

# Alabama's **TREASURED** Forests



*S u m m e r* · 1 9 8 7



# STATE FORESTER'S MESSAGE

by C.W. MOODY



**O**ur TREASURE Forest Program in Alabama continues to gain momentum! We are rapidly approaching our **one millionth acre** certified. We have great plans for celebrating this one millionth acre, including, we hope, participating cipation by the Governor in a ceremony honoring the landowner, as well as the TREASURE Forest Program. If you are a creed signer and on the verge of having your property certified as a TREASURE Forest, you might want to push your agency certifiers up a bit so that you will be the landowner with the millionth acre. Whether you have the millionth acre or your property is certified before or after, your contribution to Alabama will be just as significant.

The Fourth TREASURE Forest and Landowner Conference is shaping up for Bessemer. This year we are planning to have the landowners and county forestry planning committees meet in one room for the indoor program on September 10. This action is the result of feedback we got at last year's conference; it seems to be desirable for each group to be informed and involved in what's going on with the other. We have a very exciting program lined up, as well as the field trip on September 11. Please make your plans to attend now.

The Alabama Forestry Commission is trying to pass legislation which assesses a fee of 10 cents per acre on forestland to protect and promote better forest management. We are already collecting the 10 cents per acre in about half the counties in Alabama. This action would not increase the fee in those counties but would extend it to the other counties. The legislation would authorize a constitutional amendment which requires the vote of the people. The constitutional amendment would authorize landowners to assess themselves *up to* 20 cents per acre. The accompanying legis-lation, setting up a vote of forest landowners would only be for *10 cents* per acre for the present. The amendment would simply give authority for future increases up to 20 cents with legislation approved by another forest landowner referendum. Representative Richard Laird of Roanoke and Senator Ann Bedsole of Mobile are our principal sponsors for this legislation.

By the time you read this, we will know whether we were successful in getting the legislation passed. You will be involved in the constitutional election, as well as the landowner referendum. I firmly believe this measure will accrue to the benefit of the TREASURE Forest owners and Alabamians of this and future generations. I am looking forward to seeing you at the landowner conference.

Sincerely,

A handwritten signature in dark ink, appearing to read "C.W. Moody". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

C. W. Moody  
State Forester

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

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Cover Photo: Water quality is one of the many benefits of a TREASURE Forest.

# Alabama's TREASURED Forests

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by CYNTHIA K. PAGE, Editor

**W**HEN HERBERT WESTERVELT bought his first water-wheel powered paper mill in Indiana in the 1880's, he probably had dreams of expanding beyond just making wrapping paper from wheat straw. In fact, Westervelt himself invented the E-Z Opener bag machine at the turn of the century. The bags manufactured with this machine opened with a quick "flick of the wrist" and soon became commonplace in homes and grocery stores all across America. Other milestones included making the first kraft paper bags from southern pine in 1912 and introducing the modern paper industry to Alabama with the consolidation of operations in Tuscaloosa in 1929.

Four generations, a Great Depression, two world wars, and a host of national economic hardships later, Gulf States Paper Corporation is still boldly pushing forward and changing to meet the demands of a complex society. Diversification, along with the motto, "Quality Counts," has enabled this company to progress and become a profitable enterprise while exercising a concern for the environment and other benefits of healthy woodlands.

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### **Pine Production**

Gulf States controls close to 400,000 acres of woodland in Alabama and owns over 370,000 acres outright. As one might guess, timber production is the *first* objective.

No finer example of pine management exists anywhere in the state than at Piney Woods in West Central Alabama. Tall,



*Gulf States National Headquarters in Tuscaloosa.*



# IT'S MORE THAN A PAPER FOREST



straight, and well-spaced, the trees represent a great deal of forestry expertise and technology.

The presidency of Gulf States was turned over to Jon Warner, great-grandson of Herbert Westervelt, in 1984. Since then, the management concept of multiple-use has been implemented. Warner believes that forest management should complement and encourage the existence of other benefits whenever possible.

Close to 380,000 acres of natural pine is managed by the foresters at Gulf States. Control or prescribed burning plays a significant role in reducing the hardwood competition. These burns not only improve the timber, but also encourage browse for wildlife while reducing the wildfire hazard. October through March is the control burning season so that ground nesting wildlife species are not harmed.

As a rule, the company plants far more seedlings each year than it cuts mature trees. Most of the seedlings planted by Gulf States are an improved variety. These trees are noted for resistance to disease and a shorter rotation cycle for maturity (two-thirds of that required for unimproved varieties). In the 1970's, Gulf States began a shift from a fiber rotation (pulpwood) to solid wood quality (sawlogs). Sawlogs require about a 45-year rotation with two or three thinnings before the final harvest.

During any harvesting operation, strict enforcement of the company's own regulations helps to ensure that the environment remains stable. Logging roads are con-

structed temporarily. Permanent roads meet standards which allow for gentle run-off of rain, thereby reducing the likelihood of heavy erosion.

Best Management Practices (BMP's) are adhered to as closely as possible with Streamside Management Zones (SMZ's) being handled on an individual basis along creeks, rivers, and small streams. This practice protects the fish and provides a filter to maintain the water quality.

Site preparation is largely accomplished through the application of forest herbicides and burning. This causes the least soil disturbance, thereby reducing erosion.

into a management area. The new method, which exhibits compartments averaging 250 acres, provides irregular patterns which are extremely beneficial to wildlife. Cutting practices prohibit cutting adjoining compartments within a nine-year period. Of course, other factors, such as weather or insects or disease damage, may make cutting necessary out of sequence.

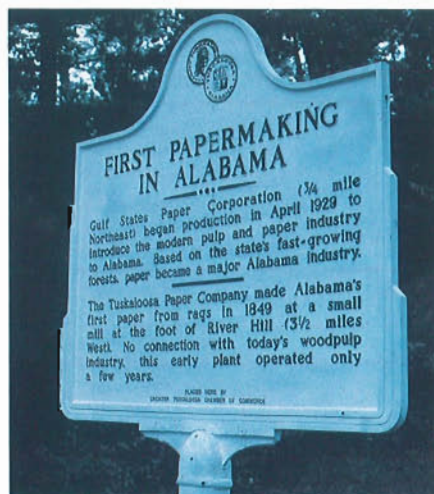
Even with the volume of timber available on Gulf States' land, the company has to procure up to 50% of its raw materials from private landowners.

## Hardwoods

Hardwoods have begun to move to the forefront in forest management lately as more mills are increasing their use of hardwood fiber. For example, the Gulf States Demopolis mill now uses 70% hardwoods and 30% pine.

Gulf States maintains a separate hardwood management plan. About 15% (16,000 acres) is in bottomland hardwood. Gulf States believes in growing hardwoods on *hardwood* sites and pines on *pine* sites.

Thinnings are planned as needed and in consideration of potential damage to the residual stand. Regeneration harvests occur at economic maturity. Again, care is given to ensure that the environment remains as stable as possible. Hardwoods are regenerated through coppice (stump sprouts), planting acorns, and planting seedlings. A variety of hardwood species are maintained to provide good habitat for wildlife.



**Gulf States began paper making in Alabama in 1929.**

Gulf States has also discontinued quarter section (square) harvesting. The old method blocked between 600-1500 acres



**Gulf States foresters follow prepared management plans.**



**More trees are planted than harvested each year by Gulf States.**

### Wildlife

As you've probably already noted, wildlife is given considerable attention on Gulf States' property. Besides the burning, thinning, and cutting practices which are beneficial to wildlife, other measures are taken as well.

About one percent of all Gulf States' land is devoted to openings and supplemental food plots. Some areas, such as Westervelt Hunting Lodge in Pickens County, have an even higher percentage. An extensive road system provides an ideal edge effect.

Hunting clubs lease Gulf States' land all over Alabama. Lease agreements have some rigid stipulations and also require that attention be given to aesthetics in setting up camps. The clubs work with Gulf States to maintain food plots. Soil samples are taken each year to ensure that optimum agricultural conditions can be maintained. Additionally, the clubs are responsible for collecting deer data which is forwarded to the Alabama Department of Conservation and Natural Resources to assist in tracking populations. Company wildlife biologists also evaluate the data and work with clubs to achieve sustainable healthy populations.

Pine management is good for turkeys. Snags are often purposely left or even created in some stands to benefit the wildlife.

Of course, the hardwoods provide a great diversity for deer, turkey, squirrels, quail,

and other game species. Non-game wildlife benefits as well. Also, bluebird houses, martin houses, and wood duck boxes are scattered around the woodland as well as near the headquarters.

### Diversity Pays

Herbert Westervelt was ingenious in the field of making paper. His heirs, though, have turned his dream into a multi-faceted operation. No longer simply a paper corporation, Gulf States has plunged into manufacturing lumber, molded wood products (core plugs for rolls, speaker baffles, chair bottoms, etc.), solid bleached sulfate paperboard for food packaging, paper plates, and food cartons. The company has also been mining coal and exploring gas and oil resources. To handle marketing in these areas, the company maintains a nationwide sales force.

Since good forest management is of primary concern on both industrial and private lands, Gulf States also has a forestry consulting business. This division functions just as any consultant group.

Gulf States is also known for an appreciation of culture. The National Headquarters located in Tuscaloosa is filled with one of the finest collections of American art in the world. The oriental flavor of the

building provides the visitor with an added treat.

The NorthRiver Yacht Club is also a development of Gulf States. The resort facility has become a favorite for conference groups from throughout the nation.

### Community Service

Gulf States has long been recognized for its conservation activities. The company has earned awards from the National Wildlife Federation, American Paper Institute, U.S. Environmental Protection Agency, and several state governments.

The company has also embarked on its own litter campaign. Bumper stickers, trash bags, and litter barrels proclaim the message loud and clear. Dumps identified on forest districts are reported to the authority and are either buried or hauled to an approved facility. A company representative also serves on the newly formed Alabama PALS (People Against a Littered State) committee which is supporting statewide litter legislation.

This company truly lives up to its motto both in products and character—Quality Counts!


*The editor wishes to thank the staff at Gulf States for outstanding cooperation in gathering the facts for this article.*

## Is software hard on you . . .

If your forestry management computer software is hard on you, then we have your solution, FORS - The Forest Resources Systems Institute. We're an international, independent, non-profit association formed by foresters to support and promote the use of computers in forestry and related industries - a clearinghouse of information.

**Who belongs to FORS?**  
Our members include: consultants; foresters, managers and researchers; state, regional and federal agencies; faculty and researchers in forestry schools and universities; associations and timberland owners.

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With membership, you'll have access to services like these: consultation and referral; FORS' bi-monthly information packed magazine, *The COMPILER*; our quarterly *Directory of Forestry and Wood Products Computer Software*; special topic publications; Electronic Bulletin Board System; computer programs;



technical committee membership, and meetings, workshops and seminars.

**What does it cost?**  
You can become a FORS member for as low as \$50, or as a non-member, you can purchase any of the individual publications, services or software you need.

**How do I get more information?**  
Complete the clip-out form below and mail it to us or, just give us a call at 205/767-0250.

*FORS is for forestry.*

Please send me a membership application for FORS.

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

FIRM \_\_\_\_\_ PHONE \_\_\_\_\_

STREET/P.O. \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**MAIL TO: FORS FOREST RESOURCES SYSTEMS INSTITUTE**  
201 N. PINE ST., SUITE 24  
FLORENCE, AL 35630

# EDITOR'S UNDERSTORY

by CYNTHIA K. PAGE

IT'S A GIVEN THAT paper companies cut trees and make paper. It's another given that almost everyone alive (and even some laid to rest) utilizes the paper and other wood products derived from such activities, thereby, creating the need for a wood products industry.

Some people don't much relish the thought of harvesting trees. On the other hand, they don't much like the idea of doing away with toilet tissue and other paper and wood products, nor is living in adobe houses stylish in some parts of the country.

What has happened, then, is we've all snarled and snapped at the very hand that's fed us (or at least wrapped the food) and put a roof over our heads for the past half century or so.

In highlighting Gulf States Paper Corporation in this issue, we hope that we've given some insight into an often misunderstood and certainly misjudged industry, not only here in Alabama, but all across our nation.

In Alabama over 60,000 people are employed in wood-based industries. These people's salaries exceed \$841 million annually. Alabama's woods products industry contributes \$5 bil-



*Gulf States demonstrates a strong concern for environmental issues such as anti-litter.*

lion to the state's economy each year. Still, there are those who look with disfavor upon this industry. Timber is Alabama's leading

cash crop with most of the proceeds going to private non-industrial landowners.

Alabama's industrial forest ownership comprises only about 20 percent of our woodland. Private non-industrial landowners hold 75 percent with the other 5 percent being owned by government (city, county, state, and federal). Our woodlands are only producing 50 percent of the potential growth in fully productive natural stands. It's sad to note that the last U.S. Forest Service survey showed that we're now cutting more timber than we're growing in Alabama. Yet, the fact is that industry lands are almost always regenerated following a harvest, and as we saw in the Gulf States article, even more trees are planted than are cut each year. Gulf States has set an excellent example for others to follow—private or industrial landowners. Concern for the environment, wildlife, and water and air quality are all issues that Gulf States considers while still achieving productivity goals.

Gulf States and the other 500 certified TREASURE Forests in Alabama are truly one in a million as we're fast approaching one million acres of TREASURE Forests certified!

One learns to appreciate the hard work and land ethic of this group when he works among them. Those who don't work with them should give thought to the front door of a house, nice furniture, and the morning paper. Thank goodness we cut trees, and also, thank goodness for TREASURE Forests!



*These wood and paper products are enjoyed by millions of people.*



# Aerial Photographs and Topographic Maps

by JERRY JOHNSON, State Staff Forester, U.S.D.A. SCS, Auburn  
EARL NORTON, State Resource Conservationist, U.S.D.A. SCS, Auburn

**A**ERIAL PHOTOGRAPHS and topographic maps can help you in managing your forest. They show streams, rivers, lakes, reservoirs, highways, and principal works of man such as schools, buildings, and churches.

Topographic maps have lines and symbols representing natural and selected man-made features as part of the earth's surface plotted to a definite scale. They portray the elevation of the terrain with contour lines. Effective use of photographs can increase both the efficiency of forest management and the productivity of the forest.

Aerial photographs are an excellent source of information for use in developing a management plan for your property. They can help you identify terrain features such as roads, streams, water bodies, buildings, and eroding areas. They are an excellent means of locating forest stands according to species and size. These stands can be outlined on your aerial photo for future reference. Photographs allow you to see your property from a birds-eye view and help you in selecting management alternatives.

Choices must be made in selecting aerial photographs for use in managing your forest. Color infrared shows healthy growing vegetation as red and allows the best differentiation of tree species as well as helping you to determine plant health and vigor. Near-infrared wave lengths are totally absorbed by clear water, therefore, streams and ponds are easily located. Near-infrared light can penetrate atmospheric haze better than visible light so the use of infrared film can provide clear images even on moderately hazy days. Black and white photography usually costs 15 to 20 percent less than does color photography, but the increased information provided by color may outweigh the additional cost.

Winter photography is best for locating points on the ground. Summer photography is generally best for forest stand classification and measurements. When purchasing aerial photographs for private nonindustrial use, users usually select the latest photography available.

Aerial photographs may be in a 9 x 9 inch format or enlarged to several other sizes up to a 36 x 36 inch format. Scale changes with

the size of the print. For example, a 9 x 9 inch print with a scale of 1:48,000 has a scale with 1 inch on the photograph depicting 4800 feet on the ground. On a 4X enlargement (36" x 36") of the same photo 1 inch equals 1000 feet. A low altitude photo may have a scale of 1:15840 with 1 inch equaling 1320 feet. A 2X enlargement has a scale of 1 inch equals 660 feet.

Now let's take a look at topographic maps and see how they can be used in managing your forest. Topographic maps can be purchased in quadrangles covering 7½ minutes of latitude and longitude at a scale of 1:24,000 or 1 inch = 2000 feet. They show the steepness of the land and are helpful in planning the layout of roads. Improper road layout is a major cause of erosion problems on forest access roads. Roads should follow the contour and ridges where possible and avoid steep slopes where practical. Topographic maps show streams and are helpful in locating pond and reservoir sites. The contour lines can help you determine potential locations and size of ponds and reservoirs. Topographic maps are helpful in locating sites for log landings and sites for wildlife food plots.

Aerial photographs and topographic maps can be obtained from the regional office of the National Cartographic Information Center of the U. S. Geological Survey (USGS) in NSTL Station, Mississippi. The Geological Survey maintains records of aerial photographic coverage of the United States, and some are available as early as the 1930's.

Before you order aerial photos you need to identify the area you want. This can be done by giving the longitude or latitude of the area you want shown; you can circle the area on a USGS topographic map or on a state or county highway map.

To order topographic maps, first request an index for the maps of Alabama from the regional office of the National Cartographic Information Center of the Geological Survey in NSTL Station, Mississippi. Then from the index select the 7-1/2 minutes quadrangle map or maps that cover your property.

For help in ordering aerial photos and topographic maps for Alabama and surrounding states requests should be made to this address:

U. S. Geological Survey  
National Cartographic Information Center  
Building 3101  
National Space Technology Laboratories  
NSTL Station, Mississippi 39529

***Infrared photograph of an area southeast of Bay Minette, AL taken in March, 1981. Green vegetation appears red to purple; dormant trees and vegetation appear blue to blue-green. The scale of the photo is 1:58,000 or 1 inch equals 4,833 feet.***





# ESTATE PLANNING FOR THE FOREST OWNER

by BILL MCKEE, School of Forestry, Auburn University, AL

**S**EVENTY-FOUR PERCENT of the commercial forestland in Alabama is owned by non-industrial forest landowners. Much of this land has been passed down from one generation to another. Lack of forest estate planning has forced some heirs to sell out so they could pay federal and state estate taxes.

