington, D.C. 20006

The Rare and Endangered Native Plant Exchange
c/o New York Botanical Garden
Bronx, New York 10465

North Carolina Botanical Garden
UNC-Ch., Totten Center 457-A
Chapel Hill, N. C. 27514

The Nature Conservancy
1800 North Kent Street
Arlington, VA 22209

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stress-graded structural lumber and could have a significant long-term impact on the quality of the wood resource. Given a more favorable housing start in the future, structural lumber could be a profitable market for yellow-poplar.

**Hardwood Remanufacturing**

Another forest product development opportunity involves hardwood remanufacturing. The demand for high-grade hardwood timber is great, particularly for export, paneling, cabinetry, and furniture. Southeastern forest industries, including those in Alabama, are hampered in their ability to penetrate global markets due to various barriers. These include relative small firm size, financial capability or expertise to rework hardwood timber into the grades, quality or quantities required by users in European and Pacific Rim markets. An opportunity exists for small and medium-sized sawmills to sell their lumber to a remanufacturing facility which could subsequently reprocess, kiln dry and package the lumber for export.

**Ready-to-Assemble Furniture**

Another product development concept is the Ready-to-Assemble (RTA) furniture market. RTA sales have risen dramatically in recent years and the product is gaining broader consumer acceptance. RTA technology is not a new concept and can be readily introduced in Alabama. The dominance of RTA in international markets points out the potential for growth in the U.S., as this country is the world's largest consumer of furniture products.

**Southern Yellow Pine Shakes**

The southern yellow pine shake market (treated) is expected to grow as homeowners, architects, and builders who use these shakes give them high marks for quality, strength, and beauty. There now exists an inspection code (TP) for the treated pine shake and the work is spreading about this unique and decorative product across the South and Northeast. Entrepreneurial start-ups of this manufacturing opportunity is good for Alabama, particularly for rural areas of the state where the southern yellow pine industry is so active.

**Spaceboard**

The U.S. Department of Agriculture Forest Products Laboratory is developing a new fiber-based, molded product called Spaceboard. Spaceboard is a pulp-molded fiber or composite structural sandwich usually made of two identical components bonded together at the neutral axis of the sandwich. Spaceboard is projected to be a high-value product which can be used in a variety of applications, such as the Spaceboard I version which is intended to replace corrugated cardboard in packaging where greater strength is necessary. A new version, Spaceboard II, is a thicker product and has the possibility of being used in structural applications.

**Borax/Borate Wood Preservatives**

TIM-BOR, an EPA registered wood preservative made by U.S. Borax Co. of Los Angeles, is a wood preservative which protects wood from destructive insects and decaying fungi in recommended uses. It can be applied by pressure treatment, dip-diffusion, and spray methods. TIM-BOR has been used for
more than 40 years in the preservation of construction lumber in Australia and New Zealand. Because of the existence of less expensive but not necessarily safer wood-preserving chemicals, borates have not been used extensively by the North American lumber industry. A number of existing chemical preservatives have been under review by EPA. This has sparked renewed interest in the search for safer alternative chemicals, such as TIM-BOR. TIM-BOR is not suitable for use where treated wood will be in contact with the ground or exposed to rain. Under paint and roofing, the treatment is permanent.

Summary

Timber and wood-based raw materials and products play an important role in Alabama’s economy. Cost considerations have forced timber processors to utilize smaller, cheaper timber. The forest manager growing timber for tomorrow’s market should consider the changes occurring in processing technology, new products, and their implications on timber values and local manufacturing economies. Trends in forest product technology and utilization affect benefits we obtain from forests in Alabama.

New processes and products will continue to thrust Alabama’s forest industry in the forefront of the state’s economy. Forest product technology will play a major role in forest resource supply and demand. Forest managers and timber owners should have knowledge of the evolutionary nature of forest product technology.

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Congress adjourned for a month-
long recess August 5 amid a flurry
of activity and issues. Major issues on
the House of Representatives’ agenda
were postponed earlier in the summer
while the House was preoccupied with
internal politics.

Appropriations

Progress on the 13 appropriations
bills is much slower than last year,
when, for the first time in years, all 13
were signed into law before the Oc-
tober 1 fiscal year. This year it will be a
“race to the finish line” to complete
final action on any of the bills before
the new fiscal year. Members are
speculating about the prospect of an
emergency “continuing resolution” to
finance the government in October
until all the regular spending bills pass.

The House and Senate have com-
pleted action on their individual ver-
tions of the Agriculture and Interior app-
ropriations bills. Conferences began
in mid-September. Forestry monies for
the most part are similar to levels ap-
proved last year with some exceptions

that may result due to compromises
struck during the conference commit-
tee process.

The Agricultural Conservation Pro-
gram (ACP) received increases from
both the House and Senate, although
they are not expected to be funnelled
into the forestry program. The Forestry
Incentives Program (FIP) received the
same appropriations as last year and
the Conservation Reserve Program
received a significant reduction. This is
primarily attributed to current and ex-
pected low enrollments.

The state forestry agencies receive
federal dollars through state and
private forestry programs administered
by the Forest Service. A good deal of
disparity exists between the House and
Senate appropriations levels for state
and private forestry. However, it is felt
that these programs are bound to fare
well, even better than past years. Both
Houses are agreeing to fund a new pro-
gram, the Forest Stewardship Program.
This is modeled after Alabama’s
TREASURE Forest program. Con-
gressman Sonny Callahan (R-AL), a
coa-chairman of the Forestry 2000 Task
Force, is expected to introduce legisla-
tion that “authorizes” the program.

At the same time the spending bills
are moving through, both Houses must
put together “reconciliation” bills that
achieve $13 billion in deficit reduc-
tions. A provision in the House bill
places a moratorium on additional CRP
signup periods, potentially affecting
the recent 9th signup period (July 17-
August 4). At this time, the Senate is
not intending to propose a similar
provision and it is anticipated the
House will drop their measure during
conference.

Tax Rates

A strong effort to reduce tax rates on
capital gains was under considera-
tion by the House Ways and Means
Committee as part of a short-term revenue
package. The committee failed to reach
an agreement between two proposals
offered by committee members before
adjourning. Led by Congressman Ed
Jenkins (D-GA), six conservative
Southern Democrats, including Con-


STATE

by FRANK SEGO, Legislative Liaison, Alabama Forestry Commission

Summer, 1989, presented the
Alabama legislature with a break in
activity as no special session was
called to bring lawmakers back to the
Statehouse.

Clerical workers and staff members
who remained on a full-time basis were
viewing it as “the lull before the
storm.” Reason: 1990 is an election
year for all constitutional officers and
with it comes an earlier session. By
law, the legislature is required to meet
the second Tuesday in January during
the fourth year of the quadrennium.
Therefore, next year’s regular session
will begin on January 9.

While all eyes will be focused on
the governor’s race, there will be plen-
ty of jockeying for positions among the
105 House and 35 Senate seats. Al-
though Democrats still hold a decided
deg in numbers, the Republicans con-
tinue to add converts to their ranks.

Senator Frank (Butch) Ellis, Jr., of
Columbiana, was the latest to embrace
the GOP as this article went to press.

Forestry Is Grateful

Meanwhile, the forestry community
is still expressing appreciation to mem-
ers of the House and Senate for secu-
ring passage of Senator Ann Bedsole’s
bills allowing voters to decide on a
much-needed statewide acreage assess-
ment. The legislation received final
approval during the 1989 regular session.

This, however, is only the first step
toward gaining uniformity in the
method of collecting 10 cents an acre
on forestland in all of Alabama’s 67
counties. The current fragmented col-
collection method is archaic and inade-
quate to provide the needs for which it
was intended.

At present, 29 counties collect 10
cents per acre; five are collecting five
cents and one collects only two cents

an acre. Cullman County is authorized
to collect 15 cents per acre, while
several counties have the local
authority but are not collecting a cent.
The enabling act for these local assess-
ments was passed back in 1955.

Vote on June 5

The people of Alabama will have
the opportunity to vote for the constitu-
tional amendment in the statewide
primary election on June 5, 1990. The
amendment clearly relates to the
promotion of forestry and fire protec-
tion on forest property within the state.

It will, following landowner ap-
proval, allow all local laws heretofore
enacted for similar forest fire protec-
tion and assessment programs to be
repealed. The amendment further
provides for the procedure where
owners or lessees of forestland may, by
referendum, levy upon themselves an
The Bush administration will not publicly support the plan, but administration officials acknowledged that they prefer Rostenkowski’s plan, as it encourages entrepreneurial investment and long-term investment.

Interest in restoring preferential treatment to woodland owners remains in more long-term legislation recently introduced. Congressman Lindsay Thomas (D-GA) introduced legislation that restores capital gains for timber. The bill (HR 2663) encourages reforestation and preservation of forest habitats by giving preferential tax treatment for timber sales to forest owners who agree to follow a forest resource management plan. The plan must contain three major preservation elements: a guarantee to replant timberland, adherence to a “no net loss of wetland” policy for forestlands, and a prohibition of conversion of harvested hardwood timberland to softwood.

