

ALABAMA'S

# TREASURED

FORESTS

*A Publication of the Alabama Forestry Commission*

**SUMMER 2002**

- **HAUSS NURSERY CELEBRATES 50 YEARS**
- **PINE THINNING**
- **WILDLIFE MANAGEMENT ASSISTANCE**
- **TIMBER INVESTMENTS**
- **ANTLEROGENESIS**
- **MORE HISTORICAL LOGGING PHOTOS**



**DON SIEGELMAN**  
Governor, State of Alabama



**TIMOTHY C. BOYCE**  
State Forester

In 1926, the Alabama Forestry Commission began its seedling production program to provide quality affordable seedlings to Alabama landowners. In the last 76 years, the program has produced hundreds of thousands of seedling trees that have been planted, grown and harvested by the citizens of our state.

The impact of these trees has been significant, playing a major role in Alabama's growth, both by providing raw material for the number one state industry - forest products - and by helping Alabama become home to the second largest total acreage of commercial forest in the nation. These trees have also helped support the state's abundant wildlife populations and enhanced the state aesthetically by providing scenic high-ways, beautiful state parks and by helping maintain the pristine rivers, lakes and streams that run through Alabama.

Most of all, these same forests grown from tiny seedlings have helped thousands of Alabama families by creating jobs and providing both direct and indirect income. These trees have helped pay mortgages, educate children and put food on the table for Alabama workers and their families.

This year, the Alabama Forestry Commission's E. A. Hauss Nursery in Atmore celebrates its 50th anniversary in the production of seedlings. This single nursery has produced over one billion seedlings for Alabama landowners. I congratulate the Alabama Forestry Commission on this milestone and its continued commitment to provide this invaluable service to the citizens and landowners of our state.

Alabama has approximately 23 million acres of forestland and 47,000 linear miles of perennial streams and rivers in the state, ranking us seventh in the nation. This unique combination gives us a wealth of forest bio-diversity. Even though we rank only 29th in size, we stand at number seven in the number of plant and animal species.

It is important that we protect these valuable resources, not only for today but to ensure that we have healthy forests and clean water in the future. Alabama landowners are ahead of most states managing the forests with the TREASURE Forest program, but it's now time to take the same stand towards protecting our beautiful and abundant water resource.

Although forestry is only a small contributor to the overall water quality problem it does play a very important role in maintaining and improving water quality. Currently landowners and local citizens are taking part in Alabama's Clean Water Partnership, by actively becoming involved in local watershed decisions. Participating in the partnership allows community-based groups, units of government, industry, farms, forestry, special interest groups, and individuals to pull together available resources to develop and implement programs that address and meet the needs of a variety of interests.

Private citizens are serving as volunteer water monitors, participating in the planning and development of watershed protection plans for impaired and threatened waters, and taking many active roles in helping to protect and clean up Alabama's valuable water resources.

Now is the time to become involved in your area. Keeping Alabama's water resources clean and healthy is to everyone's benefit. For more information on the Clean Water Partnership, contact the Alabama Department of Environmental Management, Office of Education and Outreach, 334-394-4360 or e-mail them at [oeomail@adem.state.al.us](mailto:oeomail@adem.state.al.us).

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**COVER:** Nursery manager Craig Frazier examines this year's crop of loblolly pine seedlings at E.A. Hauss Nursery near Atmore. This year marks the 50th anniversary that Hauss has been providing quality seedlings to Alabama landowners. See feature story and seedling ordering information on pages 8-11. *Photo by Coleen Vansant.*

Alabama's TREASURED Forests (ISSN 0894-9654) is published quarterly by the Alabama Forestry Commission, 513 Madison Avenue, Montgomery, AL 36130. Telephone (334) 240-9355. Bulk rate postage paid at Montgomery, Alabama. POSTMASTER: Send address changes to: Alabama's TREASURED Forests, P.O. Box 302550, Montgomery, AL 36130-2550. Web site: [www.forestry.state.al.us](http://www.forestry.state.al.us)

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# Smith & Sons: Reaching Toward the Future

By Tilda Mims Education Specialist, Alabama Forestry Commission, Northwest Region

*The Smith brothers planted these pines about 12 years ago.*

**S**mith and Sons TREASURE Forest in Greene County demonstrates an extraordinary family tradition. Six generations of Abram Smith's descendents have lived on the property, managing it for optimum benefit for the family and to future generations.

While inheriting land and retaining family ownership through multiple generations is interesting and even admirable, it is far from unusual. So, what makes Smith and Sons so unique? Abram Smith was a slave who once worked the land for his owner.

In the mid-1800s, Abram was taken to Alabama from Virginia when Elem Smith pur-

chased him. As the now-named Abram Smith, he settled into the backbreaking work of a slave in the fields each day.

Abram shared the hope of most men in those times – having his own farm and working his own land. Abram, how-

ever, was an exceptional man who never lost sight of his dream. Following his owner's death, Abram Smith helped raise Elem's two sons. When the boys came of age, Abram was allowed to sharecrop, giving them a portion of his crops. After

a long, tiring day in the field, he managed to farm a plot of land at night - a helper held a lantern in the dark to provide enough light.

Over time, however, financial demands forced the sale of a portion of the land to someone outside the family. Despite Abram Smith's lack of freedom and opportunity, his night farming and sharecropping had allowed him to save a little money. He approached the new owner and was allowed to purchase 230 acres.



**Smith and Sons:** Andrew Smith, Sr. (front center) and his six sons:(left to right) Scott; Carl; Hodges; Andrew, Jr.; Bennie; and Jimmy all worked together in managing the farm.



*This nesting turtle is one of many non-game species on the farm.*



*Plum trees and other mast trees help attract and maintain many species of wildlife on the property.*



*A black racer finds plenty to eat at Smith & Sons.*

During his lifetime, Abram Smith farmed the Greene County land as a slave, a sharecropper, and finally as property owner. His family continued the farming tradition, row cropping the rolling hills until the early 1980s. When Andrew Smith, Abram's grandson, bought out the other heirs, they began to

manage the land more intensively for multiple benefits.

Andrew and his six sons, Andrew Jr., Jimmy, Bennie, Scott, Hodges, and Carl, incorporated the farm as "Smith and Sons" and work together in managing the property. Father and each of the sons are required to participate in the planning

*(Continued on page 6)*



*Bluebird boxes have been placed around the largest catfish pond.*

and execution of all projects. Duties are assigned according to individual interests and talents. According to son Hodges, "We had always had a family business together; this was just another business."

Hodges, who is a ranger with the Alabama Forestry Commission, oversees the forestry aspect of the 356-acre tract. He prepared a written forest management plan in 1992 and worked with his brothers toward its implementation and TREASURE Forest certification. In 1995, Smith and Sons was awarded TREASURE Forest certification with timber production as their primary objective and wildlife management as the secondary objective. In the year 2000, they received statewide honor as the Northeast Region Winner of the Helene

Mosley Memorial TREASURE Forest Award.

All of the row crops are now gone. The old fields have been converted to pine trees either through natural regeneration or hand planting. The tree planting was, not surprisingly, a family effort as is the prescribed burning program implemented a few years ago.

Their commercial catfish ponds require frequent attention, and each brother plays a role in their upkeep. Deer hunting is a favorite pastime, so maintaining wildlife openings and planting food plots is another family project.

The Smith family generously shares their farm for forestry field tours and other educational events. Several years ago, they hosted small-acreage landown-

ers from nine West Alabama counties for a Saturday forestry tour. More than 50 people enjoyed the event, especially the first-hand accounts from the family members on the value of "sweat equity." When the whole family is involved, they say the burden is a little lighter and the rewards are even greater.

As their TREASURE Forest has grown, the Smiths have grown as a family as well. Andrew and his six sons worked side-by-side to build beautiful homes in a central area on the property. Today, three generations of Smiths enjoy the quiet, gently rolling hills around those homes for planting flowers, taking evening strolls, playing with children, and sharing the day's events.

Atop a knoll sits the family cemetery where Abram Smith's headstone rests, along with those of other family members. These serve as reminders of dedicated, hardworking people who, despite their harsh lives, envisioned a better day.

When Abram was farming by lantern light, did he imagine a day when his descendents would work the same land? Did he dare dream of his hard-earned land producing benefits for his family for more than 100 years? It is doubtful that anyone knows for sure, but we can be certain that Andrew Smith, his six sons, and their families are envisioning the future and sustaining the land for their descendents.

Across the road from the cemetery are young pine plantations where Abram's great-great-great grandchildren run and play, chasing fireflies and having fun. The children are reminders that, though rooted in the past, Smith and Sons are reaching toward the future. ☪



Abram Smith, along with other family members, is buried, in the Smith Cemetery on the property.

## Memorial

Andrew Smith, Sr., age 82 of Eutaw, died May 11, 2002, shortly after this story was written. He is survived by his wife, Camilla Morrow Hardy Smith; daughter, Mamie Smith Coleman; sons, Andrew Smith, Jr., Bennie L. Smith, Carl E. Smith, Hodges Smith, Jimmy H. Smith, and W. Scott Smith; 12 grandchildren; and 6 great-grandchildren.



# New TREASURE Forest Certifications

Congratulations to the 45 landowners who were awarded TREASURE Forest certification at the third quarter meeting for the year 2002 of the TREASURE Forest sub-committee. With these landowners, 13,943 acres were added to the TREASURE Forest program in Alabama. At this same meeting, 49 landowners received re-certification.

Currently, Alabama has 1,784 TREASURE Forests with 1,818,928 acres of forestland being managed under the guidelines of the TREASURE Forest program.

