

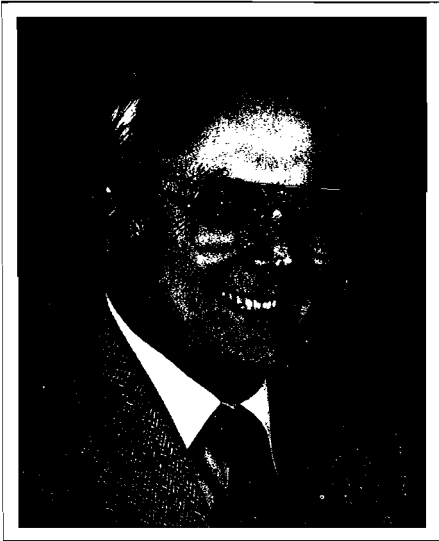
Alabama's **TREASURED Forests**

SPRING 1993



STATE FORESTER'S MESSAGE

by C.W. Moody, State Forester



Most of you probably noticed that we did not publish the Winter issue of this magazine. We regret that this became necessary because of budget problems. Many of you told me how much you enjoyed the magazine and how disappointed you were when we had to skip an issue. Cynthia Page, Forest Education Division director, is searching high and low for funds so that we can stay on our normal quarterly track from now on.

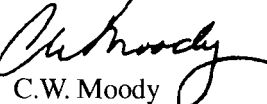
Many of you have also followed the allegations about me and the Alabama Forestry Commission in the media recently. Let me use this opportunity to assure you that our agency has never knowingly violated laws or ethics in carrying out our mission.

One story was that the Forestry Commission is in a conflict of interest situation because I helped organize Stewards of Family Farms, Ranches and Forests. Stewards has a three-fold mission: 1) to promote good stewards of the land; 2) to defend private landowner rights of good stewards; and 3) to educate citizens on the contribution that environmentally healthy and economically sound family farms, ranches and forests make to our nation. These objectives are totally consistent with the mission and programs of the Alabama Forestry Commission and, in our firm opinion, do not involve a conflict of interest.

Another story questions use of our aircraft for administrative purposes. We are reviewed by the U.S. Forest Service periodically and have always complied with their procedures. Our aircraft are used strictly for carrying out our mission of protection and development of forest resources in our state.

Some journalists in Alabama have been very responsible in reporting on these issues and have conscientiously presented our side along with the other allegations. Three such friends are Gene Ragan of Dothan, Goodloe Sutton in Marengo County, and James Kennedy of *The Birmingham News*. We sincerely appreciate the efforts of the media who have assisted in educating landowners about issues which impact them.

On behalf of all Alabamians and Americans, thank you for being good stewards of your forests.

Sincerely,

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 by Susan Fouts.

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A recent thinning released this pine stand.

HAPPY ACRES FARM: A Family Tradition

by TILDA MIMS, Information Specialist, Alabama Forestry Commission, Tuscaloosa

Happy Acres Farm. A simple name, yet one that clearly describes the charm of this TREASURE Forest.

Rolling fields, abundant wildlife and healthy timber stands encourage leisurely strolls and long visits with landowners Faye and Horace Lee. Home to the Lees and their four grown children, Happy Acres is often a gathering place for family and friends.

Happy Acres, a working farm, consists of a 311-acre tract in the Union Chapel community, located five miles south of Carrollton in Pickens County. It includes 194 forested acres, with the balance in wildlife openings, fields and four home-sites.

Certified as TREASURE Forest #102 in 1980, Happy Acres was the District III Helene Mosley Memorial TREASURE Forest Award winner in 1981. It was nominated by Roger Nichols, Morgan County supervisor, who was the cooperative forest management forester in the Tuscaloosa district at that time.



Black-eyed susans and other wildflowers are abundant at Happy Acres.

Timber Management

Horace Lee recalls that when his father owned a portion of the property many years ago, he did very little harvesting and tree planting.

In 1964, Lee received a written management plan and began serious development of his forestland through improvement cuts and thinnings. He remembers being motivated to begin active forest management after comparing notes with other forest landowners in the area. "I remember seeing things that the Forestry Commission was doing for other Pickens County landowners and it looked good."

For the past 30 years he has continued to perform periodic cuts, relying on natural regeneration as his primary means of regeneration.

A commitment to prescribed burning has placed Happy Acres on a three-year rotation that has encouraged natural regeneration and reduced fuel build-up. Controlled burning has also benefitted the various wildflowers scattered throughout the acreage.

Happy Acres is primarily in pine, including about 40 acres of old pasture land that has been allowed to grow up in loblolly pine and 28 acres of natural slash pine. A recent thinning operation around the pasture removed mature pines, allowing the younger timber to grow vigorously.

Mixed pine and hardwood stands also feature prominently in the Lee's management plan. Pickens County Supervisor John Sutton notes, "Mr. Lee manages for quality pine sawtimber, but also has a good grade of hardwood along drains."

The Lees have practiced Best Management Practices for many years. All thinning and harvesting contracts require careful maintenance and protection of key hardwood areas, sensitive streamside zones and potential den trees. Areas subject to erosion are left undisturbed by prohibiting the use of heavy equipment on extreme slopes.

Lee found that maintaining over seven miles of permanent firebreaks and bush-hogging woods roads have enhanced wildlife corridors and provided much needed fire protection.

In a recent TREASURE Forest recertification, it was noted that for many years his rapid detection and salvage following storm damage has been a key factor in controlling heavy fuels and reducing southern pine beetle damage.

Wildlife

Wildlife is a secondary objective according to their management plan, but anyone can see that the quail, deer, turkey, squirrels and songbirds are a priority to the Lees. Deer feeders, squirrel feeders, hummingbird feeders, and bluebird houses encourage non-game species to feed within easy viewing distance of the Lee's home. A mixture of forestland, wildlife food plots and careful management has produced excellent habitat quality.

The abundant wildlife at Happy Acres has provided Faye and Horace Lee many cherished memories of time spent with their family. Their grandson, Chris, and Chris' father, Lee, travel from Monroe, Louisiana, as often as they can to deer hunt. With Chris in high school, the visits are limited to Christmas, Thanksgiving and other school holidays, but they make the most of each opportunity.

They also successfully hunt quail,

squirrel and turkey around the farm. Chris killed his first turkey during a hunting trip with his grandfather. Horace recalls that it was a good sized gobbler, weighing around 18 pounds.

The pasture area is home to the Lee's horse, Bonnie, and Chris' horse, Dopey. They are used by all members of the family for horseback riding. Permanent firebreaks and winding woods roads have created miles of safe and attractive riding trails.

In the Lee's TREASURE Forest certification, the wildlife biologist praised them for having "one of the best, most diversified game habitats one could hope for on a 300 acre farm. The area has many solid hardwood bottoms, mixed pine-hardwood ridges, old fields and plenty of edge for game species."

Although the Lee's cultivate bicolor lespedeza, arrowleaf and crimson clovers, and bahia grass in wildlife food plots,

ic quality of the property. These areas provide excellent food sources for a variety of wildlife.

Stewardship

Faye and Horace Lee were featured in *The Tuscaloosa News* last year in a special segment entitled, "Portraits of West Alabama." Readers were invited to single out qualities that to them give the region a special quality of life.

Faye's article on life at Happy Acres was so well received that it was reprinted prominently on the front page of the Sunday edition. A selected portion of her article clearly expresses the call for stewardship of the land.

"We give all the credit for such a good place to live to our forefathers who knew the value of land, and with a lot of hard work, good management and care for future generations to grow up here and



Horace and his grandson enjoy a leisurely drive to check on a pine stand near the hay field.

ample fields of agricultural crops of corn, soybeans and hay are also managed with wildlife in mind. Irregularly shaped fields have produced excellent edge benefits that attract a variety of game and non-game species.

Damage caused by farming practices 50 or more years ago has been controlled by natural reseeding of vegetation. Vegetation has also been left where it was necessary to protect and enhance the aesthet-

enjoy. We try to encourage this in our children and grandchildren so they will have a place to enjoy and pass on to others."

Sisters and brothers, children and grandchildren are frequent visitors to Happy Acres, sharing the work and the pleasures equally. It is easy to see that this TREASURE Forest will be cherished in the Lee family for many generations to come. ♣

Editor's Understory

by TILDA MIMS, Information Specialist, Alabama Forestry Commission, Tuscaloosa

The "business cards" of Horace and Faye Lee read:

HAPPY ACRES FARM
Professional Procrastinators, Inc.

Call us—
We'll get back to you sometime

HORACE LEE
President

FAYE LEE
Chair Lady

The carefree wording of their fanciful cards belie the years of careful planning and hard work that has allowed them to relax and enjoy the fruits of their labor. Happy Acres Farm is a 311-acre farm in Pickens County, about halfway between Carrollton and Aliceville in the Union Chapel Community.

Certified as TREASURE Forest #102 in 1980, Happy Acres was the District III winner of the Helene Mosley Memorial TREASURE Forest Award in 1981.

Horace and Faye Lee give all the credit for their much-loved home to their forefathers, people they believe knew the value of hard work and good forest management.

Horace grew up in a spacious wooden home about 500 yards from their present home. An only child, he was raised by his father and several loving aunts following the death of his mother when he was but a few years old.

His grandfather was the original owner of a portion of the land. In a strange twist of fate, Grandfather Lee sold the land to a neighbor who, many years later, sold it back to Horace and Faye.

Lee inherited 121 acres from his father. "My father owned the land and I was raised up on it," he recalls. His father was

in the sawmill business and Horace was "right at their coattails."

While in high school he helped his father manufacture cypress shingles in Lubbug Swamp by using a portable shingle mill that they moved around to various timber areas. He remembers the finished shingles were 16 inches long, 5 inches wide and had tapered ends.

Later, he graduated Auburn University with a degree in mechanical engineering. Following a successful career, including serving as Pickens County Engineer for many years, he retired in May 1984. "Now I'm hunting a job so I can get some rest!" he laughs.

The Lee's have raised four children at Happy Acres Farm: Nelda, Lyndall, Horace, Jr. and Roger. Six grandchildren return with their parents for frequent family gatherings throughout the year.

Many TREASURE Forest landowners express a heartfelt desire that their land is carefully managed for many future gener-



Horace and Faye Lee's children invented the name "Happy Acres" and their daughter, Nelda, created the sign.

Following high school he went to work for Tennessee Coal and Iron at the Fairfield Tin Mill in Birmingham earning \$18 each week. Later he completed welding school and found a job in Mobile at the U.S. Maritime Commission where he met his future wife Faye, who was working at a local drug store.

He served in the infantry division of the Army during World War II, earning a Purple Heart for a wound received in Maintz, Germany.

ations, and Faye and Horace Lee are no exception.

"The children and grandchildren will care for it. They *better* take care of it," Horace and Faye chuckle.

Their daughter, Lyndall, home with her son for a summertime visit, quickly assures her parents of the future care of Happy Acres. "This has always been home and there is no way we would ever sell it. It's the most peaceful place to be!" ♣

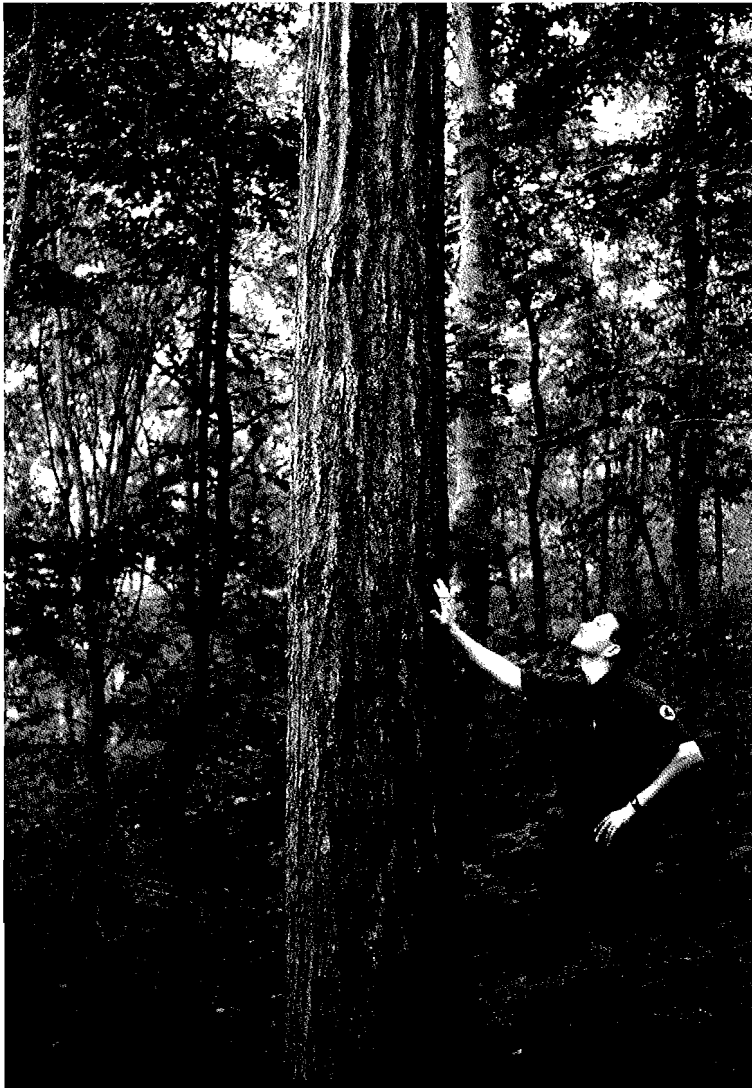
NORTHERN RED OAK

by TOM CAMBRE and TIM GOTHARD, Alabama Forestry Commission

Northern red oak (*Quercus rubra* L.), one of the more valuable red oaks for lumber production, is an upland oak found throughout the eastern United States. It occurs naturally from Minnesota south to eastern Nebraska and Oklahoma, and east to central Arkansas, southern Alabama, and central Georgia and South Carolina. In Alabama, it is more abundant north of Birmingham and decreases steadily moving south to the lower coastal plain.

