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Georgia

FORESTRY



White House Photo.

Mar. 1978 No. 1 Vol. 31

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GEORGIA FORESTRY COMMISSION DISTRICT OFFICES

Coosa Valley
P. O. Box Z, Mt. Berry 30149

North Georgia
Rt. 7, Box 83, Canton 30114

Atlanta
7 Martin Luther King, Jr. Dr., S.W.
Room 545, Atlanta 30334

Chattahoochee
P.O. Box 1080, Newnan 30263

Middle Flint
Rt. 1, Box 23A, Americus 31730

Coastal Plain
Rt. 2, Ashburn 31714

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Rt. 4, Box 168A, Athens 30605

Heart of Georgia
Rt. 1, Box 46, Helena 31037

Middle Georgia
Rt. 8, Columbus Rd., Macon 31206

Oconee
Hwy. 49, Milledgeville 31061

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Cruising The News

Wood For Energy: Fascinating Idea

One of the most fascinating proposals we have been exposed to in years was presented here Monday night by officials of Georgia Tech Engineering Experiment Station and the Georgia Forestry Commission.

They proposed a wood energy research center for LaGrange, a project that would use wood in cogeneration, the combined production of process heat and electricity.

Under the plan, which first must be justified by a feasibility study, the LaGrange Industrial Development Authority would produce the electricity and instead of allowing the steam to be lost into the air would capture it and sell it to local manufacturing facilities.

The idea of producing energy by burning wood isn't easily acceptable to the layman, who visualizes the fireplace where 90 percent of the heat created goes up the chimney. As a matter of fact, Georgia's governor at first wasn't impressed with the idea, but after listening to some of the accomplishments in the field of co-generation now supports the project completely.

The same is true of Dr. James Schlesinger, head of the new federal Department of Energy. He came to Georgia to take a look at experiments in the solar energy field and became so intrigued with wood energy that he requested all available information on it.

What the experiment may prove is that America finally will learn that it must deal with its energy problems on a regional basis. Wood could prove a practical energy source for large areas of the South where forests abound, while areas of the West where sunlight is a commodity in abundance could turn more to solar energy. And areas of the nation where coal is abundant would use this fuel, leaving the natural gas to the North for use during its extended harsh winters.

Ray Shirley, director of the Georgia Forestry Commission, envisions Georgia meeting half of its energy needs from wood. That becomes an impressive figure when you realize that this state imports about 97 percent of its energy at a cost of more than \$3 billion annually.

Considerable effort now is being expended to investigate the potential of wood as an energy source for business, industry and residences. With the increasing cost of natural gas, economic comparisons with wood and other fuels are competitive.

Wood has no sulphur and when combusted with gasification systems, produces little particulate emissions. With careful forest harvesting techniques, environmental impacts on the land itself can be controlled.

One of the most impressive aspects of the proposal is that it would turn into an asset a project which we have been wasting for years. Forty percent of every tree that is cut is not being used for any purpose now.

Estimates of available supplies of wood in Georgia of annual wood waste and cull timber are the equivalent of 48 million barrels of oil annually without affecting wood for conventional uses.

This represents an equivalent value of \$330 million annually that could stay in Georgia's economy.

As Forestry Director Shirley pointed out at Monday's meeting, wood was the chief source of energy in the United States until the turn of the century, then was forgotten as a clean-burning cheap fuel called natural gas came on the scene. Now it appears that wood will become a source of energy again under new technological advances.

(From the LaGrange Daily News)

Weather Test Underway

During 1977, the State of Georgia experienced its largest number of forest fires since 1954. There were more than 15,000 fires which burned almost 80,000 acres of forest and open land. Debris burning is the largest cause of forest fires in Georgia.

A pilot test currently under way in Turner and Brooks Counties shows promise of an effective means to reverse the trend of the past few years of having more fires.

The project, simply stated, makes fire weather forecast information, relating to fire use, available on a local basis to landowners at their convenience through the use of a telephone answering device.