Landowner	Location of Property	Region	Landowner	Location of Property	Region
Robert Ash	Geneva	SE	James W. Hybart and Susan H. Alsup		
Ken & Georgia Aycock	Franklin	NW	"River Ridge"	Monroe	SW
Equel Belk			Joe Milner Reed		
"Belk's Treasure Forest"	Marion	NW	"J. M. Reed Trust"	Sumter	SW
C. A. Blevins	Cullman	NW	Mark Johnston	Winston	NW
James & Dorothy Boteler	Hale	SW	Thomas & Theresa Jones	Marengo	SW
Don W. Bradshaw	Coffee	SE	Bobby Jones	Lauderdale	NW
Ken Crawford	Hale	SW	William W. Langham	Hale	SW
Bobbie R. Cross	Geneva	SE	Raymond Lynn and David Lynn	Escambia	SW
Joe Curl	Cullman	NW	Mr. & Mrs. Tim Miller	Colbert	NW
Scott & April Daniel	Franklin	NW	William E. Nobles	Chilton	SW
Don Dean			Charles & Dora Pelham	Conecuh	SW
"13 Oak Farm"	Geneva	SE	Glenn Phillips	Dekalb	NE
Monty & Pamela Deschner	Fayette	NW	Arthur Lee Powers		
Millard E. Elrod	Cullman	NW	and Bradley Lon Powers	Tallapoosa	NE
Dr. Larry & Mrs. Linda Ennis	Butler	SE	William B. Prater Jr	Pickens	NW
Van P. Finger			Jarrel Reed, Donna Morris,		
Byhalia Land Company	Monroe	SW	and J. M. Reed, Jr.	Sumter	SW
Ray Gilbert, Jr.	Chambers	NE	Camp J. Waller		
Dr. Ben M. Grimes	Coffee	SE	"Shelter C Farms"	Coosa	NE
Scotty Harbor	Marion	NW	Ken Stephenson	Barbour	SE
Marian G. Lindley			Wanda Stinson	Chilton	SW
"Hawk's Bluff Hideaway"	Marion	NW	Mike Strickland	Hale	SW
Joel & Maridane Hisor	Marion	NW	Craig & Deidre Smith		
James H. Hoffman	Lamar	NW	"Tanner Colby Smith Treasure Forest"	Marion	NW
James & Cassandra Horsley	Winston	NW	Neal Taylor	Colbert	NW
			Sonny Turner	Limestone	NW
			Billy Wiggins	Tuscaloosa	NW
			Gay Nell & Thomas Wilhite	Cullman	NW

# HAUSS NURSERY

## Celebrates 50 Years of Seedling Production

By *Coleen Vansant*  
Information Manager, Alabama Forestry Commission

*Much of the growing process at the nursery is done by hand. Here workers tend to the young seedlings that will be lifted this winter.*

This year the Alabama Forestry Commission's E. A. Hauss Nursery celebrates its 50th anniversary of producing quality genetically improved seedlings at affordable prices for landowners of Alabama.

Although the youngest of the Alabama Forestry Commission's (AFC) once three productive nurseries, Hauss Nursery is now the dominant nursery for the AFC, producing 100 percent of the bare root seedlings. In the last decade, the Commission began phasing out Stauffer Nursery in Opelika and Miller Nursery in Autaugaville and moved all bare root operations to the Hauss facility near Atmore.

Named for the late Edward A. Hauss, who was president of Alger-Sullivan Lumber Company when that company donated 50 acres of land to the Commission in 1951, the nursery has produced approximately 1,300,000,000 seedlings in its half century of existence. That milestone was reached on January 24, 1991. The first seedling crop was harvested in the winter of 1952-53 with a total of 7,402 seedlings being produced. In the last 50 years the nursery

### *A Forest In My Hand*

*A joyful sun burst over the hill  
Sweeping away the morning's chill  
While planting seedlings in the earth  
A giant forest was taking birth!  
Soon to shelter white-tailed deer  
Where creatures small can disappear  
Seedlings bought from a nursery land  
Tiny roots still moist with sand.  
Each was placed in pockets deep  
Where spring rains would gently seep  
I heeled them in, rooted, deep secure  
Each one a tree in miniature.  
Never knowing whose eyes will gaze  
Or come to rest under forest's shade  
Their bodies cooled by the tallest tree  
But it was I who planted thee.  
Their strength and beauty for all time  
Will enrich the lives of yours and mine  
Though storms will rage, able to withstand  
I held a forest in my hand.*

-- By Jacqueline Pitts

*This poem, written by a customer, has been displayed in the Hauss Nursery office for several years.*

has grown to approximately 400 acres of owned and leased land and to the production capacity of 60 million seedlings. The packing shed at the Hauss complex can process 1,200,000 seedlings per day.

When construction began in 1951, the nursery was placed under the management of Carl A. Mueller and in 50 years has seen only four additional nursery managers; Marty Schupeltz, Sam Campbell, Philip Wilson, and current manager Craig Frazier. It has had only three nursery supervisors in the same period of time: Mueller, Marlin Mack, and at present, Bobby Wooten.

Over the last 50 years many changes have occurred at Hauss Nursery. In the past, longleaf seedlings were planted and harvested by hand without the help of machinery. Seed for each 100-foot bed was measured out in a paper bag and sown by hand into the beds. In 1982 a Whitfield tree planter was purchased which made planting longleaf much easier. However, it was the purchase of a 1986 Grayco harvester that made a significant difference in production at Hauss Nursery. Before the purchase of the planter, workers could pull by hand





Above: These old wooden lifting boxes were used at Hauss Nursery for many years.

Right: Although the sign is new, this is the door of the original seedling cooler at Hauss Nursery. With additional coolers the nursery has the capability to store seed for up to 5 years. When the nursery began it produced 3 species of pine. Now it produces 22 different species of both pine and hardwood.



This is the staff of Hauss Nursery today. Pictured from left to right are: Atry Ziglar, Charles "Buddy" Salter, Albert Singleton, Craig Fraizer, Bobby Wooten, and Kelvin Ephraim.



Nancy Givens processes orders on the computer. The ordering and tracking process was automated in 1984.



Left: Workers in the packing shed can process 1,200,000 seedlings per day.

100,000 longleaf seedlings per day. With the mechanical harvester, production jumped to 200,000 per day.

At one time, nursery workers cut packing sticks by hand; now they are purchased pre-cut. Workers also had to go into the swamps to rake moss for packing the delicate seedlings; now they are packed with Viterra, a gel that

keeps the roots of the baled seedlings moist. Formerly, seedling orders were taken at the county level and mailed to the nursery; in 1984 a computer was installed which made the ordering process and record keeping at Hauss Nursery much more efficient. Today you can even visit the Commission's web page at [www.forestry.state.al.us](http://www.forestry.state.al.us) for a seedling price list and order form.

(Continued on page 10)



*This photo was taken of Haus Nursery December 16, 1953, by Tim McKinney from the Luscombe plane. This was the first year after production began at Haus in 1951-52.*

Originally Haus produced only three species: loblolly, longleaf, and slash pine. In the 1995-96 production year, the Alabama Forestry Commission began to offer varieties beneficial to wildlife and now they produce over 22 different species of pine and hardwood bare root seedlings. In the old days, once these trees were lifted and packed, county personnel traveled to the nurseries to pick up the seedlings for landowners. Now

they are delivered by refrigerated truck to seven different distribution points across the state where they are picked up by landowners.

Last year, Haus received a new seed cooler that



*This 1986 photo shows nursery workers loading seedlings onto a trailer for transportation to the grading shed.*



*A landmark at E.A. Haus for many years, this water tower was erected when the nursery was established and functioned until it was dismantled in 1998.*

provides space to store up to five years of seed under ideal conditions. All pine seed planted at Haus Nursery is genetically improved seed, harvested from Commission tree nurseries. The AFC also produces its own

seed for sawtooth oak, dogwood, red bud, and autumn olive.

There have been many changes at Haus Nursery and in the Alabama Forestry Commission's nursery program in the last few years, changes that have brought the Commission's seedling program into the 21st century with continued commitment to customer satisfaction through the production and distribution of the highest quality seedlings at reasonable prices. ♣

# Tree Seedlings Available from AFC's E. A. Hauss Nursery 2002-2003 Season Prices

<b>PINE SEEDLINGS</b>		
	<u>Price per 500</u>	<u>Price per 1000</u>
<b>Loblolly</b>		
Coastal 1.5 Generation	\$25.00	\$39.00
Coastal 2nd Generation	\$28.00	\$44.00
Piedmont 2nd Generation	\$28.00	\$44.00
<b>Slash 1.5 Generation</b>		
	\$25.00	\$39.00
<b>Longleaf 1st Generation</b>		
	\$45.00	\$70.00

## HARDWOOD and WILDLIFE PACKAGES

Cherrybark Oak <i>SoldOut</i>	Water Oak	Crab Apple <i>SoldOut</i>	Sawtooth Oak
Green Ash	White Oak <i>SoldOut</i>	Dogwood <i>SoldOut</i>	*Redbud <i>SoldOut</i>
Nuttall Oak <i>SoldOut</i>	Yellow Poplar	Overcup Oak <i>SoldOut</i>	*Chinese Chestnut <i>SoldOut</i>
Shumard Oak <i>SoldOut</i>	Autumn Olive <i>SoldOut</i>	Persimmon	*Sawtooth Oak (Gobbler)
<i>(Please order in multiples of 25s, 100s or 1000s)</i>			
<i>* Limited quantities: available only in multiples of 25 for \$15.00.</i>			
<b>Prices:</b> \$15.00 per 25	\$35.00 per 100	\$135.00 per 500	\$200.00 per 1000
<b>Lespedeza</b> - Thunbergii \$26.00 per 500		\$42.00 per 1,000	

## Ordering Information

- **TO PLACE YOUR ORDER** - Call Hauss Nursery at 251-368-4854 or your county Alabama Forestry Commission office. OR visit our website at [www.forestry.state.al.us](http://www.forestry.state.al.us) where you can print out an order form and fax it to 251-368-8624. You will receive an acknowledgment within 5-7 working days.
- **UPON RECEIPT OF ACKNOWLEDGMENT** - Remit a 10% non-refundable deposit if your order is for more than 50,000 pines or 10,000 hardwoods. Remit full payment for all other orders.
- **PAYMENTS** - All payments/deposits are due within 30 days of the acknowledgment date. We accept checks and money orders payable to the Alabama Forestry Commission. For proper credit, please note your customer ID number on your payment. We do not accept cash.
- **AVAILABILITY** - Orders are available for delivery during December, January, and February only.
- **HAUSS NURSERY PICK-UP** - Schedule your delivery at least 2 weeks in advance by calling 251-368-4854.
- **UPS DELIVERY** - Orders of less than 2,000 hardwood seedlings are shipped via UPS or are available for pick-up at Hauss Nursery. Select shipping date from calendar enclosed with your acknowledgment and return with your payment. UPS charges (available upon request) are based on the number of seedlings shipped per order.
- **COOLER DELIVERY** - All pine seedlings and orders of more than 2,000 hardwood seedlings may be shipped to our cooler locations in Atmore, Autaugaville, Cullman, Florence, Huntsville, Opelika, Ozark, and Tuscaloosa. Schedule your delivery at least 2 weeks in advance, then call your cooler location to verify delivery.

**4165 Ross Road • Atmore, Alabama 36502 • Phone: 251-368-4854 • FAX: 251-368-8624**  
**E-mail: [haussnursery@forestry.state.al.us](mailto:haussnursery@forestry.state.al.us) • Web Site: [www.forestry.state.al.us](http://www.forestry.state.al.us)**  
**Business Hours: Monday-Friday 7:30a.m. - 4p.m.**



# ARE MY PINES READY TO THIN?

By *Tim Traugott*

Area Extension Forester, Mississippi State University Extension Service

*High quality trees are allowed to grow as the "crop" trees.*

One of the most frequently asked questions by private forest landowners is, "Are my pine trees ready to thin?"