On the best sites in its southern range, northern red oak is characterized by a usually straight, clear bole of considerable length, and can achieve heights up to 100 feet and diameters of 2 to 3 feet. Although commonly found on most all topographic positions, it grows best on lower and middle slopes having a northern or eastern aspect, and deep, well-drained loam to silty clay loam soils. In addition, well-drained valley floors offer sites for excellent development. Other trees commonly found growing with northern red oak include ash, elm, hickory, scarlet oak, southern red oak, and yellow-poplar.

Like most oaks, northern red oak produces sporadic crops of acorns every two to five years. The large, light-brown acorns are produced singly or in clusters from two to five, and are an important wildlife food for squirrels, turkey, and with deer are one of the more favored red oak acorns. Acorn production usually begins around age 25 and is at its peak around age 50.



Northern red oak

Also, like most oaks, this species does not tolerate shade or competition very well. In fact, it is one of the least tolerant of all the oaks. Due to these characteristics, regenerating northern red oak requires creating conditions that result in little to no shading and minimal competition. Of the natural regeneration methods, clearcutting and relying on advanced regeneration and coppice offer the best opportunity for successful regeneration. Once established, seedlings grow fairly rapidly for oak, and respond well to release.

The wood of northern red oak is highly sought and its uses are numerous. Advantages of red oak wood are its beautiful appearance, easy planing and turning, good bending and screw and nail holding properties, and excellent wearing qualities. These characteristics result in red oak being one of the most used woods in hardwood flooring and the manufacturing of furniture such as chests, dressers, and tables.

Northern red oak also makes a beautiful ornamental tree. When open grown, it produces a large, symmetrical crown with abundant, thick foliage that provides valuable shade. In addition, the deep, rich, red color of its autumn foliage produces spectacular beauty.

Northern red oak seedlings are produced yearly in Alabama Forestry Commission nurseries. Contact your local Alabama Forestry Commission office for further information on northern red oak and obtaining northern red oak seedlings for planting. ♣



Conducting a Successful Timber Sale

by STEVE NIX, Resource Analyst, Alabama Forestry Commission, Montgomery

Tree farmers generally make sales only two to three times in their entire lives. They may invest 20 or 30 years growing a crop, only to lose much of it in the time it takes to watch a good movie. Mistakes in selling timber can cost dearly.

Improper preparation and a poor marketing program can guarantee less than adequate compensation and can lead to headaches after the sale. No step in tree farming is more important than the sale of timber. **You cannot spend too much time studying how to do it.** Take a look at the following recommendations when selling timber.

Seek Professional Assistance

Selling timber is really not a good do-it-yourself project. You respect a doctor or lawyer's opinion when it comes to their specific areas of knowledge. Give a forester the same respect.

Price quotes can become very confusing when timber is bought in various units called cords, pounds, tons, board feet, and

cubic feet. Selling timber requires special attention as to what trees to cut, how they should be harvested, and what they are worth. At the very least, have a forester review your sale proposal.

Most foresters are knowledgeable about timber sales procedures, current prices and buyers of wood. There are over 1,000 professional foresters in Alabama. They can be identified in your particular area by contacting the Alabama State Board of Registration for Foresters. These people are employed by private industry, state and federal government, large landowners and many are self employed as consulting foresters.

Private consulting foresters handle sales for a living. They usually offer a wide range of specialized services, including comprehensive timber sales assistance, on a fee basis. Many landowners find this expense more than offset by the higher selling price consultants often secure for their timber. Studies have shown that people who sell timber and use a professional forester's help get up to

50 percent more for their trees. They probably sleep better at night as well.

Other objectives for management, such as recreation, wildlife and aesthetics should be considered before the sale. A forester who has a perspective of past sales can assure a much smoother sale and harvesting operation and avoid problems that may effect a forest owner's other objectives. **Get professional advice.**

Study Before Attempting a Potential Sale

Timber growers should have some idea of what kind of timber they have to sell and the associated volumes. A forester can inventory timber and provide an estimate of volumes available for harvest. Potential buyers are more likely to be interested if they know what kind and how much timber is being offered for sale. This report can then be used to estimate a fair price you can expect for your sale.

Timing is important in getting the best price for wood. The best time to sell,

obviously, is when demand for timber is up and prices are at a peak. This is easier said than done, but you do need to be aware of current stumpage prices and market conditions in your particular local market.

With the exception of a specific disaster (from pests, weather, fire), you should not be rushed into a sale. Trees, unlike other farm products, can be stored on the stump during poor market conditions. One constant that history confirms is that timber values eventually go up.

Use the following factors when sizing up your sale:

- Know the demand for and type of product you grow: The best prices are paid when demand is highest and demand may differ as the potential product differs.
- Know the species for sale: Some species command higher prices than others. This is due to high demand or limited quantities of some species, or their special qualities.
- Know the quality of timber: Quality affects timber values just as it does any other product.
- Know the volume for sale: Logging requires the use of heavy equipment plus large numbers of men and increased costs associated with this. Larger volumes for sale generally equate to higher stumpage prices because of the greater logging efficiency and reduced costs.
- Know the distance from market: Transportation of forest products is expensive. Local mills should be able to pay higher prices for your products than more distant mills.
- Know the size of trees: Generally, the larger trees bring the best prices. Large sawlogs and poles are worth more than small ones.

It is important to know as much about the trees you are selling as it is to know about the next house or car you sell. Attention to the above factors make for a better sale. **The more you know, the better prepared for a sale you will be.**

Prepare for the Potential Sale

First you should identify prospective buyers. It would benefit you to prepare a comprehensive list of buyers in the sale

county and also include buyers in surrounding counties. It may be important to know what the buyer wants in terms of product. However, for the price of a postage stamp, you might simply send a bid invitation to all buyers within your determined procurement region.

Medium to large tracts of timber should be sold for a lump sum and on a bid basis. A sealed bid system should be used and generally results in higher selling prices as opposed to other sales methods. Bid invitations should be simple but informative and include the following:

- Date, time, and location of the bid opening.
- Terms for payment.
- Timber product, species and volume summary.
- Location map.
- Bid form.
- Information about the deposit/performance bond.
- Statement of seller's rights to reject bids.
- Notice of a "show-me" tour of sale area.

The potential buyers should be given a look-and-see opportunity and most will insist on examining the timber for sale before making you an offer. A tour or "show-me" meeting on the timber sale allows all interested buyers to check the volume and quality of the timber and to estimate their logging costs. They should also be allowed to inspect and keep a copy of the contract.

After the sale has been shown and all bids have been received, you should notify the highest acceptable bidder and arrange to negotiate and execute a written contract. Any deposit or performance bond agreed upon should be collected. Copies of the contract should be prepared for both buyer and seller.

Regardless of the size of the timber sale, a written contract prevents misunderstandings and protects both the buyer and seller. The contract should contain, at a minimum, the following:

- A description of the timber sale.
- The selling price.
- Terms of payment.
- Which timber will and will not be cut.

- Time allowed to cut and remove timber.

Other special provisions may include the following: cutting extensions; the location of log landings, roads, and skid trails; conditions under which logging will not be permitted; protection of residual timber and other property; a procedure for settling disputes; responsibility for wildfire suppression; disposal of litter; subcontracting of parts of the work; erosion and water quality control measures; and contractor liability exclusions. Remember that additional stipulations may have the potential of reducing the number of interested bidders as well as the selling price.

To obtain a list of timber buyers and a sample contract, write for a copy of the *Alabama Timber Seller's Guide and Directory of Timber Buyers by County*, available from the Alabama Forestry Commission, Resource Analysis Section, 513 Madison Ave., Montgomery, AL 36130-0601. You may also contact the Alabama State Board of Registration for Foresters at this address.

Inspect and Retire the Sale

To make sure terms of the timber sale contract are being met, you should have an agent inspect the operation periodically. It is best to inspect it several times during the harvest and finally upon completion. A satisfactory final inspection would indicate the full return of the deposit, if any, to the buyer.

Steps should be taken immediately after harvest to protect the land from erosion and to insure the productivity of this future forest. Roads, skid trails, and logging decks should be secured and reshaped if necessary. Bare areas should be revegetated to prevent erosion and provide food for wildlife.

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Managing the Family Forest in the South. USDA Forest Service Bulletin R8-MB1, October 1986. ♻️

THE STATE BOARD OF REGISTRATION FOR FORESTERS

by JACK P. FILLINGHAM, Registered Forester

The state of Alabama has approximately 1,000 foresters licensed to practice forestry. To the landowner of Alabama this does not mean that these foresters are available to provide services to them, but does tell them that a person offering services as a forester has met the requirements of The Alabama Board of Registration for Foresters.

The State Board of Registration for Foresters was created by Act No. 533, Acts of Alabama in 1957, to protect the public by licensing only qualified foresters and to prevent unqualified persons from practicing in the forestry profession. As stated in the general provisions of Chapter 12 of the 1975 Alabama Code, the practice of forestry includes any professional service such as consultation, investigation, evaluation, planning or responsible supervision as interpreted by the Board of any forestry activities in connection with any public or private lands wherein the public welfare and property are concerned or involved when such professional service requires the application of forestry principles and data.

The practice of forestry includes the application, teaching, investigation or administration of forestry theories, principles, practices or programs directly or indirectly related to the environmental and economic use, and the biological and ecological understanding of gross area of land in public or private ownership, and/or the direction and supervision over persons engaged in the formation and/or implementation of such forestry policies.



assigned duties conduct forestry education programs and/or provide free forestry advice and assistance to timberland owners. Employees or subordinates of a licensed forester can practice forestry as long as all such work is done under the supervision and responsibility of the person holding the license.

You will find that all state employees in forester classifications are registered or are working toward the designation. The ranger level usually is not filled with a graduate from a forestry school and provides their service under the direction of a forester. Anyone offering their services as a consulting forester has to be registered, and the landowner should require proof of their registration

before accepting their service.

This law does not prevent you the landowner from practicing on your own lands, but does not allow you to practice on your neighbor's lands on a fee basis. Thus, you can sell and remove timber from your property under the procedure you choose, decide to site prepare or not site prepare your lands for planting or natural restocking, and implement a planting program without being in violation of the law. You can also employ contractors to provide certain services such as land clearing, burning, tree planting, and herbicide application. These contractors usually perform under the guidance of a forester either at the state level or industry and consulting level. It is when these contractors range out on their own and start advising which silvicultural methods to employ, and what type of tree to plant

Who Must Be Registered?

In order to benefit and protect the public, no person in either public or private capacity shall practice forestry without being duly registered with the Board. This chapter cannot prevent landowners from applying forestry principles and procedures on their own lands. Therefore a person employed by a paper company does not have to be registered as long as their practice is confined to the company's own lands. Many industry foresters are registered because their practice carries over onto the nonindustrial owner lands.

Also exempt from registration requirements are employees of the United States Government on federally owned lands, employees of the State of Alabama on state owned lands, and employees of the federal government and Alabama educational institutions who in exercising their

that they find themselves in violation of the law.

The most common violations occur in relation to the sale and removal of timber from nonindustrial private landowners. During my term on the Board, complaints were received on a retired teacher, real estate agent, logger, tree planter, and lawyer, all for handling timber sales. The removal of timber from your land is usually the most important step in both the silvicultural and economic aspects of your land management goals. Thus, it is included under the definition of the practice of forestry in both evaluation and planning requirements. In most of the cases reviewed, the persons handling the sale probably got a reasonable price for the timber. However, the landowner also may not have known the silvicultural and economic alternatives available for the removal of the timber, and received no consultation on the timing of the sale and contractual procedures for protecting the land and remaining timber, if any.

Ethically speaking, all registered foresters cannot provide all of the services required in the rather diverse forestry profession. One of the rules of professional conduct a forester agrees to conform with requires that they engage or advise their employer or client to engage other experts or specialists when their client's or employer's interests would be better served. Thus, a procurement forester for a wood dealership or company would find himself on shaky ground if caught advising someone on the sale of the same timber his company is trying to purchase.

At the same time it does not mean that procurement foresters are not qualified to make silvicultural recommendations to landowners. The landowner should remember that these foresters are employed to acquire their quota of raw material and arrange its delivery to the wood using facility on the most economical basis to their employer. It is the responsibility of the landowners on their own or through the services of a forester they have employed to lay out the terms under which the timber is to be sold and removed from their land.