Senator Wyche Fowler (D-GA) introduced legislation (S 1238) that restores tax treatment for timberland owners pre-1986. The “Forestry Management Improvement Act of 1989” provides an incentive for forest owners to manage their land for all resources, including wildlife.

**Disaster Assistance**

The House and Senate Agriculture Committee completed a disaster assistance package related to 1989 weather-related damages. The legislation extends last year’s disaster assistance law to cover significant 1989 losses.

Included in the legislation are disaster assistance provisions for eligible tree farmers (owners of 1,000 acres or less of trees) who planted trees in 1988 or 1989 for commercial purposes and lost the seedlings to drought or a related condition in 1989. Seedling mortality must exceed 45 percent. Reimbursement will cover 65% of the cost of replanting seedlings lost up to $25,000.

Congress returned September 6 and has plenty to keep it busy throughout the fall.
Snakes have a bad reputation. They are almost universally viewed as vindictive, venomous, heartless monsters; cold, clammy creatures possessed of almost magical powers—the epitome of evil. When coming upon a snake—any snake—normally courageous people shrink in fear.

Fear of snakes can be caused by unfamiliarity and misinformation. There is no need to fear snakes once you know something about identifying poisonous snakes, precautions against snakebite, and what to do in the rare event of snakebite.

**Identifying Poisonous Snakes**

It is not always easy to identify a poisonous snake. There is not a single characteristic that distinguishes a poisonous snake from a harmless one except the presence of fangs and poison glands.

The idea that all snakes have triangular heads or some other warning feature is wrong and dangerous.

The only certain way to identify dangerous snakes is to learn to recognize them on site. Only six of the 40 snake species that inhabit Alabama are dangerous to humans. These are the coral snake, the cottonmouth moccasin, the copperhead and three rattlesnake species.

Coral snakes have brightly colored bands of red, black and yellow or red, black and white. The coral snake in this area of the U.S. always has a black head with a yellow band behind the eyes. Coral snakes burrow in the ground and are seldom seen. They are shy and non-aggressive. They are more likely to be seen in early morning or on a rainy day.

Coral snakes are related to the cobra and have the same type of venom; however, their bite is usually not fatal because of the small size of the snake (20"-30") and the shortness of the fangs.

The coral snake is often confused with the similarly marked but harmless scarlet king snake. An old rhyme for distinguishing between the two describes the order of the bands. “Red on black, friend of Jack. Red on yellow, kill a fellow."

Cottonmouths, copperheads and rattlesnakes are all pit vipers. These snakes have a heat sensitive pit, or tiny hole, between the eye and nostril. These heat sensors help them to locate warm-blooded prey and aim their strike in the dark.

The Eastern Cottonmouth is the most abundant poisonous water snake in Alabama. It has a thick body and a head which is wider than its neck. Although the young are boldly marked with brown to reddish crossbands, the adult cottonmouth is dull brown or olive in color with indistinct bands.

The cottonmouth lives near water. It will usually retreat when disturbed, but it may stand its ground, holding its mouth wide open to display the white “cotton” mouth lining. The best rule of thumb when seeing a snake near water is to beware of one that doesn’t hasten to retreat!

Copperheads are also stout-bodied snakes; the heads are distinctly wider than the necks. The Southern Copperhead is a coppery pink color with dark hourglass bands.

This normally timid, sluggish snake depends on camouflage to escape detection among rock outcroppings, trees or dry ground in wooded areas. If startled, however, it will vibrate its tail and strike. These snakes seem to enjoy each other’s company, and where one is seen there are usually more nearby.

Although the least dangerous of the poisonous snakes, the copperhead is responsible for the most bites because it is often not seen until it is disturbed. When walking in rocky, wooded areas, always remember to step onto rocks and felled trees rather than over them, giving the copperheads hiding along the rocks and trees a chance to awaken and escape.

There are three species of rattlesnake common to Alabama: the Pygmy, the Timber or Canebreak, and the Eastern Diamondback.

The Pygmy rattler is commonly 15 to 22 inches long and covered with dark round or oval blotches. The background color between the blotches may be red, brown or gray. They are usually seen sunning, near water or crossing the road.

The Timber or Canebreak rattler is usually docile, but larger ones are often dangerous. Commonly 36-60 inches long, it is patterned with dark brown or black chevrons. The tail is black. It is usually found on rocky outcrops, hillside or in any wooded area in late afternoon and evening.

Without a doubt, the Eastern Diamondback is the “scariest” of the southern snakes to encounter. Unmistakable! The dark brown or black diamonds are bordered by white or yellow scales. It, too, is stout-bodied with a large distinct head.

It occurs in a variety of habitats in the Coastal Plain, but prefers relatively dry pine-oak sandhills with abundant stump holes, gopher tortoise burrows, fox dens, logs and other cover. They are most likely to travel in the spring and fall, changing locations during the day and remaining stationary at night.

The Eastern Diamondback is declining, and is now scarce in many areas where it was formerly common. Going along with it are its neighbors—the gopher tortoise, the Indigo snake, the gopher frog and other little known denizens of the sandhill. The reasons are several, including loss of habitat and deliberate persecution.

**Snakebite Prevention and Emergency Treatment**

There is only one surefire method of avoiding snakebite: use your eyes and watch your step. Always wear boots in areas where snakes are common. Learn to recognize snake den areas such as holes in the ground, crevices in rocks, caves, under rocks, old boards, logs and piles of dirt.

What should you do if bitten by a snake? If it is non-poisonous, wash the area with soap and water to prevent infection.
Intense pain, swelling and discoloration usually accompany the bite of a poisonous snake. A tourniquet (a handkerchief or boot lace will do) should be applied at a point between the bite and the heart. It should be loosened every ten minutes or so to prevent gangrene. With as little movement as possible, the victim should be taken as quickly as possible to a doctor. Do not consume any food, drink or alcohol. Movement, food and drink will speed up blood circulation.

If, and only if, you are a long way from help, should you try to remove the venom yourself. In all the old cowboy movies, and “X” is cut at the site of the bite to release the venom. Current medical opinion differs on this practice because a very deep cut may damage veins, arteries and tendons. If necessary, however, a 1/4 to 1/2 inch, shallow, clean cut with the grain of the muscle over each fang mark may be helpful. Snake venom, if swallowed, will cause no harm. There is danger only if there are open cuts or sores in the mouth. A thin piece of plastic stretched over the bite can be used to protect the mouth.

The chances of being bitten by a poisonous snake are very small. In the U.S., only 10 percent of snakes pose a danger to human life and the mortality rate of those bitten is about two percent. Many people still carry a gun or stick when in the woods “in case they see a snake.” If a person sees the snake first, there is usually no need to kill it anyway. Let harmless snakes go, and be wary of venomous ones.

While no one is expected to love snakes, there is no need to fear them once you know something about their habits and characteristics, and the precautions one can take to be protected against snakebite.

### ACTIVITIES

**DISTRICT 1**

The Alabama Forestry Commission has been named the Tennessee Valley Waterfowl Association's Conservation Organization of the Year. The commission was presented the Award at the TVWA's annual banquet held Sept. 30 in Guntersville, Jerry Davis, TVWA executive director, expressed his appreciation to St. Clair County Supervisors Larry Parker and PALS Chairman Robert VanVoorhees for providing the TVWA with meeting space and allowing the TVWA to build its holding pens and water pens for its mallard duck and Canada goose programs at the county office on Lake Guntersville.

Twelve children from the Guntersville Special Learning Center enjoyed a day of fishing and a cookout at TREAURE Forest Landowner Dewey Drains' farm pond at Poplar Springs. Jack Lay, Marshall County; Vernell Johnson, Jackson County; Mark Roberts and Phillip Drake, Madison County and Dan Fincher, District 1 office, each had a student fishing buddy for the day. They fished from 9:30 to 11:30 a.m. and then feasted on hamburgers and hot dogs under the shade trees. The idea for the fishing derby came from Marshall County Supervisor Larry Parker.

Madison County Supervisor Mark Sullivan, Mark Roberts and Phillip Drake took three A&M University forestry students and John Irvin, a forestry student, on a tour of the Dewey Meeks' farm July 7. The students got to see a Southern Pine Beetlet friend, taste some of the apples Meeks grows on his 1,500 tree orchard and watch several walks as they were saved.

**MONUMENT CHEMICAL COMPANY** sponsored a field demonstration of two forest herbicides in Cherokee County recently. Jimmy Cobb, Monsanto's representative in Scottsboro, coordinated the event utilizing forest sites belonging to the old Georgia Kraft Company (now Mead). Acced and Arsenal were the featured herbicides with a heavy emphasis on their use for site preparation and pine release. Approximately 35 forestry consultants, chemical salespeople, Forestry Commission rangers and foresters and lumber company representatives attended the tour.

The U.S. Forest Service's Forest Service crew began working in District 1 choosing Jackson County as their introduction to the mountains of Alabama. With outstanding assistance from County Supervisor Ed Eldridge and his staff, David Few and his Forest Service crew completed 38 plots and moved on to Dekalb County. By the end of the summer, four counties were sampled, providing informative and interesting data on the forest resources here in District 1.