The U. S. Forest Service's Southern Forest Fire Laboratory at Macon, in cooperation with the National Weather Service has come up with a computer program which has the capability of taking National Weather Service observational and forecast data on an hourly basis. The computer then interpolates the information in such a manner resulting in a reliable forecast of what is likely to happen on a county basis. This information is programmed, stored and updated in the University of Georgia computer at Athens where organizations with a computer terminal and proper access to the computer may acquire this information at any time.

In turn, the Forest Fire Laboratory in Macon has a meteorological staff which monitors, corrects and interprets computer output to insure maximum reliability. The user, in this case the Forestry Units in Brooks and Turner Counties, are provided a local forecast twice each day.

The two Forestry Units receive the forecast, add an appropriate fire prevention message and records the forecast and message on an automatic telephone answering device. Local landowners have been advised by letter from the ranger about this service and have been given the local telephone number to call to receive the weather information and advice. Also, in Turner County, radio station WMES broadcasts this information several times a day. Results so far have indicated that the public will use the system and that it has the potential of being an excellent fire prevention tool.

Information available to the land-



Billy J. Williams, Turner County ranger, daily records the weather forecast and adds an appropriate forestry message on a telephone answering device. The information is available to anyone needing fire weather information.

owner includes the high and low humidity, the high and low temperatures of the day and night, the fire danger (whether it will be safe to burn or not), the general trend of fire danger, the fire behavior (whether winds may vary or not) and the prescribed burning conditions (whether they are good or bad for burning).

In addition the information includes whether or not there may be a cold front moving in which could affect smoke dispersion and air pollution potential. This information tells the person who plans to burn anything how well the smoke and pollutants will disperse into the air on that particular day.

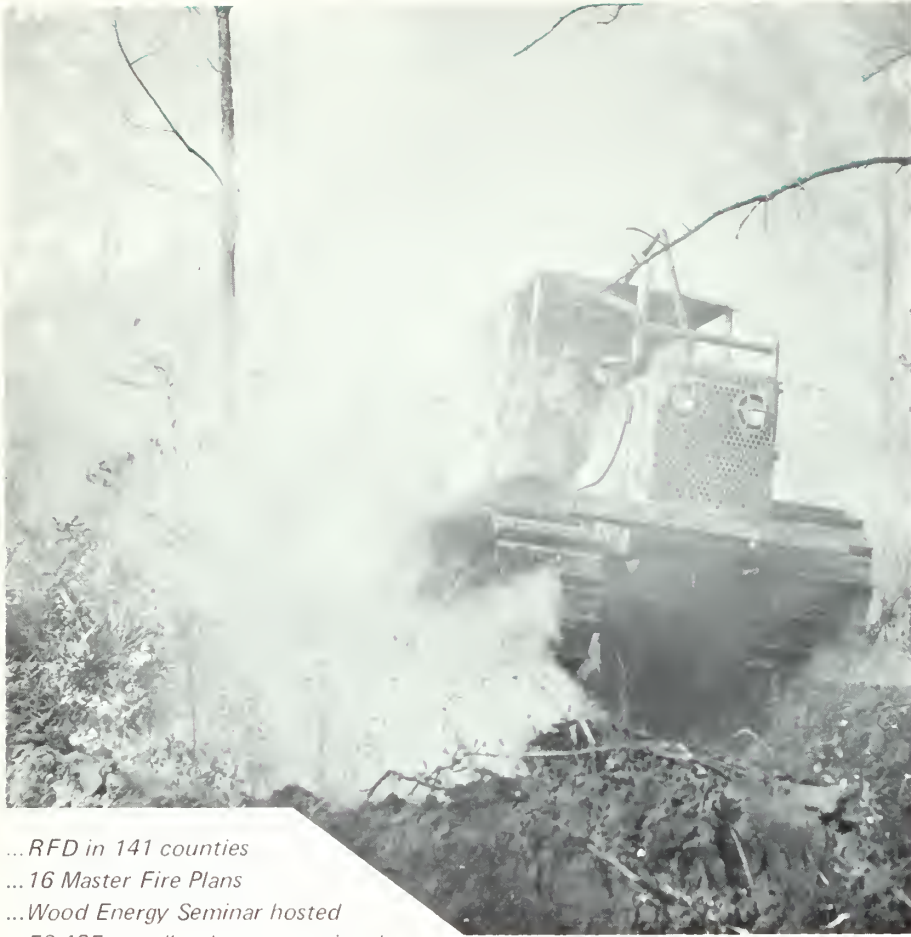
Future plans call for installing computer terminals in Clinch, Coweta, Floyd, Glynn, Haralson and Jenkins Counties. Others to be included are Liberty, Lowndes, Spalding, Telfair, and