Requirements for Registration

People who want to practice forestry legally in Alabama must meet certain requirements of the Board. They should hold a bachelor's or higher degree from a

school approved by the Board or accredited by the Society of American Foresters in a forestry curriculum. Their education requirement should be followed by two years or more experience in the practice of forestry of a nature satisfactory to the Board and indicating that the applicant is competent to practice forestry. The applicant is required to provide five references, three of which are professional foresters who have personal knowledge of his or her character and professional reputation. After meeting the education, experience, and peer requirements, the applicant is subjected to an oral and/or written examination designed to show the knowledge of the applicant obtained through graduation and the forestry experience.

Upon submission of an application, the applicant signs an affidavit that he or she subscribes to and agrees to conform with the Rules of Professional Conduct set forth on the application. In summary, the forester agrees to advertise only in a dignified manner with truthful and factual statements, to strive for dissemination of correct and increasing forestry knowledge, to base testimony as an expert witness upon knowledge of the subject matter on his honest convictions, and to refrain from publicly expressing an opinion unless informed by the facts and without distort. They will also practice on a confidential basis relating to their employers' or clients' business and will not have an interest in the business that could influence the work for which they are engaged.

They cannot accept compensation for the same service from anyone other than the principle engaged without full disclosure, knowledge, and consent of all parties involved. As discussed previously, they will advise their clients or employers to engage the services of other forestry specialists in areas where their client's interest would be better served.

In respect to registration they will safeguard against the registration of an unqualified person and report evidence of unprofessional conduct of a registered forester to the Board.

After meeting the requirements and paying a registration fee, the applicant is issued a license with a serial number. The license can be renewed on an annual basis upon meeting a continuing education requirement and payment of a renewal fee.

The Board has the power to revoke the license of any registrant who is found guilty by the Board of gross negligence, incompetency, or misconduct in the practice of forestry. In addition the Board is authorized to discipline its licensees by the collection of administrative fines. Any person who practices forestry in this state without a license can be prosecuted for a misdemeanor with the assistance of the attorney general's office.

The State Board

The Board consists of five registered foresters who are members of the Society of American Foresters and who have a minimum of 10 years experience in the forestry profession. Board members serve five-year terms which are staggered to allow for the appointment of a new member each year. The Alabama Division of the Society of American Foresters nominates three registered foresters to the governor for appointment. The administrative office of the Board is located at 513 Madison Avenue, Montgomery, AL 36130. The Board meets a minimum of four times a year on the Wednesday following the fourth Tuesday in January, April, July, and October.

The Board of Registration for Foresters is not an association or bureau of foresters trying to promote their services. It is a board of five registered foresters who have been appointed by the governor and assigned the responsibility that the laws of the Alabama Code pertaining to forestry registration in Alabama be enforced for the protection and betterment of the public. The landowner can only be assured of getting professional services by asking the persons providing their services if they are registered. A roster of registered foresters is printed every other year and can be obtained from the Board's administrative office. A quicker verification can be made by calling the Board's office manager, Pam Sears, at 205-240-9368.

Complaints against registered foresters or people practicing without a license should be filed in writing to the Board. Each complaint will be handled with a response as to the action taken. If the complaint is determined to be a case that should be handled in a civil court, the complainant will be so advised. ♣

The author is a former member of the State Board of Registration for Foresters.

Preserving Your Family Forest by Estate Planning

by BARRY BLEDSOE, Senior Vice President and
MARK P. ELLIOTT, Trust Forester, First Alabama Bank Trust Department

Forestland is a unique type of capital asset. Because of its unique nature, transferring forestland upon death of the owner can cause problems. Proper estate planning can solve these problems by providing for the orderly distribution of forestland and other assets at death.

Estate planning is complicated and will vary with each landowner's circumstances. The purpose of this article is to provide a few general rules and discuss some characteristics unique to forest assets. Information in this article is intended to be educational and not legal advice.

How Assets Transfer at Death

At the outset of estate planning, landowners must understand how assets are transferred to their heirs at death. All assets are transferred by one of three methods: (1) by operation of law, (2) by

contract and (3) by will (or in absence of a will, by laws of intestacy) (*Table 1*). Each of these methods of transfer must be understood and applied to a person's own unique circumstances. For example, if a person desires to transfer assets by will he must ensure that they pass through his probate estate and not by operation of law or by contract to someone other than his estate. A will *does not* control assets passing by operation of law or contract.

How Much Will Be Taxed

What property is the federal government interested in for estate taxes? In general, all property owned or controlled by a decedent is included in his gross estate (*Table 2*). This includes all property transferred by any of the three methods listed in *Table 1*. One common exception is that only one-half of the fair market value of property owned jointly with right

of survivorship with a spouse is included in the gross estate of the first to die.

Property is valued at its fair market value for federal estate tax purposes. Fair market value is most often determined by an asset's highest and best use. This valuation can be detrimental for an estate that includes forestland.

Some relief is available for landowners. Forestland may qualify for special use valuation under Section 2032A of the Internal Revenue Code. If qualified, forestland can be valued at current use versus highest and best use. This is obviously an advantage for landowners near urban areas where land values are increasing. Landowners should carefully explore their options with an attorney, accountant and their forester.

Why Is Planning Necessary?

Estate plans are prepared to reduce estate taxes, to meet personal objectives, and to provide for liquidity to pay estate taxes. It is a prerequisite to proper planning to have a complete inventory of your assets, including reasonable fair market values and how each type of property is owned. Below is a simple example that illustrates how planning can reduce estate taxes using **Estate Forecast Model** software by Viewplan, Inc.

Before explaining the fact situation in this example it is necessary to understand the basic rules of our federal estate tax structure. Under current law, there is no estate tax due at death unless the decedent's taxable estate exceeds \$600,000. In addition, an unlimited marital deduction is available to the first spouse to die. The example discussed below will illustrate these basic principles as well as how to take into consideration the various ways property transfers at death.

Assume a husband and wife own the following assets: **Husband's Assets** — \$200,000 life insurance with wife as beneficiary and 800 acres of forestland at

TABLE 1 — How Assets Transfer at Death

METHOD	EXAMPLE
OPERATION OF LAW	Property owned jointly with right of survivorship such as stocks, bank accounts, real estate, etc.
CONTRACT	Named beneficiary on life insurance policy or IRA
WILL OR LAWS OF INTESTACY	All other property that does not pass by the prior two methods, such as personal property, real estate owned in decedent's name, or life insurance that is made payable to the estate.

TABLE 2 — Example of Property Included in a Gross Estate

Real Property <ul style="list-style-type: none">• Standing Timber• Land• House• Farm Buildings• Commercial Property• 1/2 of Property Owned Jointly with a Spouse	Personal Property <ul style="list-style-type: none">• Harvested Crops• Livestock• Equipment• Life Insurance (face value)• Stocks, Bonds, etc.• Retirement Accounts• 1/2 of Property Owned
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TABLE 3 - Summary of Effects of Estate Planning

Scenario	Husband's Taxable Estate	Estate Tax at Husband's Death	Wife's Taxable Estate	Estate Tax at Wife's Death	Net Estate to Children
1	\$0	\$0	\$1,200,000	\$235,000	\$965,000
2	\$400,000	\$0	\$800,000	\$75,000	\$1,125,000
3	\$600,000	\$0	\$600,000	\$0	\$1,200,000

\$400,000; **Wife's Assets** — \$250,000 of financial assets and miscellaneous property; and **Joint Assets** of a \$300,000 home with 100 acres of forestland at \$50,000. Refer to *Table 1* for a summary of each of the following scenarios.

Scenario 1: If the husband dies first with his will leaving everything to his wife, then his **gross estate** for federal estate tax purposes is \$775,000. This includes the Husband's Assets of \$600,000 plus one-half of the Joint Assets. Note that only the 800 acres is transferred to his wife by his will. The life insurance proceeds pass by contract and the jointly-owned assets pass by operation of law. The husband uses his unlimited marital deduction to transfer \$775,000 to his wife. Thus, his **taxable estate** is zero. In this scenario, the husband wastes the federal estate tax credit of \$192,800.

At the wife's subsequent death, assuming no increase in asset value, her taxable estate is \$1,200,000. Federal estate taxes due within nine months of her death would be \$235,000 leaving a net estate to the children of \$965,000. As we will see, this entire tax liability can be avoided with proper planning.

Scenario 2: A very popular plan to take advantage of the federal estate tax law is for the husband to change his will to transfer all of his assets to his wife, except for the maximum amount he can keep in his estate and owe no federal estate taxes. He then establishes a Credit Shelter Trust for the benefit of his wife during her lifetime with the remainder going to the children at her death.

The Trust is funded with the 800 acres which provides periodic income for the wife and would pass tax free to the children at her death. Only the 800 acres are controlled by the husband's will (remember, the insurance proceeds pass by contract and the joint assets by operation of law). He will receive a marital deduction

of \$375,000 for the transfer of the insurance proceeds and his one-half interest in the jointly-owned real estate. There is no tax due at the husband's death because his taxable estate is less than \$600,000.

At the wife's subsequent death, her gross estate is \$800,000 (\$1,200,000 minus \$400,000 in the trust). Federal estate taxes would be \$75,000. A savings of \$160,000 by using a simple trust created in the husband's will.

TABLE 4 — Value Increase of Timber Growing to Sawtimber

Age	14 Yrs.	28 Yrs.
Diameter	7"	12"
Pulpwood Value @ \$15/cord	\$0.00	\$3.45
Sawtimber Value @ \$150/mbf	\$0	\$12.75

Source: Alabama Cooperative Extension Service

Scenario 3: By making only one additional change, federal estate taxes can be avoided altogether. Assume the husband changes the beneficiary of his life insurance from his wife to his estate. The \$200,000 proceeds would then be controlled by his will and be available to fund the Credit Shelter Trust along with the 800 acres. There still would be no federal estate tax due at the husband's death. Because his wife's taxable estate is only \$600,000 (\$1,200,000 minus \$600,000 in the trust), she also owes no tax. The tax savings would be \$235,000 and the children receive the entire \$1,200,000 estate.

Unique Aspects of Forestland

In addition to reducing estate taxes, there are personal reasons for planning that may include continuation of family

ownership, prevention of forced sales, and a provision for professional management.

Forest management is a long-term venture. Timber increases in value as it grows from pulpwood to sawtimber. A rotation can easily surpass the life of the original owner. Continuity of ownership between generations allows timber to reach larger sizes and provide greater income. *Table 4* illustrates the increase in value of a tree allowed to grow an additional 14 years.

An estate comprised of mostly forestland can also have liquidity problems. Estate taxes are due within nine months of death. This time constraint may require timber to be sold quickly to raise revenue for estate taxes. However, forced sales may result in lower income depending on timber prices, which can vary dramatically. Depending on the amount of revenue needed for estate taxes, heirs may be forced to clearcut when a thinning would be more appropriate. Forced sales are not an optimal forest management practice. Further, selling the property may cause heartaches for families interested in preserving the ownership.

Planning can also provide for continued forest management. Foresters involved with the property prior to death can continue necessary management activities. This can be extremely valuable especially if the heirs live out-of-state or have little expertise in managing forestland. In addition, areas of special concern, such as wetlands or streamside management zones, can be protected by a forester familiar with the property.

Estate planning is necessary for all forest owners. There are significant benefits for your heirs both in terms of dollar savings and in their knowing you took the time to plan accordingly. Hopefully, the general information in this article will prompt you to begin your estate plan and preserve your assets for future generations. ☪

Alabama Forestry BMP Manual Available

by DON BURDETTE, Alabama Forestry Commission, Montgomery

Alabama's Best Management Practices for Forestry is now available from any local office of the Alabama Forestry Commission. Best management practices, or BMPs, are designed to show forest landowners, foresters and loggers how they can protect water quality during forest management operations.

The new manual begins by distinguishing between water quality laws and non-regulatory BMPs. State and federal laws make it illegal to place or allow pollutants into water. BMPs offer guidance for complying with those laws by keeping pollutants away from the water. The Forestry Commission strongly urges Alabama's forestry community to voluntarily and consistently incorporate forestry BMPs to protect the physical, chemical and biological integrity of water as required by law.

The new manual offers recommendations for seven phases of forestry: streamside management zones, stream crossings, forest roads, timber harvesting, reforestation, forested wetland management and revegetation/stabilization. Each section contains a brief narrative, color photographs and helpful tables to provide details on soil and water conservation measures.

The section on streamside management zones, for example, recommends that a vegetative strip at least 35 feet in width be managed as a safety zone near streams and lakes. The BMPs suggest that wider widths may be appropriate in some situations. The Forestry Commission also recommends that enough trees be left within 35 feet of permanently flowing streams to provide at least 50 percent shading of the ground around the stream.

The newly revised BMP manual was written by the Alabama Forestry Commission in cooperation with forest landowners and industry and in consultation with the Alabama Department of Environmental Management. Partial funding for the project was provided by the U.S. Environmental Protection Agency.