**R.B. Brown** of Valley Head was presented his TREAURE Forest Landowner Certificate by the Dekalb County Forestry Planning Committee at his Quincy's Restaurant in Fort Payne recently. Eighteen volunteer fire departments in Dekalb County were presented checks for $125 each by State Representative Ralph Barton's RCPF meeting held in Pine Ridge. RCFS Section Chief Ray Tucker, District Forester Samuel H. Gravel, Dekalb County Supervisor Donald Cole, Gary Sanders and Randy Johnson attended the meeting. The Pine Ridge Volunteer Fire Department hosted the meeting and supplied a supper of deer meat to all who attended.

**DISTRICT 2**

The St. Clair County Forestry Planning Committee recently sponsored a mixed stand tour on the John M. Hartber TREASURE Forest (Canoe Creek Farm) near Springville. Over 100 people from as far away as Redwing Green, KY participated in the meeting. A hay ride tour of the farm included guest speakers at four stops. The tour also included a catered BBQ lunch. Following lunch, a ceremony was held for St. Clair County's 1989 TREASURE Forest Fire Specialist Larry Wright recently attended county association meetings across the district where 154 volunteer fire departments received approximately $197,500 in grants.

Thirty miles of urban street sample plots have been completed by associates in Blount and Jefferson counties. Associates participating in collecting the samples included Greg Reel, Brian A. James Graham, Brian Marg, Bill Hanner, Pal Owen, and Lee Laechelt. Collection data, taken in Birmingham, Mountain Brook and Oneonta, will be added to 17 other Alabama cities for inclusion in a national urban forestry survey of approximately 400 cities. The survey is being coordinated by the American Forestry Association, Washington, D.C. Results will be available later in the year.

Winston County Forest Ranger David Frost completed the minimum standards course at the University Law Enforcement Academy on June 30. Blount County Sheriff Steve Bowen recently received his Burning Prevention Certification, and Ranger William Owen completed the Spring session of the Ranger Academy.

The Pell City Civic Center was the site of the St. Clair County PALS Awards Banquet. The annual meeting and awards were held in the Pell City Civic Center recently held at Azalea University. The Guiliana group of local groups are the Partners of the Americas, which has active chapters in several Alabama and Guatemalan cities. Urban Forester Lawless, also a member of Partners, assisted the teachers with transportation and housing while they were here.

The St. Clair County AFC office has been actively involved in working with the St. Clair County PALS chapter to help illegal dumping across the county. Targeting high fire areas, St. Clair Rangers (in association with PALS), the sheriff's department, the county commission, and District PALS Chairman Chalen VanVoorhees have covered three illegal dumping over the past few weeks. Wildflowers have been planted on the cleaned sites.

The State Forestry Planning Committee recently held a meeting in St. Clair County. County Supervisor Gary Hamilton and Information Specialist Caleen VanVoorhees gave reports on St. Clair County AFC involvement in the local PALS cleanup. Following the meeting, the group met at Wolf Creek Fire Department for a catered lunch. Here, state committee Chairman Joe Brown presented Dr. Carleton and his family with a plaque distinguishing them as being the landowner that put the state over the millionth acre in the TREASURE forest program. After the presentation, the committee was given a hay wagon tour of the Carleton's farm.

**DISTRICT 3**

Congratulations to TREASURE Forest Landowner Paul Crump, Jr., for receiving the prestigious W. Kelley Mosley Environmental Achievement Award. At a ceremony on his Sullifant farm, Crump was presented with a $500 check and a framed, limited edition painting commending the approximately 20 TREASURE Forest landowners at the time. When nominating Crump, District Forester Wayne Strawbridge cited his innovative developments in the field of forestry and his willingness to assist other landowners. “He remains consistent and committed to educating landowners to maximize their productivity,” Strawbridge said.

He also wishes to thank TREASURE Forest landowners Dan James and RCKD Coordinator John Huffer for making the award possible.

Congratulations are also in order for Mr. Wright, Jr., of Berry, for being selected one of three district finalists for the Helena Mosley Award. Mr. Wright's nomination stressed the various educational benefits of his farm and his willingness to share them with interested landowners and agencies.

The Alabama Forestry Commission Commissioners held their semi-annual meeting at Tuscaloosa on Saturday afternoon, June 30. The District 3 staff hosted a delicious catfish supper at the district office in their honor. Afterwards, Information Specialist Tilda Mills presented an overview of district forestry facts. A preliminary report on the background research for a published brochure on the district was provided to those attending.

Subsequent to the meal, the commissioners, the state forester's staff and representatives of the district staff participated in a "town meeting." Commissioner's thoughts, ideas and suggestions were freely expressed. The District staff would like to thank their guests for their continued interest and support.

Tuscaloosa County Supervisor William Moore is delighted with the success of the county's first annual Volunteer Firefighters Appreciation Week held May 14-20. The week's activities included a formal proclamation by...
the Tuscaloosa County Commission, appearances on local radio and television talk shows, and a reception at the District office.

Ranger Harry Kepler and Management Specialist Patrick Waldrop instructed over 50 4-H Club members on tree identification and compass-pacing at a recent field day. Construction has started on the new Tuscaloosa County Ranger Office on district grounds.

Smoky Bear visited over 1,000 school children before summer vacation. He enlisted their help to prevent forest fires during the summer months.

The County Council adopted a Tree Ordinance as the first step toward becoming a TREE CITY USA.

Pickens County Supervisor John Sutton, Forestry Worker Kenny Poole, and Fire Specialist Ken Elmore helped judge the annual Pickens County Tuscaloosa County Volunteer Firefighter Competition. Duncanville VFD was the overall winner.

Two new champion trees were declared in District 3 for 1989. The state’s largest mimosa tree is located off Highway 43 North in Northport. A towering swamp chestnut oak is in Fayette County.

The 5th Annual District 4 Volunteer Firefighters Appreciation Day and Competition was held in Randolph County at the Norwood Community Center's Fouth School. Bill Nixon, Charles Sikes, and Emory Stilts of the Randolph AFC office, and members of the District AFC staff did an excellent job. All newspapers and radio stations in the District gave coverage. WINLemi held several of the competitions. Several hundred citizens from Cullman, Clay, Cullman, Coosa, Randolph, Talladega, and Tallapoosa Counties participated and competed in the event. There were 11 competitions, arts and crafts, rides for the children, and delicious food—a festive day. First place winners were: Obstacle Course, Delta VFD (Clay); Hose Lay, Daviston (Tallapoosa); Bucket Brigade, Idaho (CLay). Jr. Bucket Brigade, Fosters Cross Roads (Randolph); Water On The Roof, Idaho; Brush Truck, AFC, Fosters Cross Roads; Brush Truck, Open, Delta; Old Fire Truck, LaFayette (Cullman); Coke Baking, Taste Div., Paula Holwand (Randolph); Chili Making, Donald Wright (Randolph); Coke Baking, Jean Estes, Overall Competitors, Idaho.

District 4 Headquarters got a face-lift that was needed. This was the first District Office built in the state and was completed in January, 1974, so it was time for a sprucing up.

Scott Phillips, radio operator, gave the statistics for fires from October 1, 1988 through July 1, 1989: 5,333 acres, 410 fires, 13 drownings.

The Tallapoosa PALS Chapter had a booth at the Daleville JULY FEST, organized by WOOF’s Marie Hofman. All counties in District 4—Clay, Cullman, Coosa, Randolph, Talladega, and Tallapoosa—have PALS chapters.

TREASURE Forest Landowner Jack Langley has won the Alabama Wildlife Federation’s Government Achievement Award for Wildlife.

Blake Kelley, Coosa County forester, and Ranger Hunter Adcox attended a hazardous materials training session conducted by the state EMA; the session was held at the Coosa County Vocational Center in Hanceville. The Coosa County Forestry Planning Committee sponsored a Champion Tree search during May and June. A list of “County Champions” will be published in The Tellinexus Daily Home (Sylacauga edition) with the owner’s names. Over 50 trees and shrubs have been registered. The search turned up some new unofficial state champion trees. They were white basswood, ironwood, and sweetgum.

Three new TREASURE Forests were certified at the June meeting of the Servay Subcommittee. They are Forest Ranger Hunter Adcox, W.S. Phillips and Sons, and Earl Brown.

David Rogers and Tim Butler conducted classes at several high schools in the county presenting a program concerning fire safety cooperated with 220 students about the various careers available and the training and education necessary, as well as forest fire laws and fire prevention.

Randolph County Forester Bill Nixon and Ranger Barry Snow planned and conducted the Randolph County FFAs Forestry Competition. The Randolph-Roamoke Area Vocational School (RAVVS) placed first and had the highest individual score. This team went to the district competi-

On May 30, Mecoon County Supervisor Allen Black was presented the Kelly Macy Environmental Award by Charles Kelly, Director of the Division of the Alabama Department of Conservation and Natural Resources. Kelli Moosley and Larry Brooks, district forester, along with a host of friends, co-workers, and well-wishers, were present for the ceremony.

Mecoon County AFC staff participated in Alabama PALs by adopting a mile on Highway 43 in front of the county office building. They also hosted the RCFP association’s mile checking off with a full fry.

David Peear and Allen Black met with Mayor Patay Sunram of Thomaston to identify trees in the Thomaston park. Plaques are being placed by cactaceae for forestry education.