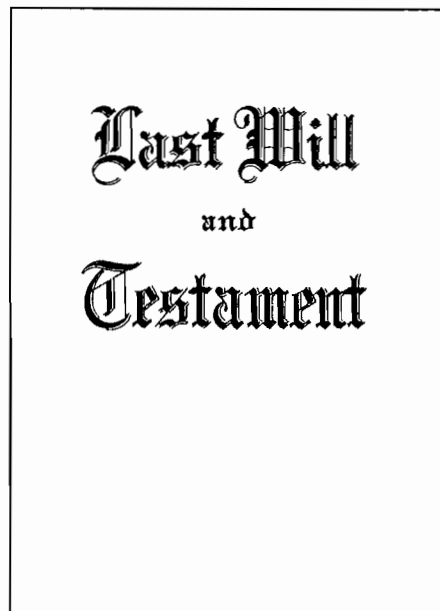
Forest estate planning must involve preparation for the preservation of forest management objectives as well as disposition of title to private property and income during intergeneration transfer of title. For almost every kind of business, estate planning is desired simply to implement the right of private citizens to pass eventual complete control of property and business to their heirs. Forest estate planning must also establish long-range administration of the forest estate so that management can be perpetuated and enhanced through two or more generations.

## Fundamentals of Estate Planning

Estate planning involves all members of the family and as such, the needs and desires of the entire family should be considered in the formulation of any plan or the adjustment thereof. Objectives should be carefully considered and jointly formulated as far as possible by all family members concerned.

Due to the complexity of prudent estate planning, professional assistance is a necessity. In fact, a team of professionals may be essential in most cases. Of course, a competent *lawyer*, knowledgeable in the area of estate planning, is the key component in any such team approach. Other members of the team may include a *life insurance agent* who specializes in estate planning, an *accountant*, a *trust officer or banker*, a *forester* and perhaps an *Extension Service specialist* who is knowledgeable in estate planning.

The number, diversity, and magnitude of



estate planning objectives will most certainly vary from situation to situation. However, generally speaking, the objectives may be given as follows: (1) *to insure adequate financial security for the parents in their remaining years*, (2) *to provide for equitable treatment of beneficiaries*, and (3) *to minimize the cost of transferring the estate*. In other words, the objective is to maximize the amount transferred to beneficiaries, given the parent's security constraint. Where a business is to be transferred, an additional objective would be to provide for the transfer of a viable concern in such a manner as to minimize the interruption in capital accumulation and growth of the firm.

## Estate Planning Via the Will

The will, which is a legal document providing instructions for disposition of one's estate, is a vital ingredient in any estate plan where assets remain in the decedent's estate upon death.

If a resident of Alabama dies without a will, the State, in essence, provides one through the Alabama laws of descent. Distribution of assets by means of the laws of descent is carried out automatically without regard to the wishes of the decedent. As a result, individuals other than spouse and children may gain where none was intended or warranted. Also, distribution to spouse and children may not coincide with intent or equitability.

In creating or amending a will it is important (although unpleasant) to consider all possible family death events with regard to estate disposition. For example, what would be the prudent estate distribution plan in the following cases: (1) *if a parent leaves a spouse and children*, (2) *if both parents die leaving children*, or (3) *if the entire family perishes as a result of a disaster*? If a will does not provide instructions for a certain eventuality and if the ignored event should happen, the laws of descent would govern the disposition of assets. In fact, in the event of a disaster where the entire family dies and the will, if one exists, is inadequate to provide instructions in such a case, order of death is determined and the laws of descent govern accordingly.

Not only is the will important in providing for equitable distribution of assets, it is also the blueprint by which the cost of estate transfers at death can be considerably reduced. Each parent may wish to leave all of his worldly possessions to the other upon death as they are concerned about the welfare of the surviving spouse. In many instances, joint ownership of assets is used to insure that the surviving spouse receives all such assets by right of survivorship in the belief that only half of jointly owned assets are subject to estate taxation upon the first to die. However, these well-meaning acts of provision may not generate the expected results.

In the first place, parents are usually



concerned not only for each other but also for their children, in which case there is a better approach to providing for the welfare of family members upon one's death. In the second place, the entire amount of jointly owned assets is taxed in the estate of the first to die to the extent that proof of consideration cannot be shown. Therefore, in the case where property is owned jointly between husband and wife and the husband has paid for the property, upon his death the entire amount of the property would be subject to estate taxation.

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### Instruments of Estate Planning Beyond the Will

Planning on a long-run basis is essential to accomplish family goals upon the decedent's death. It is also essential to accomplish planned goals prior to death in order to more adequately satisfy estate planning objectives. The following discussion is designed to present instruments useful in accomplishing estate planning objectives whether such objectives call for lifetime and/or deathtime action.

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### Property Ownership

Types of ownership and the way interest in property is held is of considerable importance in achieving estate planning objectives. As a result, objectives will dictate the appropriate ownership method and degree of interest in property for all those involved in estate disposition.

*Sole or single ownership* by an individual who possesses all legal rights to the property is usually the easiest to accomplish and transfer. Property solely owned may be sold, given away, or transferred at death where a death transfer may be achieved by means of a will or laws of descent.

A *life estate* involves the division of interests of property ownership. For instance, a married person, through the will instrument, may leave property to the spouse in a life estate with remainder to the children. In this way the interest of ownership is divided between the surviving spouse and the children where the surviving spouse has a present interest and the children have a future interest in the property. The surviving spouse as a life tenant has the right to the use of and income from property held in a life estate. Normally, property held in a life estate cannot be disposed of without agreement between the life tenant(s) and the remainder person(s). The life tenant is responsible for all costs (mortgage, taxes, maintenance, etc.) while alive. Upon the death of the life tenant, the property passes outright to the remainder person(s). There are two kinds

of life estates, *granted* and *retained*. The *retained* life estate involves a situation where the life tenant previously owned in some manner the property held as a life estate. In contrast, the *granted* life estate may exist if the life tenant had no prior ownership rights to the property. The distinction between granted and retained is extremely important for estate tax purposes. The granted life estate is not taxable in the estate of the life tenant whereas the opposite is true in the case of a retained life estate.

*Tenancy in common* is a type of ownership where two or more persons own an undivided interest in property. If one of the co-owners should die, the deceased's interest in the property passes to the heirs by means of the will instrument (if one exists) or according to the laws of descent.

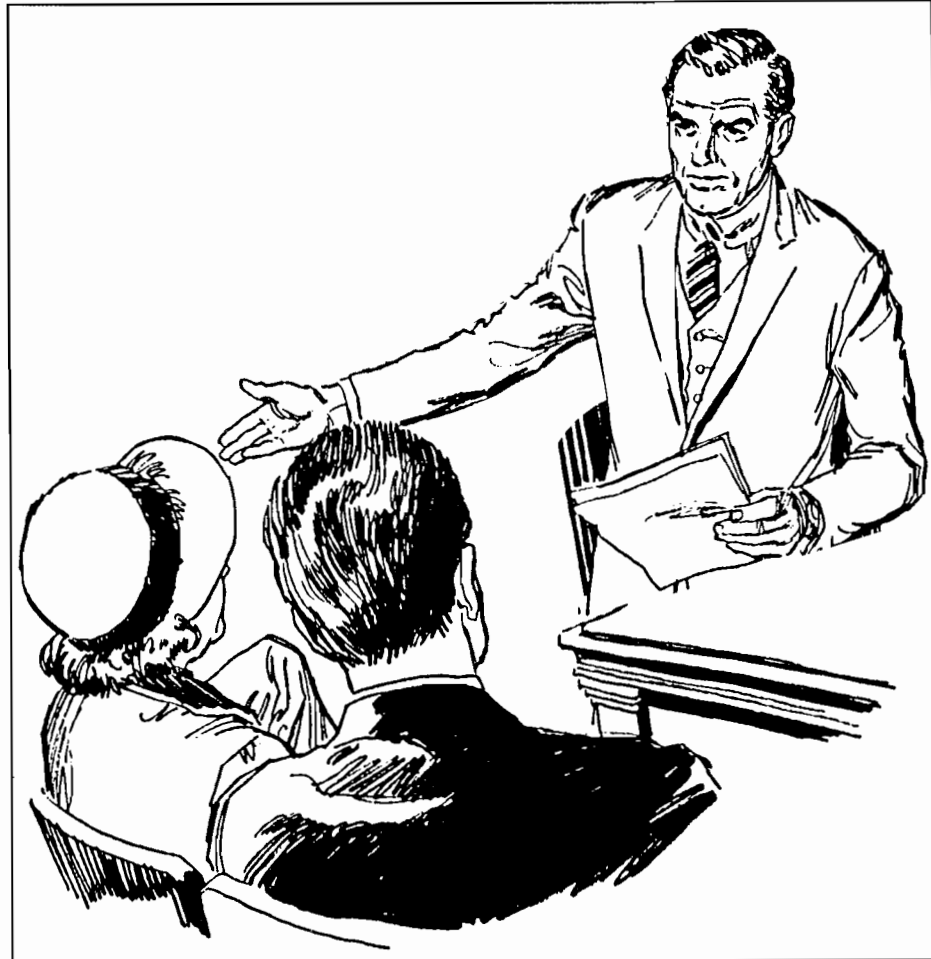
*Joint tenancy* involves ownership of an undivided interest between two or more individuals with right of survivorship. Right of survivorship means that upon the death of one of the co-owners, the deceased's interest passes automatically to the surviving co-owner(s). No will is needed to accomplish this end. In fact, joint tenancy ownership overrides a will or laws of descent. In effect then, creation

of joint tenancy simultaneously creates a will regarding the property and co-owners of interest. For estate planning purposes caution should be exercised in the use of joint ownership. For example, if a married couple owns property jointly, all of the property, not half, will be subjected to estate taxation upon the death of the first spouse to die unless the surviving spouse can show due consideration or that property owned jointly did not originate from the decedent. Also, if a married couple wished to use a life estate via the will to reduce the incidence of estate taxation, their property cannot be jointly owned. Joint ownership results in a retained life estate which is taxable in the estate of the life tenant. If the value of property held in joint ownership is sufficiently great, such ownership may pose a death tax trap. However, if inexpensive assets such as checking accounts and automobiles are owned jointly, this can be advantageous in that no restrictions are placed on access to such assets by surviving joint tenants.

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### Gifts

Estate planning has been defined broadly to include action prior to death.





One estate planning instrument which involves action during life is a program of lifetime transfers through gifts.

There may be several advantages to including a giving scheme in the estate plan. Such advantages may encompass the following: (1) *the fact that there is no Alabama gift tax*, (2) *a reduction in estate taxes since gifts reduce estate size leaving a lower taxable estate*, (3) *a reduction of the overall family income tax burden by means of shifting income producing property into lower tax brackets*, (4) *elimination of estate settlement costs through reduction of the size of the gross estate by means of gifts*, and (5) *the means by which a viable business may be transferred to successors*.

Gifts in certain circumstances may be disadvantageous. When a donor makes a gift, all control and possession of the property is given up. If at a later date the donor finds misfortune, recovery of assets given away is out of the question. On the other side of the token there is a disadvantage to the donee, since when the gift is received, the donor's income tax basis is also received. So, if the donee should wish to sell property received as a gift for profit, capital gain is equal to the difference between the selling value and the donor's basis plus or minus certain adjustments.

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## Trusts

The *trust* is quite useful in the realm of estate planning as it adds a dimension of flexibility which may be essential to achieving just the right plan. A trust agreement involves three parties: the *grantor*, a *trustee*, and *beneficiaries*. The grantor or creator of the trust may transfer interest of ownership to a trustee who has a fiduciary responsibility to manage the property placed in trust for the interest of the beneficiaries. The trustee must follow the edicts of the trust instrument which provides the functional rules as prescribed by the grantor. However, the trustee may be allowed considerable flexibility in carrying out prescribed duties.

A trust is used largely to facilitate management functions. For instance, a trust may be used in conjunction with a life estate where the life tenant is either unable or unwilling to accept the responsibility associated with reception of such an estate. A trust is quite useful where property owners cannot or do not wish to be burdened by financial or managerial matters. By placing property in trust, the trustee takes the burden of responsibility while providing for the needs of the beneficiaries to the extent of the trust instrument.

Another useful management aspect of the trust is that it may facilitate efficiency

in a growing concern by eliminating the need to liquidate assets for equitable distribution of an estate. For example, real property may be placed in trust during the grantor's life or via the will so that upon the death of the grantor, the property is not physically divided. Rather, interest in the trust may be distributed as personal property to the heirs in a fair manner, while allowing a viable business to continue without loss of economies of size. Such a trust arrangement may be referred to as a "Land Trust."

There are basically two types of trusts, *living* or *inter vivos* trusts and *testamentary* trusts. The *living* trust is created by the grantor prior to death and may fall into one of two categories, revocable or irrevocable. A revocable trust is one where the grantor has the power to alter the trust agreement and/or determine who shall benefit. In this case the trust assets are a part of the grantor's estate upon death and are subject to estate taxation. An irrevocable trust is created when the trust instrument pertains to the conveyance of a gift. Creation of an irrevocable trust, then, involves a possible gift tax obligation. However, since a gift is involved, the grantor's estate is reduced in size, thus reducing estate taxes and settlement costs upon death.

The *testamentary* trust, as opposed to the living trust, is created upon death of the grantor via the will. This type of trust is included in the estate of the grantor upon death and, as such, does not facilitate a reduction in estate taxes.

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## Life Insurance

There are many uses for life insurance in an estate plan—more than just caring for family survivors. Life insurance can be used as a source of liquidity, where none would otherwise exist, for the payment of estate taxes and for settlement costs. Life insurance may be useful as a source of funds which can be distributed to heirs not associated with the family business in lieu of business assets, which then may be distributed to heirs connected with the enterprise. Life insurance can also serve as a source of retirement income, perhaps through conversion to an annuity.

There can be transfer cost advantages through the use of life insurance. For instance, if the beneficiary of life insurance on the decedent's life is not the estate of the decedent, the proceeds from the policy are usually not subject to probate and administrative costs. Further, if the decedent did not retain incidence of ownership of the policy, proceeds from it are not made a part of

the decedent's gross estate and, as such, are not subject to estate taxation or settlement expense.

There is a precaution here that should be mentioned. Life insurance—which was not payable to the decedent's estate—intended to cover transfer costs upon the death of the decedent may not necessarily be used for its intended purpose. There is no guarantee that the beneficiary, other than the decedent's estate, will use the proceeds as intended by the decedent. A life insurance trust can be set up establishing the trust as owner and beneficiary of the policy. The trustee can be authorized, through the trust agreement, to buy assets from or loan funds to the grantor's estate for the purpose of paying estate taxes and settlement costs. Upon completion of its function, the trust is dissolved and assets distributed to beneficiaries as per the trust instrument. In order that the annual exemption for gifts can be used when assets are transferred to the trust or life insurance premiums paid in behalf of the trust, the trustee must be empowered to pay annually at least up to the amount of annual exclusions out of trust corpus to the beneficiaries upon request. Whether this request is ever made, the ability of beneficiaries to draw on trust corpus to the extent described enables a present interest of a gift up to the limits set forth in the trust agreement, thus allowing use of the annual exclusion for gifts by the grantor. Without the beneficiary's right to draw on trust corpus as given, transfers of ownership to the trust or payment of premiums on behalf of the trust would constitute gifts of future interest which deny use of the annual exclusion.

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## Sales

A *bona fide sale* involving either mortgage or a contract might be the needed ingredient in a particular estate planning situation. Both mortgage and contract approach have merit. For example, the estate holder might wish to exchange business assets for liquid assets upon retirement so as to facilitate consumption of accumulated assets from savings, or perhaps, via an annuity. This might be accomplished through a cash sale or perhaps through a mortgage if the down payment is sufficiently large to meet the desires of the seller.

The contract approach can be advantageous to the buyer who, because of equity limitations, may not be able to obtain a mortgage. With a contract agreement a buyer can take possession of major pro-



ductive resources, primarily land, with limited capital to invest.

In actuality, bona fide sales do not reduce the size of the seller's estate. Rather, sales result in an exchange of assets where the seller's assets become more liquid. If the goal is to transfer assets out of the parent's estate and into the children's estates, then some other means must be found to accomplish this end. Gifts may be used in conjunction with sales to meet objective requirements. For instance, the seller may wish to forgive all or part of annual mortgage or installment payments, thus allowing use of the annual gift exclusion.

### Approaches to Estate Management

After the technicalities of forest estate planning are understood and the complexities fully realized, a forest property owner should choose his approach to estate management. Since success of the management program depends on perpetuation of management through several generations, the present owner must make provisions for someone to carry on after his death. There are several possible methods of insuring continued management of forest estates, and owners must be familiar with each if they are to plan intelligently.

### Family Ownership

If there is only one heir and he is trained to know the plans and objectives of the owners, the problems of continuous management during intergeneration transfer of title are relatively uncomplicated.

Because of uncertainties, the *family manager* approach is generally the poorest

approach to insuring continuous management of private forests.

### Corporate Trusteeship

The ideal place for forest estate administration appears to be in a *corporate trust department*. Trust companies employ attorneys and accountants who have experience in estate planning. With the addition of foresters they can offer complete, dependable, and perpetual service as corporate trustees for forest estates.

Three kinds of trusts are used. It is impossible to say which trust would be most useful in all cases for forest estate planning. It is possible that during younger years a forest property owner might set up a testamentary trust in his will; or he might prepare a revocable *inter vivos trust*.

The trust most often suggested for estate planning is an *irrevocable inter vivos trust*. This type of trust is created during the lifetime of the property owner, who is the trustor or settlor, and cannot be canceled by him. Essentially the irrevocable inter vivos trust is a gift to the beneficiaries and it is subject to gift tax and the normal gift tax exemption. Two or three generations of estate taxes can be avoided by removing the trust property from the taxable estate.

Perhaps one of the most important advantages of this type of trust is that while the trustor can remain active in managing the timber, the trust property is not a part of his probate estate at the time of his death. This results in savings in probate expense, provides immediate income to the family during the period of probate, and minimizes the disruptive effect of death on timber management procedures and activities.