The newly revised BMP manual includes a section on streamside management zones.

Free preharvest consultations are being offered by the Alabama Forestry Commission as a new service to help landowners, loggers and foresters apply best management practices during forestry operations. The consultations will be based on the newly revised BMP manual just released by the Alabama Forestry Commission.

In addition to a copy of the manual, participants will receive a sample timber sale contract containing general BMP stipulations, as well as other commonly accepted administrative components. The sample contract can provide a basis for designing a more personalized contract for a specific property and set of circumstances.

Also included with the service is a copy of the Forestry Commission's BMP monitoring form to use as a checklist for compliance with BMPs and applicable water quality laws.

Interested persons should schedule an appointment with the local office of the Forestry Commission to visit a particular site and discuss the landowner's manage-

ment objectives for the property. The Forestry Commission representative will then be able to suggest options for attaining the desired results with minimal soil or water quality problems.

This project is also a cooperative venture with the Alabama Department of Environmental Management and the U.S. Environmental Protection Agency.

Consequences of not adequately protecting water quality could include reduction in Alabama's environmental quality, violation of current laws designed to protect water, and subsequent monetary loss from mitigation and punitive fines.

An additional concern is the very real possibility of even more regulations that would make BMPs mandatory and enforceable. In many cases all we have to do to make this happen is keep on harvesting timber without taking water quality or soil conservation into consideration.

The future of forestry in Alabama is up to all of us . . . for now. Please, use BMPs. ♣

“HANDS OF HEALING”

Theme for Soil and Water Stewardship Week

YOU CAN MAKE A DIFFERENCE!

Ten ways you can act to conserve our natural resources:

- 1. Plant a tree:** trees, shrubs, flowers and plants replenish the earth's oxygen supply, control erosion and provide habitat for wildlife.
- 2. Recycle:** recycle paper, glass, plastic, aluminum, scrap metal, motor oil and yard wastes. Buy recycled and recyclable products.
- 3. Conserve water:** Don't let water run when scrubbing pots, wiping counters, brushing your teeth or shaving. Install water-efficient faucet aerators and shower heads.
- 4. Save soil:** Prevent soil from washing or blowing away by establishing ground cover, such as grass, plants and trees, on unprotected soil.
- 5. Compost:** See if your city has a curbside leaf collection. If not, start your own compost pile where organic material, such as lawn clippings, can help create better soils for your garden.
- 6. Use Less Energy:** Set back your thermostat, insulate your house and water heater and buy energy-efficient appliances.
- 7. Apply Pesticides Carefully:** Follow label instructions carefully. Apply sparingly at the right time.
- 8. Reduce Consumption:** Turn off lights when not needed. Use public transportation, car pool, bicycle or walk—consolidate errands.
- 9. Reuse and Repair:** Use products that can be reused. Fix up things that are still usable.
- 10. Get Involved:** Become an Earth Team volunteer by contacting your local soil and water conservation district. Learn what you can do and share the information with friends and family. Many will learn from your example.

To properly care for our natural resources, everyone must do their part. That's why the Alabama Association of Soil and Water Conservation Districts is encouraging individuals, schools, churches, organizations and businesses to participate in the observance of Soil and Water Stewardship Week, April 25-May 2, 1993.

This year's theme, "Hands of Healing," suggests that individuals practice simple conservation measures such as setting back thermostats, recycling, conserving water, composting and planting trees. By following these examples, we will be healing our environment and setting a good example for others to follow.

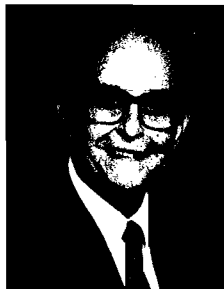
J. Trice Edgar, supervisor with the

Choctaw County Soil and Water Conservation District, and national chairman of Stewardship Week, hopes this observance will challenge people to begin, or continue, individual conservation actions that heal the area in which they live.

All 67 conservation districts in Alabama work throughout the year to encourage conservation and wise use of our natural resources. They invite you to join them in their efforts by putting into practice the 10 recommended measures listed here.

To learn more about Stewardship Week activities in your area, contact the conservation district office which is usually found in the telephone book under "government." ♣

MEMORIALS



John Bowden

TREASURE Forest landowner John Bowden died March 16, 1992, at the age of 81. After retiring as colonel in the U.S. Army, he returned to his native Monroe County. Colonel Bowden was an active participant in the management of his TREASURE Forest. He was named Outstanding Tree Farmer of the Year in 1979. A dedicated member of the Kiwanis Club, he was given several awards for his many years of civic and community service.



William Sam Bowden III

William Sam Bowden III, Monroe County TREASURE Forest landowner, died August 20, 1992. He was 63 years old. Mr. Bowden, a life-long resident of Monroeville, owned and operated a hardware store. As an active participant in community and civic affairs, he received many awards for his service. Mr. Bowden also spent much of his time managing his TREASURE Forest for timber and wildlife.

George Brooks Butler

George Brooks Butler, a TREASURE Forest landowner in Marengo County, died January 18, 1993, in Tuscaloosa. He was formerly a resident of Andalusia. An avid outdoorsman, Mr. Butler owned Canterbury Hunting Lodge in Demopolis. In 1992 he was named Wildlife Manager of the Year for Marengo County by the Alabama Soil and Water Conservation Committee. ♣

LANDOWNERS

LEGISLATIVE • ALERT

NATIONAL

by BILL IMBERGAMO and TERRI BATES

Washington Office, National Association of State Foresters



Change was a major theme of the 1992 presidential and congressional elections.

Under the banner of change, a new president was elected, and the biggest turnover in seats in Congress since World War II took place—113 new members to the House of Representatives and 11 new senators. For the first time in 12 years, the Democratic party controls both Congress and the White House. But what will actually change, and how those changes will affect non-industrial private forest landowners is still something of a mystery as 1993 is well underway.

Bush Administration Actions

Before looking at the changed political landscape in Washington, several actions taken by the outgoing Bush administration should be noted. First, former Environmental Protection Agency Administrator **William Reilly** decided to abandon attempts to adopt either the controversial 1989 or 1991 versions of the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, opting instead to stay with the earlier 1987 Manual. This will allow the National Academy of Sciences to complete a study ordered by Congress last year on the issue of wetland delineation, and allow the Clinton administration to enter this policy fray a little less encumbered. Another last action by Reilly will take methyl bromide, a chemical used extensively in forest nurseries, off commercial markets by the year 2000. Methyl bromide has been found to contribute to the depletion of the earth's protective ozone layer.

Also, in the waning days of his tenure, Secretary of Interior **Manuel Lujan**

announced that he would not finalize the Draft Recovery Plan for the northern spotted owl, whose listing as a threatened species has put a virtual halt to timber harvests from the national forests in the Pacific Northwest. On a related note, the USDA-Forest Service announced in early January that it was going to stop clearcutting on national forests in the Sierras, home range to the California spotted owl, which is not listed yet. The move to selection harvests will reduce the amount of timber harvested from those forests.

Finally, outgoing USDA Secretary **Edward Madigan** left a major reorganization plan for USDA on the table for debate. It called for streamlining the massive department, both at the local level and in Washington, by closing hundreds of offices around the country and consolidating 27 agencies down to 14.

New Administration Appointments, Plans and Issues

As Arkansas' governor for three terms, President **Bill Clinton** is familiar with the role private forestlands play in the nation's economy. Arkansas is a state rich in privately-owned forest resources, and they contribute substantially to the state's economy. He has supported and promoted both federal and state tree planting programs, including Arkansas' "Plant the Future" program, which established a "no net loss" policy for forestland and made planting an additional 10 million trees each year for 10 years a goal for his state.

Still, there were few specifics for forestry during the campaign months. Major environmental themes during the election were:

- Fighting pollution through market-based rewards and penalties.
- Focusing on reducing waste genera-

tion up front rather than at the end.

- Preserving places of natural beauty and ecological importance.
- Demonstrating international environmental leadership.
- Continuing the "no net loss" wetlands policy.

The closest President Clinton came to directly addressing a forestry issue during the campaign was to propose a Forest Summit to resolve the contentious debate in the Pacific Northwest over how to protect the endangered northern spotted owl and ensure economic stability for the communities that depend on timber from the same forests. During his campaign, Clinton endorsed the concept that the nation could have both jobs and the environment and argued that environmental quality is a foundation for economic development.

The Cabinet

As governor, Clinton sought balanced solutions to environmental problems. Clinton's choices for top advisors and cabinet posts may represent the balance he strives for. Clinton's choice for Secretary of Agriculture, **Mike Espy**, was a congressman from the Mississippi Delta. Espy advocated the use of natural resources (including forest resources) for economic development in his poor, rural district. Environmental organizations reportedly tried to block Espy's appointment to head the department, which oversees the USFS. As a member of the House Agriculture Committee, Espy supported commercial agriculture and was highly regarded by such major farm commodity groups as cotton and soybeans, two major crops in his district.

Once sworn in as Secretary of Agriculture, Espy immediately put on hold rec-

ommendations that would close hundreds of field offices. He stated that while he favored serious reform for the USDA, he felt that all reorganization efforts should start at the top, by reducing the agency's huge bureaucracy in Washington. He has strongly hinted that he intends to take a serious look at reorganization of the USFS.

Clinton's EPA administrator, **Carol Browner**, is known as a protégé of Vice President **Albert Gore**, who is noted for his own strong positions on environmental issues. Browner comes from Florida as the state's top environmental regulator and is said to have helped research Gore's controversial book, *Earth in the Balance*. During her confirmation hearings, Browner repeatedly stressed the Clinton campaign theme: that environmental protection and economic growth are not mutually exclusive, but fundamentally compatible.

Lastly, Clinton chose former Arizona governor and one-time presidential contender **Bruce Babbitt** to head the Department of Interior, which manages millions of acres of federal lands, and oversees operations of the U.S. Fish and Wildlife Service. Babbitt is known and well respected in the environmental community, where he has advocated a new "public use" ethic for Western public lands. Babbitt will appoint the director of the Fish and Wildlife Service, a decision that could have an impact on forestland management nationwide.

Personnel, Committee Changes Reshape Legislative Playing Field

Changes in Congress will also influence the amount of time and energy

Washington focuses on natural resource issues. With the departure of many in Congress—champions of environmental as well as industry concerns—and so many newcomers, it is difficult to anticipate how and when specific issues on the calendar will be dealt with. Changes in committee organization and membership also shade predictions. On the House side, some of the biggest changes came on the powerful Appropriations Committee. Rep. **Jamie Whitten** (MS), one of the most senior members of Congress and champion of farm programs and agricultural interests, was toppled from his chairmanship of the committee and replaced by Rep. **William Natcher** (KY). Whitten's old subcommittee on Rural Development and Related Agencies is now chaired by Rep. **Richard Durbin** (IL). The appropriations panel that oversees forestry issues remains in the hands of veteran lawmaker **Sid Yates** (IL).

The House Agriculture Committee underwent significant changes as well. The old Forests, Family Farms and Energy Subcommittee was dissolved. Forestry issues will now fall under the Special Commodities and Natural Resources Subcommittee chaired by Rep. **Charlie Rose** (NC) and will vie for attention among peanut, sugar and tobacco issues.

The Forestry 2000 Task Force leadership has had its own turnover. Co-chairmen **Sonny Callahan** (AL) and **Ron Wyden** (OR) will be joined by **Roy Rowland** (GA) and **Bob Smith** (OR). Membership of the Task Force in the last Congress surpassed 100 members. The co-chairs plan to recruit new members and hope the same level of interest will continue in this session.

In the Senate, the Agriculture, Nutrition and Forestry Committee was extensively reorganized. The old Conservation and Forestry Subcommittee was combined with the Agricultural Research and General Legislation Subcommittee, to be chaired by Sen. **Thomas Daschle** (SD).

Things will remain relatively unchanged in the Senate Appropriations Committee, with **Robert C. Byrd** (WV) retaining chairmanship. **Dale Bumpers** (AZ) will take over the Agricultural, Rural Development and Related Agencies Subcommittee.


Funding Levels for Forestry Programs

A number of forest management and protection programs for private lands made gains during the Bush administration. But if deficit reduction is seriously pursued by Clinton and Congress, those funding levels may stall unless they can be directly tied to job creation, another Clinton campaign promise. The new administration was encouraged to look at the strong contribution forestry makes to the nation's economy, and was reportedly impressed by the figures. The whole issue of forestry funding could become tied up with efforts to cut the budget of the USDA-Forest Service in light of its scaled-back timber program.

That is a rough picture of the new political landscape in Washington. The new members of Congress and the new administration are now beginning to feel the pressure to address a number of simmering conflicts that were left over from the previous administration. It's going to be a fun year! ♣

ALABAMA

by FRANK SEGO, Legislative Liaison,
Alabama Forestry Commission



Relax? . . . No tax? . . . Well, now, that's easy to say, but the "Wizard of Odds" says don't bank on that from an unpredictable legislature.

Not probable, but stranger things have happened.

This article was prepared the day before the current session began in February. At that time, reapportionment was to

be the key issue in a House and Senate torn between this plan and that plan, none of which suited the majority.