Ware Counties.

According to James C. Turner, Jr., chief, Forest Protection Division, these locations will acquire local weather information for several surrounding counties and provide the information daily to these counties.

In effect, Turner said, the local ranger will be in the position of being able to provide the latest weather information to the landowners he serves and at the same time advise the landowner about burning conditions. The automatic answering device will deliver the message any time of the day when the landowner needs the information. The landowners will be able to do a better job of prescribed burning by being aware of existing weather conditions. By heeding this advice, wild fire occurrence can be drastically curtailed, Turner said.

77 Report Highlights



*...RFD in 141 counties
... 16 Master Fire Plans
...Wood Energy Seminar hosted
...50,425 woodland owners assisted
...All loblolly and slash are super seedlings*

Highlights of the 1977 Georgia Forestry Commission annual report have been announced by Commission Director Ray Shirley in a report to the Governor and State Legislature. The organization's Rural Fire Defense Program continues to grow in size and effectiveness. According to Shirley, there were 411 RFD Departments active in 141 counties with 587 trucks on loan at the end of June 1977. The efforts of the RFD volunteers resulted in the saving of property valued at more than \$48.6 million. Several of these volunteer units use "Fire Knockers", a special built 950 gallon fire truck. The Fire Knockers are built by the Commission and leased to communities. The volunteer firemen are trained in house fire tactics by the Georgia Fire Academy and city fire department personnel.

The preparation of countywide Master Fire Plans is another phase of the RFD program that has accelerated.

There were, at the end of June, 16 counties that had the plan in operation. The Master Plan is a positive guide directed toward coordinating county and community efforts in providing county-wide rural fire protection services in minimizing loss of life and property.

Due to the extreme drought last Spring, Georgia's forest fire occurrence was the highest on record. There were 14,895 wildfires which burned 78,250 acres. Director Shirley pointed out that approximately 45 percent of the fires and 60 percent of the acreage burned occurred in February and June when high winds and low humidity coupled with the drought resulted in tinder dry forests. Shirley had high praise for his fire fighters, industry cooperators and RFD units in holding the average size fire for the year to a respectable 5.25 acres, among the lowest in the South. Debris burning was the major fire cause followed by incendiarism, machine use

and smoking.

A major thrust by the State Agency was its program to develop wood as an energy source. A wood energy seminar was jointly sponsored by the Georgia Institute of Technology and the Forestry Commission. The seminar was designed to enhance the understanding of how crucial energy sources are and how industry and homes can use wood as an energy source safely. The extreme cold of the 1977 winter pointed out the need for such a conference. Demonstrated at the conference was a gasifier which produces a clean gas, similar to natural gas, by burning wood chips.

There were 50,425 woodland owners provided forest management assistance on 2,232,836 acres. The Commission continued its aerial flights to detect southern pine beetle outbreaks. It was reported that beetle activity was down with only Catoosa County showing heavy infestation. However, the insect was found for the first time in Brantley and Charlton Counties.