There is no definite answer to this question, because every pine plantation may be different. Some plantations may be ready to thin as early as age 12, and some may not be ready for thinning until age 18 or older.

Many factors determine when a pine plantation is ready to be thinned, such as

site productivity, planting density, genetics, and weed competition. However, the timing of the first thinning is very important. This first thinning may affect the productivity and economics of the pine plantation for the next 20 to 30 years; therefore, it is imperative that thinning be conducted at the proper time.

An understanding of the biology of pine trees can help clarify why and when pine trees should be thinned. Pine trees are shade intolerant, meaning they need

direct sunlight to survive and grow productively. As pine trees grow, they compete with each other for water, nutrients, and sunlight. The green needles in the tree crowns manufacture food for tree growth. The fastest growing trees are the ones with the biggest crowns. These trees assume a "dominate" position in the stand, where they receive direct sunlight from above and from the side.

Since pines do not tolerate shade, their branches die from the ground up as

the trees get taller and the lower branches become more shaded. Known as “natural pruning,” this process results in fewer and smaller branches on the lower stem and a higher quality tree. As a tree farmer, you want to grow a tall tree with a clean stem and well-developed crown. An expanded, well-developed crown can manufacture more food and will allow the tree to grow more quickly.

Trees are similar to other crops in that they grow poorly if there are too many per acre. The number of trees per acre affects diameter growth of individual trees, and thus the yield and growth of the entire stand. As the trees grow larger, the site can support fewer trees per acre. To maintain vigor and growth rates of the best trees, known as “crop trees,” pine plantations are thinned to a density the site can most effectively support. When pines are thinned at the proper time and in the proper manner, landowners benefit in several ways:

**High quality trees are permitted to grow.** Lower quality trees are removed to allow “crop” trees more growing space. Growth is increased on fewer, higher quality trees. It takes less time for trees to reach the more valuable saw-timber size class.

Landowners receive intermediate income. Trees that become crowded and overtopped will die before final harvest.

Thinning allows landowners to sell and use these trees that would otherwise be lost during the “natural thinning” process.



Photo by Coleen Vansant

Landowners can receive income from thinning they would otherwise have lost.

**Health and vigor of the stand are maintained.** By reducing competition and removing weak trees, the remaining trees are more vigorous and less suscep-

tible to Southern Pine Beetles and other insects and diseases.

**Wildlife habitat is enhanced.** Thinning allows sunlight to reach the forest floor, resulting in greater production of browse for deer and other wildlife.

As you can see, it is to your advantage to thin your pine plantation. When is the proper time to conduct your first thinning? Consider the following five criteria before you thin your pine plantation:

- Tree Diameters
- Stand density
- Tree heights
- Natural pruning
- Growth rates

Although all five criteria are important, tree diameters and stand density are the two most important factors. ☛

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*Editors Note: This story is adapted from **Are My Pine Trees Ready to Thin?**, a publication of the Mississippi State University Extension Service. We will print the publication in a series of articles in upcoming issues of the Alabama's TREASURED Forests Magazine. This story is being reprinted with permission of the author.*



Thinning helps maintain the health and vigor of a stand as well as enhancing wildlife habitat.

# Landowner Assistance Program: Providing Private Landowners with Wildlife Management Assistance

By *Claude Jenkins*

Wildlife Biologist in partnership with the Alabama Forestry Commission, the Alabama TREASURE Forest Association, and the Alabama Wildlife Federation

**W**ith the majority of the land base in Alabama held by private landowners, the management of these lands is essential for sustaining and enhancing wildlife and other natural resources. These private lands provide valuable natural resources that directly affect the quality of life of all Alabama's citizens. Alabama is an ecologically diverse state and its abundant natural resources and their management are critically important ecologically, socially, and economically.

One of the essential ingredients in conserving and sustaining wildlife resources is habitat improvement on private lands. To accomplish this goal, the Alabama Forestry Commission, the Alabama TREASURE Forest Association, and the Alabama Wildlife Federation formed a partnership to provide technical assistance to private non-industrial landowners. The partners are committed to working with landowners to improve wildlife habitat and promote conservation and land stewardship.

Since the inception of the program in August of 1999, on-site assistance has been provided to nearly 350 landowners in every county in the state and over 200,000 acres of wildlife habitat have been evaluated. In less than two years,

requests for assistance have exceeded the ability of one biologist to provide timely assistance statewide. Consequently, a new partnership was formed between the Alabama Forestry Commission and the Longleaf Alliance to hire an additional

biologist. John Dickson, a Louisiana native, was hired in November 2001 and is responsible for assisting landowners in south Alabama.


The landowner assistance program offers interested landowners an opportu-



*Wildlife Biologist John Dickson (left) examines the effects of a growing season burn on understory hardwoods.*

nity to work with a professional wildlife biologist toward improving wildlife habitat on their property. Assistance is designed to help landowners meet their goals and emphasizes the value of wildlife management and responsible stewardship. Whether your recreational enjoyment comes from hunting or simply observing wildlife, the landowner assistance program can help enhance these opportunities on your property.

The landowner assistance program can provide a link to available assistance offered by state and federal agencies and private organizations. For landowners interested in the TREASURE Forest Program, biologists work closely with professional foresters to provide on-site technical assistance and provide written recommendations for inclusion in TREASURE Forest management plans. Additionally, biologists work with foresters to conduct TREASURE Forest inspections for landowners eligible for certification.

To be eligible for assistance, landowners must own a minimum of 10 acres of forestland. There is no charge or obligation for participating in this program. For more information about the landowner assistance program, contact the biologist near you. 



*Wildlife Biologist Claude Jenkins (left) and landowner Bruce Wagner evaluate a food plot on Triple B Farms in Dallas County.*

**Claude Jenkins**  
Alabama Wildlife Federation  
46 Commerce Street  
Montgomery, AL 36104  
Phone: 334.832.9453  
Email: bioawf@aol.com

**John Dickson**  
Solon Dixon Forestry Education Ctr.  
Route. 7 Box 131  
Andalusia, AL 36420  
Phone: 334.427.1029  
Email: dicksonj@forestry.state.al.us

## Application for Landowner Assistance

*The biologist will contact you as soon as possible to schedule a consultation with you.  
Please provide the following information:*

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone: (day) \_\_\_\_\_ (evening): \_\_\_\_\_

Email: \_\_\_\_\_

County where property is located: \_\_\_\_\_ Total acres: \_\_\_\_\_



## The THREADGILL ESTATE: From Farming to Forestry

By *LaKedra Byrd*

Outreach Forester, Alabama Forestry Commission, Southwestern Region

**S**umter County is a rural Blackbelt county in the west-central part of Alabama. It consists of 680,555 acres (907 square miles) and includes the towns of Livingston (county seat), Cuba, Epes, Emelle, Gainesville, and York. The Alabama-Mississippi state line forms the boundary to the west and the Tombigbee River forms the boundary to the east.

Agriculture is the main enterprise in the county where the climate is favorable for grain and livestock farming. The major cash crops are corn, soybeans, wheat, and hay production. There is a small timber industry that produces plywood, pulpwood, and sawtimber.

Mr. and Mrs. Obadiah Threadgill relocated to Sumter County in 1948, when he accepted a position to teach Agriculture Education in the Sumter County School System. Obadiah, a native of Wilcox County, loved farming and wanted to share his expertise with the community. Theresa, who was born in Perry County and had also been raised on a farm, was thrilled about the offer.

Since farming was a way of life for the Threadgills, they purchased six acres of open-land country in 1950 and started a small farm. They used it primarily for cash crops and it served as supplemental income until their children completed school.

In 1958, Theresa and Obadiah purchased additional acreage with the idea of diversifying their farm. In 1970, their

farm grew to 106 acres. He bought the necessary equipment to maintain over 100 head of cattle, produce truck crops, and start a self-contained hay system. In 1988, after becoming successful hay producers, the Threadgills received The Merit Farm

property at a natural productive state. In making this transition, they contacted the Sumter County Alabama Forestry Commission (AFC) office for management assistance. After sitting down and planning for the future, they decided their

primary objective would be timber production which would bring in long-term income. The secondary objective would be wildlife management. In August of 1999, Patrick Smith, Sumter County Ranger with the AFC, completed a TREASURE Forest Plan for the Threadgills to follow.

Unfortunately, while implementing these practices, Obadiah's health failed. But Mrs. Threadgill and the children pulled together and continued to pursue the management objectives. Theresa, who had been an extension agent for 25 years, knew the importance and benefits of good land stewardship. She and her husband had instilled these values

in their family. After Obadiah's death, she wanted to continue the dream that they had of becoming successful timber producers.

While following the management plan very thoroughly, she and the family sold the cattle and converted 38 acres of grazing land into a pine plantation. Later, they planted an additional 40 acres. They



*Mrs. Theresa Threadgill at her home in Sumter County.*

*Photo by LaKedra Byrd*

Family Citation. This annual award is given by Tuskegee University to a deserving Alabama farm family that exhibits agricultural success and community service.

### FROM FARMING TO TIMBER

After working the farm for more than 40 years, their management objectives changed to a long-term, less labor-intensive goal. They wanted to maintain their

*(Continued on page 30)*





# World-Wide Forestry at Your Fingertips

By *Bruce Springer*

Forest Management Division Director, Alabama Forestry Commission

**N**ever before has there been so much information at your fingertips as with the Internet. You can find information on virtually any topic that you choose. Today, over 500 million people have learned to use the “web” to their benefit. Just during November and December of 2001, Americans spent \$13.8 billion shopping online. There are more than 4.3 million domains (.com, .gov, .edu, .org, .us, etc.) and 300 million web pages, with 1.5 million pages being added daily! The vast information available on natural resources, including forestry, has never been more convenient.

## Searching for your Interest

There are two ways to locate specific information of interest: First, by utilizing a **search engine**, such as Yahoo, AOL, or MSN; and second, by going to a **main web site** on your topic and following the links. Many main web site addresses (URLs) are found on advertisements in newspapers, magazines, radio, and television.

For example, a search on the word “Forestry” resulted in listings for several hundred web sites, commonly called “hits.” The first six on the list were Encarta Forestry Facts, followed by the USDA Forest Service ([www.fs.fed.us](http://www.fs.fed.us)), [www.forestry.about.com](http://www.forestry.about.com), [www.forestind.com](http://www.forestind.com), [www.arborists.com](http://www.arborists.com), and [www.metla.fi/info/vlib/Forestry](http://www.metla.fi/info/vlib/Forestry), a Finland website.