### Incorporation

The *family corporation* works exceptionally well for some timber holdings. A few of the heirs remain active in the land management as employees of the corporation, while others retain an interest in the land and timber as stockholders. The timberland remains intact as an economic entity; the frustrations of interim management during probate are minimized; outside capital may be attracted for investment; and the impact of estate tax is reduced or eliminated.

### Long Term Timber Lease

Rather than sell, grant or otherwise liquidate assets some property owners have chosen to turn all or part of their property over to plywood, lumber, or pulpwood companies for management under a *lease agreement or longterm cutting contract*. The major advantage of timberland lease is that income begins immediately without capital investment and without one or two generations of waiting for the development of producing timber stands.

### Conclusion

These suggestions outlined herein are but a skimming of the available estate planning tools. It is important to realize that one can wait too long to effect a viable estate plan and therefore should begin with haste to consider the various alternatives. A knowledgeable estate planning professional such as an attorney, certified public accountant, forestry trust officer, or other person familiar with estate tax laws should be consulted. ♣

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# YOU OUGHT TO BE IN PICTURES

Chris Fulton, grandson of Mr. and Mrs. M. H. Lee of Carrollton, Alabama, proudly exhibits the first turkey killed on the Lee TREASURE Forest.



# REFORESTATION INCENTIVES IN ALABAMA

by L. LOUIS HYMAN, Chief, Forest Management

**R**ECENT STUDIES HAVE INDICATED that we face a possible timber shortage. Today, Alabama is cutting more timber than is being grown. This might have serious impacts on the economy of our state.

How did this happen? A Southwide survey of landowners who cut timber found that 54 percent of the landowners who clear-cut their timber did not reforest the stands.

Federal and state governments have been greatly concerned about the short-fall of regeneration. They have developed several programs that offer incentives to landowners to reforest. Some of these programs have been more effective than others. The purpose of this article is to discuss what incentives are available to Alabama landowners and how effective they have been in helping landowners with their reforestation.

## Forestry Incentives Program

The Forestry Incentives Program, or FIP, was created by Congress in 1974 for the purpose of improving forest productivity on private lands. Practices funded by FIP are site preparation and tree planting, timber stand improvement, and site preparation for natural regeneration. The work must follow the specifications of a forest management plan.

If the work is done correctly, the landowner receives a payment of 65 percent of the cost, up to a maximum per acre based on the amount of work done. The rate for tree planting without site preparation is \$35 per acre, while the maximum rate for tree planting with heavy site preparation is \$100 per acre. These maximum rates are set by the Agricultural Stabilization and Conservation Service (ASCS), a federal agency.

In order to qualify for FIP, a person must own at least 10 acres, but less than 1000 acres. The money can be used to plant either hardwoods or pines, but not Christmas trees, ornamentals, or orchard trees such as pecans. You can sign up for this program at your county ASCS office.

## COMPARISON OF COST-SHARE PROGRAMS AVAILABLE IN ALABAMA

<i>PROGRAM</i>	<i>FIP</i>	<i>ACP</i>	<i>ARCP</i>	<i>CRP</i>
Administrative Agency	ASCS	ASCS	SCS	ASCS
Technical Agency	AFC	AFC	AFC	AFC
Cost Share Rate	65%	60%	60%	50%
Minimum Ownership			20 AC	
Maximum Ownership	1000 AC			
Minimum Work Area	10 AC	1 AC	1 AC	3 AC
Minimum Erosion Rate		2T*	2T*	3T*
Maximum Payment	\$10,000	\$3,500	\$3,500	\$50,000

\*Tolerable rate for erosion.

## FORESTRY PRACTICES COVERED

Tree Planting	Y	Y	Y	Y
Site Preparation				
Mechanical	Y	Y	Y	NO
Chemical	Y	Y	Y	NO
Burning	Y	Y	Y	Y
Post-plant Herbicide	Y	Y	Y	Y
Pine Release	Y	Y	Y	NO
Pre-commercial Thinning	Y	Y	NO	NO
Pruning	Y	Y	NO	NO
Burning for TSI	NO	NO	Y	NO
Fire Lanes	NO	NO	Y	NO
Natural Regeneration	Y	Y	Y	NO
Christmas Trees	NO	NO	NO	NO
Fences and Roads	NO	NO	NO	NO

## Agricultural Conservation Program

There is another federal cost-sharing program that helps pay for forest tree planting. The Agricultural Conservation Program (ACP) is set up to help farmers stop soil erosion and improve their income. Tree planting is included as an erosion control measure. Tree planting under ACP is usually restricted to tracts less than 10 acres. A forest management plan is needed for any work.

The cost share rate under ACP is 60 percent, up to a maximum per acre. The maximum rate for open field tree planting is \$32 per acre. You can also sign up for this program at your county ASCS office.

## Conservation Reserve Program

The Conservation Reserve Program (CRP) is one of the most important provisions of the 1985 Farm Bill. CRP gives a very strong incentive to farmers to plant

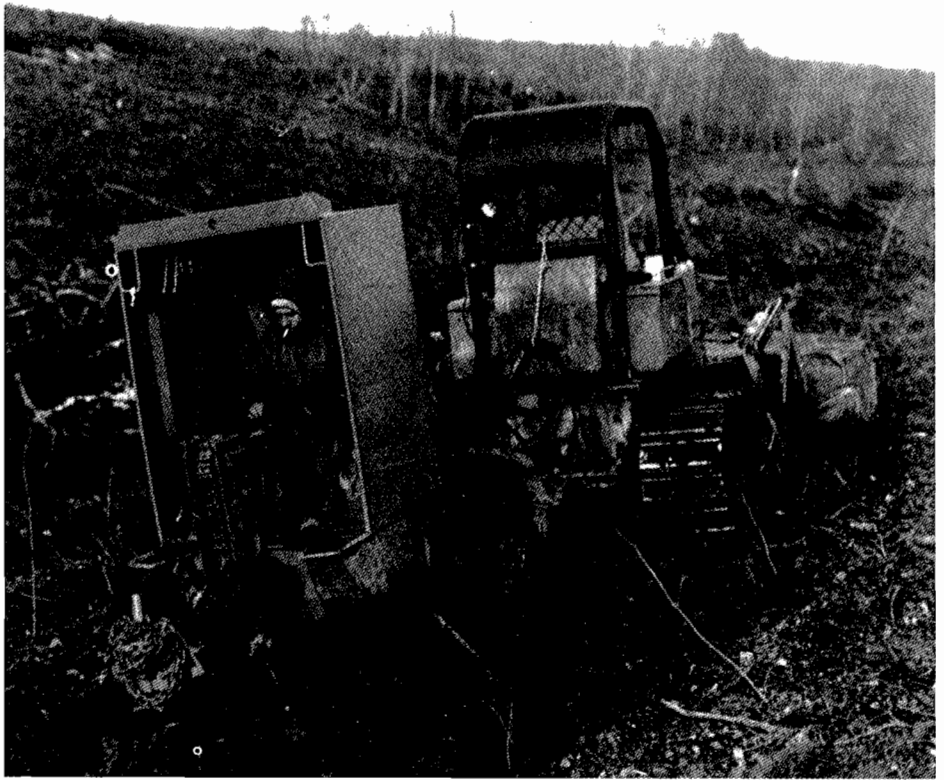


erodible and marginal croplands to trees or grass. In Alabama, approximately 850,000 acres of qualifying land have been identified by the Soil Conservation Service (SCS) and are eligible for retirement in the five year program. Farmers or landowners who participate in the program will receive 50 percent of eligible costs for establishing trees or grass and will then bid on an annual rental rate per acre that they will accept for retiring their land for a ten-year period.

Under the CRP, only the most eligible lands in the nation will be retired. Present erosion rates must exceed three times the tolerable rate, or have an erodibility index over eight.

There will be restrictions placed on the land involved in CRP that allows the U.S. Department of Agriculture to recover any payments from farmers who take land out before the end of the contract. Also products such as hay or Christmas trees cannot be sold under the terms of the contract. In addition, grazing will be prohibited from grassed areas planted under CRP.

People who think they have eligible land and wish to participate in CRP should contact their county ASCS office.



Many landowners have used cost sharing to plant trees on marginal cropland in Alabama.

### Alabama Resource Conservation Program

The federal government has historically taken the lead in reforestation assistance. Recently, the states have begun reforestation programs of their own. In 1985, Alabama created its version called the Alabama Resource Conservation Program (ARCP). ARCP is unique in that it was created without using tax money. It gets its support through the General Fund, based on interest earned from the oil windfall trust fund set up in 1985 to preserve money earned from oil and gas leases in Mobile Bay and Alabama coastal waters.

ARCP has two major goals: stopping erosion and improving forests. It has taken as its main emphasis the planting of trees on marginal cropland. Funds are also available for open land planting without site preparation, and woodland planting with site preparation. Cost share rates are set at 60 percent of actual costs.

People interested in applying for ARCP should contact their county Soil Conservation Service (SCS) office.

### Reforestation Tax Credit and Amortization

In 1980, Congress created two good tax

## USE OF REFORESTATION INCENTIVES 1983 ROYER STUDY

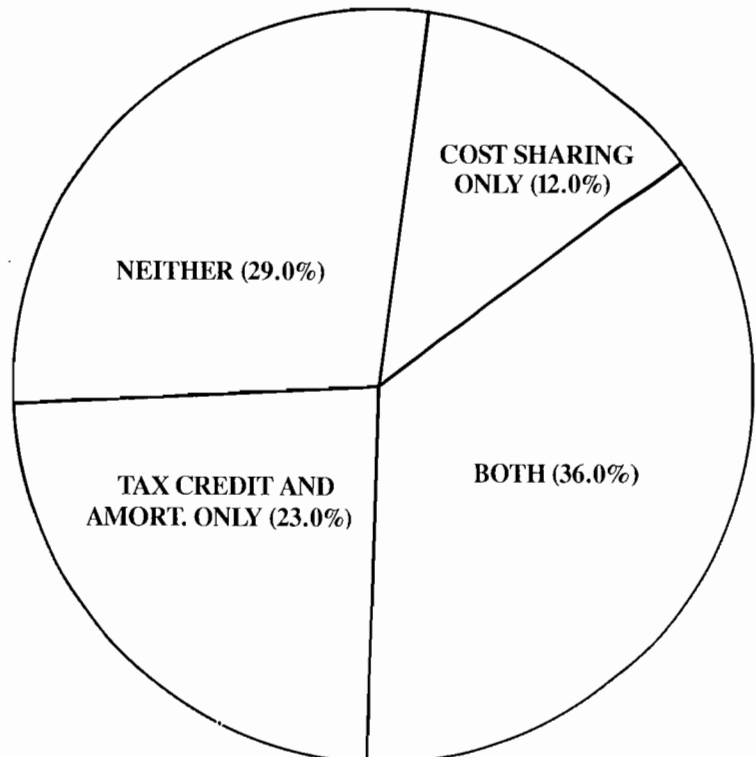


FIGURE 1

incentives for people who plant forest trees. The reforestation tax credit allows a landowner to take a tax credit for 10 percent of his reforestation costs, up to a \$1,000 credit per year. This credit acts as a direct reduction of taxes owed. This important tax benefit is the only investment tax credit that was kept in the 1986 Tax Reform Act.

The other major tax incentive is the reforestation amortization. This tax benefit allows a landowner to write off, or amortize, the first \$10,000 per year of reforestation costs over a seven year period. Costs that can be amortized include site preparation, seedlings, labor, and any cultural work, such as herbaceous weed control, done during the first year.

Federal rules state that a landowner cannot take full advantage of both benefits at the same time. He may either take the 10 percent tax credit and amortize 95 percent of his cost or he may take an 8 percent tax credit and write off the full \$10,000. For most landowners, the first option is better.

#### How Effective Are These Programs

For many years foresters have been concerned with finding ways to encourage landowners to reforest their lands after harvest. Several recent studies have examined why landowners reforest. These were summarized in a paper by Jack Royer of Duke University.

Based on a survey of landowners who harvested their timber in 1983, Royer found that 12 percent of the landowners took advantage of cost-sharing programs alone; 23 percent took advantage of the tax credit and amortization alone; and 36 percent of the landowners took advantage of both cost-sharing and tax credits (FIGURE 1). These landowners took reforestation incentives on 71 percent of the land that was reforested.

Furthermore, Royer found that if a landowner is familiar with both cost-sharing and tax incentives, the probability that he will reforest after harvesting more than doubled for lower income landowners and increased by about 78 percent for higher income landowners.

Many of the studies seem to indicate that landowners are willing to harvest timber when they feel that the returns from harvesting timber (ie. stumpage prices) exceed non-timber values on the property. Landowners who use their land for recreation or wildlife expect a higher stumpage price before they will sell.

However, these same studies showed that stumpage prices had only a modest effect on the decision to reforest. The key factor preventing reforestation was the high cost. In this regard, programs that reduced this

cost increased reforestation.

Royer points out that even with high economic opportunities and the prospect of good financial returns, some landowners are held back from investing in tree planting by limited financial resources. Cost-sharing programs and tax incentives help such landowners by letting them stretch limited dollars over more acres.

It should also be noted that technical assistance from professional foresters, either from public agencies, consultants

or private industry, greatly increases the likelihood of reforestation.

To summarize, reforestation incentives have been very effective in reducing landowner costs and encouraging tree planting. ♣

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# Alabama's Forest Products An Expanding Market

**L**AST YEAR, the Alabama International Trade Center (AITC) at the University of Alabama and the Tennessee Valley Authority joined ranks to develop a world market for Alabama's forest products—an effort which has generated about \$1.5 million in international sales!

TVA felt that forest product export markets for goods traveling the Tennessee-Tombigbee Waterway could be expanded and provided a contract to fund the project. Major wood products in the state include hardwood lumber, southern pine lumber, southern pine plywood and other building materials, moulding, flooring and ceiling products, treated lumber, poles and piling, railroad ties, and paper and allied products.

The Alabama Forestry Commission became involved in the project and transferred Mark Beeler from the Tuscaloosa District Office to serve as an international trade specialist with AITC's Mark Taylor at the University of Alabama campus.

Ten forest product companies in Alabama and Mississippi formed a Wood Products Marketing Cooperative in 1985 to accomplish more cost efficient marketing of export grades of hardwood and softwood. As a result of their efforts, a distribution center is being constructed at Pickensville for both

domestic and international shipping.

To aid in face-to-face contact for companies interested in exporting, the AITC, Alabama Forestry Commission, Wood Products Marketing Cooperative, Alabama Forestry Association, Alabama Development Office, and a voluntary Wood Products Task Force composed of industry representatives have planned for seminars on international marketing, individual counseling, and sales trips to Europe and the Far East. According to Mark Taylor, AITC will conduct market research, make international contacts, send out trade leads, and take companies through the entire export process if they have the capacity for exporting and will only make the commitment.

Sales missions have already been conducted to Belgium, Holland, Germany, and Taiwan. The trip to Taiwan produced \$1 million in sales and a long-term contract. A recent visit to Alabama by Danish furniture manufacturers may also prove beneficial to our state.

AITC's services are geared for a limited number of companies. Hardwood lumber exporters should be producing as a minimum more than 5 million board feet annually.

For more information, contact the AITC at the University of Alabama, (205)348-7621.



# FORETHOUGHT In Forest Management Pays

by BILL BUSTIN, R.F. Forest Management Service, Inc. Haleyville, AL

**R**ECENTLY A POTENTIAL client called our office and stated, "I would like to sell my timber. It has been 30 years since any cutting was done. I should have a high timber value on my 334 acres."

Investigation revealed a large part of the property to be poor grade Virginia pine and upland hardwood. The non-managed timber had been burned by wildfire regularly. The combination of wildfire, disease, insects, and off-site species had taken its toll. Needless to say the owner was very disappointed in his returns from the timber.

Over 74% of all timberlands in Alabama are owned by small landowners, many of whom do not manage their timber for best investment returns. Some of these landowners are pleasantly surprised 20-30 years after harvest at what naturally grows back, but many are very disappointed. The "key" is good stand management.

Many concerns enter the picture in management of timberlands. Pine beetles, budgets, acid rain, tax laws, equipment costs, chemical costs, supply and demand, diseases, droughts, species adaptability, government cost shares, labor problems, and preservation groups are all very real problems when we manage timberlands. Some of these concerns can be controlled, but many cannot.

Costs versus returns to the landowner within an acceptable time limit is an almost unsurmountable obstacle to the forester as he practices management techniques. Landowners over 50 years old know they will seldom receive a return in their lifetime. Appeals to these owners often fall on deaf ears. So what can be done?

One approach is natural stand management. Smaller incomes may be realized, however, during a rotation period. This technique can be practiced through even-aged or all-aged management. Modern practices in larger timber holdings seem to favor even-aged management. This can be established by management of a series of trees of equal age, species, composition, and other similar characteristics.

Assuming even-aged management is the selected method, a decision must now be made in regeneration techniques. There are only two. These are natural regeneration or clear-cut and plant in pine stands.

Since natural regeneration is cheaper in pine stands it is a preferred technique if:

1. A good seed source is available with preferred species. (Seed trees)
2. The ground cover can be controlled to allow seed catch.
3. The landowner is willing to accept a slightly longer rotation period because of stand establishment.

Regardless of the regeneration technique employed it is imperative that good forest management techniques be used if acceptable rates of return are to be realized. These, of course, must be interwoven with the owner's objectives.

## Fire as a Management Tool

Fire remains a feared adversary in the forest to the untrained manager. This is especially true to owners who have been taught that fire destroys forests. This was taught by an effective campaign of fire prevention (Smokey Bear) in the 1940's. Wildfire still carries immense destruction, but controlled fire can be an effective management tool and should be used more often.

Prescribed fire can provide much needed wildlife habitat and food, can help control diseases, control undesirable species, be a site preparation tool, and prepare a seed bed for natural regeneration.