The Forest Incentives Program designed to increase timber production through tree planting and/or timber stand improvement was made available to all Georgians through the Forestry Commission. There were 1,056 requests serviced involving the planting of 11,185 acres, site preparing 10,647 acres and timber stand improvement on 2,961 acres.

The Commission's tree selection phase of its genetics program was stepped up. Priority is being given to trees demonstrating disease resistance, high growth rate and wood quality. These selected trees will be used in the continuing development of the improved or "super" seedlings being grown in Commission nurseries. This past year all of the loblolly and slash pine production, almost three-fourths of the 45 million seedlings grown, was improved stock. A national first occurred with the production of 131 pounds of the first Blue Tag certified seed certified by the Georgia Crop Improvement Association.

Jim L. Gillis, Jr., Soperton, was appointed to the five member Georgia Forestry Commission Board for a seven year term. Henry E. Williams, Woodbine, was elected chairman. Other Board members are Felton Denney, Carrollton; Eley C. Frazer, III, Albany, and Robert Simpson, Lakeland.

Arbor Day - 1978

Governor George Busbee proclaimed February 17, 1978 as Arbor Day in Georgia. In issuing the proclamation, Governor Busbee pointed out that forests occupy 69 percent of the State's land area, and provide the raw material for the State's wood-using industries. These industries funnel an estimated \$3.4 billion a year into Georgia's economy.

The Governor urged all Georgians to give attention to this observance, and at all times support, aid and take part in the protection, development and perpetuation of the State's timberlands.

Ray Shirley, director, Georgia Forestry Commission, said this marks Georgia's 88th anniversary of Arbor Day. He asked that school children, teachers, garden clubs, agricultural groups, civic and fraternal organizations dedicate this day to recognizing the value of Georgia's vast tree crop. Forestry Commission county rangers had a supply of suggested Arbor Day programs for any group, Shirley added.

The text of Governor Busbee's proclamation follows:

WHEREAS: Georgia has been richly endowed by Nature with rugged mountains, rich piedmont area and a fertile coastal plain, island-studded lakes and crystal streams, attractive coastal shores; all enhanced by forested areas, and

WHEREAS: Our forests occupy 69 percent of the State's land area; having for more than three centuries produced raw materials for lumber, paper, and other wood-producing plants which manufacture a variety of products worth annually about \$3.4 billion, thus giving steady employment to thousands of our citizens, and

WHEREAS: Good forest cover helps to store water in the soil, reducing flood run-off and preventing soil erosion, stabilizes the natural flow of rivers so necessary in the production of electric



energy; provides cover and food for wildlife, and

WHEREAS: It is possible through the use of wood material, in some cases, to replace natural gas, coal and electricity for energy which could lower Georgia's energy costs on a continuing basis by one-third, and

WHEREAS: In addition to better forest practices, there is an opportunity for additional improvement in the care and protection of both town and city

shade trees along our streets, highways, and in local parks:

THEREFORE: I, George Busbee, Governor of the State of Georgia, do hereby proclaim Friday, February 17, 1978, as "ARBOR DAY" in the State of Georgia, and do hereby call upon and urge every citizen of the State to give attention to this observance and at all times support, aid and take part in the protection, development and perpetuation of the great forest resources.

Southern Forest World, Inc. Dedicated



Southern Forest World, Inc., a private, non-profit interpretive center designed to tell the fascinating story of Southern Forestry, was dedicated November 9. It is located north of Waycross at the Okefenokee Heritage Center.

Springing from an idea and dream of Mrs. William Clark of Waycross, the building became a reality through a grant from the Coastal Plains Regional Commission as well as from donations by businesses and the forest industry. The building is valued at well over \$200,000 and contains 7,500 square feet of exhibit and office space. It is constructed primarily of wood including longleaf heart pine siding, cedar shingles, laminated yellow pine beams, cypress

and a variety of hardwoods.