To narrow your search to Alabama-related sites, submit a search on “Forestry Alabama.” This results in a more specific list for Alabama, with the top six hits as follows: Alabama Urban Forestry Association ([www.aufa.com](http://www.aufa.com)), Alabama Forestry Association ([www.alaforestry.org](http://www.alaforestry.org)), Alabama Forestry Commission ([www.forestry.state.al.us](http://www.forestry.state.al.us)), City of Huntsville Urban Forestry for Alabama ([www.ci.huntsville.al.us/Landscape/Trees](http://www.ci.huntsville.al.us/Landscape/Trees)), Southern Urban Forestry Associates ([www.sufa.com](http://www.sufa.com)), and Alabama Cooperative Extension System ([www.aces.edu](http://www.aces.edu)). You’ll find that some hits don’t apply while others are exactly what you need. A search engine can quickly locate web

sites for specific topics if you select the appropriate keywords.

The second way to find information on the Internet is to go to a main web site for your topic and follow the links. Use this method if you are interested in learning more about a generalized topic, such as forestry, or if you not sure what keywords to use in a search engine. This is also useful if you are just “browsing” or “surfing” the web because you need something to pass the time. Some main web sites relating to forestry are listed in the accompanying table.

## Alabama Government Sites

The sites listed under the general heading, “Alabama Government Sites” provide a significant amount of information specifically pertaining to Alabama forests. These six sites have links to most of the other sites listed in the table.

The Alabama Cooperative Extension System lists many publications relating

*(Continued on page 18)*

# World Wide Forestry at Your Fingertips

(Continued from page 17)

to forestry and wildlife management on their website. The Southern Region Extension Forestry site contains additional publications, including the latest "Southern Forest Resource Assessment" report. These sites also provide telephone numbers for county extension agents and specialists.

To obtain a list of environmental laws and actions, go to the Alabama Department of Environmental Management site. This site also has links to the U.S. Environmental Protection Agency's (EPA) website, where you can find a multitude of information on environmental protection actions.

The Department of Conservation & Natural Resources website contains a list of state hunting and fishing laws, hunting season dates, and a variety of links to many wildlife management sites.

The Alabama Forestry Commission (AFC) website contains information on the state's current fire situation and the latest fire weather forecast, as well as Southern Pine Beetle (SPB) infestation and control status. The site also includes links to purchase seedlings from the state nursery, articles from the Alabama's TREASURED Forest magazine, specific forest management articles, and the official forest industry listing for Alabama.

The Auburn Forestry Department site lists the various education programs offered at Auburn University, contacts for the professors and other specialists, and links to more forest management information. Several of these links include: The Silvicultural Herbicide Cooperative, the Longleaf Alliance, the Private Forest Management Team, and Professional Logger Manager course information.

## Alabama Organizations and Associations

The next group of websites listed in the table includes "Alabama Organizations and Associations." The Alabama Forest Owners Association and Alabama

TREASURE Forest Association (ATFA) are the two main groups specifically representing private, non-industrial forest landowners in Alabama. Both of these websites contain information on meetings and tour schedules of interest to landowners, lists of speakers, and more forest management literature. The Alabama Forest Owners Association allows members to post land and timber sales as well as hunting leases. The TREASURE Forest Association provides information on how to form local landowner chapters and get other assistance.



The Alabama Forestry Association (AFA) represents forest industry as well as private, non-industrial landowners. Go to their website to learn more about the "Log a Load for Kids" program, Sustained Forestry Initiatives (SFI), current legislative issues, or to locate certified professional loggers in your area. They also partly sponsor the "Alabama Forests Forever" program, which is an interactive education curriculum on CD-ROM geared to grades K-12.

To read more on general forestry topics, visit the "Private Forest Management Team" website. This site contains extensive documentation on most forestry-related topics geared to the landowner with an excellent listing of other web resources. If you are interested in physically attending a forestry workshop, the PRECEDA Forestry Shortcourses website should be of interest.

The Alabama Wildlife Federation (AWF), like the Alabama Department of Conservation & Natural Resources, has many links to wildlife management websites of interest to the avid hunter or wildlife observer. There are also plenty of tips for enhanced wildlife management listed directly on their site. Also available for purchase on the site is *Managing Wildlife*, perhaps one of the best books published on wildlife management. The Alabama Waterfowl Association's website has valuable information on waterfowl habitat management, including information about the Alabama Wetlands Compensatory Mitigation program.

## National Government Sites

The next group of websites listed in the table includes "National Government Sites." The USDA Forestry Service website has perhaps the most extensive amount of resource information relating to forestry. The Southeastern Region's site contains information more specific to our region.

If you need maps of your property, visit the US Geological Survey (USGS) website. You can order aerial photographs, topographic maps, roadmaps, and many other mapping-related products from their website. They also have many links to private websites that re-sell USGS products, one of which is Microsoft's TerraServer. TerraServer eventually will have aerial photograph/satellite images available for any location in the world.

## Other Sites

The last group of websites listed in the table includes "Other Sites." This group contains nationwide, forestry-related associations, including the American Forest Foundation and American Forests. These two sites include information on Project Learning Tree, the Tree Farm System (which can also be found on the National Tree Farm System site), and the Global ReLeaf pro-

gram. The Forest Landowners Association is geared more towards the southeastern forest landowners.

If you need to find a consulting forester, check out the Association of Consulting Foresters and Society of American Foresters websites.

Go to the Certified Forest Products Council, Forest Stewards Council, and National Tree Farm System websites to learn more about the various forest certification programs that are becoming popular.

If you need to learn more about timber tax, visit the National Timber Tax website. Visit the Forest Landowners Tax Council website to learn what is being done to reduce your taxes. If you are planning a timber sale and need current stumpage prices, go to the Timber Mart-South website.

Several other websites that contain a wealth of forestry information include the Forest Directory, Forestry Images, Forestry Index, Forestry on About, Agriculture Network Information Center, and National Agroforestry Center websites. To learn how to build furniture or finish your woodworking project, visit the Wood Web.

## Summary

Just like the Internet in general, the list of forestry-related websites seems endless. Not mentioned are many private and commercial websites targeted towards forest landowners. There are also sites available that list land and timber sales for forest landowners. Many forest industries use the web to buy and sell finished wood products. Landowners can even create their own forest management plans and maps of their property; purchase seedlings, forestry equipment, and aerial photos, or even sign up for hunting/fishing adventures.

Happy hunting, and when you reach the end of the Internet, please call to let me know! ☎

Source: "The Roads and Crossroads of Internet History," by Gregory R. Gromov.

## Main Web Sites Relating to Forestry in Alabama

### Alabama Government Sites:

Alabama Cooperative Extension System	<a href="http://www.aces.edu">www.aces.edu</a>
Alabama Department of Environmental Management	<a href="http://www.adem.state.al.us">www.adem.state.al.us</a>
Alabama Department of Conservation & Natural Resources	<a href="http://www.dcnr.state.al.us">www.dcnr.state.al.us</a>
Alabama Forestry Commission	<a href="http://www.forestry.state.al.us">www.forestry.state.al.us</a>
Auburn University School of Forestry	<a href="http://www.forestry.auburn.edu">www.forestry.auburn.edu</a>
Southern Region Extension Forestry	<a href="http://www.soforext.net">www.soforext.net</a>

### Alabama Organizations & Associations:

Alabama Forest Owners Association	<a href="http://www.alabamaforestowners.com">www.alabamaforestowners.com</a>
Alabama Forestry Association	<a href="http://www.alaforestry.org">www.alaforestry.org</a>
Alabama Forests Forever Foundation	<a href="http://www.alaforestsforever.org">www.alaforestsforever.org</a>
Alabama Treasure Forest Association	<a href="http://www.atfa.net">www.atfa.net</a>
Alabama Urban Forestry Association	<a href="http://www.aufa.com">www.aufa.com</a>
Alabama Waterfowl Association	<a href="http://www.alabamawaterfowl.org">www.alabamawaterfowl.org</a>
Alabama Wildlife Federation	<a href="http://www.alawild.org">www.alawild.org</a>
PRECEDA Forestry Shortcourses	<a href="http://www.preceda.com">www.preceda.com</a>
Private Forest Management Team	<a href="http://www.pfmt.org">www.pfmt.org</a>

### National Government Sites:

Environmental Protection Agency (EPA)	<a href="http://www.epa.gov">www.epa.gov</a>
Natural Resource & Conservation Service (NRCS)	<a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a>
U.S. Fish & Wildlife Service	<a href="http://www.fws.gov">www.fws.gov</a>
U.S.D.A. Forest Service	<a href="http://www.fs.fed.us">www.fs.fed.us</a>
U.S. Forest Service (Southeastern Region)	<a href="http://www.southernregion.fs.fed.us">www.southernregion.fs.fed.us</a>
U.S. Geological Survey (Maps & Photos)	<a href="http://www.usgs.gov">www.usgs.gov</a>
U.S. National Park Service	<a href="http://www.nps.gov">www.nps.gov</a>

### Other Sites:

Agriculture Network Information Center	<a href="http://www.agnic.org">www.agnic.org</a>
American Forest Foundation	<a href="http://www.affoundation.org">www.affoundation.org</a>
American Forests	<a href="http://www.americanforests.org">www.americanforests.org</a>
Association of Consulting Foresters	<a href="http://www.acf-foresters.com">www.acf-foresters.com</a>
Certified Forest Products Council	<a href="http://www.certifiedwood.org">www.certifiedwood.org</a>
Forest Directory	<a href="http://www.forestdirectory.com">www.forestdirectory.com</a>
Forest Landowners Association	<a href="http://www.forestland.org">www.forestland.org</a>
Forest Landowners Tax Council	<a href="http://www.fltc.org">www.fltc.org</a>
Forest Stewards Council (US)	<a href="http://www.fscus.org">www.fscus.org</a>
Forestry Images	<a href="http://www.forestryimages.org">www.forestryimages.org</a>
Forestry Index	<a href="http://www.forestryindex.net">www.forestryindex.net</a>
Forestry on the About Network	<a href="http://www.forestry.about.com">www.forestry.about.com</a>
Herbicide Labels	<a href="http://www.greenbook.net">www.greenbook.net</a>
MicroSoft TerraServer (maps & photos)	<a href="http://www.teraserver.com">www.teraserver.com</a>
National Agroforestry Center	<a href="http://www.unl.edu/nac">www.unl.edu/nac</a>
National Arbor Day Foundation	<a href="http://www.arborday.org">www.arborday.org</a>
National Timber Tax Website	<a href="http://www.timbertax.org">www.timbertax.org</a>
National Tree Farm System	<a href="http://www.treefarmssystem.org">www.treefarmssystem.org</a>
Society of American Foresters	<a href="http://www.safnet.org">www.safnet.org</a>
The Nature Conservancy	<a href="http://www.tnc.org">www.tnc.org</a>
Timber Mart-South Sales Prices	<a href="http://www.timbermart-south.com">www.timbermart-south.com</a>
Wood Web	<a href="http://www.woodweb.com">www.woodweb.com</a>

Visit the AFC Web Site:  
[www.forestry.state.al.us](http://www.forestry.state.al.us)

# Investors Taking Forestry Cycle in Stride

By *Mark Allen*, Business Writer

**W**ith southern timber prices down from their highs of a few years ago, are investors turning away from forestry? No, say forestry observers; and in fact, interest in forestland investment remains strong.