Neil Lefson and Allen Black met with the Myrtlewood Beautification Committee and Neil gave a Tree City program.

Herald Cleveland and Smokey attended the Prattville City Festival.

Smokey visited Moore Academy, Pine Apple, AL, and along with the U.S. Army Corps of Engineers present a program on forestry.

A hardtop planting session was held on June 12 for CRP landowners in Mecoon County. Tom Camba was on hand to answer questions.

The Perry County Forestry Planning Committee held its spring tour recently, Low-cost site preparation and planting methods were demonstrated on TREASURE Forest property owned by Jack Snow. The tour included a steak lunch grilled on the banks of the Calhoun River.

An Urban Forestry Workshop was held on May 24 at the Perry County office. Neil Lefson and David Peear coordinated the program for all District 5 associates. Tree planting, pruning, litter laws and tree commissions were topics of discussion.

The Perry County FFA Forestry Judging team received training from Perry County Ranger David Stewart. They will participate in the state competition in Montgomery.

David Peear, Perry county forester, was awarded the FFA Horizon Degree in May. This is the highest award given by the FFA.

Alain Williams and David Peear are working with the Selma Tree Commission to identify hazard trees in Selma. The Old Town District in Selma has a large number of old growth trees that need to be removed. To date, about ½ the area has been mapped with 28 trees to be removed and 34 to be pruned.

Congratulations to Col. W.T. Weisssinger III, S.E. Belcher, and John Wells who were certified to be TREASURE Forest landowners in District 5. Mr. Weisssinger was presented with his F.T. Award on July 21 in Marion.

State Forester Bill Moody was in Selma recently attending a quarterly PALS (People Against a Littered State) meeting. PALS is gaining momentum in Dallas County.

State TREASURE Forest and Wildlife Coordinator Rich Bunch came to Selma in June to talk with WHBB Radio listeners about TREASURE.

Dallas County Forester Alar Williams is a state officer at the recent State Forestry Contest held on the Montevallo campus in June.

In May, Ronnie Hickman, Geneva County supervisor, Ranger Bobby Light, and Staff Forester Paul Thomas made a preliminary inspection on Mr. Mildred Owens’ property.

During this quarter, Geneva County personnel attended a herbicide meeting on site preparation using the Ansel and Accord tank mixture.

The District is very proud of the new Forest Ranger Hunter Adcox, W.S. Phillips and Sons, and Earl Brown.

Pine County has been busy with TREASURE Forest creeds and certifications this quarter. Their three most recent certifications are Woodland Associates, Ben Chancellors, and Edgar Funnin.

Jimmy King’s TREASURE Forest in Pike County was nominated and won district level competition for the Helen Macy Award.

Wayne Craft, Pike County supervisor, recently attended the Dollar Hole Hunting Club for a hardwood management program. The program was very informative with both classroom lectures and on-site tours.

On July 20, Wayne Craft presented a program on barred management to the Dale County Landowners Association. It proved to be very interesting, including such topics as general control, positive and negative aspects, and capture techniques. There was also a slide presentation.

Rangers Larry Doster and James Givens have pushed several miles of permanent fire breaks for TREASURE Forest landowners within Dale County.

District Forest Officer Larry Doster nominated landowner Victor Barrion for a TREASURE Forest.

Kenneth Blatchok and Forestry Worker Steve Snuggs presented a wildfire program to the Adoration Baptist Church’s Young at Heart group. Various wildfires of Alabama’s outdoors were discussed.

Houston County Supervisor Jerry Smith and Smokey Bear visited 150 third graders at Montana St. Elementary School and discussed fire prevention.

District Forest Officer Frank McAliey presented a program to the Houston County Forest Landowners Association on South American Forestry and Agricultural practices. These landowners also toured Louisiana’s Pacific’s fiber board plant in Clayton, Alabama.

Houston County personnel spoke to eight civic groups concerning the growing litter problem in Alabama. They also assisted with Houston County’s Clean Sweep Week in May, which dealt with cleaning up county-wide and making citizens more aware of the problem.

Fifteen Barbour County landowners attended a pine straw production program presented by the County Landowners Association and the Alabama Forestry Commission. Pop Miller Industrias of Buena Vista, GA presented the program.

Ranger David Gilege was elected secretary-treasurer of the Barbour County Volunteer Firefighters Association. David’s work with the Association assures the close relationship between the AFC and the volunteer departments.

On May 8, Butler County Supervisor Paul Huddens, Mike Brindage and with Smokey Bear presented a Fire Prevention Program at R.L. Austin Elementary School.

The Butler County Forestry Planning Committee sponsored a practice competition for the 4-H Forestry Judging at Sterling Lake. Five county teams participated.

Supervisor Huddens and Ron Williams, Extension Service, attended the 4-H Forestry Judging Competition in Montevallo. Butler County’s Junior won first prize in the District 5, Senior won 1st place in the county.

The Helen Macy Award for five consecutive years was given to Selma resident Betty Herring and son, David Herring.

The Butler County RCFP Association was presented a $500 check by District Forester Robert Dismukes.

In May, Conecuh County Supervisor Victor Howell, Ranger James North and Forestry Worker Thads House, along with Smokey, presented a school program at Evergreen Elementary School.

Rangers James North and Robert Taylor escorted Smokey to the Special Olympics in Jefferson County.

All Conecuh County personnel assisted the Rotary Club with their twenty-ninth annual Wildwood Camp in June.

During this quarter, Forester Tammy Ellis and Ranger Terry Daugherty assisted Pleasant Home High School with their Forestry Judging competition.

On June 24, Supervisor Ellis, Ranger Gary Thomas, and Smokey attended the Barbour County Festival. Lee and Smokey attended the Flora’s Masonic Celebration Parade. That afternoon they supervised sawdust pile activities.

Supervisor Ellis and Smokey presented a program to the Andalusia Public Library Summer Reading Program Group.

On May 4, Rangers Tony Chandler and David Kelly assisted Crenshaw County FFA students with their Forestry Judging. Laverne was the winner.

Alabama’s Treasured Forests
On July 20, the Crenshaw County Forestry Planning Committee held a meeting with forest landowners. Consultant Walt Sellers was guest speaker. All Crenshaw County Commissioners assisted in the chain saw competition at the Laverne Chamber of Commerce Annual Fourth of July celebration. Escambia County Ranger George Bolling, Madeline Hildredth and Sibbald presented a program to the Cub Scouter during their Day Camp.

On May 15, Monroe County Ranger Steve Lloyd and Madeline Hildredth spoke to a Boy Scout Troop in Monroe.

Monroe County Supervisor Gary Cole and Rangers Johnnie Kline and Steve Lloyd continued to assist Corps of Engineers’ Maggie Briggs in presenting programs aimed at cleaning up Monroe County.

On July 20, Calhoun County Commissioner Bob Kimbro attended a Crenshaw County RCFP meeting to discuss the new repeater and radio procedures.

Buells County personnel have been working hard to clear a site for their new office. They hope to soon begin construction.

Charlie Carpenter, Washington County ranger, assisted in the Washington County FFA Forestry Judging Contest. Bobby McAdams, forest ranger, and Melanie Curry, information specialist, presented a program on the Alabama Forestry Commission for 8th grade students. The Forest Rangers video was shown.

Melanie Curry and Lynn Booth, Baldwin County forest ranger, participated in a career day held for Bay Minette high school students. Curry spoke on “Careers in Forestry,” was shown and career brochures were distributed. Information on forestry programs at junior colleges and universities was also available.

The AFC Mobile County forester and rangers have officially adopted the “G.H. Bryant Area Vocational Center in Irving through the Mobile County Adopt-A-School program. On May 31 Mobile County Ranger Bobby McAdams, Melanie Curry, information specialist, Jenny Clarke, forestry intern, Dr. Paul Mollineau, center director and Dr. Elaine Rhot, Adopt-A-School program director, met to discuss the Adopt-A-School program and to set objectives and goals for the partnership between the center and the AFC.

On June 15, Clarke County presented a Smokeless Bear fire prevention lecture to Cub Scouts with an appearance by Smokeless Bear.

Mobile County Rangers Major Harris, Aaron Hunt, and Ronnie Grider, along with Tanner Williams, Volunteer Fire Department, gave a Smokeless Bear and fire prevention presentation to grades one thru six on June 6.

Mobile County held its Volunteer Fire and Rescue Association’s annual banquet on June 27. Commissioner Jim Wills and Ronnie Grider judged the competition. Creola and Mt. Vernon Volunteer Fire Departments were the hosts.

Steve Lyda, Mobile County supervisor, has been working on the Site Selection Committee of Alabama Forestry Resources Center with Senator Ann Bedsole.

The Mobile County AFC Staff have been selected as special forestry advisors for a Mobile County Explorer Pos.

Mobile County is also working with several county landowners to achieve TREASURE Forest status and certification.

Baldwin County and Winston County PALS chapters have been working on a joint project. Laura Underwood, a 4-H member from Baldwin County, has developed a coloring book that will be distributed to all fourth graders in Baldwin and Winston County. Melanie Curry, Information & Education specialist, A. Hazeen, Winston County Extension agent and Joyce Staudt, Baldwin County Extension agent, have been working to develop the coloring book and obtain funding.