Prior planning and management of timber stands is necessary if natural regeneration is to be successful. At least five years prior to final harvest, pine stands should be selected for some type of regeneration technique. If natural regeneration is elected the stands should be cut heavily leaving only eight to ten well spaced seed trees per acre. One year after cutting, a prescribed burn should remove litter and expose the soil for a good seed

bed for natural seeding, but only if seeds are available on remaining seed trees.

## Factors Affecting Natural Seeding

The following factors are major concerns as to whether the landowner will successfully accomplish natural seeding:

1. Adequate seed trees well spaced.
2. Prescribed burn before seed fall.
3. Adequate seed crop must be available on seed trees.
4. Proper site preparation must be accomplished with minimal soil exposed.
5. Adequate soil moisture must be available during and after seed fall.

## Adverse Effects of Natural Seeding

Some disadvantages of natural seeding are listed below:

1. Longer stand establishment periods.
2. Unknown weather conditions may hinder germination.
3. Possible seed crop failure on seed trees.
4. Little control on seedling density and stocking on sites.
5. Unwanted species may control the site.
6. Rodents or animals may take seed.

## Favorable Effects of Natural Seeding

As a comparison for trade-offs, here are some of the advantages:

1. Easier to use as a management tool.
2. Less costly to apply.
3. Insurance for additional stand establishment in case of wildfire (if seed trees aren't killed).

Future markets will call for a greater need for hardwood. This is presently being attested by a need for a larger percent of hardwood component in quality paper manufacturing. In many cases the hardwood component exceeds 60% of total needs. Future timber silviculture should call for good hardwood regeneration both as a component of pine plantations and pure stands where sites will allow. Natural stand regeneration is not only cheaper to establish but will allow the needed hardwood component for future markets and provide trainers for pine, thereby, better quality lumber if sawtimber is the objective.

## Summary

Where possible, sell your poor grade hardwood before reforestation. Use natural regeneration possibilities to its fullest potential. Don't get caught in a "rut" in management technique. A second opinion may save thousands of dollars. Don't start regeneration after the cut, start it before any cutting. Plan ahead!



# LANDOWNERS

LEGISLATIVE  
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## NATIONAL



by MELINDA COHEN, Legislative Liaison, National Association of State Foresters, Washington, D.C.

**T**HE 100TH CONGRESS HAS BEGUN to mark up appropriation bills. Forestry activity has been centered in the Interior and Agriculture appropriations subcommittees to obtain funding for State and Private Forestry Programs, Forestry Incentives Program (FIP), Agricultural Conservation Program (ACP), the Conservation Reserve Program (CRP), and other cooperative forestry programs.

There has been an increasing shift in forestry funding—the states are bearing more of the financial burden for programs such as pest suppression, research, and cost-share programs. The National Association of State Foresters (NASF) and other forestry groups have been working with Congress to prevent any further costs in State and Private Forestry (SPF) programs. Congressman Claude Harris, a member of the Forests, Family Farms, and Energy Subcommittee of the House Agriculture Committee, has expressed concern about the Forest Service abdicating its traditional federal role in SPF. NASF has requested an additional \$5 million to begin a new marketing initiative program to help combat the \$5 billion annual trade deficit in U.S. forest products trade. This program will be administered through the U.S. Forest Service. The new marketing program, along with other U.S. Department of Agriculture finance and export promotion programs, will help U.S. forest producers regain an edge in the competitive world market. These programs are now included in both the House and Senate trade bills.

The Conservation Reserve Program of the 1985 Farm Bill has been a huge success. The response has been overwhelming, and the reserve is quickly reaching its mandated capacity—19.5 million acres have been accepted in the first four sign-ups of the scheduled 45 million acre program.

While the tree acreage has not reached its legislated goal of 12% of total sign-ups nationwide, 160,000 acres of trees have

tentatively been accepted in Alabama. Alabama's tree acreage makes up 15% of the total U.S. acreage enrolled in trees under the CRP. Keep up the good work!

Amendments to the Conservation Reserve Program are expected to be introduced this session. All parties agree that it is desirable to continue funding for the CRP through the Commodity Credit Corporation (CCC). In addition, amendments to increase the total number of acres allowed and incentives for tree planting may be included.

As usual there are some "bugs" in the system, namely nematodes. The U.S. forest products industry, specifically wood chip exporters, are facing non-tariff barriers in their attempts to continue providing wood chips to Scandinavia. The United States has shipped millions of tons of softwoods to Europe and Scandinavia for over 200 years and in the past 12 years the U.S. has shipped nearly 5 million tons of wood chips to Scandinavia.

Now Scandinavian governments are restricting the import of U.S. wood chips, claiming the U.S. wood has nematodes, a common, microscopic parasite. The U.S. Department of Agriculture has concluded that there is no measurable risk of damage from the nematodes to the Scandinavian forests. The Scandinavian countries currently import wood chips from France and the Soviet Union, which contain similar nematodes.

Several members of Congress have written to U.S. Trade Representative Clayton Yeutter, urging him to make the wood chip issue a priority during his talks with the Swedish Agricultural Minister. Alabama Congressmen who signed this letter include Bevill, Callahan, Erdreich, and Dickenson. Senators Heflin and Shelby signed a similar letter expressing their concern.

The Canadian Forest Products Industry is unhappy with the U.S. agreement they made last December. The U.S. Department

of Commerce found that Canada's provinces have granted their lumber industries subsidies by underpricing the timber used for manufacturing. Canada has not passed the necessary legislation to enforce the agreement of the 15% self-imposed tax. The tax is now being collected on a voluntary basis and many firms are refusing to pay.

Pests at home continue to be a problem. Many of you know firsthand what pine beetles can do to a stand of otherwise healthy trees. Protecting our forests from insects and disease has become increasingly difficult over the past ten years. Simultaneous outbreaks of major pests—gypsy moth, mountain pine beetle, and western spruce budworm—are widespread causing damage to millions of acres of forests each year. Time is critical when treating new outbreaks, and delays increase the amount of damage, size of affected area, and suppression costs.

Flexible funding for the Forest Service must be provided for suppression activities to treat pest problems before they become large outbreaks. The National Association of State Foresters supports a pest contingency fund to help combat this growing problem and provide some relief to states. The proposed contingency funding provides the following: 1) *a quicker response to anticipated infestations* and 2) *treatment of ongoing outbreaks that substantially escalate in intensity*. The NASF believes that the Forest Service should have the authority included in its annual appropriations act: "Any appropriation of funds available to the Forest Service may be advanced to the State and Private Forestry program for the suppression of forest pests on all lands of the United States as directed by the Chief of the Forest Service." The Cooperative Forestry Assistance Act of 1978 provides the authority for these funds to be made available for insect and disease control on all U.S. lands.

The President's proposed budget does not provide any funds for pest suppression on



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state or private lands. Only funds for suppression on federal lands are provided, ignoring the needs of early detection and suppression on non-federal lands to prevent the escalation of local outbreaks.

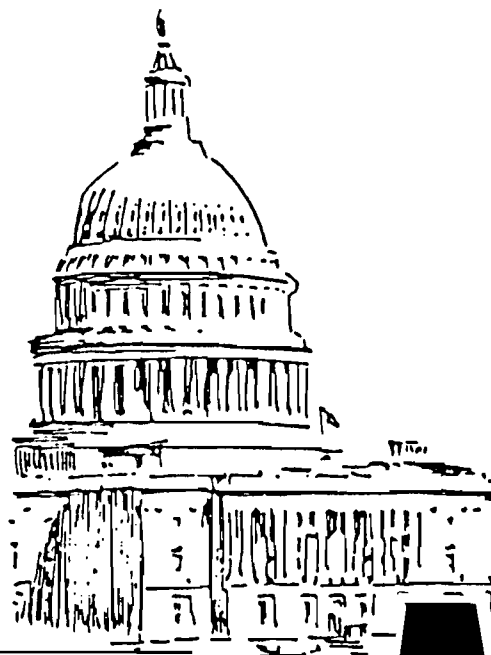
Tree farms and other forest pesticide applicators will be facing new regulations. The Environmental Protection Agency (EPA) must comply with the Endangered Species Act and has chosen new labeling requirements as its method of compliance. The new labels will instruct applicators to consult with detailed range maps or directly contact the U.S. Fish and Wildlife Service (FWS) before they can use the product. Applicators have been divided into clusters, and the forestry cluster must directly contact the FWS. They will also be the first cluster to practice this new regulation—with voluntary label compliance to come into effect this spring.

The Environmental Protection Agency (EPA) will soon be releasing new air quality standards. The new standard, commonly referred to as PM10, will affect prescribed burning. The final regulations have been on the back burner over at EPA since 1979 and

will finally be released by the Office of Management and Budget sometime in early June. States will have to develop and implement plans to comply with the new standards. It will be important for forestry groups to work closely with their state air quality agencies to form workable strategies to meet the new standards.

Members of Congress realize the increasing importance of careful forest management and are forming a new task force to work on future forestry legislation—Forestry 2000 Task Force. The task force will serve as a core group to help on forestry issues. The task force will be composed of interested members of Congress who will collect information and periodically update Congress. There will be no special staff or money raised for this purpose. Alabama Congressmen Claude Harris, Bill Nichols, and Sonny Callahan have all signed a letter expressing their support and interest in this task force.

Congressman Volkmer (MO) brought his Forests, Family Farms, and Energy Subcommittee to Tuscaloosa, Alabama, in late May for the first in a series of field hearings. ☐



by FRANK SEGO, Legislative Liaison, Alabama Forestry Commission

## STATE

IT IS EXTREMELY DIFFICULT, if not impossible, to sit and write a timely account of the activities of the Alabama Legislature when you realize that the publication for which you are writing will not come off the press for almost six weeks. By the time you read this, the 1987 Regular Session will be nearing its end.

To quote **Rep. Richard Laird** of Roa-

noke, "This 1987 session didn't just get off to a running start, it got off to a flying start." And that's a fact. From the moment **Speaker Jimmy Clark** and **Lt. Governor Jim Folsom** tapped their gavels to open the session in April, bills started flowing into both houses and serious legislation was soon being considered.

### Budgets Move Quickly

**Rep. Taylor Harper** of Grand Bay, Chairman of the powerful House Ways and Means Committee, predicted that the General Fund and Education budgets would be taken up by the tenth legislative day. Call him a prophet or not, the \$628.2 million General Fund budget had cleared his Com-

# WINNERS

mittee prior to the seventh day—a rare occurrence in modern legislative annals.

The Ways and Means Committee then gave approval to the \$2.13 billion education budget which passed the full House on the eighth day.

The thorny Tort Reform issue, which plagued lawmakers throughout the 1986 session, swirled through the House on the third legislative day and passed the Senate on the ninth day of the session after the behind-closed-door negotiations between lawmakers, doctors, attorneys, and insurance executives had kept the upper chamber in limbo for three days. This was the package of bills designed to revamp the state's civil liability laws.

By the eleventh legislative day, the House had approved a measure calling for a constitutional amendment to give local school systems the power to hold referendums to raise new taxes. The bill, sponsored by **Speaker Clark** authorizes an amendment to the Alabama Constitution before handing over the referendum-calling authority to the school systems. Clark told his House colleagues it was probably the most important bill they would vote on during their four-year term. It passed the House by one vote.

That's a brief summary of the early action of the '87 session, indicating that more had been accomplished in the first third of this session than perhaps in any in recent memory.

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## Governor Hunt's Reaction

How did all of this early-session activity set with **Governor Guy Hunt**? First, he was not pleased with the House Ways

and Means Committee's action that increased his proposed General Fund budget by making several major changes in it. He used his weekly radio address to urge voters to call their local legislators in support of his proposed budget.

The governor was still upset over a House-approved bill that slashed \$15 million borrowed last year from a state highway department account to bail out social service agencies. He wanted this money earmarked for the repair of bridges in the state. A compromise developed later between key legislative leaders and administration officials.

The compromise would allow lawmakers to retain control of the \$1.2 million in interest from the governor's discretionary fund, but would force them to repay \$8 million to the highway fund for bridges in fiscal 1988 and \$7 million in fiscal 1989.

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## Forestry Legislation Support

Several forestry related bills did, however, gain support of the governor at the outset of the legislative session. He gave approval to a proposed constitutional amendment which allows the legislature to provide that funds may be raised for forestry programs and further provide for forest fire protection within the state.

Passage of the constitutional amendment would allow the Forestry Commission to authorize a referendum among owners or lessees of forest lands to determine whether an assessment of 10 cents per acre could be levied on the lands. The legislation also had approval of the Forestry Association and the Farm Bureau. **State Forester C.**

**W. Moody** hailed this legislation as a means of levelizing the existing patchwork method of collecting forest acreage assessment in Alabama. A 1955 law gave counties the option of authorizing such assessment at the rate of 5 cents per acre. At the end of 1986 about half of the counties were collecting anywhere from 2 cents to 10 cents per acre.

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## Forestry Study Committee

The Forestry Study Committee, which was empowered by an act of the 1979 Legislature to study all facets of forestry in Alabama, received its new four-year appointments earlier in the year.

Legislative appointments are made by the Lieutenant Governor and the Speaker of the House. Three members are selected from each body. **Lt. Gov. Folsom** named Senators **Ann Bedsole**, Mobile; **Perry Hand**, Gulf Shores; and **Bobby Denton**, Tusculumbia. **House Speaker Clark** appointed Representatives **Jimmy Warren**, Castleberry; **Allen Layson**, Reform; and **Steve Logan**, Hamilton.

**Governor Hunt** made seven appointments from forest landowners, business and industry leaders. **State Forester Moody** and **Dr. Emmett Thompson**, dean of the Auburn School of Forestry, are standing members of the Study Committee.

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## EDITOR'S NOTE—

*In the next issue of ALABAMA'S TREASURED FORESTS* our Legislative Alert column will carry a complete summary of the 1987 Regular Session with emphasis on forestry legislation. ♣



# ACTIVITIES

DISTRICT

1

**Larry Parker** and **Luanne Hayes** of the **Chamber of Commerce** coordinated **Arbor Week** in **Guntersville**. 5,000 seedlings were distributed by Smokey Bear. It was such a success that we plan to do it again next year, probably with twice as many seedlings as this time. The Chamber is starting an effort to get **Guntersville** certified as a Tree City, USA.

During **Arbor Week** ceremonies in the city of **Scottsboro**, a tree was planted by the mayor in celebration of the signing of the U.S. Constitution. The tree, a **Bradford Pear**, was dedicated as a living legacy to the U.S. Constitution during this bicentennial year.

**Cherokee County** held a field day on tree care during planting.

**Cherokee County** staff has been working with **Dow Chemical Company** in spraying some sample plots on the **Bankston** property.

**DeKalb County** approved grant requests for **Valley Head, Ider, Mentone, Ruhama, Tenbroech, Geraldine, Pine Ridge, Powell, Hammondville, Grove Oak, Hendrixville, Rainsville, and Cartersville**.

**Jackson County** held a tree planting ceremony and got **Arbor Week** proclamations signed by the cities of **Scottsboro** and **Stevenson**.

**Arbor week** programs and tree plantings were conducted at the following schools in **Jackson County**: **Brownwood, Caldwell, Page, Nelson, Scottsboro Jr. High, and Scottsboro High School**.

The **Huntsville Sportsman Club** held their annual tree handout program at the **Madison Square Mall**.

The district office personnel have been working with **Alabama A&M University** in **Huntsville** to develop a questionnaire concerning the **Conservation Reserve Program**. Specifically, we are trying to determine through a statewide survey the degree of participation and corresponding reasons for minority landowners. In addition, the survey questions are structured to give us some good feedback on landowner preferences and reasons for opting to establish grass versus trees and vice versa. With this information, we can develop an approach that addresses their fears, needs, and wants, and thus increase **CRP** tree planting in areas where grass is currently favored.

Recently, the various county and district field personnel who handle management work in District One have met to develop some strategies regarding the future direction in northeast Alabama. Some of the more significant are the efforts to establish minimum tree planting quality standards and corresponding methods of planting evaluations. We have utilized input from vendors, forest industry representatives, the U.S. Forest Service, and consultant foresters to develop guidelines compatible with our capabilities and the needs of others involved. A district-wide training/meeting for all area tree planters will be held this fall prior to planting season. Other topics have included herbaceous weed control methods and vendors,

qualified consultant foresters active in the area, availability of wildlife biologists for **TREASURE** management and inspection activities and problems with various cost-sharing programs. We hope to develop a standard tree planting contract for area landowners to use when contracting with vendors next season. By meeting and discussing common problems, we are able to make decisions and arrive at solutions, most of which can be applied uniformly across the District. This uniformity helps vendors with their dealings in different counties and provides landowners with some common ground.

**Mickey Easley**, Wildlife Biologist, once again has provided District One with invaluable assistance by giving recommendations to eight area landowners in **Etowah** and **Marshall** counties covering roughly 8,000 acres. **Mitchell McClendon, Etowah**; and **Larry Parker and Jack Lay, Marshall County**; arranged for Mickey to observe the properties of 6 **TREASURE** creed signers and 2 **TREASURE** owners. His written recommendation will be incorporated into management plans as needed to ultimately certify six new **TREASURE** forests and recertify the owners. Mickey's broad knowledge and ability to relate with different landowners has been a big asset to our efforts in northwest Alabama.

Efforts continue in our quest to help establish a wood-fueled electrical generating plant in North Alabama. **Lanier Edwards** of **Timberland Harvesters**, a **Eufaula**-based company, wishes to build the plant which would produce electricity and low pressure steam. The electricity would be sold to **TVA** and the steam to an industrial user. Our efforts have revolved around informing various groups and political bodies of the potential of this facility. The **Alabama Forest Owners Association (A.F.O.A.)** and the **Tennessee Valley RC and D Council** have both endorsed the project by way of resolutions. Forest owners would benefit by having a market for low-grade wood, reduced site preparation cost due to increased utilization and thus hopefully higher quality timber stands because of more intensive regeneration. The electricity could be sold to **TVA** for 20% less than their retail charge but at this point, an equitable long-term agreement has not been reached. We hope that this opportunity for utilizing a plentiful, renewable resource will not be squandered due to **TVA's** hesitancy about a long-term contract.