“This has been a longer downturn than most investors have experienced in recent times,” says consulting forester Steve Butler, president of TimberCorp, Inc., Brandon, Mississippi. “Some are getting concerned, but most realize we’re in a cycle.”

Butler often compares notes with forestry consultants in his area and other regions of the South. “The consensus is

that while timber is bringing less than it did a few years ago, prices are still high compared to historic trends,” Butler continues. “That’s true even though the forest economy has been in a recession. So my feeling is that if prices do this well during hard times, during better times they’ll be very strong.”

Records from Timber Mart-South demonstrate the timber price growth that occurred during the 1990s (see Figure 1 below). In that low-inflation decade, prices essentially doubled. “This illustrates the point that prices aren’t as bad as some people might think,” Butler says.

Supporting these observations is the fact that timberland values remain stable, even as timber prices have taken a dip. “If the market is expecting timber prices to recover, that thinking will be reflected in timberland values,” observes Jack Lutz, Ph.D., a forest economist with the James W. Sewall Company, Old Town, Maine.

One motivating factor behind timberland demand is that investors see forestry as a strong and stable long-term performer in a diversified financial portfolio because of its income return (as compared to appreciation or capital return). “While total returns from stocks often exceed total returns from timber-



Figure 1. Source: Timber Mart-South, Norris Foundation, Athens, Ga. [www.timbermart-south.com](http://www.timbermart-south.com).

INCOME PROPELS TIMBERLAND OVER S&P 500 IN 2000			
Asset	Total Return	Appreciation Return	Income Return
S&P 500	-9.11%	-10.14%	1.10%
NCREIF Timberland	4.41%	-0.22%	4.65%

**Figure 2.** Calendar year 2000 returns. NCREIF - National Council of Real Estate Investment Fiduciaries. Source: Lutz, J. 2002. *Timberland Report*, Vol. 3 No. 4. James W. Sewall Co. [www.jws.com](http://www.jws.com).

land, income returns from timberland tend to be higher than income returns for the S&P 500,” Lutz explains, pointing out a significant spread in 2000 (see Figure 2 above).

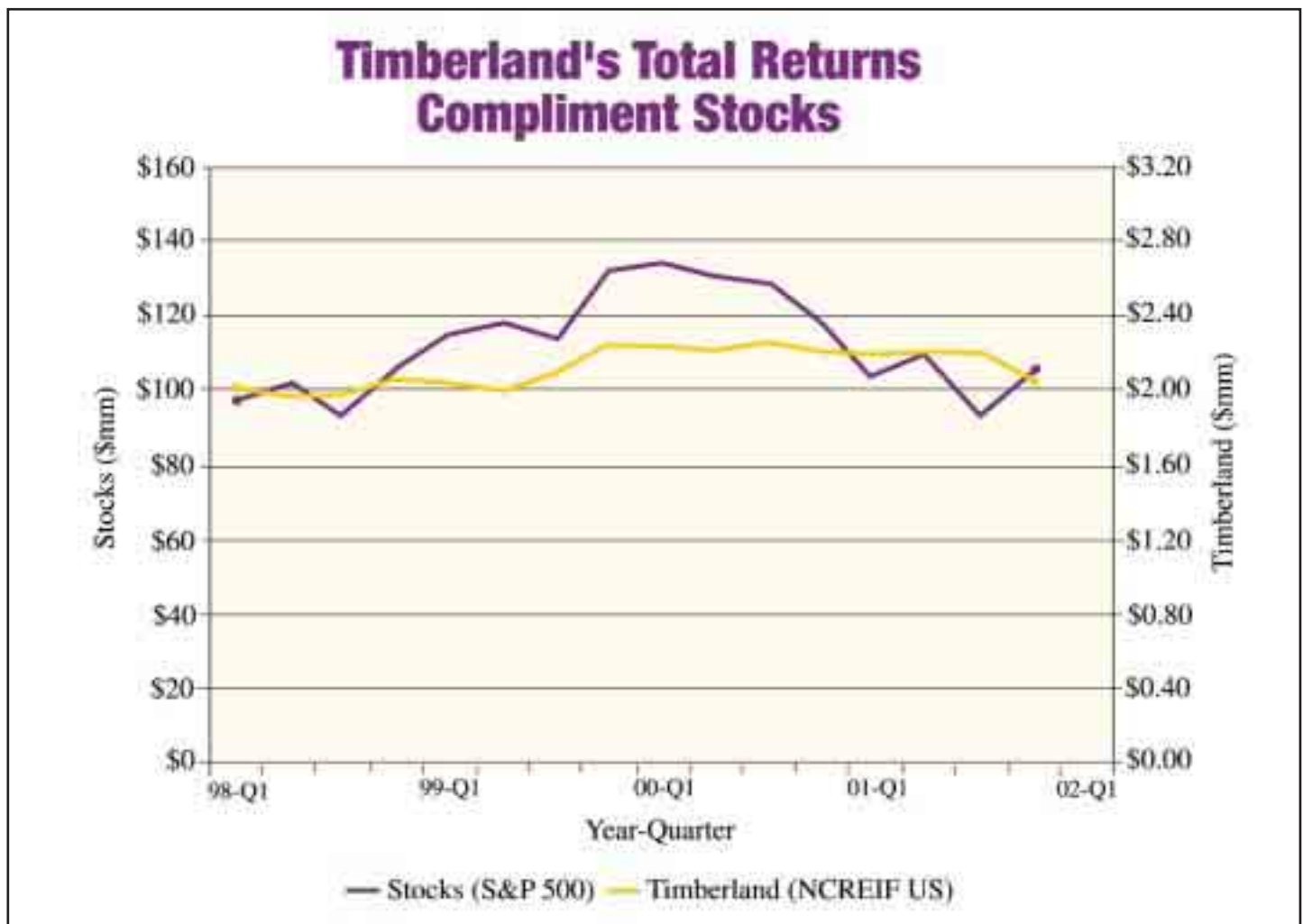
Since 1987, annual timberland income returns have ranged two to four percent higher than the annual S&P 500, Lutz reports. In addition, the downturn in the

stock market since 2000 has dramatically shown that paper gains in stocks can quickly disappear while forestry provides attractive and consistent total returns (see Figure 3).

“Institutional investors see the current times as excellent buying opportunities into forest markets,” Butler says. “But it’s not like the long-gone ‘good old days’ of

low timberland values, so investors are relying more heavily on high-productivity management to assure good returns.”

*Mark Allen is a business writer who frequently covers forestry and wildlife topics. Reprinted with permission from Timberlines ([www.timberlines.com](http://www.timberlines.com)) Volume 14, Number 2, Fall 2002.*



**Figure 3.** Performance of a hypothetical portfolio starting with 98 percent stocks and 2 percent timberland in 1998. Source: Lutz, J. 2002. *Timberland Report*, Vol. 3 No. 4. James W. Sewall Co. [www.jws.com](http://www.jws.com).

# WHAT AND WHERE IS NORTH?

By *Doug Smith*

Forester, Alabama Forestry Commission

Reading a map or using a compass can be frustrating at times, especially if you are a beginner. If you work in the woods, are planning a wilderness hike, or are just going on vacation and plan to use a compass or map, there are two things you need to know: “What and Where is North?”

This may sound like a silly question but it is very important when reading a map or using a compass. In orientation there are three different types of north: Grid North, True North, and Magnetic North. Each one is discussed below.

**GRID NORTH** - Most maps contain parallel, evenly spaced lines that run from the top of the map to the bottom of the map or North and South. These lines will be parallel to the North Arrow that will also be located on the map. The top of the map is usually North (Figure 1). However, some maps (example: Shelby County Alabama, DOT hwy map) have North at a different location (Figure 2). In this situation, the grid lines are still parallel to the North Arrow.

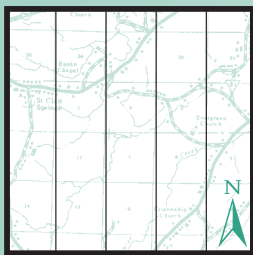


Figure 1

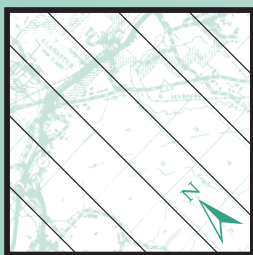


Figure 2

Since grid lines are parallel, they cannot meet at one North point on a globe. The discrepancy relates to straight, parallel lines on the flat map corresponding to the real situation of curved lines on the round earth which are not parallel (see Figure 3). However, grid lines are close enough for most common map uses.

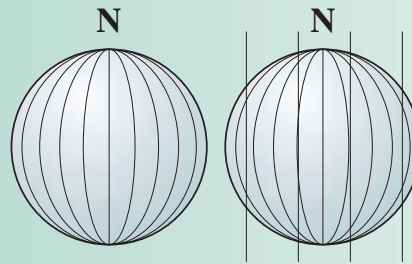


Figure 3

**TRUE NORTH** is the North Pole where Santa lives or, more technically, one end of the axis upon which the earth turns (Figure 4). For common, homeowner use, Grid Lines point to True North.

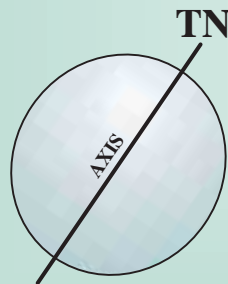


Figure 4

**MAGNETIC NORTH** - When you use a magnetic compass, one end of the needle points to Magnetic North. The pointer is magnetized and points North and South. You can magnetize a sewing needle by rubbing it on a magnet. Pour water into a glass or other container and

place the needle on top of the water. Don't worry, if you do this carefully, surface tension will prevent the needle from sinking. The magnetic field of the earth will cause the needle to rotate and point North/South.

If a magnetic compass has a needle balanced on a pivot, it will also rotate and point North/South. Notice that one end of the needle has wire wound around it. Which end has the wire wrapping? The magnetic source of the earth pulls the needle towards north and down towards the earth. Therefore the South end has the wire counterweight to keep the needle level. North ends are often identified with an “N” or a colored or luminous tip.



So where is this Magnetic North that makes the compass useful? It continually moves at the speed of about 10 km per year but its generally located in the area of Ellef Ringnes Island in northern Canada (figure 5). A directional problem will exist if you are not directly south of Magnetic North. At any other location, there is a difference between your magnetic compass reading and True North.