I&E Specialist Melanie Curry, District Forester Stanley Anderson, and Mobile County Forester Steve Lyda are working with the Alabama Forestry Resources Center to plan a “Forestry Reunion and Celebration” which will be held Oct. 19-20 in Mobile.

Assistant State Forester Charles Pigg was guest speaker at Marion County’s open house. A large group toured the new building.ULM and Punchbowl provided by the Forestry Planning Committee. Louise Bone presented the Marion County personnel with a flag which was flown over the U.S. Capitol in Washington, D.C. especially for Marion County Alabama Forestry Commission. The flag was accompanied with a special certificate and presented in memory of Hubert Hopkins. The flag was accepted by the flag.

The National Council of Garden Clubs has selected District 9’s landscape project as the best in the U.S. in the wildflower category. This announcement was made at their National Convention in St. Louis. This recognition includes a $1,000 prize which the Florence Garden Club has earmarked for maintenance of the project. A feature story in the Times Daily brought visitors from surrounding counties and other states.

Tony Avery has been selected to receive the State Department of Education PPA Association “Honorary Farmer Award.” This award was presented at their annual state convention.

Billy Rye, staff forester, Tony Montgomery, Lawrence County ranger, and Paul Beverly, Morgan County ranger, recently completed the Forestry Academy.

Tom Camburea and Rich Bishchung taught wildlife/hardwood training for District 9 employees.

Danny Denon helped organize the 4-H Forestry/Wildlife Camp held in Colbert County. Dan Burdette, Wayne Winstead and David Reid assisted the Alabama Cooperative Extension Service in Colbert County.

Colbert and Marion Counties received special recognition by the Alabama Legislature. Rep. Logan introduced a Resolution in the House of Representatives commend Marketing Director S. Founy, AFC and the Alabama community service during the clean up of storm damage in Hamilton and Marion County. Senator Denton introduced a Resolution in the Senate commending the Colbert County AFC personnel for their commitment to the PALS organization.

PALS of Colbert County have been awarded a grant from the W. Kelly Mosely Environmental Award Program. The $1700 will be used for education work to promote PALS.

The American Forestry Association is conducting a tree survey in Florence and Athens. Steve McClellon has trained a group of Eagle Scouts to help with the Florence survey. Tony Avery and Greg Wood will coordinate the survey in Athens.

The new voice on the telephonr at District 9 Headquarters in Joyce Owen’s, newly Cerk Typos II, Joyce formerly worked for Riverfork Mental Health Center and Lindesdale County Juvenile Probation Offices.

Smoky Bear and Woody Owl enounced by Ranger Wayne Winstead and Fire Specialist Mike Lanier, attended the 69th Annual Convention of the Society of St. James on April 22. This event was in conjunction with the Alabama Reunion. Smoky Bear and Woody Owl in the parade and reenactment at Guntar Park, greeted children and parents as well.

On April 25, Ranger Wayne Winstead led a group of 35 teachers, parents, and students from the Annual National Forest Nature tour that began at the Sunflower-Workley Shelter. The children were introduced to plants, wildlife, and learned different features of trees. They also toured an old crevice where Indian relics can still be found.

In Mcason County, County Forester Jerry McGee, Ranger Jesse Fitzpatrick, Fire Specialist Cliff Cobb and RCFP Section Chief Ray Tucker have been working together to assist volunteer fire departments in Mcason County. Their efforts have led to the organization of the Mcason County Volunteer Fire Department and the Mcason County Fire Chief’s Association.

The Chehaw V.F.D. recently entered into a cooperative agreement with the Alabama Forestry Commission.

The Macon County Planning Committee presented the first half of the 1989 Fire Department grants to 17 Elmore County V.F.D.s as part of the annual Fire Department grant. Elmore County Forester Dave Deckel presented the May meeting of the Elmore County Association of Fire Departments. District Forester Dave Deckel presented the May meeting of the Elmore County Association of Fire Departments. District Forester Dave Deckel attended the meeting.

The Macon County Forestry Planning Committee held their Second Annual Forestry and Wildlife Banquet in May at White Oak Museum on the hardness in three acreage categories were recognized for their accomplishments in forestry and wildlife management. County Forester Jerry McGee was selected as the 1990 Forester of the Year.

On June 20th, Macon County associates gave a presentation during a Natural Resource Camp at the Tuskegee National Forest. The two-week camp was set up to introduce...
Treasure Forest Management looks at all the values of the forest. Wildlife, aesthetics, recreation, and environmental protection are all important, but for many people the bottom line is timber value. Stumpage prices play a big role in determining the profitability of your forest. In fact, it is directly or indirectly involved in all management decisions on your forest.

No matter how carefully you plan, or how well you manage your forestry investment, poor stumpage prices at harvest time can turn your nest egg into an omelet.

How is Stumpage Determined?

Stumpage is the price of a tree as it stands in the woods "on the stump." By the book, "the value of standing timber is calculated as the difference between the selling value of the products produced from it and the stump-to-market processing costs, including an allowance for profit and risk." (Davis, 1966) Thus, stumpage is a residual price tied to the sales price of studs and paper.

A sawmill looks at the price that 2 x 4 dimension lumber is selling, and subtracts its cost for producing that lumber. This cost figure includes a nominal profit. As an example, a sawmill does this analysis and decides that it can afford to pay $250 per MBF Scribner for sawlogs delivered to the mill.

This delivered price is what the logger gets when he delivers wood cut off your land. From that price he must pay the logging crew, transportation from the forest to the mill, equipment payments and repairs, timber procurement costs and a small profit. Generally these costs run about $25 to $30 per cord, or about $100 per MBF, depending on transportation costs. This leaves a stumpage value of $150 per MBF Scribner for the landowner.

Each stage in this process is variable. Product values can change rapidly. New products come on the market, such as Chip-N-Saw, which uses large pulpwood to cut dimension lumber. Because the end product has a higher value, the delivered price goes up and stumpage prices rise as well. If a mill has a different efficiency rate, the amount it can pay for sawlogs will change. Most importantly, the distance to the mill has a major impact on the harvesting costs and on the residual stumpage.

Most sawmills, pulpmills or other roundwood users have already analyzed their own cost structure. Each one has determined the highest price it can pay for delivered wood. The mill changes this price when the market warrants it. For each mill then, the stumpage price its suppliers can offer the landowner is based on the delivered price, the cost of transportation and the cost of harvesting.

The further a tract is from the mill, the longer the trucks have to travel and the higher the cost per unit. Imagine a series of zones around a mill based on miles of travel. These zones are not perfect circles because they follow road miles and are limited by natural obstacles, such as rivers and ridge lines.

A truck load of wood that has to travel 100 miles to the mill costs more, so a pulp company must pay less stumpage than what it can afford to pay in the local area. If the wood has to be handled by a woodyard or pulpwood dealer first, then their handling charges must also be taken out, lowering stumpage prices.

Harvesting costs also directly affect stumpage prices. These costs have many variables, such as the logger's equipment and personnel, the location, and the condition of the stand. Harvesting cost is directly related to volume harvested per acre. Sparse stands take longer and cost more to harvest. The more that can be removed at one time, the lower the unit cost. Improved access by good woods roads also speeds up harvest and lowers transportation costs.

Competition

The third factor, besides transportation and harvesting costs, that affects stumpage is competition. The more companies that bid on a timber sale, generally the better the price.

Many people have questioned the wide spread in timber bid prices when several companies bid. Sometimes there can be a 40 percent difference between the top and bottom bids. There are several reasons why this can happen. The sale tract is a different distance from each mill, so each buyer has different hauling costs. Each buyer also differs on how he plans to use the wood; how much he will use for pulpwood versus sawtimber, or sawtimber versus veneer or poles. Finally, each buyer differs in the amount of wood he has in the yard already harvested. Hungry mills with empty yards will pay more for wood that is needed to keep operating.

This competition can become fierce and drive up timber prices. If you assume a modest 50 mile procurement radius for a pulpmill, a large section of Southwest Alabama is in the procurement areas of at least four pulpmills (Figure 1). Some sections can easily ship wood to seven mills. This heavy competition has resulted in this part of Alabama becoming the second highest priced stumpage zone in the South.

Past Trends

As you can tell by this discussion, stumpage prices are not stable and vary considerably over time and location. Still, there have been some interesting price trends.
Pine sawtimber prices are very sensitive to the national economy and can clearly show the recessions of 1980, 1982 and 1985-86. Pine veneer peel logs closely follow sawtimber prices. Pine poles initially followed as well, but recently have escalated because of the increasing scarcity of pole quality timber.

Pine pulpwood delivered price showed strong increases until 1984, when prices collapsed. Pine pulp stumpage follows the same pattern, with a two-year lag peaking in 1986. This recent decline occurred because of the increased substitution of hardwood for pine pulpwood. This practice became widespread in 1985 and depressed the pine market. It took the hardwood market a year to catch on, resulting in a rapid price rise in 1986-87 that continues through the present.