The **Forest Resources Development Program** foresters for **TVA**, **Bill Inskoop** and **Fred Ballin**, met with **Jackson County** Supervisor **Ed Eldredge** and District Management Specialist **Brian Bradley** to review the proposed **TVA Demonstration Forest Project**. We spent a day in the field observing the technique **TVA** uses to gather resource data and discussed forestry and non-forestry activities that could be highlighted. Their willingness to work with the **AFC** and **North Alabama Reforestation Committee** to develop this project has been most welcome and their professional attitude and knowledge is impressive. The demonstration area and corresponding activities will be a long-term and continuous project as

management practices are implemented. In addition, if this project is a success, it might be duplicated on **TVA** lands in other counties.

DISTRICT

2

**Blount County** Supervisor **John Rice** attended a "Pride" anti-litter meeting February 23. **Blount County** residents and public officials have organized "Pride" in order to combat the litter problem in **Blount County**. Approximately 25 people attended the meeting.

On February 28, the **St. Clair County Forestry Planning Committee** planted a **Silver Maple** tree at the **County Board of Education** in **Ashville** in observance of **Arbor Week**.

The **14th Annual Plant Dig** was recently held in **Birmingham**. Sponsored by the **Birmingham Beautification Board**, the **Birmingham Street and Sanitation Department**, and the **Alabama Forestry Commission**, hundreds of **Birmingham** area residents turned out to dig small trees and shrubs for use in their private yards. The dig area is part of a sanitary landfill and will soon be buried under tons of garbage.

The **St. Clair County Forestry Planning Committee** conducted a prescribed burn March 4 as a means to protect the **Alabama Leather Flower**, an endangered plant. A news crew from **Channel 6** in **Birmingham** covered the event.

The **Cahaba Group** of the **Society of American Foresters** recently elected new officers for the 1987 year. **Mark Elliott** of **International Forest Seed** was selected as president and **District 2 Urban Forester Lee Laechelt** was elected secretary.

Approximately 20 landowners and agricultural agency personnel attended a prescribed burn hosted by the **St. Clair Forestry Planning Committee** on March 7. **AFC** personnel participating in the event were **County Supervisor Gary Hamilton**, **Ranger Randy Hurst**, **District Forest Management Specialist Tom Kimbrell**, and **Information and Education Coordinator Coleen Vansant**.

**March 9-14, Blount County AFC personnel** participated in a litter clean-up week sponsored by "Pride". **Blount County's** anti-litter organization.

On March 18, **District Forest Management Specialist Tom Kimbrell** participated with **Channel 13's "Farm Round-up"** program in taping a 30 minute segment on prescribed burning. The special was aired March 20.

**County Supervisor John Rice** participated in the **Blount County FFA Forestry Judging Contest** held March 19, at **Hayden High School**.

**Tom Kimbrell** attended a **Forest Management Specialist** meeting in **Eufaula** March 18-20.

**District Information and Education Coordinator Coleen Vansant** and **Jefferson County Ranger Gene Cox** (Smokey) presented a fire prevention program to approximately twenty-five K-2nd grade students April 22 at **Shades Mountain Christian School**.

**Cullman County Rangers Darrell Johns** and **Jimmy Moody** participated in the **Forestry Judging Contest** held in **Cullman** on April 22.

On April 23, the **St. Clair County Forestry Planning Committee** was responsible for organizing the county's **Forestry Judging Contest**. **Ragland High School** won the event and will represent **St. Clair County** in district competition. **AFC** personnel assisting in the event were **County Supervisor Gary Hamilton**, **Ranger Randy Hurst**, **Utilization Forester Jim Gober**, and **Tom Kimbrell**.

**State Forester C.W. Moody** was a guest speaker April 25, at the **Alabama Forest Owners Association** annual meeting held at the **Alabama 4-H Center on Lay Lake**. **Dr. Keith Argow**, president of the

**National Woodland Owners Association**, and **Charles Walsh**, president of the **Alabama Association of Consulting Foresters** also made presentations to the association.

During the month of April, the **District 2 staff** worked closely with **Birmingham** area television stations in airing coverage of the **District's** recent wildfire problem. Thursday, April 23, **Channel 6** reporter **Joyce Oebker** presented a story during the 10 p.m. news cast, and the station returned during the weekend for a follow-up story. **Channel 13** meteorologist **David Black** visited the **District Headquarters** Thursday, April 30 and conducted interviews for the 5 p.m., 6 p.m., and 10 p.m. news casts.

DISTRICT

3

Congratulations to **Sumter County Forester Philip DuBois** and his wife, **Ginger**, on the arrival of their first daughter, **Catherine Rebecca!**

**Smokey Bear** made two trips to **District 3** recently when he visited 70 children at the **First Wesleyan Academy** in **Tuscaloosa** on February 20th and with 400 adults at the **Muzzle Loading Rifle Association's Southern National Convention** in **Sumter County** on March 4.

**District Forester Wayne Strawbridge** spoke on the **TREASURE** Forest program at the recent annual meeting of the **Tombigbee RC and D Council** held in **Tuscaloosa**. He expressed appreciation to all the agencies involved in this program.

The **Gainesville City Council** in **Sumter County** celebrated **Arbor Week** by giving away free seedlings, passing a tree ordinance and forming a tree commission.

**Fayette County** Supervisor **George Lowery** met January 8 with the **Fayette County Firefighters Association** to discuss radio systems and the **RCFP** Grant program. **Fayette County** formed their **11th RCFP** department in March when the residents of the communities of **Kirkland, Bluff** and **Wayside** established fire protection for their respective communities.

**Pickens County Forester John Sutton**, **Ranger Gary Sides**, and **Ranger Rudolph Trull** have prescribed burned over 3000 acres this year for **Pickens County** landowners.

On February 26, **Lamar County** Supervisor **Alton Terrell** and **Ranger Harold Jordan** showed the **Ten-Ninety** film to **Lamar County Volunteer Firefighters**.

Some 70 residents of the **Greene County** communities of **Eutaw, Union**, and **Tishabee** met in March with **Greene County Supervisor Earnest Edmonds** and **Ranger Hodges Smith** to discuss handling and planting of bare-rooted pines. **Rangers Edmonds and Smith** also met with the **FFA** students in March for the **Forestry Judging Contest**.

DISTRICT

4

On February 11, at our district staff meeting, **Mr. Moody** and **Frank Sego** presented the accomplishments and plans of the **Alabama Forestry Commission** using a film to illustrate some of the more important points. The meeting was attended by the **Honorable Lester White, Representative**, and the **Honorable John Rice, Senator**, as well as county supervisors and the **District 4 staff**.

**Senator Rice** and **Representative White** asked a number of pertinent questions and discussed the possible financing of vital parts of the planned programs. At the conclusion of the morning session, luncheon was served and everyone enjoyed the food and the conversation. The afternoon staff session concerned safety as a vital part of **AFC** planning/work; the discussion was led by **Skip Turner**. This was preliminary to a district safety meeting

for all firefighting personnel which was held in Lineville on February 28.

**Guy Slayden**, Tallapoosa County Forester, assisted two municipalities in Arbor Week programs including plantings. He, **Tim Whitehead**, and **Smokey** presented Smokey bookmarks to 6 school libraries and 3 city libraries. **Slayden** also presented a TREE CITY USA flag to Mayor **Farrell Tidwell** for the city of **Dadeville**, and they planted an oak on the grounds of the City Hall. **Guy** and Forestry Worker **Tim Whitehead** assisted Ms. **Dee Fanning** and the **Five Points Garden Club** of **Alexander City** in an Arbor Week program; they also did one for an **Alexander City** kindergarten and the first two grades. **Reuben Prater** (editor of **The Dadeville Record**) worked with **Guy** on articles covering local Arbor Week activities, the benefits of a tax that would benefit fire departments, and one on forests being the key to area development. **Slayden** is working with the **Five Points Garden Club** in achieving TREE CITY USA for **Alexander City**; he is working on plans for further improvement of **Dadeville** through the **Beautification Board**.

**John Tyson**, Talladega County Forester, **John Stivers** (USFS Forester), **Herbert Sims** (Chairman of the Alabama Farm Bureau), and **Dr. Billy Mills** (Sup. of Talladega City Board of Education) joined in the Arbor Week program to do planting at **Houston Elementary School** along with **Joan Landham**, principal; this is Talladega's newest school.

**Skip Turner** (D-4 HQ) planned and supervised a prescribed burn in Talladega County for landowner **C. B. Munroe** of **Lincoln**. Mr. **Munroe** wanted an area burned to encourage pine growth and improve wildlife habitat. **Skip**, assisted by Talladega AFC personnel (**Doug Martin**, **Kevin Hubbard**, and **Mike Highfield**) burned the twenty-seven acre tract early in February. **Susan Jarrett** covered the event for the **Talladega Daily Home** producing an interesting and informative article with several photographs.

In **Clay County**, **Earl Smith**, County Forester; and **W. N. McCollum**, the shop foreman; attended and participated in several Volunteer Fire Department meetings. **Smith** conducted two at **Mountain Volunteer Fire Department** and **McCollum** conducted one at **Cragford** and one at **Pine Grove**.

The **D-4 Firemen's Competition** organizational meeting was held at **Lineville**. Four counties were represented. This event is to be held in August at **Still Waters** and promises to be one of the best ever held in the state.

The **Cleburne County Forestry Wildlife Association** met in the AFC office in **Heflin**.

**Coosa County Supervisor Ralph Woolley** participated in a prescribed burn in March. In April, **Tom Cambre** was in **Monroeville** to participate in a hardwood training session at **Patrick Henry Junior College**.

**Dollarhyde Hunting Club** in **Greene County** has been working on a harvesting schedule planned by **Tom Cambre**. They are also working on a TREASURE Forest plan.

**Tom Cambre** worked with the **Alabama Power Company Forestry department** advising them on proper techniques on hardwood management on their lands. He also worked with **North Carolina State College** on a program in hardwood training which is being developed for AFC personnel.

DISTRICT

5

On January 12, **Autauga County Supervisor Harold Cleveland** spoke to the **Autaugaville Lions Club** regarding the forestry program in **Autauga County**.

On January 29, **Smokey Bear (Ranger Bob Emmons)** entertained approximately 80 students at the **Autaugaville Primary School**.

On April 15, **Channel 8 Action News** reporter **Tom Conway** interviewed **Bibb County Supervisor Joe Barton** about arson activity in **Bibb County**. **Channel 8** flew with **District 5 Pilot Sonny Slaton** and temporary pilot **James "Willie" Williams** to obtain footage of several on-going arson fires.

On February 23, **Chilton County** donated 150 seedlings, consisting of 10 species, to the **Clanton Tree Commission and Garden Club**. The trees were planted in 3 city parks in celebration of **Arbor Week**.

On March 27, **Tim Albritton**, Forest Ranger II, helped prepare a site and administered a forestry judging test for the **Clanton and Isabella High Schools' FFA**.

On March 30, **Mike Cleckler** talked to the **Clanton Chamber of Commerce** about fire prevention and the permit law.

The **Wilcox County Forestry Planning Committee** sponsored a prescribed burning demonstration on February 19 on the property of **TREASURE Forest Creed Signer Kermit Brown**. **Sam Fish**, Extension Forester, was the principal speaker.

On April 27, presentations were made to three new **Wilcox County TREASURE Forest** landowners: **Robert C. (Pete) Jones**, **James Norment Baker** and **J. C. Martin**. The certificates were presented at the **Wilcox County quarterly CRD** meeting by **District Forester Larry Brooks**. **Forest Management Specialist Tom Lang** also talked to the group about prescribed burning, natural regeneration, and the role of the forestry consultant.

On March 20, a luncheon was held in **Marengo County** to honor their 14 **TREASURE Forest** landowners. Special guest **C. W. Moody** presented 3 newly certified landowners with their **TREASURE Forest** certificates. These landowners were **Anne Brown**, **David P. Holley** and **Roy Etheridge**.

On April 23, **Dr. Bob Mitchell**, Auburn University Extension Forest Herbicide Specialist, presented a program on forest herbicides in **Marengo County**. The program was organized by **Marengo County Supervisor Allen Black**.

DISTRICT

6

Mr. **Moody** recently spoke to a group of citizens and news media at **Landmark Park** in **Houston County** concerning **Urban Forestry and TREE CITY, USA**. Displays at **Landmark Park** covered subjects such as wood products, **TREE CITY USA**, urban forestry and the past turpentine industry in the **Wiregrass area**.

**Houston County Forest Ranger Tracy Lawrence**, along with the **I and E and Utilization Sections' personnel** worked hard at **Landmark Park** to make the displays a big success for everyone.

Two **TREASURE Forest** seekers were inspected in **Houston County** in early May.

The **Houston County Landowners Association** met in May with **Laymond Hardy** presenting a program on improved cypress growth due to genetics. With the assistance of **Bob Mitchell** from **Auburn University Extension Service**, herbicide test plots were installed in **Houston County**.

**Houston County** personnel have prescribed burned approximately 1,000 acres on **TREASURE Forest** landowners' properties.

In early May, **Coffee County** personnel passed the **Boy Scouts of America's Camp Alafo** as a **TREASURE Forest** nominee.

**Geneva County** landowners were

guests at a catfish dinner sponsored by **Dupont Chemical** and the **Geneva County Forestry Planning Committee** regarding using herbicides for weed control.

A pre-inspection was made recently on the **Millard Snell** farm to become a **TREASURE Forest** seeker.

**Geneva County** personnel are actively working with a county 4-H forestry judging team.

Over 100 management plans were made in **March** and **April** covering over 8,000 acres of cropland going into trees this upcoming planting season.

With the assistance of **Pike County** personnel, **John Dorrill**, **Jay Johnson**, and **Dr. W. P. Stuart** are the newest **TREASURE Forest** nominees in **Pike County**. Also, **Clifford A. Carroll** recently signed the **TREASURE Forest** landowner creed becoming the latest **TREASURE Forest** seeker.

**Dale County** personnel wish to congratulate **Mr. M. W. Redd** for becoming a **TREASURE Forest** landowner this past subcommittee meeting.

**Ranger Bruce Hancock** and **Larry Doster** are hard at work plowing lines and burning on **Luther Weed's** property, assisting Mr. **Weed** in reaching his goal of a **TREASURE Forest** landowner.

**Victor Barrios** was recently certified as a **TREASURE Forest** seeker by **Dale County** personnel.

**Dale County** personnel wish to express their appreciation to **Bill Deloney**, a **TREASURE Forest** seeker, for hosting the recent **FFA** judging competition in **Dale County**.

**Barbour County** personnel inspected three new **TREASURE Forest** seekers in **Barbour County**.

DISTRICT

7

State Forester **C. W. Moody** presented the **City of Greenville** with their **Tree City Award** on Thursday, **March 12**. Mayor **Larry Jones** accepted the award for the city.

**Steve Moran** was certified as a **TREASURE Forest** landowner in **Butler County** on **March 12**.

The **Crenshaw County personnel; Ranger Tony Chandler; Forestry Workers David Kelley, Juan Burnett, Gary Coleman; and Forester Tim Money** are helping **Ranger Barbara Parrish** mark timber on **Crenshaw County Lake**.

**Rangers Johnny Kline** and **Steve Lloyd** presented a **Smokey Bear** program to the **Monroe County** schools. Approximately 600 students were involved in these programs.

**Forester Gary Cole**, **Rangers Steve Lloyd, Johnny Kline, and Ernest Johnson** assisted the **Monroe County Forestry Committee** in the **County FFA Forestry Judging Contest**. **Ranger Johnny Kline** assisted in the district contest in **Atmore**.

**County Supervisor Robert Knowles** presented a **Tree City Program** for the **Atmore Lions Club** and was also an official judge for the **Atmore FFA District Forestry Judging Contest**. The **W. S. Neal School** in **Escambia County** was the winner!

**Escambia County** personnel report that the airport hanger for **District 7** is progressing very well.

**County Supervisor Robert Knowles** met with the police and fire chief of the **Poarch Band of Creek Indians** and discussed radio communication and cooperation with the **RCFP Fire Association** in **Escambia County**.

**Forester Gib Burke** and **Ranger Mike Farmer** are working on a **TREASURE Forest** plan for **Bruce Vickers** in **Butler County**.

**Ranger Victor Howell** and **Ranger Tommy Weaver** assisted in the **FFA**

**Forestry Judging Contest** in **Concehuc County** on **April 7**. **Castleberry High School** won the contest.

A **Smokey Bear** program was presented at the **Evergreen City School** for 360 students, kindergarten through second grade, by **County Supervisor Victor Howell**, **Ranger Tommy Weaver**, **Laborer Robert Taylor**, and **Forestry Worker James North** on **February 27**.

**District Forester Robert Dismukes** presented the **City of Evergreen** with their **Tree City** award on **February 17**.

**County Supervisor Victor Howell** gave a program to the **Evergreen Garden Club** on **January 8** on **Tree City** and **Urban Forestry**. **Butler County 4-H Clubs** (assisted by **Butler County personnel**) had a tree planting ceremony in **Georgiana**.

On **February 19** **County Supervisor Victor Howell** awarded **Dr. Salem Saloom** a **TREASURE Forest Certificate**.

DISTRICT

8

On **February 10th**, **Larry Grable**, management specialist; and **John Martin**, **Baldwin County** forester; provided extensive information to a **Gulf Coast newspaper** annual special edition. Some of the topics included the importance of forestry to the economic growth of **Baldwin County**, protection of natural resources, reduction of wildfires and acreage size.

**Clarke County** personnel had a tree give-away during **Arbor Week**. Trees were donated by the **AFC, MacMillan Bloedel, James River Corp., and Jackson Sawmill**.

**Mobile County** rangers **Jim Wade** and **Major Harris**, and **Mobile County Forester Steve Lyda** held a **Wildland Fire Suppression course** for **Semmes, Wilmer** and **Tanner Williams** fire departments. Twenty-three people attended.