You will recall that in 1992 tax and education reform dominated the Regular Session until the candle blew out on the final night after some clever maneuvering in the Senate.

A beleaguered Governor **Guy Hunt** was not ready to relegate the reform package to the junk heap. Instead, he appointed

another task force to look further into the possibility of coming back with a more palatable menu for a January 1993 Special Session.

It was easier said than done, as the committee quickly found out, and the governor was just as quick to drop his plan for a Special Session. House Speaker **Jimmy Clark** said lawmakers didn't see sufficient public support to recommend the needed

(Continued on page 19)

THE STURDY OAK

by PAT WALDROP, Economic Development and Utilization Section, Alabama Forestry Commission

The sturdy oak tree has been admired and even worshiped for many centuries. The ancient Druids believed the oak had magical properties and incorporated the tree into their religious ceremonies. The City of Tuscaloosa is often referred to as "The Druid City," because of its abundance of beautiful oak trees. The Druids believed mistletoe growing on oaks also had mystical properties, and was prized for good luck. Supposedly, that's where we got the custom of stealing a kiss under the mistletoe. The English people still have an almost reverence for their English oak and it is their favorite wood for furniture.

Red and White Oaks

The range of the 450 species of oak is pretty much limited to the Northern Hemisphere with the exceptions being in the Andes mountains in Chile and a small group in Indonesia. About 80 species are

native to North America, with 58 of these reaching tree size. In Alabama, there are 37 species of oak, with 20 species considered important. If you find an oak you just can't identify with a good key, the chances are you've found a hybrid and not a new species. Being wind pollinated, some oaks will commonly hybridize. Oaks are separated into two categories—red oaks and white oaks. Red oaks always cross with other red oaks and white oaks always cross with white oaks.

Red oak leaves are bristle tipped, while white oaks aren't. Water oak, willow oak, and laurel oak are red oaks that sometimes lack bristle tips. The main difference between the two groupings is the wood itself. Red oaks have wide annual rings, while white oaks have narrow rings. The latewood (wood produced late in the growing season) of red oaks has few pores, while the white oak has very many. This makes the texture of white oak wood usually finer than that of the

coarse red oaks. The color of the heartwood is also much different, with red oaks being a reddish-brown and the white oak a tan or brown. The white oak wood also has closed vessels, which makes it excellent for cooperage. The heartwood of white oak is more decay resistant than that of red oak and has about the same decay resistance as the old heartwood of longleaf pine. Both woods are relatively hard, have excellent machining qualities, and are rated excellent in resistance to splitting in screwing and nail holding abili-

ty. Oaks are rated good in resistance to splitting in nailing and gluing.

Early Uses

The Choctaws, Creeks, Chickasaws, and Cherokees used the acorn and bark of the oak as much as the wood. The bark, especially from the chestnut oak, has a high amount of tannic acid, which is suitable for tanning hides. Acorn flour is quite easily made and early Europeans quickly learned this. The acorn can be eaten and a candy made by coating it with a sugar. The tannic acid must be leached out first, of course.

Early European settlers in Alabama and America found an abundance of oak and a wealth of uses for this durable wood. During the early Colonial times, settlers discovered an oak that was far superior for shipbuilding than their European oaks. Today the live oak is highly valued as a street tree or a shade tree, but in our early days the crown valued it very highly for use as hulls in ships. The crown blazed all the superior trees and made it a crime to cut them. In the early 1800s the U.S. acquired new stands of live oak with the Louisiana Purchase and the annexation of Florida. In an effort to protect these new live oak stands, Congress passed the Live Oak Act of 1831. Agents were appointed to identify and protect these trees. A 3,000-acre reserve on Santa Rosa Island near Pensacola was set aside. Many consider this the first attempt at forest management in the U.S. The use of metal in ships around the 1870s started a decline in wooden boats.

In the days before metal containers, the cooper, or barrel-maker, was an important part of the community. Most barrels were made of white oak during colonial times. Now containers and barrels are made of metal with only whiskey and wine barrels being made of oak.

Although oak is seldom used in construction now, in the pre-steel girder days, it was considered the ultimate building material. Before 1960, 90 percent of U.S.

This match is out.

Or is it?

Make sure your cigar is all burn

Only you can prevent forest fires.

Ad Council A Public Service of the USDA Forest Service and your State Forester.

homes had wooden flooring and oak was a popular flooring being both abundant and durable. Today, less than 10 percent of U.S. homes have wooden floors. The sixties saw a change in preference to carpet, plus the VA and FHA changed their lending regulations to allow carpet to be included in the mortgage price. Oak remains a popular choice for wooden flooring today.

Oak—especially red oak—has been used for furniture since the early years of European settlements and still remains extremely popular in Europe. Early European furniture makers found an abundance of red oaks and very few white oaks. American oak furniture manufacturers export more to Europe than anywhere else. The War of 1812 led to a 70 percent tariff on all imported goods and this led to the development of the U.S. furniture industry. The latest industry survey indicates there are 117 furniture operations employing close to 6,000 people in Alabama. With Alabama's abundance of oaks, this industry should continue to grow.

Low grade oaks are often utilized for

pallet material and mine timbers. By far the biggest use of low grade oaks is in the form of chips. These oak chips are mixed with other hardwood chips and sometimes softwood chips to make a variety of paper products. Oak is usually a major component of hardwood chips. With the advent of the computer and the need for higher quality paper, the use of hardwoods in paper production has increased dramatically. Over 15,000 people are employed in the pulp and paper industry in Alabama.

Demand for Oak Today

Since the wood differs in red oak and white oak, it is separated as lumber. The demand for both is expected to remain high in the domestic and the export market.

From a forest management viewpoint certain oaks are considered "select oaks" because of the quality of wood and volume. In the red oak subgenus, the northern red oak, cherrybark oak, and Shumard oak are considered "select." Select white oaks are the swamp white oak, white oak,

bur oak, swamp chestnut oak, and the chinkapin oak. These species should be favored in management plans. Any management plan for oaks should totally exclude fire. Even a light ground fire can cause damage to the wood.

The sturdy oak has been an integral part of our history and remains today as one of our most useful and popular trees.

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Landowners Legislative Alert

Continued from page 17

tax and education reform unless they were backed into a corner by a court order.

One poll, commissioned by a pro-reform group of Alabama business leaders, even found that the voters were distrustful of state government and could care less about tax reform.

So much for tax and education reform!

Now for the "good news." The legislature is under a federal court order to draw new legislative districts before the 1994 election. Lawmakers were given until April 5 to do so. Almost every legislator had his own idea of how the districts should be drawn. Most were fearful of losing part or all of their current districts and falling into unfamiliar waters where they would encounter a wave of unfamiliar voters. Even worse, some incumbents would be forced to run against each other.

Who Will Be Where?

As you read this, the battle over redistricting may still be going on. However, prior to the opening of the session, a legislative reapportionment committee did recommend a new set of districts that

would add six predominately black districts to the House and one in the Senate.

The hue and cry could be heard throughout the halls of the State House as Democrat Senators **Mac Parsons** of Hueytown and **Jim Bennett** of Homewood were pencilled in to a new district that was plush with Republican voters. Parts of their own districts would be left to create a predominately black district in Jefferson County that had no incumbent.

On the House side, the following recommendations were made:

Democrat Representatives **Victor Gaston** and **Ken Kvalheim** of Mobile were to be put in the same district, with a new black district to be formed in Mobile County; Democrat Representatives **Clarence Haynes** of Talladega (who made an unsuccessful bid for a Senate Seat) and **Bobby Crow** of Anniston would go into the same district, leaving their old district to become a black-dominated district in northeast Alabama with no incumbent; Democrat Representative **Frank Rogers** of Graysville and Republican Representative **Tony Petelos** of Pleasant Grove to go head-to-head in the same district, thus creating still another black district in Jefferson County.

Those were but a few examples of redistricting as debated in the early going of this session.

Welcome to the Legislature

A TREASURED Forest welcome goes out to Senator **Dell Hill** of Alpine who was chosen by voters of Talladega, Coosa and Elmore Counties in a special election held in January to fill the vacancy created by Senator Jimmy Preuitt's appointment as Probate Judge of Talladega County. Senator Hill is a newcomer to politics.

A similar welcome goes to **John Knight** of Montgomery, who assumes the District 77 seat in the House following the untimely death of Representative **John Buskey**. Rep. Knight is a seasoned politico, having served on the Montgomery County Commission and as an unsuccessful candidate for the new congressional seat won by Senator **Earl Hilliard** of Birmingham.

Your next Legislative Alert will focus on the events of the 1993 Regular Session, as well as a preview of the 1994 election, which promises to be full of surprises as candidates begin lining up for statewide offices. 'til then. . . ♣

A Thing of Beauty

by TERESA HUGHES, Colbert County, and BILLY RYE, Alabama Forestry Commission, Florence

When mentioning the Tennessee Valley, one conjures thoughts of cotton, jazz music, red clay, and old antebellum style homes. The Bettie Pruitt Evans property located in Colbert County directly reflects the heritage of this region. Unlike many Alabama landowners, Mrs. Evans manages her TREASURE Forest primarily for aesthetics and recreation. Her philosophy was acquired by a deep appreciation for the past and a gifted eye for natural beauty.

Mrs. Evans lives in and maintains a lovely antebellum home just south of Leighton. This stately place, otherwise known as "Pruitt Oaks Plantation," is listed in the Historical Register of Alabama. In addition to the plantation house, there is a miniature chapel with an altar, pews, a Bible, a handcrafted cross, and a working bell. The chapel is located next to the family cemetery and its registration book records visitors from all over the United States. There is also a smokehouse, cook's



Mrs. Evans and associates of the Forestry Commission's Colbert County office stroll through a stand of oaks which predate the antebellum home.



Mrs. Evans stands at the entrance to Pruitt Chapel.

quarters, a horse-drawn cotton gin and enormous trees which date back to the construction of the house in 1835.

Mrs. Evans meticulously maintains the grove of large trees around and immediately adjacent to the plantation house. All of these trees are large; however, one of her sugarberry trees was recently named state champion for being the largest of its kind known to exist in Alabama.

In addition to maintaining the majestic grove of trees around the house, Mrs. Evans plants trees, shrubs and flowers, which provide spring blossoms and beautiful fall colors. There are many trails and footpaths which lead into and through the forests of her property. She enjoys maintaining and walking through these stands.

Mrs. Evans possesses a strong land ethic and feels that education of our citizens is of utmost importance if we are to sustain our forest resources. She particularly likes working with children and is an active member of the Colbert Forestry Planning Committee. With her philosophy and hands-on management she has truly created a thing of beauty. ♣

One With Nature

by PAUL HUDGINS, Butler County Supervisor, and
MADELINE HILDRETH, Staff Forester, Alabama Forestry Commission, Brewton

The Inge TREASURE Forest offers a peaceful family retreat from busy Mobile life. Several times each month and on holidays, Jane and George Inge and their three girls head to Butler County for peace, quiet and family fun.

George originally became interested in forestry while stationed in Germany. After spending time in Butler County with Jane's father, the late McWilliams Carter, George's interest in forestry grew. He said of the rolling Butler County timberland, "I loved it. I was hooked."

The Inge's believed that with a Butler County retreat the family could have the best of both worlds—city life in Mobile and country weekends. The family soon purchased 40 acres of land adjoining property that had been in Jane's family since 1817. Additional acreage was later purchased, and the Inges now have a 900-acre TREASURE.

A perfect site was located for a cabin: a hill overlooking a scenic lake. The Inges refused to let obstacles prevent them from erecting a cabin on that hill. First, a log cabin had to be located. After some searching, a friend, Sage Smith, sold the Inges a cabin he had built in nearby Monroe County. The cabin was slowly erected on the property. Since the Inges wanted a truly rustic atmosphere with all the comforts of home, construction was a prolonged process.

Because the cabin was five miles from the nearest power line, it was unrealistic to have power run to the site. Two generators, one propane and one diesel, along with solar panels, supply the cabin with power.

Dr. Inge's favorite spot in the cabin is a widow's roost in the roof. The private area is accessible through the sleeping loft. Here he can relax with a cup of coffee and watch the deer and turkey. Although it was originally planned as a hunting stand, at the insistence of his girls, it is used strictly for viewing.

All of the property is productive. Numerous hardwood stands left along creek banks and natural hardwood pockets scattered throughout the property offer good wildlife habitat as well as adding natural beauty. The stands of towering pines are managed for timber production. Several hundred acres of young pines have been planted for future sources of timber.

When trees are not feasible, the land is still productive. An area covered in kudzu led to cattle production as a control measure. It seemed impossible to establish a good stand of pine on a few acres. Rather than ignore the area, chicken houses were erected for poultry production.



Two generators and solar panels supply the Inge's cabin with power.

The TREASURE Forest offers hobbies for every family member. George, an avid outdoorsman, especially enjoys hunting with members of the hunting club. The land is under the Deer Management Program. A forester assists in the management of the forest, but Dr. Inge is involved in every aspect of the property management. "I'm very interested in the biology of the forest. If a tree dies, I like to figure out why," explains Dr. Inge.