The hardwood sawtimber market follows a similar pattern to hardwood pulpwood. A steady market through 1986 was followed by a rapid increase in

**The Special Case of North Alabama**

Why do prices differ by region? In particular, why are stumpage prices lower in North Alabama than in Southwest Alabama? Let’s look first at the historical patterns and then try to find explanations. The pine sawtimber market shows some interesting trends. The north Alabama market is more stable. The Southwest market is more volatile with wide swings (**Figure 2**). The difference between North and Southwest tightens during economic downturns but widens during good times.

The pine pulpwood market also shows the stable North Alabama market. The Central and Southwest Alabama markets show frequent crashes. Note also that the differences between these markets is narrowing (**Figure 3**).

The hardwood market in general was a stable one across the state prior to 1986. The North Alabama market was flat, fluctuating around $55 per MBF for oak sawtimber since 1980. Central and South Alabama started in that same price range, but followed a gradual rising trend until 1987. The great demand for hardwood pulpwood and quality hardwood lumber for export since 1987 has unsettled the market, resulting in wide swings in stumpage prices (**Figure 4**).

This same trend can be seen in the hardwood pulpwood market. The markets were stable until 1985, when pulpmills began to increase their demand for hardwood. Since then the hardwood pulpwood market has tracked the pine pulpwood market. The North Alabama market has stayed relatively stable. The Southwest market in 1988-89 has been buoyed up by the increasing demand for exported hardwood chips (**Figure 5**).

The pine pulpwood markets are trending toward each other; the pine sawtimber markets fluctuate, as do the hardwood sawtimber markets. The hardwood pulpwood market shows the greatest difference between in-state regions.

As stated earlier, stumpage prices are residual values, tied to demand and distances. The dominant demand for pulpwood is in Central and Southwest Alabama. Tracts closer to these mills get better prices. North Alabama mills have some localized demand and do not compete against each other for wood. Unless a tract is located inside one of these procurement areas, it is sometimes hard to sell wood. The added transportation costs also lower stumpage prices.

A second factor influencing stumpage prices is supply. Hardwood pulpwood is becoming relatively scarce in South Alabama as more land is clear-cut and planted to pine. This pushes prices up. North Alabama, on the other hand, has an over abundance of low quality hardwood, which drags prices down.

The abundance of low quality hardwood in North Alabama affects the sawtimber market as well. Most hardwood sawtimber trees are in the lower grades, which command lower prices than upper grade high quality cove or bottomland trees.

Some studies have indicated a variation in the specific gravity of pine pulpwood which has a direct effect on pulping quality. Specific gravity decreases as one travels North and West away from the coast. This decrease lowers the pulp yield, requiring more pulpwood to yield one ton of pulp. This also drives down prices. Another problem is the higher logging
costs apparent in the Tennessee Valley. This is due, in part, to the rougher terrain and the lower level of mechanization of harvesting contractors. The trend now is for loggers to improve their efficiency across the South. As these costs are lowered, loggers will be able to offer more for stumpage.

Less demand, higher costs, longer distances to mills, abundance of wood and relative lower quality are the main factors that depress North Alabama prices. The tightness of the South Alabama market is shifting demand northward and can be clearly seen in North Alabama. The opening of the Tennessee-Tombigbee Waterway has reduced transportation costs to Mobile from the Tennessee Valley. As more operators take advantage of that system, demand will increase, and hopefully, stumpage prices will follow.

Getting Better Prices

As a landowner, what can you do to improve your stumpage prices? Well, if you can’t move your forest nearer to a mill, you can improve the attractiveness of your timber.

Three things have a strong influence on the price of timber in a forest: the quality of the timber, the ease of harvesting, and competition. Higher quality timber can be used for more things, which positions it in different markets. Pine trees that can make poles command a much better price than trees that can just make pulpwood. Quality trees can be developed by careful thinning, removing the poorer trees so that the good ones can grow faster. The easier it is for the logger to work on your land, the higher the price he can offer. Invest in a good road access system so that a logger can get within 1/4 to ½ mile of any timber.

Prescribe burn your pine stands prior to marking and sale. This burn clears the brush, making it easier and safer to harvest and move around the forest. Burning really helps the timber marker too. Trees are easier to see and judging spacing is also easier, resulting in better harvest planning. It also helps the timber buyer when he cruises the stand. You want him to see and count every tree that you want to sell.

But all of this work will be for naught if there is no competition for the timber. Do not sell to the first person who knocks on your door. Get several timber buyers to give you a bid.

Selling timber is not easy; it is work. But anything that can earn you ten, twenty or two hundred thousand dollars is worth a little work. There are many cases where a little work by a landowner resulted in timber prices that were double or triple the original bid.

When you sell timber, you first must know what you have. Anyone who sells without a timber inventory is asking for low prices. A timber inventory helps two ways. It makes it easier for the buyer to judge your timber and come up with a price. An inventory report also tells the buyer that you know what you have and what it’s worth, therefore encouraging him to give his best price. You can do the inventory yourself, or hire someone to do it for you.

Second, you need to get as many companies to bid on your timber as possible. This is done by advertising—not just in the newspaper, but by mailing out invitations to bid to all timber buyers in the area. This can cost you about $50 for postage and copying, but it is money well spent. Anyone can get a list of timber buyers in an area from the county Alabama Forestry Commission office.

All of this is work, but there is an easier way. Hire a consulting forester. Consulting foresters are in the business of helping landowners manage their forests, which includes selling timber. What for most of us is a once a decade, or once a lifetime event, occurs on a regular basis for them. They know the ropes, the loggers, and the markets.

A consultant will cruise your timber, mark it for sale the way you want it done, advertise it widely, negotiate with the high bidders, draw up a timber sale contract that will protect you, and supervise the cutting operation. Many can help you with cleanup and regenerating your forest as well. For this, the consultant is paid a fee, generally seven to 10 percent of the sales price. It’s a good bargain for any landowner who wishes to sell timber.

Every forest has a potential for TREASURE. Being aware of stumpage price trends and positioning your timber for the market will help you get the maximum value for your TREASURE.
As the fall season arrives, the forest begins its annual transformation. Over a period of days and then weeks, the green landscape slowly changes into a marvelous array of scarlet, orange, red, yellow and purple.

For the landowner, this is just one more benefit to owning a forest. For the Alabama citizen, it’s another good reason to appreciate the value of our state’s forest resource. Understanding the mechanics of autumn color can help both landowner and citizen insure the continued natural beauty of our forests.

Autumn is that time of the year when change is at hand. Fall color is nature’s signal that the forest (actually the leaf) is in transition from life to death. As the days get cooler and shorter, the tree prepares for winter by sending nutrients down to the roots, trunks and branches for storage. A layer of cells is then formed at the base of each leaf stem to prevent water loss following leaf fall. Chlorophyll then begins to dissolve. As this green pigment disappears, remaining pigments begin to show. Different colors can then be seen. The yellow shade shows the pigment xanthophyll, while orange-red tones are signs of carotene. Red and purple pigments are called anthocyanins. Combinations of these pigments provide further diversity.

Other factors contribute to the intensity of fall color. These include light, temperature, pest damage, moisture, and soil conditions. For example, when autumn is dry, sunny and cool, the leaves of a number of tree species will be rich in reds, golden oranges and scarlets.

Several strategies are available to landowners who want fall color. A deliberate scheme of identifying and retaining individual trees with desired fall color is one approach. Another is to remove individual or blocks of trees with dull or uninteresting colors. This will highlight, as well as give added room for growth, existing fall color trees. Fall color patterns should complement your management objectives. In most cases, timber income and other values cannot be sacrificed exclusively for fall color. High impact zones can be located where fall color will be most pleasing and satisfy your objectives.

Some of these include scenic areas, home sites, lines of travel and recreational sites.

The beauty of the forest lies not only in its natural appearance, but also in the many management options of the landowner. Fall color is one more option available to the person who manages his property as a TREASURE.

The R.W. Carleton family, of St. Clair County, was honored recently by the Alabama Forestry Planning Committee as the landowners who put the number of TREASURE Forest acres over the one million mark.

Over a dozen state and local forestry officials were on hand for a ceremony at Wolf Creek Fire Department to present the Carleton family with a plaque honoring them and their 2,800-acre TREASURE Forest. The day also included a catered lunch and a hay ride tour of the Carleton farm.

The Carleton’s primary objective is wildlife, followed by timber production. The farm includes a 1,400-acre game preserve and 850 acres of timber. In addition, they raise corn, alfalfa, hay, and cattle.

The Carletons, a “One in a Million” family, are one of 12 TREASURE Forest landowners in St. Clair County.

L-R: Rod Goode, St. Clair County Forestry Planning Committee; R.W. Carleton; Leah Weatherford; Gail Carleton; Bill Carleton (land manager); Bill Carleton, Jr.; and Joe Brown, Alabama Forestry Planning Committee.
The setting could be anywhere in the state: a land owner or land lessee has decided to do a little brush cutting. In the process he discovers a “lost” white-tail deer fawn. How could the doe have been so neglectful going off and leaving this baby? Now the person will have to take it home and try to bottle feed it.

This incident has been repeated many, many times and continues to recur each year. The main reason for this is a lack of knowledge about the birth and development of the white-tail deer fawn.