**Chuck Quinn**, **Choctaw County** forester, and other **AFC personnel** visited schools during **Arbor Week** in conjunction with a seedling give-away program.

On **February 24**, **Neil Letson** (**AFC - Montgomery**), **State Coordinator** for **TREASURE Forest** and **Urban Forestry**; and **Baldwin County Forester John Martin** were guests at a weekly live talk show. Discussion included topics such as benefits of urban forestry in general, and **Baldwin County** in particular.

The cities of **Jackson** and **Grove Hill** in **Clarke County** observed **Arbor Week** by issuing a proclamation and holding tree planting ceremonies. **Probate Judge Fred Huggins** also issued a proclamation by the **Clarke County Commission** in observance of **Arbor Week**.

**Washington County Forester Lynn Sullivan** submitted several articles to a **Washington County newspaper** on topics such as arson reporting and how to obtain a burning permit.

**John Martin** held an **Arbor Day** program and presented **Tree City U.S.A.** certification to five cities in **Baldwin County**.

**Mobile County** Rangers **Mark Saunders** and **David Rogers** held an **FFA** judging contest on **March 26**. Twenty-five students and 4 teachers attended.

On **March 15**, **Staff Forester Larry Grable** hosted the **Baldwin County Historical Society** at the **District 8** office and discussed the history of forestry and forest industry.

The **Grove Hill Study Club** and other citizens, assisted by **Clarke County Forester Benji Elmore**, planted 100 live oak seedlings in the **Grove Hill Town Park**.

A forestry tour was held in **Baldwin County** on **March 9** on the property of **TREASURE Forest** landowners **Ozier** and **Dozier Slay**. The **Slay** brothers and **TREASURE Forest** landowner **Gordon Sawyer** were awarded **TREASURE Forest** certificates. A prescribed burning demon-



stration was presented by Asst. Baldwin County Supervisor **Lynn Booth**, Fire Specialist **Jake Gibbs**, Baldwin County Ranger **Shorte Travis**, and **James Cooley**. Guest speakers were **Jerry Johnson** with Soil Conservation Service, and **Ted Parson** of **Champion International**. A delicious lunch was provided by **Farm Bureau**. Public relations was handled by the **Baldwin County Planning Committee Extension Service** with the support of Baldwin County Forester **John Martin** and Staff Forester **Larry Grable**.

**DISTRICT 9** District Nine personnel have been involved in clean-up projects in almost every county. Personnel have assisted in planning and carrying out these anti-litter projects. **Mike Lanier**, fire specialist, made an appearance on TV to talk about burn permits and the anti-litter projects.

Everything's coming up wildflowers in District 9. Several groups of children and adults have visited our wildflower trails in **Florence** and **Hamilton**. Many individuals have contributed plants and trees. **Mrs. Hammie Stamps**, **Dr. T. F. Hall**, and **George Wood** of **Tuscaloosa** are among those contributing. The **Florence Times** did a feature story on wildflowers and the **National Council of Garden Clubs** wrote about our trail in their national publication saluting Alabama.

The **Lauderdale County Medical Auxiliary**, **Florence Garden Club**, **T.V.A. Women's Club**, **Hi-Neighbor Garden Club**, and the **Riverbend Mental Health Center** held meetings in our conference room in April. Hosting these meetings gives us a chance to meet new people, introduce our staff, and tell about our programs.

**Steve McEachron**, **Gerald Steeley**, and **Neil Letson** have completed the survey of **Florence Historical Districts'** street trees. This impressive document was presented to the **Florence City Council** to be used as a planning tool.

**Louise Bone** attended the **Project**

**Learning Tree Facilitator's** workshop held in **Andalusia**.

**State Forester C. W. Moody**, **Anita Benton**, **Neil Letson**, and **Donnie Anderson** visited **Marion County** where they filmed a video featuring two **Helene Mosley Treasure Forest** award winners.

**Wayne Winsted**, **Colbert County** Ranger, assisted with the **Annual FFA Week** program in **Colbert County**. **Wayne** was the guest speaker and spoke to them about **Arbor Day** and the importance of forestry to **Alabama**.

**Arbor Week** programs were held and proclamations signed in all counties in **District Nine**. The **Alabama Cooperative Extension Service**, **Alabama Wildflower Society**, and the **Alabama Forestry Commission** participated in a program in **Tuscumbia**. **State Senator Bobby Denton**, **District Forester Gerald Steeley**, and **County Supervisor Danny Deaton** held an **Arbor Day** program at **Northwest Alabama Jr. College, Tuscumbia Campus**. **4-H** groups, six municipal mayors and **Colbert County Commission Chairman Charles Thompson** also participated in **Arbor Week** programs in that county. The **Florence Garden Club** held an **Arbor Day** program in **Florence**. **Alabama Forestry Commission** personnel, **Garden Club** members, and **City Officials** planted a large **gingko tree** on city property.

Six new members were named to the **Colbert County Forestry Advisory Committee** earlier this year: **Homajean Grisham**, **Barry Wren**, **Ellis Ford**, **Keith McKutcheon**, **Johnny McReynolds**, and **Gordon Pruiett**. As part of the effort to obtain **Tree City USA** for **Hartselle**, **Forester Roger Nichols**, **Kathy McCollum**, and **Kyle Desmond** arranged an **Arbor Day** program. **Eleven trees** were planted at the **Hartselle Civic Center**. **Morgan County** personnel are working with the **Hartselle Clean-City Association** and the **Hartselle Enquirer** in sponsoring an on-going tree planting project called "**Blossom Boulevard**." **Wal-Mart** stores in **Florence**, **Muscle Shoals**, and **Russellville** participated in

**Arbor Week** celebrations. They purchased **20,000 loblolly pine seedlings** to be given to their customers. **Smokey Bear** was on hand at each location. In **Russellville**, the **Franklin County Forestry Planning Committee** organized a display of forestry equipment and tree planting information.

A tax workshop was held in **Hartselle**. The program, sponsored by the **Forestry Planning Committee**, highlighted the new tax changes for forest landowners. **David Hoge** was guest speaker for the regular meeting of the **Forestry Planning Committee**.

The **Franklin County Forestry Planning Committee** sponsored a direct seeding workshop for **Franklin County** landowners.

**FFA Forestry Judging Contests** were held in all counties in **District Nine**. In **Morgan County**, **Danville** won the judging contest; in **Marion County**, **Hamilton High School** will go to the state contest.

**Tammy Ellis**, **Forester I**, has been assigned to the **District Office** in a staff position.

**Tim Gotherd**, **Tammy Ellis**, and **Jim Worley** are working with the **City of Red Bay** on their **Tree City USA** project. **City officials** have completed and signed their tree ordinance.

**Champion International** has donated a forest tree planter to the **Franklin County Forestry Planning Committee**.

The refrigerated cooler for seedling storage has been completed.

**DISTRICT 10** **Macon County** landowners were taken on a bus tour of **TREASURE**-managed forest properties across their county **May 28**, in a program sponsored by the **Forestry Planning Committee** and the **Tuskegee University Extension Service**. **Tree Farms** and **TREASURE** Forests were visited during the tour. **Expert foresters** spoke on management elements demonstrated on their assigned sites. A sack lunch was served at a lake on one of the properties being inspected.

About **150 people** gathered near **Rutherford** in **Russell County** **April 21** for the **1987 Natural Resources Field Day** sponsored by the **Russell Forestry Planning Committee**. Refreshments and the meal were underwritten by **DuPont**, **Dow**, and **Monsanto** forestry chemical companies. The program was especially designed for anyone interested in forest management and fish and wildlife population enhancement. **Four, two-hour sessions** were presented to different groups of landowners in the morning and afternoon. The sessions on fish pond management by **John Jensen**, **Extension Service**; hardwood management by **Terry Love**, **Mead Paperboard Corporation**; and **Graeme Lockaby**, **Auburn University** were excellent. Also, outstanding presentations were made by **Lee Stribling** of the **Extension Service** and host landowner **Hugh Uphaw** on wildlife management. **Forest herbicides** were demonstrated by **Bob Mitchell**, **Extension Service**; **Jimmy Cobb**, **Monsanto**; **Tim Sharp**, **DuPont**; and **Jim Shropshire**, **DOW**.

The **Second Annual Minority Landowners Conference** will be held in **Tuskegee** on **July 21**. It will begin from the **Tuskegee University Chapel** and will include a field trip to outstanding forest and pond management sites throughout the area. This program was well received by those attending last year, and should grow in numbers as interest in **TREASURE** Forest increases among minorities. Contact **Dr. Peter Mount**, **Tuskegee University Extension**, for more details.

A **TREASURE** Forest banquet was held for the **TREASURE** Forest owners in **Russell County**, who lead the state in their number, on the evening of the **Natural Resources Field Day** in that county. The **25 honorees** were treated by **ALFA (Alabama Farm Bureau)** and presented with certificates of appreciation by the **Forestry Planning Committee** for their fine work with their forestland holdings. The event was held in a **Phenix City** restaurant and was attended by about **75 people**. ♣

## CALENDAR\*

**July 6**—Cleburne County, 6:30 p.m., County Forestry and Wildlife Association. Call Glenn Berry, 463-2876.  
**July 14**—Jefferson County, 7:30 p.m., Alabama Forest Owners' Association, AmSouth Bank, Hoover. The Federal Tax Law and You, a video-taped program produced by the American Forest Council in a "Meet the Press" format.  
**July 14-16**—Athens, Georgia. Short course on Advanced Forestry Investment Analysis at the University of Georgia Center for Continuing Education. Contact Dr. Leonard Hampton, (404)542-3063.  
**July 16**—Dale County, 7:00 p.m., Total Tree Chipping/Harvesting with Larry Joustin. Meeting of the County Forestry Association at the Golden Corral. Call Earl T. Brown at 774-8331 or Bruce Hancock at 774-8112.  
**July 21**—Macon County, 9:00 a.m., Second Minority Landowner Conference and Field Tour. Free lunch. Call Dr. Peter Mount, 727-8809.  
**July 22**—Jefferson County, 10:30 a.m., Introduction to the **TREASURE** Forest Program. Forestry Commission Office on U. S. Highway 78, Forestdale. Call Bart Williams, 1-800-292-6653 or 798-3227.  
**July 23-25**—Montgomery County, Alabama Farm Bureau's Southern Commodity Producers' Conference (will include a forestry conference). Civic Center. Call Steve Guy, 1-800-392-5705.  
**September 10-11**—Fourth Alabama Landowner and **TREASURE** Forest Conference, Bessemer Civic Center. Inside sessions, banquet, field tour and barbeque. Pre-registration \$25, registration at door \$35. Contact Frank Sego, 513 Madison Avenue, Montgomery, AL 36130, telephone 240-9320.  
*Any member agency of the Alabama Forestry Planning Committee can be contacted for more information about listings in this section.* ♣

## THOUGHT YOU'D BE INTERESTED...

The Auburn School of Forestry, Alabama Cooperative Extension Service, and the Forest Farmers' Association are sponsoring a "**Woodland Management Correspondence Course**" designed to encourage landowners to improve the management of their forestland. Practical and aimed at people with no background in forestry, the course will teach landowners the various woodland management options along with lessons in assessing the benefits and costs of these options. The course, divided into five units

with twelve lessons, costs \$50. All participants will receive a loose-leaf book containing all twelve lessons with questions and a resource file. To enroll, send your check for \$50 payable to the Alabama Cooperative Extension Service along with your complete name, address, and phone number to Extension Forestry, School of Forestry, Alabama Cooperative Extension Service, Auburn University, AL 36849, or call (205) 826-5330. ♣

The following forestry programs are offered at schools in Alabama:

Pre-forestry  
 Timber Harvesting  
 Forest Technology  
 Forest Technology  
 Forest Management  
 and related degrees

Tuskegee University, Tuskegee, Alabama  
 Alabama A&M, Normal, Alabama  
 (Associate Degree)—Lurleen B. Wallace  
 State Junior College, Andalusia, Alabama  
 (Associate Degree)—Patrick Henry State  
 Junior College, Monroeville, Alabama  
 (Bachelor - Doctorate)—Auburn University,  
 Auburn, Alabama.

# THE OLD KEG MILL

## A Poplar Story

by COLEEN VANSANT, Information & Education Coordinator, Birmingham, Writer  
JIM GOBER, Utilization Staff Specialist, Birmingham, Technical Advisor

**T**HIS IS THE SECOND ARTICLE in a utilization series to highlight some of the forest industry in Alabama and to show landowners some of the markets for their products in our state.

To many of our ancestors, a wooden keg was virtually an indispensable article in life. The sturdy containers held treasured water, provided a protective storage container for items such as salt and gunpowder, and even created entertainment—a game of checkers by the old “cracker barrel” for some while others practiced their fun with a spouted keg in the back of the room. As generations passed, the old wooden keg has become more of a nostalgic item. Decorating a corner in a home or office by holding a potted plant, providing a foundation for a table lamp, or in many cases taking a place within throwing distance as a trash can. Although the uses have changed over the years, there’s still a company in Alabama that is making wooden kegs and barrels, and in very much the same way they were made years ago.

For over three decades, Garden City Heading Company in Cullman County, a division of Grief Brothers Corp., has been making wooden barrels and kegs for both the domestic and foreign markets. Located on U.S. Highway 31 in Garden City, only a short distance from the Mulberry Fork of the Warrior River, the “Old Keg Mill” has been utilizing Alabama’s forest resources for almost 80 years.

Grief Brothers, headquartered in Cleveland, Ohio, was established in 1877. In the early years of the new century, a plant was established in Garden City for the purpose of making wooden heads (keg and barrel tops and bottoms) which were shipped by boxcar to various assembly plants in the United States.

According to plant manager E. W. Knighten, who began his 42-year career with

the company in 1945 at the age of 17, the Garden City plant began producing kegs about “30 years ago.” At one time, most of the wooden containers produced by the heading plant were used by various industries for the shipment of goods, such as nails and bolts. Now kegs and barrels are made and supplied to an entirely different market. Garden City Heading currently produces containers for several candy manufacturers both in and out-of-state as well as supplying Jamaica and Japan with barrels used for importing and exporting coffee. Many kegs and barrels are purchased by other manufacturers who adapt the container for different uses—an example being fitting one of the

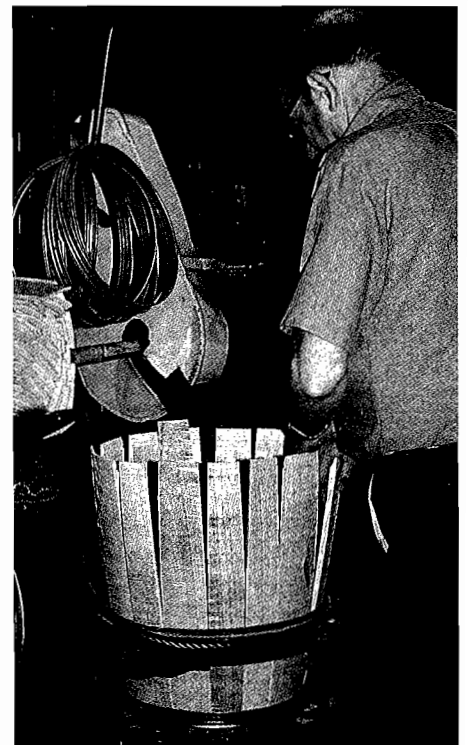
smaller kegs with a plastic liner and painted lid and selling it as a beverage cooler.

Basically, two types of wood are utilized in the manufacturing of the wooden containers—poplar and pine—with a specific wood type being used to construct both the kegs and barrels. “Normally kegs are made of pine and barrels from poplar,” explained Knighten. “Although, we do make some poplar kegs, but no pine barrels.”

Yellow poplar and shortleaf pine are the preferred varieties for keg and barrel staves, along with slow grown loblolly. Alabama’s abundant supply of forest resources makes it quite easy for the plant to obtain whatever materials it needs to keep production going.



*Kegs equipped with plastic liners are ideal beverage coolers.*



*Molding staves into a keg or barrel requires a special skill.*



"We really don't have that big of a problem getting our raw materials," Knighten added, but went on to say that whatever type wood they were dealing with, one of the necessities was that the "wood is clear and close grain."

"Red knots don't hurt it," he explained, as he referred to the strength of the staves used in construction. "Just as long as the knot isn't big enough to cover the entire stave." Knighten added that slowly grown trees are preferred since a faster growing tree will yield "more sap wood" decreasing the strength of the wooden stave.

Raw materials for the plant are obtained by the cord from private landowners or either cut from the company's approximate 14,000 acres of forestland in North Alabama. Logs 10-16 feet in length, and 8-12 inches in diameter are preferred because of the ability of the plant to handle the logs with greater ease.

Logs are cut into short bolts before being sized into 3/8-inch keg or barrel staves. Because of the differences in the necessary size and flexibility of keg and barrel staves, two types of cylinder saws are used. Keg staves are cut with a "keg stave saw" creating a slight bow in the wood which makes the bilge or belly of the keg when completed. Barrel staves are cut flat on a "barrel stave

saw" and require no curve at this point. The bilge in the barrel is added during a drying process after the barrel is partially assembled.

The stave is then fed into an adjacent cutting machine which cuts the "croze" or notches around the top and bottom of the stave to allow the head of the container to fit snugly. When the cutting process is complete the staves are stacked on wooden pallets and placed in a kiln for drying.

Before being assembled, staves have to be dried to an approximate 5 percent or less moisture content. "They have to be at least 95 percent dry," noted Knighten, "or if they are ever put in a warm place and the moisture comes out of it the hoops will fall off." The plant manager added that both poplar and pine staves are treated the same during the drying process with the wood requiring 3-4 days to reach the desired moisture level.

After the raw materials have been prepared, the task of assembling the staves into containers begins. Technology and modern innovations have taken over most factories and businesses but the art of making wooden kegs and barrels is still done primarily by hand.

Finished staves are placed vertically by hand into a round "basket" type holder, followed by the placement of the hoops.