Jane is able to visit family and old friends in nearby Greenville and enjoy country life. She loves spending time in the area of so many happy childhood memories. Her children have the opportunity to have the same wonderful times she had.

The girls, Virginia, Elizabeth and Eleanor, love to spend time on the TREASURE Forest. Friends from Mobile are often invited for a weekend. The favorite pastime is riding 4-wheelers on the many trails through the forest.

A poem written by Jane in memory of her father welcomes guests to the cabin. It expresses the family's feelings for their Butler County retreat:

*"Like a man we know
This cabin stands
Tall and strong
One with nature
Kind and warm
A haven of peace and rest
We are safe in its arms." ♣*

It's Worth the Extra Effort

by GARY COLE, Monroe County Supervisor and
MADELINE HILDRETH, Staff Forester, Alabama Forestry Commission, Brewton

On the banks of the Alabama River in southern Monroe County lies Bowden Farms. The 986 acres of fertile river bottomland has always been productive, either in timber or cropland.

For many years, crops produced on the land were shipped down the river from Bowden's landing. Over the years, farming became less profitable for the Bowdens, and croplands were slowly converted to timber. The landowners worked closely with government agencies and received assistance for planting trees.

Bowden Farms is a family operation. All members benefit from the profits of the forest. For the past 20 years, regular thinnings have produced annual dividends. According to Sam Bowden, his father, William, liked shareholders to receive a check at the end of each year to remind them that "it's worth the extra effort."

With assistance from forester Claude Swift, William Bowden and his brother, John Bowden, played major roles in the property's management until their recent deaths. Because of their commitment to good stewardship, Bowden Farms was certified as a TREASURE Forest in 1983. Under the supervision of Mr. Swift, timber remains the farm's primary management objective. Leasing hunting rights to a local club supports wildlife, the secondary objective.

On Bowden Farms, small problems are quickly corrected. The management scheme encourages a little extra effort early on to prevent any major obstacles. For instance, roads are maintained on a continuous basis and measures are quickly taken to stop



Small pines were staked after a windstorm bent them to the ground.

and prevent erosion. During southern pine beetle outbreaks, infested areas are harvested in a timely manner to prevent spread. Although several small spots have been affected, it has been unnecessary to clear any large areas.

A 30-acre field was converted to a pine plantation under the CRP program. Three years later, a severe windstorm caused some of the small pines to be bent to the ground. William Bowden and Forester Claude Swift surveyed the damage. They found the wind had caused random damage to approximately one-third of the trees. The damaged trees were bent, but not uprooted. After considering the amount and random pattern of damage, the cost of replanting and growth loss, it was decided to put forth a little extra effort and save the stand.

In an effort to straighten the trees, stakes, made with a notch cut in one end, were used to prop each sapling back to a normal state. A two-man crew with a four wheeler was

used to put the props in place. The crew went down each row of trees throughout the plantation.

The stakes supported the trees and eventually, they straightened and stood erect when the stakes were removed. The cost of the operation was approximately 25 cents per tree. Considering the loss of growth volume or cost of replanting, the project was worthwhile. The procedure, though experimental, was a success.

Bowden Farms continues to produce quality timber and wildlife. Its aesthetic beauty and recreational opportunities are obvious reminders that it has been worth the extra effort. ♣

Pennywinkle Farm — A Story of Commitment

by JOHN TYSON, JR. and TIM BUTLER, Alabama Forestry Commission, Talladega

Pennywinkle Farm, located at Fayetteville in Talladega County, is owned by Jimmy and Chris Pursell, who live on the property. Part of it has been in Chris' family since 1853. Both of the Pursells are proud of Pennywinkle Farm and see its wise management not only as a pleasure but as a Christian responsibility. They feel that God cares about how people treat His world. They say that they see good stewardship of the land as not only being good business but also as a way of serving the supreme being.

There are now about 2,000 acres in the tract, which is almost evenly divided between forest and open land. There is much diversity in the forestland. There are stands of cove-type hardwoods, upland hardwoods, natural pine stands and planted pines. Both of the Pursells actually prefer hardwood because of its value as wildlife habitat and its fall color. Some of their land is better suited to pine, however, and they manage pine on the areas that are true pine sites. Their silviculture is based on single tree selection.

Recreation is an important part of Jimmy and Chris' management program. There is an extensive network of trails on the farm that are used for walking. Organized groups from churches, Boy Scouts, etc., can arrange to hike or study nature on the farm.



Chris and Jimmy Pursell receive their TREASURE Forest sign and certificate from John Tyson of the Alabama Forestry Commission.

The Pursells plant wildlife food plots each year that benefit many species of wildlife. One species that acquires a great deal of attention is the mourning dove. Jimmy hosts several dove shoots every year that are attended by his friends, employees, and customers. All of those who hunt on the tract look forward to seeing dove season come.

Mr. Pursell is the head of Parker Fertilizer Company in Sylacauga. The customers that he brings to Pennywinkle Farm are from many different states and they have an opportunity to see much that is good about Alabama.

In October 1991, approximately 60 people had the oppor-

tunity to visit Pennywinkle Farm when the Talladega County Forestry Planning Committee sponsored a forestry field day there. Four sites were visited by the group, which was shuttled around on farm wagons and tractors. Participants were informed about hardwood management, the TREASURE Forest program, attracting wood ducks and coyote control. After the tour and a lunch provided by the Talladega Farm Bureau, the Pursells received their TREASURE Forest sign and certificate. It's clear that the Pursells are committed to practicing good stewardship on their property, and hosting a tour like this one is just one of the ways they illustrate it. ♣

SOIL COMPACTION, HARDPANS, AND TREE GROWTH

by TIM L. GOTHARD, Alabama Forestry Commission, Montgomery

Marginal cropland and idle pastures are commonly converted to forest stands, particularly in the southern states. Objectives driving such changes in land-use include soil conservation, water quality protection, and increased profitability. The first two reasons have been goals behind federal programs such as the Soil Bank and Conservation Reserve; the third being the motivation of many private landowners seeking improved monetary returns from a particular piece of land. However, simply planting trees does not ensure greater land productivity or profitability. Site characteristics directly affect the success of the new forest stand. One soil feature often associated with cropland and pastures is soil compaction, particularly hardpan. Special treatment must be used to allow optimal stand development on compacted sites.

What Is a Hardpan?

Pressure applied to the ground surface causes soil particles to become more tightly packed. When this pressure forms a highly compacted layer, a hardpan (also called a traffic or plowpan) is produced. With row-crop land, the extensive equipment traffic and tillage necessary for crop production repeatedly applies ground pressure and often results in the development of hardpans. Usually found at the tillage depth, hardpans may vary from field to field, but most often are within 12 inches of the surface. Compaction due to long-term livestock traffic typically produces shallow hardpans that are just as significant.

The degree of compaction that results from pressure applied to the soil varies with soil wetness and type. Soils more readily compact when wet, and although

all soils are subject to compaction, the degree of compaction and occurrence of hardpans is greater in soils with a sandy loam or silt loam texture than those composed primarily of clay.

How is Tree Growth Affected?

The effects of soil compaction and hardpans on trees result from a combination of two primary conditions found in compacted soils: 1) increased physical strength, and 2) reduced pore space.

Soil strength of hardpans presents tree planting problems that may be detrimental to both seedling survival and growth. Creating hand planting slits of adequate depth becomes more difficult on sites having hardpans within about 8 inches of the soil surface. When slits are too shallow J, U, and L-rooting will result. Similarly, machine planters are prevented from riding at the proper depth and result in sweep-rooted and shallow planted seedlings. Research has shown that improper root alignment during planting can be detrimental to seedling survival and result in slower early growth.

Compacted soil also creates a barrier to root growth which restricts the trees effective rooting zone. This forces tap and lateral roots to spread out horizontally in a more confined area than would normally be available. Restricted rooting zones can limit the amount of water and nutrients available to seedlings, leading to survival problems and less than optimal growth. If ideal moisture conditions prevailed in the zone above the hardpan, problems would be minimal. However, ideal conditions rarely exist for considerable periods even in unrestricted rooting zones.

The reduced amount of pore space in compacted soils results in poorer soil drainage at the point of the hardpan.

Water will drain at a much slower rate through the hardpan than through the soil above. In essence, the hardpan acts as a subsurface dam blocking the movement of water through the soil. This effect can result in increased moisture stress in two forms: 1) moisture stress due to excess water, and 2) moisture stress due to lack of water.

When the amount and duration of water in the soil is sufficient to restrict needed oxygen uptake by tree roots, excess moisture stress occurs. This event can be induced by the presence of a hardpan and cause trees on a compacted site to suffer from excess moisture stress while trees on an uncompacted site do not, even under the same rainfall conditions. Considering a site with a hardpan at 8 inches, the top 8 inches will contain more water than the top 8 inches of a similar site having no hardpan. This occurs since the hardpan restricts the flow of water through the soil whereas the uncompacted site allows for normal movement.

One form of logic would lead us to believe that since more water is held in the top 8 inches of soil on the hardpan site, it should be more capable of dealing with a rainfall deficiency. But this is not the case. Although the compacted site may be capable of holding more water in the same upper layer of soil, tree roots on the uncompacted site are not restricted and can spread out to draw water from a larger and deeper soil area. Since the rooting zone on the compacted site is restricted to a shallower soil depth, the amount of time necessary to dry out the soil water in the rooting zone is less than that for the unrestricted rooting zone on a site without compaction. This increased drying effect can result in moisture stress due to lack of water.

An additional disadvantage of soil compaction is the lower infiltration rate (rate at which water moves into and through the soil). Poor infiltration, particularly on shallow layered livestock sites, results in less water entering the soil during rainfall periods. Less rainfall from thunderstorms will actually enter the soil during the spring and summer months, when water supply to seedlings is critical. The excess water will result in greater overland flow and increase the potential for erosion.



Hardpans often affect cropland, an example being this corn field.

Detecting a Hardpan

Checking for the presence of a hardpan is simple; a push-probe (Figure 1) is all you need. Check for hardpans when the soil is fairly dry (dry enough to operate farm equipment on the site, but not wet or extremely dry) by inserting the probe 2-3 times at various locations across the field. As the probe is inserted, the force required to move it through the soil should remain about the same until the hardpan is reached. At the

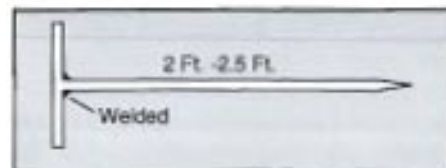


Figure 1: A push-probe can be used to detect a hardpan.

beginning of the hardpan, the force required to push the probe further will dramatically increase until it passes through and moves more easily. The hardpan depth can be determined by measuring the distance between the inserted end of the probe and the point where the probe shaft was at the soil surface. When the probe reaches the hardpan, mark that point on the shaft, and again when it just breaks through. Pull the probe out and measure the distance between the end that was inserted and the first mark that was made; this is the depth of the hardpan. Measure the distance between the two marks that were made to determine the thickness of the pan.

Correcting the Problem

Hardpans detected within 12 inches of the soil surface should be subsoiled. Subsoiling can be performed through the use of a single or multiple shank instrument pulled behind mechanized equipment such as a farm tractor, dozer, or skidder; most mechanized tree planters will not adequately shatter a hardpan and should not be used as a substitute to subsoiling. Approximately 35-40 horsepower per shank is required. Shanks should be a minimum of 18 inches long to ensure fracturing of hardpans down to 15 inches below the soil surface.

Performing subsoiling well in advance of tree planting is critical. Disturbance from subsoiling forms air pockets that are detrimental to the survival of planted seedlings. Subsoiling should occur 30-60 days in advance of tree planting to ensure that rainfall amounts are sufficient to cause soil settlement and removal of air pockets.

When planting, trees should be placed in the subsoil rows. Subsoiling does not provide total fracture of the hardpan between rows; planting away from the subsoil rows may completely erase the benefit of the subsoiling effort.

For tree planting performed under the federal or state cost-share programs, the Alabama Forestry Commission requires subsoiling prior to tree planting on openland sites having a hardpan within twelve inches of the soil surface. The treatment

must be performed far enough in advance of planting (30-60 days) to allow for soil settlement and followed by planting in the subsoil rows. Use of machine tree planters, regardless of planter foot size, as a substitute for subsoiling is not allowed.

Summary

Converting marginal cropland, idle pastures, and other open lands to forest stands can be a productive and profitable practice. The success of the conversion depends on characteristics of the individual site. Soil compaction in the form of hardpans poses a threat to survival, growth, and profitability of the new forest stand. Subsoiling offers an avenue for improving adverse soil conditions and enabling greater site utilization.

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Snapshots of Alabama's NIPF Owners

by JOHN C. BLISS, Extension Forestry Specialist, Alabama Cooperative Extension Service, and Assistant Professor, School of Forestry, Auburn University

Every now and again, one of my three children will walk into the living room with a big, thick photo album in tow and bright, shining eyes, and begin with, "Daddy, do you remember the time that . . . ?" This is usually followed by a rustling of newspapers and a scrunching of bodies on the couch, as the other two children fight to get the best seat for viewing. When everybody's as comfortable as four bodies on a two-seater love seat can be, we begin turning the pages and reliving the rainy camping trip, the hike to the mountain snowfield, opening Christmas gifts at Grandma's. Each snapshot has captured a joyful or wild or weary moment, pickled it, and put in on the pantry shelf from which it can be retrieved months or years later and hauled up to the living room couch to be experienced again.