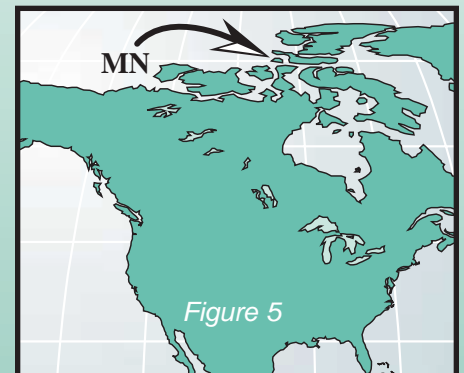


Figure 5

This difference in angles is called Declination (figure 6). In Alabama, the compass needle points to Magnetic North and, if the imaginary line is extended, on to (almost) True North. Unless you are surveying, there is little need to compensate for our local error. However, if you are in Arizona, your magnetic compass needle will point to the same magnetic location as if you were in Alabama, but True North is several degrees to the West of that line of sight. That angle of declina-

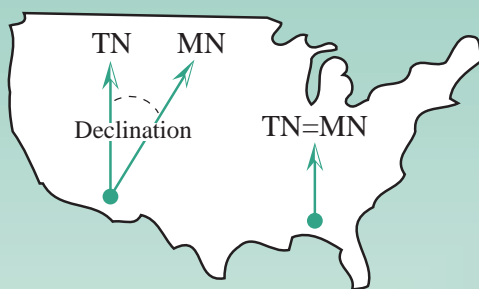


Figure 6

tion is significant and compensation should be made. Some automobiles have a built-in compass. The owner's manual explains how to compensate for the angle of declination depending on where you are in the U.S.

So what does this mean when you use your compass for directions in Alabama? Don't worry about understanding the geological and mapping details. Take your "off-the-shelf" compass, use it . . . and have fun. 🏕️

# How to Avoid Getting LOST in the Wilderness

by *Tracy L. Nelson*  
Area Biologist,  
Alabama Department of  
Conservation  
and Natural Resources

Each year the number of people using North America's wilderness areas is increasing. Outdoor recreation, with its wide array of activities has grown into a huge industry. Unfortunately, the enthusiasm with which many people take to the woods is not always tempered with the skills and understanding necessary to handle situations that can arise while outdoors. Tragically, the growth in outdoor recreation has led to a steady increase in the number of accidents from carelessness and lack of knowledge.

One mishap that seems to occur often is people becoming lost or stranded in the wilderness, and not being properly prepared for such an event. Even in the Southeast, with its fairly mild winters, a person who is forced to spend the night in the woods without being properly prepared can succumb to hypothermia. This doesn't have to be the case. By learning some basic outdoor skills, and use of some simple equipment, you can lessen the chances of getting lost. Should you happen to get lost, you will be equipped to handle the situation.

One important step is to learn how to read and use a topographic (topo) map and a compass. It is even more helpful to acquire topo maps of the area to be visited, and study them thoroughly. For practice, try some orienteering using topo maps of some local areas. This will give you an idea of how good your skills are. Take the maps and compass anytime you venture into the woods.

Another step is to always carry some basic wilderness survival equipment in

what is known as a "survival pack." For this purpose, a small fanny-type pack is recommended. The survival pack should contain many of the items needed if stranded. It will also aid in finding a way out of the woods. It should contain the following items: waterproof matches, a compass, map, pocketknife, braided nylon fishing line, water purification tablets, small flashlight, small steel cup, fishhooks in a protective box, a whistle, strong cordage, prescription medications taken, spare eye glasses, if worn, and some first aid supplies. These items should be checked regularly for usability and replaced when necessary.

Learning some basic wilderness survival skills is also a good tip. Skills such as shelter-building and fire-making are of utmost importance. These skills can be attained by reading books on wilderness survival and/or attending one of the acclaimed survival schools in the country. It is essential to remember that there is an order of tasks to be followed when faced with a survival situation: 1) build a shelter, 2) find and treat water, 3) build a fire, and 4) find food.

The most important wilderness survival tool, however, is a healthy dose of mental self-control, common sense, and confidence in one's ability. Armed with this knowledge and these skills, one should be able to enter a wilderness situation knowing that he or she will be able to handle surviving in the wild.

For more information, please contact Tracy Nelson, Alabama Department of Conservation and Natural Resources, 4415 County Road 75, Cedar Bluff, Alabama, 35959. 🏕️



# Kudzu

## ...If You Can't Beat It, Eat It!

By *Janice Key-Walding*, Certified Herbalist

Photo by Coleen Vansant

*“In Georgia, the legend says that you must close your windows at night to keep it out of the house. The glass is tinged with green, even so...”*

- from *Kudzu* by James Dickey

**T**he plant that covers Dixie like the dew, the plant that ate the South, the “mile-a-minute plant” — Kudzu (*Pueraria lobata*). The very word can strike fear into the heart of even the most dauntless Southern landowner. We’ve all seen it gracefully devour the tallest trees, abandoned cars, even entire houses . . . softening their outlines, covering their rust and decay, redefining man’s work with nature’s art. It’s downright hard to believe that it’s not native to the South, isn’t it?

It’s true, kudzu is an Asian import and originally was planted in the South to control soil erosion. During the 1930’s, members of the Civilian Conservation Corps (CCC) were paid as much as \$8.00 an acre to plant kudzu (and this was at a time when some land didn’t sell for much more than that). I guess it served its purpose, although it’s hard to tell what the soil’s doing underneath all that lush, green growth!

Kudzu quickly became too much of a good thing for most folks. In 1972 it was declared a ‘pest plant’ and kudzu eradication programs came into being. Again, we overlooked the obvious. If you can’t beat it, eat it! That’s right . . . it’s been happening in Asia for many centuries.

Every part is edible. The flowers can be used for making jelly and wine, the leaves can be cooked like all the other edible wild greens that are so abundant here in the South, both leaves and flowers can be battered and deep fried, and the root can be made into a starch that resembles cornstarch in both appearance and use. The most delicious honey I’ve ever tasted was from bees that had access only to kudzu flowers. It was a rich purple color and had a mild “grapey” taste.

Kudzu is one of those wonderful plants that can provide both food and medicine, if we only learn how to avail ourselves of its gifts. For centuries, Chinese herbalists have used kudzu root extract to treat alcoholism. Now Western medicine is playing catch-up with scientific studies on kudzu root and alco-

holism. Kudzu contains compounds called isoflavones that cause acetaldehyde (what scientists say is the culprit in alcohol that causes a hangover) to accumulate in the bloodstream faster, instead of hanging around and being absorbed by the rest of the body. The result is



Photo by Coleen Vansant



quicker headache and nausea, which is supposed to make your body say, “Stop! No more alcohol!” Dr. James Duke (The Green Pharmacy, 1997) believes that the acetaldehyde accumulations make folks feel lousy more quickly, so they cut back on drinking alcohol. The trick is to take the kudzu root extract with the first drink.

Although I’ve tried boiled kudzu leaves (serve ‘em with cornbread and hot pepper sauce) and stuffed kudzu leaves (prepare as you would a stuffed cabbage leaf dish), my favorites are battered and deep fried leaves and kudzu blossom jelly.

Although I’ve been called a ‘health nut’ (and for some reason, many friends and relatives emphasize the second word in that phrase!), I am a true Southerner and I do love fried foods. Since “moderation in most things” is a philosophy that works for me, I’m presenting my recipe for deep fried kudzu leaves as well as my more ‘normal’ recipe for kudzu blossom jelly.

This tempura batter works well with most foods that lend themselves to frying, including onion rings, zucchini, eggplant, and especially shiitake mushrooms (another Asian import that grows really well on our Southern hardwoods).

### Tempura Batter for Kudzu Leaves

1/2 cup flour  
1/2 cup cornstarch (or kudzu root powder, if available)  
1 1/2 teaspoons baking powder  
2 egg whites  
1 cup water, plus one ice cube  
pinch of salt

Mix dry ingredients. Beat egg whites with water, add ice cube and mix ‘til it’s melted. Add to dry mix. Do not over-mix. The batter should be very thin. Dip clean, dry kudzu leaves in the batter, one by one, drain excess batter, and fry quickly in 350 to 375 degree oil. Drain on paper towels. You can sprinkle a little more salt or garlic powder on them after they are cooked. Serve hot.

Although this sounds incredibly bland, it’s really a delicious dish — thinner and crisper than the freshest potato chip. They passed the stringent standards



Photo by Coleen Vansant

of my official taste testers: my husband and two sons. If you can eat fried foods at all, try this one!

This next recipe is both easy and delicious. It is a beautiful, clear, ruby red color and makes a unique Christmas gift. And of course, here in the South, there are enough kudzu blossoms to make a jar for all your friends and relatives!

### Kudzu Blossom Jelly

4 cups kudzu blossoms  
4 cups boiling water  
1 tablespoon lemon juice  
1 (1 3/4 ounce) package powdered pectin  
5 cups sugar  
6 six-ounce fruit jars, rings and lids

Wash kudzu blossoms with cold water, and place them in a large bowl. Pour the boiling water over the blossoms, and refrigerate 8 hours or overnight.

Pour blossoms and liquid through a colander into a stock pot, discarding blossoms. At this point, the ‘blossom broth’ will look grayish-brown and very unappetizing. (Don’t worry; the lemon juice works magic!) Add lemon juice and pectin. See what I mean? Instant color change. Bring to a full rolling boil over high heat, stirring constantly. Stir in sugar. Return to a full rolling boil, and boil, stirring constantly, one minute. Remove from heat. Skim off foam with a spoon.

Quickly pour jelly into hot, sterilized jars, filling 1/4 inch from top. Wipe jar rims. Cover at once with metal lids, and screw on bands. Process in boiling water bath five minutes. Cool on wire racks.

**YIELD:** 6 six-ounce jars. That’s it! Easiest jelly in the world to make and SO delicious, kind of like flowery-tasting grape jelly.