Knighten says anyone who assembles the containers "has to be a professional" and not everyone has the special talent of being able to master the art of molding a handful of wooden staves into a keg or barrel. "He's looking at the basket all the time and when he gets to the last stave he can pick out the exact size to fit the last hole."

As the container is passed down the assembly line, hoops and wire are attached to the container mechanically as well as the heads (both top and bottom) being attached.

Knighten noted that if all materials are available, "A crew of 4 or 5 men can turn out 300 kegs a day. In 1945 we were working 120 people," he added. "In those days we were making a lot of kegs."

Although Garden City Heading Company mainly produces kegs in bulk for industry and business use, Knighten concluded, they won't turn an individual away that is interested in purchasing one of their kegs or barrels.

The keg mill practices a very old and unique art and most of the machines in the plant are equally unique. Patent dates on the machinery ranges from 1890 to 1912, and according to Knighten, Garden City Heading Company has been contacted about donating one of their machines to the Alabama Forestry Association's museum. ♣

# YELLOW POPLAR A POPULAR SPECIES!

by MARK F. BEELER, International Trade Specialist

**Y**ELLOW POPLAR is a common name applied to the familiar American tree known by foresters and botanists as *Liriodendron tulipifera*. Tulip poplar and tulip tree are other names for this species. The word "tulip" was selected because of the resemblance of the tree's blossoms to the well-known flower. However, the term "poplar" is a misnomer since yellow poplar is not a member of the true poplars (genus *Populus*).

Yellow poplar is an ancient tree. Geologists and paleobotanists (those who study fossil botany) state that back in the Cretaceous age there were 16 different members of the yellow poplar genus (*Liriodendron*), but that during the Ice Age, 15 of them perished. The only one that escaped was our present tree. It was growing, apparently, too deep in the South to be affected.

Yellow poplar is the tallest hardwood in North America (record 200 ft.) and on an

average produces the largest clear logs. Alabama's champion, in the Sipsey Wilderness Area, Bankhead National Forest, is 151 feet tall with a circumference of 20.67 feet. The usual life of a virgin yellow poplar is about 500 years although some have been known to pass 1000. During the early years of its life, yellow poplar is a fast growing tree and has been known to reach 100 feet in height in 30 years. Diameter growth is also excellent, making it one of the finest hardwoods in America.

Because of its overpowering urge for sunlight, yellow poplar quickly sheds its lower branches, and thus even in young stands, provides a large percentage of clear lumber. The young trees have a bark which is thin and scaly, becoming deeply furrowed and up to two inches thick on older individuals. The leaves are dark green, shiny on the upper surfaces, and about five or six



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inches in both length and width. They turn a rich yellow color in the autumn. The fruit is a compact cone of winged carpets about three inches long and a half-inch wide, ripening in September or October. The flowers are tulip-like in form and size, with six petals varying in color from a creamy white to a light orange at the center.

Yellow poplar lumber is comparatively soft and light in weight. It is fairly stiff and elastic, works easily, and is probably the least difficult of all lumbers to kiln dry. In addition, it has a very moderate and uniform shrinkage ratio. By virtue of these facts, yellow poplar will stay in place, resist warping and render years of dependable service. It glues easily and does not split readily in nailing. As for painting and enameling, few woods can compare with yellow poplar in taking a smooth, lasting finish.

Due to various minerals existing in certain soil formations, the heartwood will sometimes reveal extreme discolorations, ranging in shades of black, purple, red, green, and blue. Except in cases where the natural finish is desired, the strength and value of the stained lumber is not affected in the least.

Approximately half of the available supply of yellow poplar is now in the Gulf and Southeast Coastal States. West Virginia, Kentucky and Tennessee once furnished the

bulk of the yellow poplar cut, but today's production figures show that the South outside the Appalachian region is contributing substantial quantities of this species.

Based on figures from the 1982 Forest Service forest inventory, Alabama has 877.7 million cubic feet of yellow poplar. Broken down, this figure is equivalent to 737.9 million cubic feet of growing stock, 88.8 million cubic feet of rough timber, and 51 million cubic feet of rotten timber. The 877.7 million cubic feet of yellow poplar represents approximately 3.5 percent of all the live timber volume in Alabama, excluding non-commercial species. Of the 55.1 million yellow poplar growing stock trees in Alabama (in 1982) approximately 97 percent fell between the 5 to 18.9 inch diameter class. During that time there were 104 hardwood sawmills and 19 veneer operations utilizing yellow poplar trees in Alabama. This does not include, of course, pulp and paper mills in the state which drew upon the soft hardwood pulpwood resources for its raw material.

Although yellow poplar is indigenous only to the eastern part of the United States, it has found markets even in the farthest corners of the world. The peak of yellow poplar production was reached with the turn of the century, at which time the annual cut exceeded one billion board feet. Today it ranks third in

production of all U.S. hardwoods. The latest production figures indicate a cut of about 650 million feet per year. At one time yellow poplar was used by 47 of the 53 recognized U.S. industries which employ wood as a raw material. This intensive utilization has largely persisted even to the present day.

By far the largest end user of yellow poplar today is the furniture industry. Its uses are principally in enameled and painted furniture, core stock for veneer panels, structural parts, juvenile furniture, and accessories. The wooden box industry still consumes yellow poplar but to a lesser degree than formerly. Planing mill products, among others include siding, banisters, interior trim, doors, mouldings, and all kinds of exterior trim. In recent years the annual consumption of yellow poplar logs for veneer production has been substantial.

## REFERENCES

- The Southern Hardwood*, Southern Hardwood Lumber Manufacturers Association, 805 Sterick Bldg., Memphis, Tennessee 38103, pg. 52-55.
- Forest Statistics for Alabama Counties in 1982*, U. S. Forest Service, Resource Bulletin, So-97, February, 1985.



# Hardwood Site Selection

by THOMAS V. CAMBRE, Hardwood Specialist, Alabama Forestry Commission

**T**HE TERM "SITE" is used in forestry constantly and many times it is misunderstood by the general public. In developing a forest working plan, it is necessary to know, not only the species composition (type) of the forest, but also its productivity—more accurately, the productivity of the land upon which the forest stands. This is what is meant when the term "site quality" is used.

There is nothing wrong with this system of classification, but usually the yields of timber on the ground are lower than the actual potential of the land which is to produce the timber. The factors affecting a measurement of site could be that the land is understocked, the major species growing on the land may not be the best suited for the land, or hardwoods are growing on a true pine site.

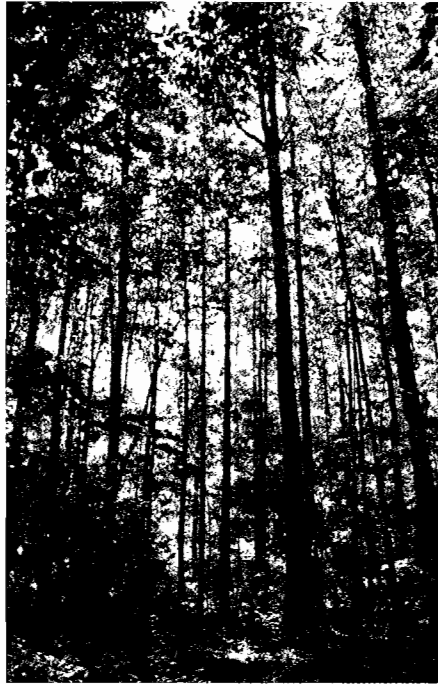
In hardwood management we are dealing with many different species which are very site selective and require different soils in order for them to be vigorous. It has been said many times in many articles that pine can grow on hardwood sites and produce high quality trees. Hardwoods, on the other hand, will grow on a pine site, but the quality will be low. The remainder of this article, therefore, will deal with hardwood sites that occur in Alabama.

These sites are classified in the following three broad groups: *major bottomland sites*, *minor bottomland sites*, and *upland hardwood sites*. All of these sites are true hardwood sites and are very conducive to growing high quality hardwoods.

## Bottomland Sites

Bottomland sites are constantly formed through an active river flowing through an alluvial valley, cutting its banks and forming new land on the next point bar downstream. Spring floods cause sedimentation and many times cause front land. Succeeding floods that overflow the fronts deposit coarser sediments near the banks of the river, building high well-drained ridges, or natural levees.

Farther back, slack water clay soils are deposited forming low ridges, flats, and sloughs. In the bottomland hardwood areas, you will find different soils and species oc-



curing in certain areas throughout the overall complex of the forest. Examples of species found in these areas would be white oaks, red oaks, hickories, cottonwood, willow cypress and many other species—all serving to form the most productive hardwood site available.

## Minor Bottomland Sites

Minor stream bottom sites are usually of local origin and much coarser than alluvial bottom soils. The sites are subject to considerable local changes in water level during the growing season. The creek bottoms are usually narrow strips through pine land, but, on occasion, may be as much as one-half mile wide. Since many of these areas are so intermingled with pine stands, they tend to lose their identity as hardwood sites. Species found in these areas are very distinguished. Examples are yellow poplar, white oak, cherrybark oak, and others that commonly occur. If managed intensively, these species can be quite valuable to the forest owner commercially while providing wildlife habitat in an otherwise pine environment.

## Upland Hardwood Sites

Upland hardwood sites occur in the rolling areas or hills of the lower Piedmont and in some richer areas of the upper Coastal Plain—usually ravines or coves—on slopes and bluffs above drainage courses of minor bottoms and branch heads. On a large additional upland acreage that once supported good hardwoods, misuse has depleted the soil due to erosion from farming and other bad land management practices making pine management more economical. Generally, most hardwoods in uplands develop best on the lower moist slopes and bottoms of ravines and coves; different silvicultural techniques may be needed on lower slopes, middle slopes, upper slopes, and coves.

The lower slopes, coves, and branch heads produce excellent hardwood timber such as yellow poplar and cherrybark; sweetgum and ash do well along with red oak and sycamore. Development of hardwood on the middle slopes is very good. Well adapted species would include white oak, Southern red oak, beech, and hickory. Upper slopes produce acceptable hardwood growth, especially white oak and oak-hickory types, but when the soil is eroded, pine is usually best.

## Summary

In summary, when discussing site, indicator species are very important in determining what will regenerate after cutting takes place. Proper management practices must be followed to achieve a highly productive future stand. Site cannot be predicted from what is presently growing there as growth rate because often these areas have been mismanaged and do not show the actual capabilities of the site.

Finally, do not try to manage hardwood as you would pine. There are many species of hardwoods and they are very site selective and react differently to types of soil, elevation, and cultural treatments. Because of the increased demands being placed on our hardwood resources, private landowners should intensify the management of their hardwood stands in order that these stands will become more productive for them in the future. ♣

When you bring home more from the woods than you bargained for...

# Don't Let It BUG You!

by TERRY PRICE, Georgia Forestry Commission

THERE ARE A LOT OF "CRITTERS" in the forest that people should be aware of in order to avoid injury. Most people call these critters "bugs." This is not technically correct, but they are close relatives to "bugs." This article deals with a few of these animals that are a menace to people.

### Venomous Arthropods

Venomous arthropods are a menace to those whose professional or recreational interests lead them into forest areas. Arthropods are members of the biological group, *Phylum Arthropoda*, which includes insects (flies, mosquitoes, etc.) and arachnids (ticks, scorpions, spiders).

Arthropods which sting and bite, such as hornets and spiders, cause more problems during warm seasons, which also is when much forestry work is at its peak. Stings and bites of such arthropods cause immediate pain and discomfort; they also can cause intense reactions such as anaphylactic shock, which can lead to death if not treated. In the United States, from 1950-1969, 811 deaths were caused by venomous animals (TABLE I). Most of these deaths were caused by venomous arthropods.

Allergic reactions to stings and bites vary among individuals. Also, reactions vary according to the arthropod and how many times one is bitten or stung. Persons who are sensitized to a specific arthropod venom should know the different species. It should be remembered that several of the venomous arthropods mentioned in this article are found in buildings and in close association with humans and one does not necessarily have to be in the woods to get bitten or stung. Bites from the poisonous spiders and stings from various wasps occur more frequently in and around buildings than in woods. Regardless of where venomous arthropods are encountered, humans should avoid them whenever possible.

### Ants

Ants most likely to be encountered by forestry workers are fire ants, harvester, field and Allegheny mound ants. Fire ants are by far the most important group. Three species of fire ants exist: (1) southern fire ant, *Solenopsis xyloni*, (2) common fire ant, *S. geminata*, and (3) red imported fire ant, *S. invicta*. All three species build mounds commonly found in open places such as roadsides, pastures, edges of streams, open woods and margins of cultivated fields.

The venom of fire ants varies among species. Venom of the red imported fire ant contains several potent alkaloids. (An alkaloid is a nitrogenous compound having a marked physiological effect on the human body). Stings from fire ants almost always produce small blisters or pustules. Allergic reactions vary but severe symptoms such

as nausea, swelling and intense pain may occur.

Stings and bites from other ant species usually produce only local pain and itching without serious effects; however, sensitized persons should avoid ants. Forestry workers should inspect the ground where they are working or having lunch. Ant mounds are not conspicuous when the colonies are young, so straw and duff should be raked back before sitting on the ground.

### Bees

The honey bee, *Apis mellifera*, and various species of bumble bees (*Bombus* spp.) usually attack if the hive or nest is disturbed or threatened. Honey bees nest in a variety of places such as cavities in living or dead trees and in attics. Swarms or "open air nests" attached to limbs of various trees and shrubs are occasionally

TABLE I  
Deaths from Venomous Animals in the United States 1950-1969

	1950-59	1960-69
Hymenopterous Insects		
Bees	124	51
Wasps	69	58
Yellow Jackets	22	11
Hornets	10	2
Ants	4	1
Poisonous Snakes		
Rattlesnakes	94	65
Cottonmouth Moccasins	8	1
Coral Snakes	2	1
Exotic and Unidentified Snakes	34	40
Spiders	65	27
Scorpions	8	6
Coelenterata	1	1
Stingaree (Sting Ray)	1	—
Animal or Insect, Unknown	18	79
Ticks	—	8
TOTAL	460	351





Photo 1—Bald-faced hornet

encountered in the woods during spring and summer. A swarm poses no threat; however, if an “open air nest” is disturbed the bees will usually attack. Honey bees are important pollinators of many crops and plants; if feasible, insecticides should not be used to control them.

Bumble bees may nest underground in abandoned animal burrows, rotten stumps, clumps of grass, or above ground in various protected places such as abandoned bird-houses. These bees are very aggressive and may attack an intruder several feet from the nest. Often, the bees will chase an intruder for several yards. Bush hog operators in seed orchards are frequently attacked when a mower moves over a ground nest.

Bee venom is considered to be highly potent and can affect humans in various degrees, depending on host sensitivity and

the number of stings. The pain of bee stings usually lasts only a short time. However, itching and swelling following initial pain can be irritating. The stings of many bees (or the sting of a single bee in a sensitized person) may cause red blotches on the skin, shortness of breath, nausea, fainting and even death. Reactions tend to become more severe after repeated stings over several years. The potency of honey bee stings varies with time of year and types of plants the bees are visiting. When bees buzz around the body, a nest site is probably nearby.

The honey bee is the only species that leaves its stinger in the victim. The stinger is equipped with inverted barbs on the tip that anchor it in the host. As the bee moves away, the stinger and poison gland are pulled out. The stinger should be cautiously

scraped off with a knife blade or fingernail. Trying to lift the stinger out with forceps or the fingertips may cause more venom to be forced into the body.

## Hornets

The giant European hornet, *Vespa crabro germana*, is the only true hornet in the United States. It is not common south of the fall line. It usually nests in tree hollows and occasionally in the ground. The common bald-faced hornet, *Vespula maculata*, is actually a yellow jacket that builds its nest above ground (PHOTO 1). The nests may be 5 to 30 feet above the ground attached to branches of various trees and shrubs. The nests are occupied until the first frost or cold in the fall. After this, nests are vacated. Surviving individual hornets seek shelter in rotten stumps or other protected places. Anyone collecting a nest should wait until November, or after the first frost, to avoid being stung.

Workers in dense underbrush should watch for low hanging nests. Nests above 20 feet are usually high enough to avoid being disturbed by humans; however, once the nest is disturbed, the insects may chase the intruder for hundreds of feet. The bald-faced hornet is attracted to trees with slime flux disease. The strong smelling sap attracts other wasps as well.

Hornets are very aggressive and usually sting numerous times when they attack. A bald-faced hornet nest may contain over 5,000 hornets. Reactions to hornet venom are similar to those caused by stings from the other species of wasps. However, the pain is usually more intense. Operators of heavy equipment such as skidders and crawler tractors should be aware of nests and be prepared to switch the machinery off before abandoning it. Operators will sometimes flee from a running piece of equipment if pursued by hornets or other wasps. **This is not a safe practice and should be avoided if possible!**



Photo 2—Eastern yellow jackets

## Paper Wasps

Paper wasps build their nests around eaves of buildings, on limbs and branches





Photo 3—Puss caterpillar

of shrubs and trees, and in other protected places. Nests are usually exposed, hanging by a pedicel, and are somewhat umbrella shaped. Some species are aggressive, but the majority of these wasps will not attack unless the nest is disturbed. A common species notorious for its sting is *Polistes annularis*. This species is one of the largest and is predominantly reddish brown in color. Nests are common in bushes and shrubs along stream banks. Paper wasps as a group are considered beneficial because they usually feed on caterpillars and other insects.

Local reactions to a sting are characterized by intense pain for ten minutes or more (depending on sting location and number of stings) accompanied by local

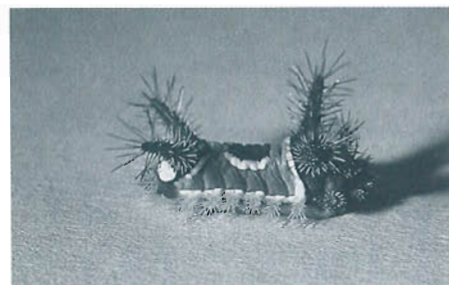


Photo 4—Saddleback caterpillar

swelling and itching. Sometimes a weal is produced that may be visible for several hours. Severe systemic reactions may result from various species of paper wasp stings.