Alabama has as much as a six month spread in the fawning season, late July through early September being the probable peak months. Fawns are born after a gestation period of approximately 202 days, but gestation can range from 195-212 days. Weight at birth may vary from four to eight pounds. Fawns usually attempt to stand 20-30 minutes after birth, sometimes earlier. After birth, most fawns remain hidden near their birthplace for two weeks or more. It is during the first few weeks after birth that people usually find the “lost or orphaned fawn.” Young fawns should never be picked up as lost or deserted. Let’s take a look at the behavior and development of a typical Alabama white-tail doe and fawn.

The first few days following birth, fawns seldom move more than a few meters, mostly remaining isolated and bedded. Although sibling fawns are born during the same hour at the same site, they are separated soon after birth. Separate locations may be maintained for three to six weeks. By this age they are able to elude most predators.

The size of a doe’s home range is greatly reduced after giving birth. In most cases, she vigorously excludes other deer from the area immediately surrounding her young. This may continue for a month or more.

As with most wild and domestic animals, the first few days of nursing are very important for the newborns. The doe produces milk that is much richer and higher in protein than cow milk. The milk also contains antibodies that help to keep the fawns immune to diseases. As the fawns begin to develop, their own immunity system starts to develop with them. The high nutritive value of the milk produces greatly increased weight gains. A fawn may double its birth weight in two weeks and triple it by the end of the first month.

two canines in the lower front jaw are permanent by nine to ten months. Six premolars and six molars are in each of the lower and upper jaws. A quick glance at the incisors tells a trained wildlife biologist or manager whether the animal is a fawn or an adult. The premolars and wear on the molars are used to age the adults.

Accurate aging techniques in conjunction with weight records help to determine the status of a deer herd. Young animals born at different times of the year enter different worlds: forage is changing, there are seasonal differences in weather, and the growth rate and subsequent productivity of the different fawning dates are going to vary in part due to different environmental conditions. Management practices that produce the best available high quality forage the year-round will usually pay dividends in better quality animals.

Fawn predation seems to vary by location. Wild dogs in Alabama are a serious menace to fawns and pregnant does. Coyote densities throughout the state can be a serious threat to the fawn crop. During the remainder of the year, coyotes and bobcats are usually associated with white-tail deer as scavengers more than as actual predators. Does have been observed chasing coyotes from the vicinity of fawns during the summer, and in some instances striking coyotes with the forefeet. Bobcats probably kill fewer fawns than coyotes, but surprisingly, deer are more alarmed by bobcats than they are coyotes. Domestic dogs in most cases are usually ineffective as deer predators. However during the fawning season, free-ranging domestic dogs can be an effective predator.

Most of the information here is based on studies throughout the entire Southeast. Different areas within the Southeast and even within Alabama will exhibit differing behaviors. We must be reminded at times that the natural world is too complex to represent in its entirety. We as biologists and managers deal mainly with “principal characters or characteristics” to represent the main forces that are present; then we make suggestions as to the effects of the different responses.

In conclusion, the next fawn you encounter while enjoying the out-of-doors should be left alone! Even if you have handled the fawn the doe will usually accept it. So leave it alone—the mother did—because Mother knows best!
Seedling Handling—the Long Journey From Nursery to Planting

by RICHARD CUMBIE, Productivity Division Director

The objective of the Alabama Forestry Commission Nursery Program is to provide the highest quality seedling possible to the landowner. Heavy manipulation of the nursery environment starting with the selection of genetically improved seed and ending with the cold storage of trees is the responsibility of the nursery manager. However, the nursery manager and the landowner must work together in the next critical phase—the journey from nursery storage to the planting hole.

The seedling requires rigid control of temperature, moisture, and physical handling at all times during shipping, field storage, and planting. Seedlings may go through as many as 20 steps from the time the lifting process begins until they are planted. Although problems encountered during any of these (high temperature, low moisture, etc.) may not be too severe, the cumulative effects could result in some type of irreversible damage. Though outplanting survival has customarily been the measure of seedling quality and performance, growth reduction due to poor handling is a more serious consequence.

Shipping
- Inspect seedling bundles for shipping errors while loading.
- Do not stack bundles over three deep, as heat buildup from seedling respiration can damage seedlings. Racks or other systems that allow air circulation are preferred.
- Seedlings should be covered by a tarpaulin during shipment to prevent overheating and drying out. Allow air space between the tarp and the seedlings for circulation. Refrigerated trucks with seedling racks are the preferred method.
- Do not transport trees in a vehicle that contains fertilizer, chemical, or fuel residues. Be sure that the vehicle exhaust system is functioning properly and is not discharging heat onto the seedlings.
- Secure bundles to prevent them from falling off of the truck.
- Do not leave the trees stacked on the truck; unload immediately.

Field Storage
- Don’t get more seedlings than you can plant in a reasonable time. Nursery managers will work with you to split your order and ship a manageable number of seedlings.
- Keep bundles out of direct sunlight (internal bundle temperatures in excess of 85 degrees Fahrenheit are considered lethal). Air temperatures ranging from 33 degrees to 75 degrees are preferred.
- Periodically roll bundles containing seedlings whose roots have been coated with moisture retentive material to allow gel to redistribute evenly among seedling roots.

Planting
- Avoid planting when the ground is hard (either frozen or dry) or excessively wet.
- Planting when the soil is in poor condition results in low survival, poor planting production, misplanted seedlings, and poor growth.
- Do not carry seedlings with roots exposed to sun and wind.
- Remove only enough seedlings from protective container (bundle) for immediate use.
- Do not crane or bend the roots upward when placing the seedling into the planting hole.
- Plant seedlings 1/2" deeper than they grew in the nursery.
- Check spacing periodically to assure planting proper number of seedlings per acre.

Remember, seedlings in a bundle are like fish out of water. Handle your seedlings carefully and get them in the ground as soon as possible.

Finally, if you have any questions or should you have any problems with the seedlings you receive, do not hesitate to contact the Nursery Superintendent or me at the Alabama Forestry Commission, 513 Madison Avenue Montgomery, AL 36130; phone, (205) 240-9346.


Alabama Forestry Commission Seedlings

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<thead>
<tr>
<th>Species</th>
<th>Per 1,000</th>
<th>Per 500</th>
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</thead>
<tbody>
<tr>
<td>Loblolly—Improved</td>
<td>$27.50</td>
<td>$18.00</td>
</tr>
<tr>
<td>Slash—Improved</td>
<td>$27.50</td>
<td>$18.00</td>
</tr>
<tr>
<td>Longleaf</td>
<td>$32.50</td>
<td>$21.00</td>
</tr>
<tr>
<td>Virginia—Christmas Tree</td>
<td>$42.50</td>
<td>$28.00</td>
</tr>
<tr>
<td>Lespedeza Thunbergii</td>
<td>$27.50</td>
<td>$18.00</td>
</tr>
</tbody>
</table>

Hardwoods

<table>
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<tr>
<th>Species</th>
<th>Number of Seedlings</th>
<th>Price per 100 Seedlings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greer Ash</td>
<td>100-500</td>
<td>$15.00</td>
</tr>
<tr>
<td>Sycamore</td>
<td>600-1,000</td>
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<tr>
<td>Overcup Oak</td>
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<td>$12.00</td>
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<tr>
<td>Sawtooth Oak</td>
<td>2,600-5,000</td>
<td>$10.50</td>
</tr>
<tr>
<td>White Oak</td>
<td>5,100-10,000</td>
<td>$9.00</td>
</tr>
<tr>
<td></td>
<td>10,000-up</td>
<td>$7.50</td>
</tr>
</tbody>
</table>

A transportation charge of $2 per thousand pine seedlings and $2 per bundle of hardwoods will be due on orders that are picked up from the nursery by an AFC county ranger or on orders that are picked up from an AFC District headquarter’s cooler. To order, please contact your county AFC office or the Nursery Section at (205) 240-9346.
A Natural Wonder

In Southern Franklin County lies an area where nature has left a wonder for us to enjoy. Legend has it that back in the 1800s, Dutch settlers who moved into the area had never seen a place so mystical. Mist would rise up off the creek and the heavily forested area may have looked gloomy to them. They named this place the Dismals, and it has since fascinated many who have walked along its trails.

A visit to the Dismals leads you on a trail that winds in between and around towering rocks covered with thick, green moss. Giant Eastern hemlock trees are part of the natural arboretum where over 50 species of trees are identified by tags. Twenty major points of interest are marked along the trail, such as the Dance Hall—a camouflaged area used for ceremonies and rituals by the inhabitants of the Dismals long, long ago.

Several waterfalls may be found along the trails, one of them quite spectacular. Rainbow Falls (opposite page) was at one time a source of power for a mill. According to Manager Connie Whitley, another unusual feature of the Dismals is a tiny glowworm, called a dismalite, which feeds off a certain kind of moss on the rocks and may be seen at night.

The Dismals, which has been a registered national landmark since 1975, is privately owned. Located near Phil Campbell off Ala. 43, it is open every day of the year from 8 a.m. until sunset. Admission is $3 for adults and $1 for students.