I hope you’ve been inspired to try these recipes. To me, eating kudzu is the ecologically perfect way to keep it under control here in the South. Hmmm . . . that might make a good bumper sticker: Eat Kudzu Before It Eats You! 🍷

*Janice Key-Walding, “The Southern Herbalist,” holds a Master’s degree in English from Auburn University and is a Certified Herbalist through The School of Natural Healing in Springville, Utah. In addition to writing articles for her local newspaper, she also teaches classes, makes presentations, and conducts native plant walks. She is passionate about using native plants (and weeds!) for food and medicine. She recently authored a book, **Getting Wild With The Southern Herbalist**, which contains articles about many of the South’s abundant native plants, including the latest scientific research on them, as well as recipes and formulas for putting them to use in our daily lives. For more information or if you’re interested in scheduling a talk, walk, or class in your area, write to Janice at: 1303 Dirt Road 486, LaFayette, AL 36862; or contact her via telephone (334) 864-7388, or e-mail at southernherb@mindspring.com. Her website address is: [www.TheSouthernHerbalist.com](http://www.TheSouthernHerbalist.com).*

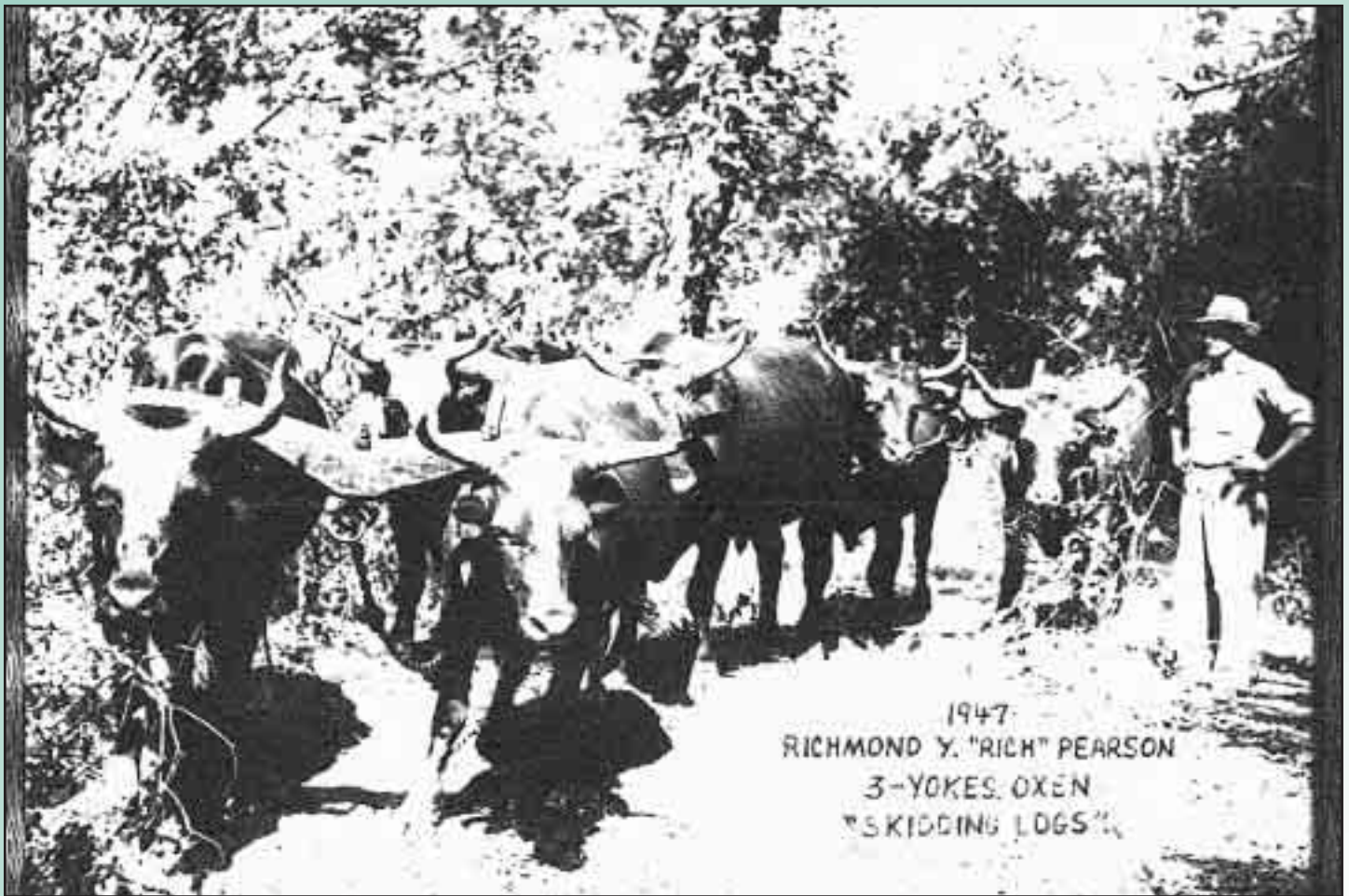


Photo from Bibb County, Alabama

# Historical Logging Photos

Compiled by *Tilda Mims*

*Jerome F. Parker, Sr.  
of W.E. Belcher  
Lumber Company  
drives a Caterpillar  
crawler-tractor on  
U.S. Steel land in  
Jefferson County  
in the 1940s.*

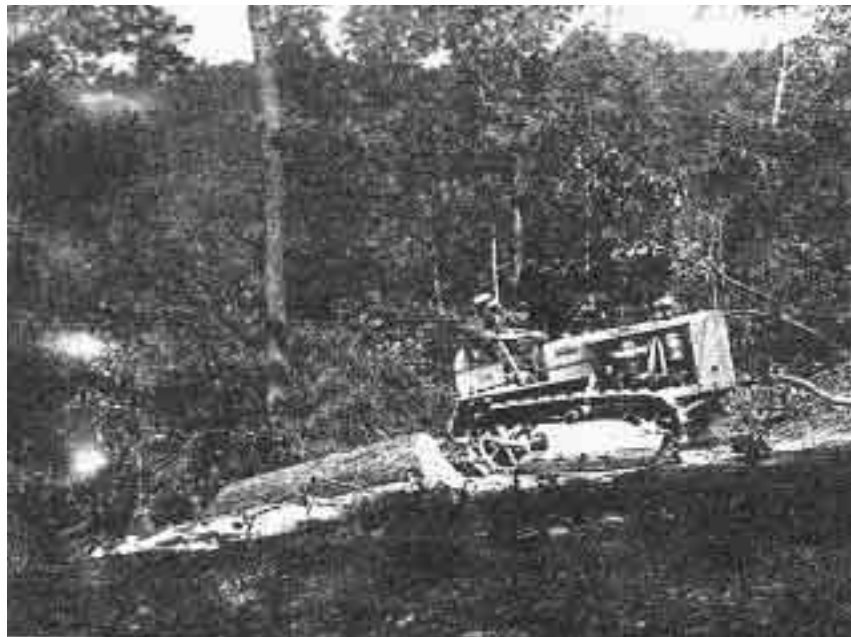


Photo courtesy of The Sawmeal Restaurant in Centreville, Alabama

*There's no winch, only a chain wrapped around the back of this Caterpillar crawler-tractor, on U.S. Steel land in Jefferson County in the 1940s.*



*Photo courtesy of The Sawmeal Restaurant in Centreville, Alabama*



*Photo courtesy of The Sawmeal Restaurant in Centreville, Alabama*

*A Caterpillar crawler-tractor is used on U.S. Steel land in Jefferson County in the 1940s.*



# Antlerogenesis

## Antler Growth and Associated Abnormalities

By *Dean Stewart*, Wildlife Specialist

**M**an has long been fascinated by deer and deer antlers, as evidenced by paintings and etchings found in prehistorically-occupied caves. Even today, when deer hunters gather, the conversation often focuses on antlers. Let's look briefly at how antlers grow and some of the reasons for asymmetrical and abnormal antler expression.

The terms "antlers" and "horns" are often used interchangeably, but they are quite different. Antlers, unlike horns, are found only in the deer family (*Cervidae*), grow from the tip, and are shed and regrown each year. Antlers are the fastest growing form of true bone in nature.

Antlers are a secondary male sexual characteristic. Change in seasonal photoperiod (day length) in the spring sig-

nals the testes and certain organs to alter production of testosterone and other hormones. These hormones then initiate antler growth, velvet shedding, or antler casting at the appropriate time.

Our southern white-tailed deer grow antlers in about seven months. Beginning in March or April of the year following birth (one year of age), the yearling buck develops his first set of antlers. They

grow until mineralization occurs in early fall.

Mineralization involves replacement of soft, blood-and-protein-composed antler tissue with minerals from the skeletal structure. In late September or early October, the blood flow to the antlers ceases, and the velvet is shed.

Nutrition, age, genetics, and other factors are responsible for the annual expression of antlers. The "typical" antler conformation includes a "normal" number of points that originate from traditional locations on the rack. "Non-typical" and "asymmetrical" antler configurations usually have numerous extra points originat-



A buck "in velvet."

Photo by Claude Jenkins

ing from non-traditional locations on the rack. Since well-developed antlers are a product goal, hunters and managers want to know why antlers develop in different ways, including abnormal development. Let's examine some of the causes of typical, asymmetrical, and abnormal antler growth.

**Nutrition** is likely the most important influence on antler growth and development. To achieve antler potential for their age, whitetails need diets containing 16 percent protein, a 2:1 calcium to phosphorus ratio, and other trace minerals. Deer on a poor nutritional diet may show decreased antler growth and early casting.

As deer **age**, antler mass increases. Maximum antler development is reached at 5.5 to 7.5 years old. Antlers generally become more non-typical at or beyond 4.5 years old.

The influence of **genetics** on antler development has been studied, but there is still much to be learned. Genetics controls the potential for normal antler development at appropriate ages. At this time, it is impractical to manipulate the genetic structure of most wild deer herds. Genetics influences both symmetrical and asymmetrical antler growth, and genetic-caused abnormalities are often repeated each year.

**Injury** to the growing antler is the most common cause of asymmetrical development. If the tip is injured, abnormal growth will occur. Injuries sustained during early antler growth (spring) generally produce more profound abnormalities compared to later injuries and may result in either reduced or increased antler growth. Skull or pedicle damage can also produce abnormal growth resulting in small, poorly-formed antlers. These antlers may be found on other

regions of the head, such as on other parts of the forehead or around the eyes.

Although not completely understood, injury to nerves in the antler can affect antler growth. Nerve injury to one side of the rack may affect growth of the other side and may permanently affect antler growth.

A common antler deformity results from damage to a deer's front or rear leg. Rear leg injuries produce a "contralateral" antler deformity (malformed antler

to a front leg may produce a malformed antler on either, both, or neither sides. Body injuries may or may not cause antler abnormalities.

If bucks lack sufficient testosterone as a result of castration or dysfunctional testes with no testosterone, they will maintain their antlers and velvet permanently, adding antler growth each year. "Cryptorchidism" is a related phenomenon and results from failure of the scrotum to descend into the scrotal sac.

These bucks can shed velvet and develop hardened antlers but are reproductively sterile.

On extremely rare occasions, does produce a small set of antlers, but they often remain in velvet.

Antler development in does can be caused by excessive testosterone production, perhaps from an absence of ovaries, or hermaphroditism, when an animal has both male and female sex organs.

Antler growth is a fascinating process influenced by nutrition, age, genetics, and other factors.