A new publication from the Alabama Cooperative Extension Service is a photo album of sorts. In addition to photographs, it contains statistical "snapshots" of what 731 nonindustrial private forest owners thought on an evening in 1991 when their telephones rang and a stranger started asking them questions about their forests. For the survey, funded by the Alabama Forestry Planning Committee and administered by the Social Science Research Center at Mississippi State University, forested tracts throughout the state were selected at random. Then the tract owners were identified and telephoned. During the interviews we asked a series of questions about the owners, their forests, past forestry practices, and opinions about forestry issues. We even included a ten question forestry quiz to learn how much these forest owners know about forests and the practice of forestry.

Information about these owners and their forests is of great interest to anyone involved in forestry in the state. Why? Together, nonindustrial private forest owners, or NIPF owners, as they're

known, own over 15 million acres of forestland: almost 70 percent of the forestland in Alabama. Decisions made by NIPF owners influence the quality of our environment, the appeal of roadside landscapes, and the vitality of the forest products industry; the state's largest manufacturing industry and second largest manufacturing employer. Most of the wood used by the pulp and paper, lumber, and related forest product companies is harvested from NIPF lands.

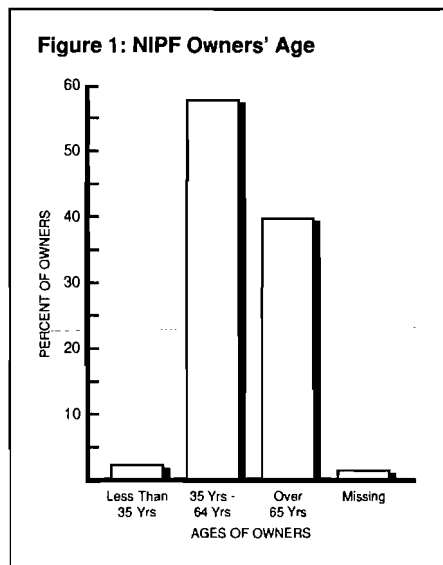
two percent of the owners in our study are less than 35 years of age, while about 40 percent are 65 years of age or older. Not surprisingly, almost half (47 percent) are retired. This indicates that quite a change has occurred over the past 20 or so years since S.I. Somberg conducted the last major study of Alabama's NIPF owners.

Another significant change over the past two decades has been in the educational attainment of Alabama's forest owners (see Figure 2). Whereas only 16 percent of the owners surveyed in 1971 had a college degree, 42 percent of the owners in the present study are college graduates. In fact, more of the owners we interviewed attended graduate school than didn't finish high school!

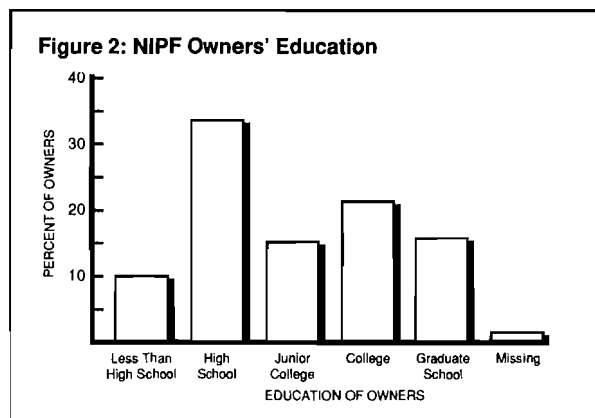
However, information on forests and forestry is apparently not a part of most owners' education. Fewer than one half of the owners passed the forestry knowledge quiz, which included questions about basic forest ecology, management practices, and forest ownership in Alabama. Quiz results point out widespread misconceptions about forest regeneration, use of herbicides, and other topics related to forestry.

Limited knowledge of forests and forestry does not prevent folks from holding and expressing strong views on forestry issues. These opinions are perhaps the most interesting aspect of the survey. If they interest you, ask your

county Extension Agent for a copy of "Snapshots From a Family Album: Alabama's Nonindustrial Private Forest Owners," Alabama Cooperative Extension Service Circular 788. Then pour yourself a cup of coffee, make yourself comfortable on the couch, and enjoy paging through these photographs and statistical snapshots of the state's forest owners. ☘



One important observation from our study is that Alabama's forest owners are getting on in years (see Figure 1). Only



Talladega Co. Targeted for Fire Prevention Project

by DOUG SMITH, Alabama Forestry Commission, Montgomery

A portion of Talladega County has been selected for an intensive effort to help reduce the number of wildfires in the area. The project area is the northwest part of the county, bordered on the west by the Coosa River, while the eastern side runs generally from Stemley, to Howells Cove, to Renfro, down to Alpine, and over to Grasmere.

This area, approximately 100 square miles, has historically had a high occurrence of forest fires. These fires are often a threat to life or property and reduce the value of property and the quality of life. In addition to damaging the community, the large number of fires places a strain on the fire suppression capability of the Alabama Forestry Commission.

The county office for the Alabama Forestry Commission is located in Waldo. The supervisor is Arthur Hitt, a graduate forester with responsibilities in forest management, fire, urban forestry, public relations, forest insect and diseases, wildlife habitat, ecological concerns and many other similar projects. The AFC cooperates with forest industry, but most of its responsibilities are directed towards the private landowner.

There are two fire suppression units assigned to the county. A unit consists of a crawler tractor with fire plow and a large, flat bed truck to haul the tractor. During fire season—late fall, winter and early spring—four rangers are assigned to the two units. One two-man team with a suppression unit is assigned to the southern half of the county and the other team and equipment is assigned to the northern half. They work together as necessary on large or multiple fires.

The size of Talladega County is about 39 miles from the Coosa County line to the Calhoun County line and 26 miles from the Coosa river to the Clay County

line. This is about 753 square miles, or almost one-half a million acres. Reduce this area by the acres in towns and in the Talladega National Forest, which handles its own fire suppression. Assume that all the remaining area is forest or fields and subject to a wildfire. This is a tremendous area and responsibility for two tractors and associated personnel. Not only is there a large manpower to area ratio but AFC personnel must respond 24 hours a day, 365 days a year. Many people would be surprised at how many fires occur in the middle of the night, on weekends and on holidays.

So what can be done to help? The area of the county cannot be reduced, and AFC personnel and equipment are limited by budgets. Volunteer fire departments will be emphasized to help in suppression and education but the only practical, remaining solution is to reduce wildfires. This would reduce the current fire suppression burden which is borne by the AFC, increase property values, and free Commission personnel to better serve landowners and taxpayers through a variety of other valuable services.

In an effort to reduce wildfires, the AFC applied to the U.S. Forest Service for a grant to conduct an intensive fire prevention effort in Talladega County. The grant was approved and a plan has been developed and implementation has begun. Since county resources are already stretched, a staff forester from the AFC State Office in Montgomery was assigned to be project coordinator for the effort.

A list of activities was developed and personnel were assigned to accomplish those tasks. Personnel included the Project Coordinator as well as AFC staff personnel in fire prevention, public relations, volunteer fire departments as well as support from the county staff.

Fire prevention projects include but are not limited to the following:

- school programs for students and teachers;
- contacts with churches;
- community meetings;
- door-to-door contacts;
- message drops from aircraft that detect and observe fires;
- radio programs;
- newspaper and magazine articles;
- Fire Prevention and Arbor Week programs;
- a mobile office stationed in the community for interaction with the public;
- literature handouts;
- an effort to increase forest management and therefore have a greater stake in the protection of the forest.

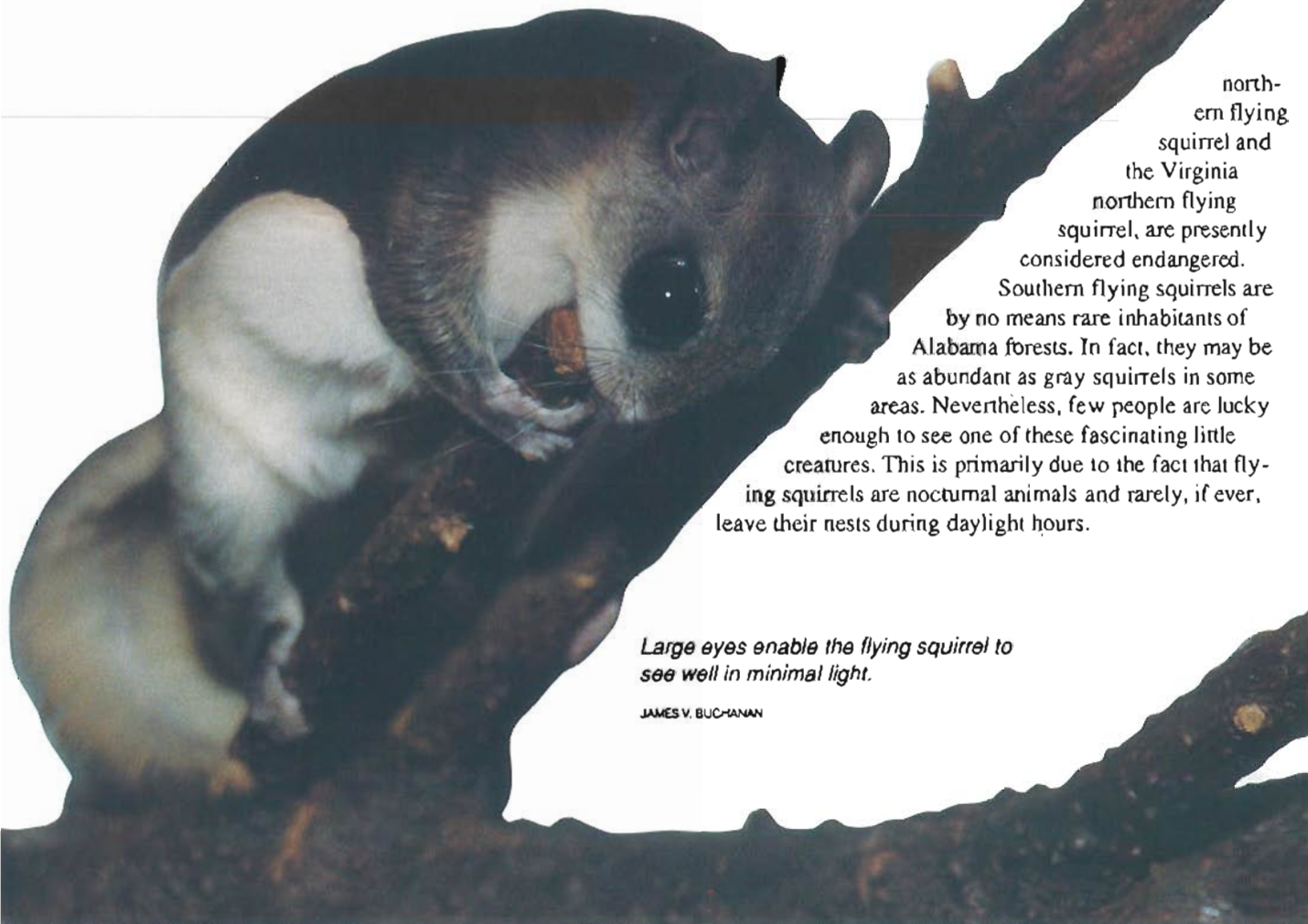
These public relations programs will be supplemented with an aggressive law enforcement effort. Fires will be investigated and responsible parties prosecuted. This could range from paying suppression costs to paying for a citation to court proceedings for misdemeanor or felony charges. Officers will be patrolling on a frequent basis. Roadblocks will be utilized at strategic locations and extra enforcement personnel will be utilized during critical periods. Fire laws will be publicized in an effort to gain compliance and reduce the need for prosecution.

The public is invited to call, visit the AFC office or meet with personnel in the project area. We all ultimately suffer from wildfires. Therefore, we should all play a role in their prevention. Talk to your friends and neighbors. Remind yourselves that we should all be good stewards of the land, and this includes preventing wildfires. 🌲

A FLY-BY-NIGHT OPERATION

by SUZANNE HATTEN

Only two species of flying squirrels occur in North America. The range of the southern flying squirrel (*Glaucomys Volans*) covers nearly the entire eastern half of the United States. Its western edge extends as far as the prairie region, with its northern limits reaching into Canada and its southern limits approaching the tip of the Florida peninsula. The northern flying squirrel (*Glaucomys sabrinus*) occurs primarily in Alaska, Canada, and the extreme northern portions of the lower forty-eight. Isolated populations of the northern flying squirrel also exist, however, in the southern Appalachian Mountains, the Black Hills, the southern Rocky Mountains, and the Sierra Nevada. Although the northern flying squirrel is somewhat larger than its southern counterpart, it is less aggressive and less successful. Two subspecies of the northern flying squirrel, the Carolina



northern flying squirrel and the Virginia northern flying squirrel, are presently considered endangered.