Photographs by Kim Gilliland
Habitat Management: 
Supplemental Crop Plantings for Deer

by DEAN HARRIGAL, Wildlife Biologist, Manager, Poco Sabo Plantation, 
Green Pond, South Carolina

In areas of good habitat and deer population, supplemental plantings are not always necessary to maintain deer. However, plantings can be very important to deer in areas of low habitat quality (such as extensive commercial pine forests) or during stressful climatic conditions (droughts, mast failures, etc.). Deer utilize plantings as small as those found in fire lanes and as big as agricultural fields of several hundred acres. For our purposes, we will discuss food plantings as plots or patches from one to five acres, with an optimum size of two acres. Establishing food plots may be as inexpensive as discing and seeding idle farmland to bulldozing clearings in mature forests. Easy access areas are power and gas line rights of way (check with authorities), logging roads, and loading decks. In pine regeneration areas, coordinating food plot establishment with site preparation can aid in reducing costs.

In establishing any planting, it is important to consider location and soil type. Placing food plots in transitional areas will greatly enhance their attractiveness to deer. Choosing an area with well drained soil improves the quality of any planting.

Seed Bed Preparation

All of the crops discussed here can be adequately established by double or triple discing the patch to destroy existing vegetation and reduce weed competition. Waiting one to two weeks between discings allows adequate time for vegetative residue to decompose. In heavy weeds or sod moldboard, (bottom) plowing may be more desirable for the first operation, and mowing and burning can be used also. Application of fertilizer and lime (soil test early) should be made before the final discing to thoroughly incorporate them into the soil. During the final discing, a drag pulled behind the harrow helps to prepare a level seed bed.

Favorite Deer Foods and Cultural Recommendations

Deer will eat practically any cultivated crop at any given time, so there are no set rules as to what deer will or will not eat. The plants discussed here are commonly used in the South as deer food patch plantings. They can be divided into three categories, late summer-early fall, late fall-winter, and perennials. If an individual plans to hunt over food plots, he should schedule his plantings so that the food crops are available to deer during the hunting season.

Late Summer-Early Fall Crops

Corn is a favorite agricultural feed of deer, but in areas with moderate to heavy deer populations, corn may never reach maturity. Planting after green-up (mid-April), using electric fencing, and scare tactics (human hair, pie pans, lion dung), may increase the chance of getting a good stand of corn to carry through the growing season. However, due to corn’s growing expense, it is not recommended strictly for deer food patch plantings.

Cowpeas and soybeans are excellent late summer and early fall foods. Deer eat the foliage and seed pods of these plants throughout the growing season. Cowpeas can be planted in early April and soybeans in early May, and both may be planted through the summer. Cowpeas and soybeans may be planted in rows with a planter, drilled or broadcast; since broadcasting is the easiest method, it is the method of choice in most situations. Seeding rate for broadcast plantings is 1 1/2 bu./acre. Cover the seed to a depth of 1 1/2” by shallow discing and dragging immediately following broadcasting. Because these plants are legumes, little or no fertilizer may be necessary for adequate growth.

A problem with cowpeas and soybeans is their excellent palatability to deer. In areas with high deer populations, the plants may be eaten to the ground immediately after leaf emergence. Repeated extensive grazing will eventually kill the plants.

Grain sorghum (milo) is an excellent early fall food. Deer consume the seed heads from the dough stage (70 days) through maturity (90-100 days) while generally leaving the foliage alone during the growing season. Culturally, grain sorghum is a drought tolerant crop.

Grain sorghum grows well either broadcast at 20-30 lbs./acre or planted in rows at 5 to 10 lbs./acre. Planting depth is 1” to 2” deep. When possible, row plantings produce a better crop due to the advantages of cultivation for weed control. When hunting over sorghum, row plantings provide better visibility by enabling the hunter to position his stand to look down the rows.
but excellent sorghum patches can be grown by broadcast.

**Late Fall-Winter Crops**

Wheat, oats and rye are excellent deer foods from mid-October through the winter. Well fertilized small grain patches provide a much needed forage during the lean winter months and can attract deer in large numbers.

Choose a well drained site for planting because heavy winter rains can easily drown these plants. Small grains grow well either drilled or broadcast. Planting depth is 1" to 1 1/2". The recommended rate for wheat is 3 bu./acre, for oats 4 bu./acre, for rye 2 bu./acre. (Contact your Alabama Cooperative Extension County Agent for a site-specific recommendation). Top dressing with nitrogen is not mandatory, but may be needed if plants are not a healthy green color, if grazing is heavy, or if grain is desired. Approximately 50 units of nitrogen/acre will give satisfactory results.

Which small grain provides better deer forage is a matter of opinion. Wheat is desirable because it is also a valuable food for turkeys, quail, and doves. Oats may be better in some plantings because they are more resistant to heavy grazing. Rye is extensively used with excellent results.

**Perennials**

While all of the perennial pasture grasses provide good deer forage at various times of the year, three are recommended specifically for deer; bahia, clover and fescue. Fescue and clover are best suited for Piedmont and mountain regions, while bahia is grown southwide.

Since the seeds of these plants are quite small, good seed to soil contact is important. When broadcast planting, a light discing combined with heavy dragging ensures good seed to soil contact and adequate germination.

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**Memorial**

_Ralph McClendon, TREASURE Forest landowner in Etowah County, died July 19. Totally dedicated to the improvement of the forest resource, he believed that if an acre of timber was cut, you had an obligation to replant it for future generations to enjoy. Always promoting forestry in and around his county, Ralph will be missed by friends and associates._

**Conclusion**

Good food plots are the result of good seed bed preparation, proper planting time and depth, and adequate fertilization. There is no need to over fertilize, so remember the rule of thumb; use adequate fertilization to keep the plants green and vigorous. When trying a new food planting, check with the local experts and be willing to experiment. Adjust planting times and food varieties to suit local conditions and your desires. Finally, a good deer patch also provides food and cover for other wildlife. From deer to songbirds, good habitat management pays off.

_This article is condensed from: Harrigal, Dean. 1987. White-tailed Deer Management Workshop: a proceedings. South Carolina Chapter, TWS. Reprinted with permission of the author._

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_Oh Lord, who may abide in Thy tent?
He who walks with integrity, and works righteousness,
And speaks truth in his heart.
He does not slander with his tongue;
Nor does evil to his neighbor,
Nor takes up a reproach against his friend;
In whose eyes a reprobate is despised.
But who honors those who fear the Lord;
He swears to his own hurt, and does not change;
He does not put out his money at interest,
Nor does he take a bribe against the innocent.
He who does these things will never be shaken._

—Psalm 15

_Winston County Forest Ranger Danny Dodd passed away June 11. Born Jan. 26, 1951, he deeply touched the lives of many he knew. His gentleness, kindness and his dedication and love towards his family and friends will live forever in our hearts. What he gave to us through his life on earth, we will always treasure. We loved Danny, and we will miss him._

_The Alabama Forestry Commission has also been saddened by the death of Chris Davis, a forestry worker in Lee County. Chris, who died July 24 at the age of 28, had only worked for the AFC a few months. He will be missed by his friends and co-workers._
PALS Is Cleaning Up Alabama

Alabama PALS (People Against a Littered State) continues to be a positive factor in the area of litter control in cities and counties all over Alabama. Businesses, local governments and interested citizens are working together and dedicating themselves to addressing the litter issues and finding solutions to these problems on a daily basis.

PALS is working with the different groups to establish long-term programs in litter education, recycling, law enforcement, public awareness and solid waste disposal. Each of these plays a major part in overcoming the increasing litter problem.

With over 20 county chapters of Alabama PALS, the organization is growing, both in number and in active participants. The PALS Education Curriculum is now being used in 16 county school systems. The PALS Activity Guide is being used by teachers to establish the importance of addressing the recycling issues at the elementary school level. This Guide has been welcomed as an important tool for teachers at all levels of the educational process.

During the past session of the Alabama State Legislature, PALS put together a bill that would allow uniformed officers to write citations for litter violations just as they do for speeding and traffic offenses. This bill was passed into law and should make it easier for uniformed officers to enforce the litter laws.

Alabama PALS is currently developing a statewide anti-litter campaign that will consist of television and radio PSA's, statewide displays of billboards, bumper stickers and other public awareness activities. The campaign will focus on Alabamians working together to develop a sense of pride when it comes to cleaning up our beautiful state. Mrs. Helen Hunt graciously participated in the initial television PSA, as well as continuing to support PALS with the annual Helen Hunt Awards that are given in seven categories for outstanding contributions to the anti-litter and beautification effort.

Recently, Alabama PALS announced Colbert County as it's first Proud County. A celebration was held and certificates were presented, as well as the Proud County signs that are displayed on roadsides in the county. Tuscaloosa County was also recognized as a Proud County, and Selma, Vestavia Hills, and Goodwater were certified as Alabama's first Proud Cities.

Alabama PALS is one of Alabama's fastest growing organizations, due to the dedication and hard work of many interested individuals, businesses, and local governments from all corners of Alabama. These chapters are creating a willingness to become involved from other members of the community, and are pulling together to promote long-range programs that will benefit each community in the future. To find out about PALS activities in your county, please call the PALS state office in Montgomery at 263-7737.