Paper wasps are common in forest environments and workers should be aware of nests when operating chain saws, bush hooks or other dangerous tools and machinery. Workers sometimes get frightened when pursued by wasps and may suffer more from injuries sustained from equipment out of control than from the insects.

### Yellow Jackets

Yellow jacket is a common name of wasps in the genus *Vespula* and two species abundant throughout Alabama are the Southern yellow jacket, *Vespula squamosa*,

and the Eastern yellow jacket, *V. maculifrons* (Photo 2).

The nests are usually underground. Nests are frequently found under rotten tree stumps or along the banks of ditches, gullies or streams. Only a small hole may serve as access to the nest.

Yellow jacket stings are similar to other wasps; they are painful and may cause severe systemic reactions in sensitized persons. Slight reactions are characterized by intense local pain for 10 to 15 minutes, local swelling and itching. In more severe reactions, the victim may experience swelling, shortness of breath and measles-like rashes over most of the body. In some extreme cases, coma and death may result.

Alabama Forestry Commission firefighters routinely uncover nests while plowing fire breaks. The subterranean nests vary in size depending on the size of the colony. Ground personnel should avoid walking immediately behind the tractor while plowing is being done. When walking a freshly plowed firebreak, care should be taken not to walk into an already disturbed nest. Timber markers and cruisers often wander upon a nest. Flagging tape or paint should be used to identify a nest site so it can be avoided. Yellow jackets are attracted to the smell of various foods. Workers should eat away from woods areas if possible.

### Biting Flies

(Biting Midges, Black Flies, Tabanid Flies, Stable Flies)

The biting midges are better known as "no-see-ums," "punkies," or black gnats. The larvae may be aquatic or semi-aquatic. Preferred habitats for egg laying are damp rotting wood, foul and stagnant water, salt or brackish water, mud, or fast flowing fresh water streams. These insects are very small measuring from 1/20" to 1/8" in length.

Human reactions to midge bites vary. Some victims may have clear blisters along with itching and burning. Others show no reactions except for discomfort felt during the initial bite.

Based on one account, midges tend to congregate under areas where clothing fits tightest. Loose fitting garments may dis-



Photo 5—White-marked-tussock moth caterpillar

courage the insects from congregating in any particular area, thus reducing the overall number of bites.

Black flies are minute, stout bodied, hump-backed gnats varying in color from black to gray to yellow. Preferred habitats are wooded coves along fast flowing streams. The larvae are aquatic. Black flies are common in North Alabama areas in coves along fast flowing creeks and streams. The bites can be irritating due to swelling and itching. A small, red, hemorrhagic (bloody) spot develops at each bite area. Headache, nausea, and inflammation of the lymph nodes are common symptoms. Children usually react more severely from black fly bites than adults. In severe cases (numerous bites), affected limbs may swell twice their normal size and the victim will experience intense pain and fever.

Tabanid flies, commonly known as deer flies and horse flies are widely distributed. prefers habitats that are rich in organic matter such as decaying straw or hay. The flies are common along the beach areas where the seaweed is strewn by the tides. Stable flies resemble house flies but are colored a brownish-gray with a greenish-yellow sheen. Bites from stable flies are painful and reactions are characterized by the formation of weals.

Repellents containing DEET (*N. Ndiethyl-metatoluamide*, 95-100%) applied to the skin are effective in preventing bites from midges, black flies, tabanids, and stable flies.



Photo 6—Black widow

Most species are common in moist wooded areas. The females are bloodsuckers and can be serious pests of humans and livestock.

The deer flies prefer low lying marsh areas adjacent to ponds, lakes and rivers. Deer flies are very abundant in the coastal areas of Alabama and can be very annoying to humans. Deer flies vary in size and appearance.

Another biting fly that is a common pest of humans is the stable fly. This species

### Caterpillars

Several species of caterpillars can cause



severe reactions in humans by stings from their body hairs (spines). The most commonly encountered species are the puss caterpillar, *Megalopyge opercularis* (PHOTO 3); the saddleback caterpillar, *Sibine stimulea* (PHOTO 4); and the various species of tussock moth caterpillars (PHOTO 5).

The puss caterpillar occurs throughout Alabama and feeds on various deciduous trees and shrubs. Forest and shade trees that are usually fed upon are hackberry, oak, elm, sycamore and maple. The color of the caterpillars will vary from reddish-brown to mouse gray.

The saddleback caterpillar feeds on a wide variety of trees and shrubs. The poisonous hairs (spines) along the sides of the caterpillar's body are extremely irritating when touched.

The various species of tussock moths feed on many species of deciduous trees and shrubs as well. Preferred species are apple, elm and poplar.

The nettling hairs and spines of the caterpillars cause severe rashes, inflammation and weals. Swelling may occur if stung by the puss caterpillar and itching can last for one or more hours. First aid treatments for caterpillar stings are limited. A physician should be contacted in cases of severe reactions. Caterpillars that are hairy or have tufts of spines should never be touched.

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## Mosquitoes

Immature stages of mosquitoes are aquatic. The larvae and pupae are active swimmers in calm water and live in many habitats, such as tree holes, marshes, swamps, rain puddles, ditches, and man-made containers. The eggs are laid singly or in rafts, either directly in the water or places that later become flooded with rainfall or rising tide water. Some species of adult mosquitoes may migrate for several miles.

The female of most species sucks blood from warm blooded mammals. Some species transmit disease organisms to man and other animals.

Several species are annoying to humans. The eastern salt marsh mosquito, *Aedes sollicitans*, common in coastal Alabama, is known for its fierce attacks when seeking blood meals. It migrates many miles from its breeding site. Landing rate counts (numbers per minute attempting blood meals) often reach 500+ per minute.

Serious disease organisms transmitted by mosquitoes are those causing dengue, malaria, and encephalitis. The dog heartworm is also a common mosquito-trans-

mitted parasite. Human and horse cases of eastern equine encephalitis have, in recent years, been reported in the Coastal Plain. Mortality in humans may be as high as 50 percent.

Most species of mosquitoes are active around dusk to sundown. However, several woodland species are active during the day as well. Workers should wear long sleeved shirts and head nets when working in areas of high mosquito populations. Repellents containing 95-100% DEET applied to the skin and clothing will provide protection from mosquito bites.

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## Chiggers

Chiggers or "redbugs" are notorious enemies of many vertebrates including humans. A chigger is actually the larval stage of a mite and is barely visible to the naked eye. The adults do not attack man and usually feed on eggs of other arthropods. The adult mite lays eggs in the soil during the warmer months. There are several species of chiggers but the most common is *Eutrombicula alfreddugesi*.

On humans, chiggers tend to congregate in areas where clothing fits tight such as ankles, waistbands, crotch, and armpits. Itching usually begins two to six hours after the larvae have attached themselves to the skin. Secretions from the chigger's mouth acts as a skin irritant causing itching. Chiggers can be removed easily or killed with a soapy bath but the itching continues for several days from chemical irritations of the saliva. The itching can be relieved temporarily with various antiseptics including bicarbonate of soda pastes, or rubbing alcohol.

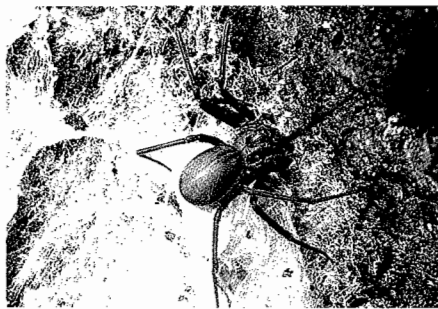


Photo 7—Brown recluse spider

Chiggers seem to flourish during rainy periods. Hot, dry conditions can reduce chigger populations. Prescribed burning will provide immediate control, but areas will become infested again as soon as animals such as deer, rabbits, squirrels and mice return.

Repellents containing DEET will keep the body free of chiggers if they are applied to socks and over the entire outer clothing and exposed skin. Spot spraying will not be

effective. Be sure to read label directions. Sulfur sprinkled lightly over the outer clothing, especially on pants legs and tops of socks and boots, is somewhat effective in repelling chiggers.

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## Spiders

The two species of spiders considered to be extremely poisonous and dangerous are the southern black widow, *Latrodectus mactans* (PHOTO 6) and the brown recluse, *Loxosceles reclusa* (PHOTO 7). Although both of these species are abundant and widely distributed throughout Alabama, they are seldom encountered by woods workers.

In the woods, black widows normally build their webs close to the ground under stones, logs, and at the bases of weeds and grasses. However, around human dwellings, the webs are usually found in water meter boxes, wood piles, and under bricks and blocks.

Although the black widow's bite is seldom fatal, it tends to produce more severe reactions in young children and in elderly people with hypertension. The venom is a neurotoxin and affects the body almost instantly. The bite of a black widow is seldom felt but the pain begins almost immediately afterward and reaches maximum levels from one to three hours later.

Severe reactions to a black widow bite include sweating, nausea, severe muscular pain and difficulty in breathing with an increase in body temperature and blood pressure. Mortality from black widow bites may be as high as 5 percent. The remaining 95 percent of the cases, although some may suffer severe reactions, are completely recovered within four or five days.

The brown recluse, as its name implies, is a shy creature. The spider is reluctant to bite; however, when it feels threatened, it will bite.

The brown recluse is sometimes found in rotten tree stumps outdoors but is more common indoors in closets, under old paper or infrequently worn clothing and shoes, barns and utility houses.

Death resulting from a brown recluse may occur but is rare. The worst effect is usually the deterioration of body tissues surrounding the bite, which is caused by a necrotoxin which retards the healing process. This slowing of the healing process varies with individuals, but the bite area may be worse six months afterward than the day the bite occurred—with a swelling, festering, oozing sore that will not form a scab. Some medical treatments may offer relief, but again, the degree of positive response to medical treatment varies with the individual.



Photo 8—Female lone star tick

## Ticks

Ticks are not insects but belong to a closely related group. There are four stages in the life of a tick: egg, larva, nymph, and adult. The larva, often referred to as a "seed tick" has only six legs. Adult ticks have eight legs.

There are two groups of ticks—the hard and soft. Hard ticks have a hard back formed by a dorsal shield or scutum. The majority of ticks attacking humans belong to the hard tick group.

Some of the more common ticks encountered in Alabama woods are the American dog tick, *Dermacentor variabilis*, lone star tick, *Amblyomma americanum* (PHOTO 8), and the wood tick, *Ixodes scapularis*. Other names for the wood tick are black-legged tick and deer tick.

Ticks are considered dangerous pests. Tick bites can cause slight itching, inflammation, development of lesions, paralysis or death. The bite of some female ticks may cause paralysis in man. For paralysis to occur, a tick must be attached near the head and neck or along the spinal column for five days or longer. The paralysis is ascending; it begins in the lower body and moves upwards toward the head. Once the tick is removed paralysis disappears. In Alabama, paralysis caused by ticks is rare.

Cases of Rocky Mountain spotted fever (RMSF) in the South are becoming more common. With more people moving into the rural areas, the increase in RMSF is expected to continue. The wood tick, American dog tick, and lone star tick are primary transmitters of RMSF to humans.

Symptoms of RMSF include fever, headache, and rash. The rash usually develops on the second to fifth day after the bite. The rash is on the wrists, ankles, and sometimes on the back; it later spreads to all parts of the body. The skin may be mottled just before development of the rash. Affected patients usually have frontal and occipital headaches with intense aching in the lumbar region. Mortality in humans has been as high as 20 percent or more.

Another disease transmitted by ticks is Lyme disease (LD). LD is a systemic tick-borne illness usually occurring during the

summer. LD is characterized by a distinctive skin lesion, often accompanied by fever, headache, stiff neck and arthralgias. LD has been reported primarily from the Eastern states. Several isolated cases that mimic LD have been reported in several Southern states. Ticks in the genus *Ixodes* have been the primary vectors, but recent isolation of the disease causing organisms from the lone star tick indicates the disease may be spread by other species.

Some woods are more "tick ridden" than others. Where deer, rabbits, and rodents are plentiful, tick populations will usually be abundant. Ticks behave similarly to chiggers in locating a host; they congregate along animal paths on the tips of grasses and shrubs. Woodsmen should avoid walking down deer trails and other well traveled paths. In areas where animal trails are absent, ticks will usually be heavily concentrated in moist or shaded areas, or where deer feed and bed.

Young ticks (seed ticks) that have not become imbedded can be washed off or lifted from the skin with adhesive tape. Embedded ticks are difficult to remove. The mouthparts of a tick have inverted teeth that serve as anchors to ensure firm attachment. Various chemicals such as rubbing alcohol, fingernail polish, or mineral oil may cause some embedded ticks to back out, however, several minutes is required for the method to be effective. Since ticks do not become imbedded in the skin for several hours the body should be inspected periodically to prevent attachment. Shirttails and pants legs should be tucked in to reduce the areas on which ticks can grasp and gain access under the clothing.

## Summary of Prevention

### Bites

Usually repellents are the best way to avoid the biting arthropods. Of more than 20,000 chemicals tested by the U. S. Department of Agriculture as potential repellents, approximately 40 have been proven safe to use on the skin. The most widely used repellent for skin application is DEET. Some formulations contain up to 100 percent DEET, e.g., MUSKOL®. Formulations containing DEET are effective against chiggers, mosquitoes, deer flies, biting midges and black flies. One application of a DEET-containing compound provides several hours of protection. Other effective repellents for chiggers, ticks, mosquitoes and flies are those containing rotenone, dimethyl phthalate, DEET and butoxypropylene glycol (TICKS-OFF®).

A relatively new repellent registered in Alabama for ticks only is PERMANONE® (Permethrin®). PERMANONE® cannot be applied to the skin. The clothing should be treated prior to being worn although this is not required. In most cases, a thorough application to the outer clothing will provide protection for one day or longer.

Bites from spiders can be avoided by knocking down webs with a stick or wearing gloves when working around wood piles and other infested areas.

### Stings

Prevention of stings is best achieved by being alert to the arthropod. Below are practical measures to avoid being stung while working in the woods.

\*1. Be alert to low hanging bald-faced hornet nests, particularly in dense understory.

\*2. Hornet nests should not be collected until after November 1 or after the first frost.

\*3. It should be remembered that yellow jackets nest in the ground around rotten tree stumps, or along ditch and stream banks and vacated animal burrows. Stings from yellow jackets are more frequent in September.

\*4. When plowing firebreaks, ground personnel should avoid walking immediately behind the tractor. Yellow jacket nests are frequently plowed up during construction of firebreaks.

\*5. Bees, wasps, and yellow jackets are attracted to food and drink. When having lunch in the woods, be aware of their activity around food. If possible, eat away from woods areas.

\*6. Avoid wearing brightly colored clothing or using perfumed lotions, aftershave and shampoos. Bees and wasps may be attracted to them.

\*7. If wasps or bees are encountered, do not swat or move suddenly. Retreat slowly; if retreat is impossible, lie face down and cover the head and face with your arms.

\*8. Avoid fire ant mounds. Disturbed ants may crawl two to three feet from the mound.

\*9. Wear long-sleeved shirts to protect against caterpillars and certain biting insects; however, stingers of hornets and wasps can penetrate clothing.

\*10. Caterpillars should not be handled unless they are identified as harmless species. ♠

## REFERENCE

Price, Terry. *Venomous Arthropods Affecting Forestry Workers in Georgia*, Georgia Forestry Commission.



**REGISTRATION FORM**  
**FOURTH ALABAMA LANDOWNER AND TREASURE FOREST CONFERENCE**  
**CIVIC CENTER—BESSEMER, ALABAMA—SEPTEMBER 10-11, 1987**

NAME \_\_\_\_\_  
(if company, list names of all attendees) (Type or Print)

ADDRESS \_\_\_\_\_

ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ COUNTY \_\_\_\_\_

COUNTY WHERE YOU OWN LAND \_\_\_\_\_

Category of Participant (Please check one)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Alabama Farm Bureau Federation      | <input type="checkbox"/> Agricultural Stabilization and Conservation Service | <input type="checkbox"/> Game Fish Division, DCNR                     |
| <input type="checkbox"/> Forest Industry                     | <input type="checkbox"/> Alabama Cooperative Extension Service               | <input type="checkbox"/> Auburn School of Forestry                    |
| <input type="checkbox"/> Consulting Forester                 | <input type="checkbox"/> Alabama Forestry Commission                         | <input type="checkbox"/> Alabama Agricultural Experiment Station      |
| <input type="checkbox"/> Tree Farm Member                    | <input type="checkbox"/> Alabama Wildlife Federation                         | <input type="checkbox"/> Soil Water Conservation Committee            |
| <input type="checkbox"/> TREASURE Forest Landowner           | <input type="checkbox"/> U. S. Forest Service                                | <input type="checkbox"/> School of Agriculture and Biological Science |
| <input type="checkbox"/> TREASURE Forest Creed Signer        | <input type="checkbox"/> Farmers Home Administration                         | <input type="checkbox"/> Alabama Conservancy                          |
| <input type="checkbox"/> Other Landowner                     | <input type="checkbox"/> Agri-Business Education                             | <input type="checkbox"/> Other (Please specify) _____                 |
| <input type="checkbox"/> Alabama Forestry Association Member |  |   |
| <input type="checkbox"/> Soil Conservation Service           |  |   |

NOTE: There will be a \$25 pre-registration fee. Registration at the door will be \$35. This covers the cost of renting the facility, a banquet dinner, and a barbecue lunch. **Those who wish only to attend the meetings (exclusive of meals) may register for \$10.**

I will attend the banquet on Thursday night.       I will attend the lunch on Friday.

Number

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

Additional BBQ lunch tickets for spouses and guests are \$10 each. \_\_\_\_\_

**REGISTRATION FORM AND FEE MUST BE SUBMITTED BY AUGUST 31, 1987 TO**

Mrs. Melanie Curry  
Alabama Forestry Commission  
513 Madison Avenue  
Montgomery, AL 36130

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



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