Southern flying squirrels are by no means rare inhabitants of Alabama forests. In fact, they may be as abundant as gray squirrels in some areas. Nevertheless, few people are lucky enough to see one of these fascinating little creatures. This is primarily due to the fact that flying squirrels are nocturnal animals and rarely, if ever, leave their nests during daylight hours.

Large eyes enable the flying squirrel to see well in minimal light.

JAMES V. BUCHANAN

Physical Characteristics

One of the most striking characteristics of flying squirrels is their large, protruding eyes. These large eyes enable flying squirrels to see well in minimal light. The silky fur of southern flying squirrels is grayish-brown above and white below. Their long, flattened tail probably aids in stabilization during glides. The most distinguishing characteristic of flying squirrels, however, is the patagium. The patagium, or gliding membrane, is a loose piece of fully furred skin which extends from the wrist to the ankle on each side of the body.

Flying squirrels do not actually fly—they glide. As the squirrel prepares for a glide, a series of rapid head movements, up and down and from side to side, are used to judge distance and direction. When the glide is launched, the squirrel extends its limbs and in doing so spreads its gliding membranes. Flying squirrels control the direction of their glides by raising or lowering their arms. Turns of over 90 degrees in mid-air are possible. Often several turns will be made during a single glide. A glide launched from the top of a tall pine tree may extend for over 150 feet. Glides of 150 feet or more are not uncommon and record glides of up to 100 yards have been reported. The glide takes an upward direction as the landing site is approached. This presumably aids in speed reduction and prevents injury to the squirrel. Acting as shock absorbers, the squirrel's outstretched arms make first contact with the tree as it lands.

Habitat

Southern flying squirrels are somewhat opportunistic when it comes to their habitat. Although they typically prefer mature hardwood forests, they are also commonly found in mixed pine-hardwood areas in Alabama. They feed primarily on a nut diet, consisting mainly of acorns and hickory nuts. Flying squirrels are, however, the most carnivorous of all the North American squirrels. In addition to their nut diet, they have been known to eat insects, birds, bird eggs, and small rodents such as mice.

In the southern part of their range, flying squirrels nest in both cavity nests and outside leaf nests. Cavity nests are built in the hollows of trees, usually in old woodpecker holes. Outside leaf nests are



DAVID H. NELSON

The entrance hole in a nest box for flying squirrels should be on the side of the box in the upper, rear corner.

similar in appearance to the common gray squirrel nest but are smaller and more compact. Flying squirrels probably abandon cavity nests for outside nests during the hotter summer months. In either case, the nests are usually constructed of shredded bark interwoven into a cup or ball-shaped structure. Leaves and pine straw are commonly placed beneath or atop this central structure. In the case of outside nests, small twigs and leaves constitute the outer framework of the nest. Flying squirrels are social animals and more than one individual commonly occupies a nest. During the winter, large aggregations occur in order to conserve body heat. Aggregations of 20-50 squirrels in a single nest have been reported in the colder parts of their range.

In Alabama, southern flying squirrels usually produce litters twice a year. Peaks in births occur from mid-August through September and from January through February. One to seven offspring may be produced, although three or four offspring is most common. Typically, late-summer litters are larger than those of winter. The young are born completely naked and blind and are totally dependent upon their mother. Young squirrels emit a high-pitched cry when distressed. A

mother squirrel will retrieve a crying baby with little apparent regard for her own welfare. In fact, she will remove a baby squirrel from a human hand with little hesitation. This retrieval instinct is so strong that mother squirrels will even retrieve babies which are not their own. Young flying squirrels open their eyes at approximately 27 days of age. Weaning may occur at six to eight weeks of age, although young often remain with their mothers for much longer.

Attracting Flying Squirrels

Although flying squirrels are nocturnal, you may still be able to see them. It would prove difficult, if not impossible, to catch a glimpse of a flying squirrel in the woods at night. You can, however, entice the squirrels to come to you. The best way to accomplish this feat is by putting up a feeding station. A feeder can be made with little expense. A wooden board nailed to the trunk of a tree approximately 6 to 8 feet above the ground is all that is needed. Pecans, peanuts, and sunflower seeds may then be placed on the board. The squirrels should discover the new source of food quickly, usually within a few days. Once they become accustomed to eating there, you can count on their nightly appearance.

Another way to attract flying squirrels is by putting up nest boxes. The boxes should have the following internal dimensions: 6 inches wide x 6 inches deep x 12 inches tall. The entrance hole should be placed on the side of the box in the upper, rear corner (so that it will be close to the trunk of the tree). It should be only 1³/₄ inches in diameter in order to discourage the larger gray and fox squirrels from taking up residence. The nest boxes should be installed 12 to 15 feet above the ground on suitably large trees. Flying squirrels readily use nest boxes and may be seen entering and leaving the boxes during the night. These creatures are quite inquisitive and have a variety of fascinating behaviors. You will find that squirrel watching can provide hours of entertainment. ♣

Envisioning an Urban Forest

by NEIL LETSON, Urban Forestry Section Chief, Alabama Forestry Commission

As Alabama approaches the 21st century, thoughts are beginning to turn toward optimism and excitement. The next century is causing many of us to look at how our state will respond to an ever changing world and people. The measure of our success will depend a lot on how well we prepare during the next seven years.

Planning is the key in this preparation. Nowhere is this truer than with our forest resources. Increasing public demands and ever changing land uses will continue to influence how our state's forest treasure will be used to satisfy the needs of its people. Natural resource managers, landowners and users will need to cooperate toward developing answers to this issue.

A new dimension to this challenge is the urban forest. Insignificant only a generation ago, the number of acres incorporated and classified as urban is rapidly expanding. In Alabama, almost 8 percent of the entire land mass is now under urban jurisdiction. Over 65 percent of the state's population lives in an urban area. Are community tree programs in place to properly tend this urban asset? How well is this forest resource being managed to meet the needs of the public? Are our cities' forests considered in the local and state planning process? If so, is the technology up to date and current?

The answers to these questions reveal that much more can be done to develop a healthy urban forest in our cities. To do this, planning must begin now.

Types of Urban Forestry Plans

There are several types of plans a community can develop concerning its urban forest. One kind used by many communities is a specialized plan. This type of plan allows the town to address a single issue or one part of the local urban tree program. For example, some cities pay money for landscape architects to develop master tree planting plans for public property (parks, r-o-w, etc.). The landscape architect evaluates opportunities, determines the local priorities, and develops a planting scheme for the whole city. The document is a game plan that will guide the city's tree planting efforts in a way that makes good use of local resources while producing the most impact. Specialized plans can also focus attention on other parts of the local tree program, such as tree care, removal, training, and education.

Specialized plans can also address local urban forestry issues and problems. One good example is the solid waste problem facing all Alabama cities. Federal regulations are requiring local governments to spend more money on landfills, thereby forcing them to look for better ways to reduce their solid waste flow and to recycle instead. A specialized plan could determine how to utilize a city's urban wood waste so that it doesn't go to the landfill. Several cities in the state have tackled this problem and are close to eliminating all urban wood waste from their landfills. This will lengthen the life

of the existing landfill and will save the community money.

A second planning approach is a comprehensive urban forestry plan. This type of plan looks at the big picture of the entire city tree program. It can be compared to a medical doctor who examines his or her patient and prescribes treatments to restore and maximize good health for the entire body. Just like a physician who uses the latest techniques and procedures, a comprehensive urban forestry plan will involve a thorough "physical" of the community tree program followed by a prescription of "treatments" that makes the city forest better. A plan like this is harder to do, but is the most meaningful to have. It forces the local community to look beyond special interests and to capture a vision for the entire city. In fact, it may be the best tool available where we can begin to define and create new cities where people and trees coexist.

A final planning approach is simply a blend between a specialized and comprehensive plan. An example would be where a community evaluates only its tree resource and lists management activities. A document like this would be useful to a town trying to make decisions about its tree care capabilities and resources.

Another case would be an administrative plan that examines the community's way of responding to its trees. This is the people, equipment and money part of the program. An administrative plan would then list recommendations on how the city could improve or maintain its tree services.

Alabama has a great opportunity to create the best urban forests in the country. Interest and enthusiasm is at an all time high. But interest and enthusiasm by themselves won't guarantee success. Instead, it is time to begin thinking about what we really want for our urban forests and how we will get there. When we do this then we'll have cities that other states will model. We'll have cities that are healthier and better for people. ♻️

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VOLUNTEER FIREFIGHTERS — *The Unsung Heroes*

by REGGIE SUMMERLIN, RCFP Coordinator, Alabama Forestry Commission

Alabama is fortunate to have 943 volunteer fire departments providing fire protection. These departments range from a 12-man department with one truck in a small rural community to a multi-unit department with 40 volunteers in a small municipality. Most people will tell you there are 30,000 to 35,000 volunteer firefighters in the state.

Volunteer fire departments respond to a wide range of emergencies. They will answer structural fire calls for houses, barns, and businesses. A brush fire call could be a small grass fire alongside a road or it could be for a large woodland fire that is burning in an area only accessible by foot or by a forestry tractor unit. A large woodlands fire may require the combined efforts of many volunteer fire departments and the county forestry units. The volunteer fire departments must have the training necessary to enable them to function as a part of a large scale incident command system.

The protection provided by volunteer fire departments in Alabama is obvious when their locations are plotted on a map. It is then apparent that most of the land in the state is covered by volunteer fire departments.

The lower the response time for a department, the lesser the damage caused by the fire. A small brush fire stays small rather than progressing to a many thousand acre wildfire spread over many properties consuming valuable crop and timberland and many structures.

Funding

Raising the money needed to run the department is always a problem. Fire apparatus is very expensive and the safety clothing and equipment needed for structural firefighting is also expensive. The funding situation has improved in the last couple of years with many counties having passed local funding legislation.

County-wide funding is in place in 47 counties. Several counties have a tobacco tax. Many counties have an ad valorem

millage as a volunteer fire department funding source. A household and building fee is used in some areas. Volunteer departments in counties without a permanent funding source use a variety of fund raising methods.

One method that has been well received in many areas is for the department to send a statement to each household in the department's coverage area. The statement is for a set amount — \$25 is often used — and it is explained that it is a voluntary contribution. One department raises approximately \$12,000 each year using this method.

In addition to the funds raised locally, each volunteer fire department receives a grant each year from the state. The state grant for 1992 was for \$2,350. The overall funding picture has improved, but still is not at the level needed to assure a stable funding base for each volunteer fire department.

Benefits to Landowners and Homeowners

Better fire protection is not the only benefit that is returned to the citizens of an area. If a department can buy the proper equipment and increase the training level of its firefighters, then a department's Insurance Services Office rating will drop. Homeowners and businesses will get a corresponding drop in their insurance premium. It has been proven many times that the funds given to a volunteer fire department are returned many fold to a community through insurance premium savings.

When you consider what a volunteer fire department means to its community and to the state, it is easy to see why Alabama is indeed fortunate to have 943 departments serving its needs. Take a little extra time when you talk to one of the volunteer firefighters in your area to thank them for their efforts. This is one of the greatest rewards these "unsung heroes" receive for their unselfish devotion to your safety. ♣

CALENDAR

April 25-May 2—Soil and Water Stewardship Week. See details on page 15.

May 1-8—National River and Trail Cleanup Week. Alabamians are encouraged to participate in this national effort by conducting cleanups along chosen trails and waterways. Call 205-647-1689 for more information.

May 12-14—San Antonio, Texas. Forest Farmers Association's 1993 Annual Meeting and Southern Forestry Conference. For more information call 404-325-2954.

May 12—San Antonio, Texas. A pre-conference timber tax workshop will be held prior to the Forest Farmers Association's Annual Meeting. Dr. Harry L. Haney, Jr. will conduct the session for those desiring an in-depth study of how to develop a timber tax strategy plan. For more information call 404-325-2954.

May 25-26—Guntersville, Ala. Ninth Annual Alabama Urban Forestry Association Convention. Featuring one full day with Dr. Alex Shigo. For more information call 205-240-9360.

June 30—Auburn, Ala. "Environmental Law for Foresters," an Auburn University short course. For more information contact the School of Forestry, 122 M. White Smith Hall, Auburn University, AL 36849-5418.

July 13-15—Auburn, Ala. "Urban Forest Management," an Auburn University short course. For more information contact the School of Forestry, 122 M. White Smith Hall, Auburn University, AL 36849-5418.

Special Cost-Share Issue Coming in July

Thanks to some special funding by the Education Subcommittee of the Alabama Forestry Planning Committee, a special cost-share edition of this magazine will be published in July. There was to have been no regular issue of the magazine published this summer because of funding cut-backs.

Articles in the July magazine will cover all the cost-share programs available to forest landowners. In addition, other forms of assistance, such as consulting foresters and industry landowner assistance programs, will be covered.

There are a myriad of programs available to forest landowners, and this special issue will consolidate a great deal of information about those programs. This issue will be a useful reference for all forest landowners, as well as for people in industry and government agencies who deal with these programs on a regular basis. ♣



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