Managers can positively impact antler development by

increasing buck age and the herd's nutritional plane. Additionally, other herd characteristics such as sex ratio must be addressed to effectively manage antler development. 🍄



*In late September or early October, the blood flow to the antlers ceases, and the velvet is shed.*

*Photo by Claude Jenkins*

on the opposite side from the injury), possibly due to one side of the brain controlling the opposite side of the body. After a very serious leg injury, a buck may never produce a quality rack. Injury

*Dean Stewart is owner of FarView Forest and Wildlife Services, a consulting firm. Service areas include wildlife, land, and timber management. Area of specialty is working with large private or corporate landowners to integrate and maximize potential of wildlife and forestry resources. This may include preparation and execution of timber sales, reforestation, intermediate silvicultural techniques in forest stands, quality deer management, other game species and habitat management, coordination of hunting leases and club communication, and wildlife business management. Previously, Stewart was extension wildlife specialist with Department of Wildlife and Fisheries, Mississippi State University, and before that spent 14 years doing forest and wildlife management with forest industry. FarView Forest and Wildlife Services, 817 South Lake Rd., Starkville, MS 39759. Phone 662-324-6443. Email: deanstewart3@hotmail.com*

# Wild Thangs

## Clay's Ultimate Duck Recipe

The marinating portion of this recipe should be prepared at least four hours in advance to cooking (I prefer to marinate in the fridge overnight). It is a very labor-intensive recipe that pays heavy dividends at the table. I find an "assembly line" system with a friend speeds up the preparation of the tasty morsels. For those of you who have "tried" duck and didn't like it, this one's for you! This recipe's end result has the flavor of tender roast beef.

You can expect 2-3 large halves per person for "eaters" and 1-2 large halves for "lightweights" (large ducks: Mallards/Gadwalls).

### Ingredients

**Zesty Italian Dressing**

**Philadelphia Cream Cheese**

**Dale's Steak Sauce**

**Jalapeno slices**

**Tony's Creole Seasoning**

**Powdered Ranch Dressing**

**Adobo Seasoning (optional)**

**Toothpicks**

**Sliced bacon**

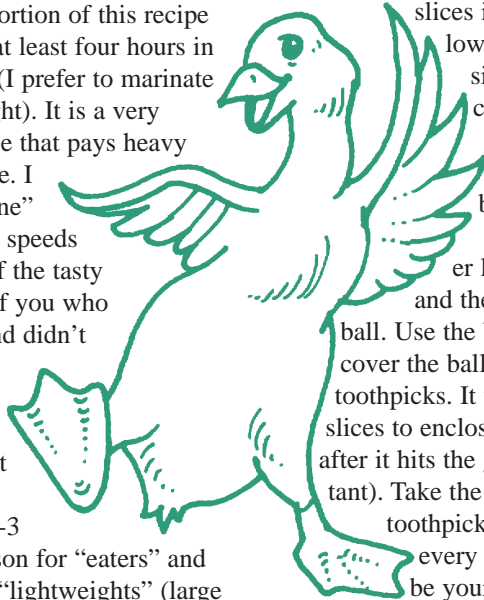
**Ziplock bag (gallon)**

Rinse deboned duck breasts before preparing. Remove the "tenders" portion of the breast and set aside. Using a sharp fillet knife, butterfly the breast by starting on the thin edge and work toward the thicker side so as to leave a "hinge."

Place opened halves and tenders in a gallon ziplock bag and add liquid ingredients enough to cover the breasts. For those of you who don't like it salty, ease off the Dale's. I prefer a 4-to-1 mix of Zesty Italian Dressing to Dale's Sauce. To add a little zip, add 2-3 oz. of jalapeno juice.

After marinating, place moist halves on a cookie sheet in the opened position (like a book). Here's where the assembly line comes in!

Generously sprinkle the Tony's, Adobo, and powdered Ranch dressing in the cavities. Place one to two jalapeno slices in the halves and follow up with a "finger-sized" portion of cream cheese (I know this sounds crazy, but it makes it 200% better).



Fold slices together like closing a book and then roll into a fist-like ball. Use the bacon to completely cover the ball and anchor with toothpicks. It usually takes two slices to enclose the melted cheese after it hits the grill (very important). Take the tenders and use two toothpicks as skewers for every five pieces (this will be your "during cooking" snack or for children, so you don't have to hunt for shot).

On medium-low coals, cook halves while turning regularly. Place the tenders skewers away from the heat to prevent burning. When the bacon appears edible, remove halves from grill (foolproof method). This generally takes about 8-12 minutes, depending on heat. You do not want to over-cook duck; it needs to be medium rare if possible.

This form of dining requires the use of your hands, so be prepared to dig in. In other words, you may not want to serve at a formal event! Remove the toothpicks and slice across the grain in 1/4 inch slices. Some folks like to eat the bacon, peppers, and everything! I prefer to remove the peppers before eating. Caution your guests about "winning the prize" though. Steel shot has a tendency to ruin dental work!

This recipe blends well with Lipton seasoned rice and fresh-baked bread or potatoes. Many years of trial and error have gone into this recipe and I haven't found anybody yet who didn't love it! 🍴

**Clay Morris**  
**"Addicted2Dux"**  
**Procurement Forester,**  
**Boise-Cascade**  
**Jackson, Alabama**

## The Threadgill Estate: From Farming to Forestry

*(Continued from page 16)*

intensively managed and thinned 50 acres of bottomland hardwoods leaving the most merchantable timber to mature. They constructed fire lanes for wildfire protection, which also served as an additional food source for wildlife. They currently maintain year around food plots for wild game and also lease the hunting rights on a 40-acre tract. Although focus has changed to timber, they still retain a small acreage for hay production to bring in annual income and to cherish memories of the farm when Obadiah was alive.

While successfully managing the property, Winfred Andrews, from the Greene/Sumter County Natural Resource Conservation Service saw the remarkable accomplishments they were making on the farm and nominated them to become candidates for the TREASURE Forest program. After completing the necessary management recommendations, the Threadgill family became TREASURE Forest landowners on December 9, 1999.

Mrs. Threadgill who is now 83 years old, owns approximately 187 acres in three counties and still resides on the farm. Her children and neighbors help care for the property. When she is not working on the farm, she is involved in many organizations which include: Retired Teacher's Association, American Cancer Society, Family Life Committee, Busy Bee Club, and The Alabama Cooperative Extension Employee Organization. She stays busy with hobbies such as creative writing, sewing, quilting, and doll-making.

Mrs. Theresa Threadgill has received many awards and has proven to be a good steward of the land. She knows that she will not see the final harvest of the timber, but she wants to leave this TREASURE for her and Obadiah's children and the community of Sumter County to enjoy. 🍴

**Did you know** that you can remove rust from traps by soaking them in a bucket of crushed green magnolia leaves? (This tip compliments of TREASURE Forest owner Gary Fortenberry.) Or that you shouldn't plant corn in the spring until the leaves on an oak tree are as big as a squirrel's ear?

If you know of any food for thought, trivia, folklore, or country wisdom, please share it with us. Send your items to Coleen Vansant at [www.vansantc@forestry.state.al.us](mailto:www.vansantc@forestry.state.al.us).

**For current information on the Southern Pine Beetle situation in Alabama visit the Alabama Forestry Commission web page at: [www.forestry.state.al.us](http://www.forestry.state.al.us)**

# WHIP Helps Develop and Restore Wildlife Habitat

By *Stanley D. Stewart*


Wildlife Biologist, Wildlife and Freshwater Fisheries Division,  
Alabama Department of Conservation and Natural Resources

The Federal Agriculture Improvement and Reform Act of 1996 authorized the establishment of the Wildlife Habitat Incentive Program (WHIP) with the U.S. Department of Agriculture's Natural Resources Conservation Service. The purpose of WHIP is to provide financial cost-share and technical assistance to landowners to develop and restore wildlife habitat across America's farm landscape.

Congress originally authorized \$50 million nationally for implementing the program over five years. This is a lot of money, but when distributed across the nation, funds for individual projects were limited. Therefore, each state was required to develop an implementation plan that identified target wildlife species and habitats, especially those in decline. The bobwhite quail, for example, was identified as a priority wildlife species in Alabama, and the restoration of their native grassland/shrub habitats was assigned as a habitat priority. Threatened

and endangered species and declining natural communities such as wetlands and longleaf pine ecosystems were also given restoration priority.

WHIP is the only USDA conservation cost-share assistance program devoted totally to the development of wildlife habitats across the nation. It is unique among USDA conservation programs in that wildlife habitat development is the program's sole priority. Following WHIP's implementation, applications for projects quickly exhausted the funds that were available. Requests for assistance have greatly exceeded the program's capacity, demonstrating landowners' desires for wildlife and habitat restoration.

Because of its popularity, WHIP was reauthorized in the Farm Security and Rural Investment Act of 2002 with increased funding levels totaling \$360 million dollars through 2007. If you need information about the current Wildlife Habitat Incentives Program, please contact your local USDA Service Center. 

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# SWEET SHRUB

(*Calycanthus floridus*)

By *Coleen Vansant*

Information Manager, Alabama Forestry Commission

Most people plant trees and plants for a specific reason, whether it's to produce timber, attract wildlife, or provide shade or a buffer. There's one plant, although not very pretty, that is planted for its incredible smell – the sweet shrub.

Sometimes called “Carolina allspice,” “strawberry bush,” “bubbly blossom,” “spicebush,” or “Sweet Betty,” the sweet shrub is one of the most fragrant flowers of the forest. For many people the smell can be nostalgic because it reminds us of the bush that was planted outside the living room window of our grandparents’ or parents’ home that provided such a delicious soft sweet smell on cool spring nights. This plant has been providing our gardens and yards with aromatic delight for almost 200 years. The sweet shrub was originally found by Mark Catesby and introduced to Charleston gardens in the 18th century from which it spread throughout the colonies.

The bush is native to the southern and mid-Atlantic states and grows about five to ten feet tall and grows considerably



wider. The leaves are elliptical, pointed, entire, dark green and rough above and grayish, downy below. They are two to three inches long and opposite. The shrub is deciduous with beautiful yellow fall color.

The flowers are dark red, maroon, or brown curved linear petals, 1½ to 1¼ inches in size, resembling a strawberry. They fill the woods and yards with an unusual fruit aroma that has been described as similar to strawberries, bubble gum, honey, pineapple, or a mixture of any of the above. Seedlings of the bush are not usually fragrant. Fruit is ovoid, leathery, nodding capsule, 1½ inches long.

Sweet shrub will grow in most in any well-drained soil and will tolerate both sun and shade.

**Author's Note:** A yellow flowered variety can be purchased from many nurseries. Called “Athens,” this shrub grows up to six feet or larger and spreads over ten feet or more in time. The incredibly fragrant flower blooms heavily in May and continues into June and July. 🌱



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