Enlisting the aid of forest industry, state and federal forestry agencies and timberland owners, Mrs. Clark had building plans drawn up and now that the building has been built; the next step will be to finalize exhibit plans. Exhibits are being designed to create and encourage awareness of the renewable woodland resource which offers jobs, income to landowners and needed products to consumers and at the same time enhancing the quality of the environment.

The dedication program was presided over by E. Konce Bennett, Sr. of Waycross, who is Southern Forest World's legal advisor. William J. Barton, presi-

John R. McGuire, center, chief, U. S. Forest Service, Washington, D.C., made the dedicatory remarks where he pointed out that the South is the nation's woodbasket. Other platform guests were l-r, Ray Shirley, director, Georgia Forestry Commission, Macon; Jim L. Gillis, Jr., prominent timberland owner and a Forestry Commission Board Member, Soperton; E. Konce Bennett, Sr., legal advisor to Southern Forest World and Dr. W. Henry Fields, pastor, First Baptist Church, Waycross.

dent, Board of Trustees, Southern Forest World, Inc., welcomed the some 300 forestry business and agency leaders to the ceremony. Barton, manager, Savannah Woodlands, Union Camp Corporation, announced his company will make a substantial cash contribution to help fund the exhibits.

Dedicatory remarks were made by John R. McGuire, chief, U. S. Forest Service, Washington, D. C. McGuire praised Southern Forest World as being a major step to show Forestry to people in the Southeast. He pointed out the dramatic comeback of the South's forests since the early 1900's when they were very much depleted. He called the South, The Woodbasket of the Nation. McGuire also pointed out that this endeavor stands as a symbol of the out-

standing cooperation between the South's forest industries and public agencies.

A. Ray Shirley, director, Georgia Forestry Commission, Macon, and chairman of the Exhibits Committee, unveiled the proposed exhibit plans. The exhibits will consist of working models, color transparencies, panels, movies, artifacts and the feature attraction, a gigantic 50 foot tall man made tree, half of which will be pine and the other half white oak.

These innovative exhibits will be dynamic educational displays which will be updated as needed and will include such subjects as forest management, harvesting, regeneration, conservation, utilization, economics, pollution controls, insects, diseases, forest fire control,

wildlife and unusual wood products.

Funds for the exhibits will be raised through solicitation of private industry, business and individuals interested in the southern forest and its products.

The complete facility is expected to be ready, complete with exhibits, in about 18-24 months. Operating expenses will be funded by annual memberships, a small admission charge, revenue from a gift shop and special fund raising activities.

Southern Forest World is expected to attract a large number of tourists as well as area school children.

Dreams, with a lot of hard work, do come true as Mrs. William Clark can attest.



Over 300 persons attended the dedication of the Southern Forest World building located in Waycross. Exhibits have been designed for the building and it is anticipated the facility will open in 18-24 months.



Georgia has approximately 3.6 million cords of cull trees that would be available on a continuous basis for wood energy. This is a 27-year old unthinned natural stand of pine and mixed hardwood with an average diameter of 5½-6 inches.



A thinning of the cull trees yielded 25.3 six inches and above, represented 13 cord.

The recent fuel shortage and oil embargo of 1973 has focused attention on the basic resources essential to the well-being of the United States.

The outlook for fossil fuels and other non-renewable resources have been studied and intensively evaluated. However, wood, a renewable and expandable resource, has received little attention in spite of its current importance to industry and its potential for the future.

Georgia and the nation's forests offer us a renewable, expandable and economical source of fuel. One that could greatly reduce our dependence on foreign sources for energy fuel.

The Georgia Forestry Commission has made studies and collaborated with the U. S. Forest Service on the amount of forest raw material available in Georgia and throughout the United States which would be best suited for energy needs.

The South is particularly suited to wood technology, because her fast growing forests are capable of being replenished on the average of every 25 to 30 years. In Georgia, 20 to 30 percent of the total energy used annually could be reaped from the forests. For the nation, seven percent of the total energy needs could be annually supplied from forest waste and low value tree species. This would leave us with our more valuable hardwoods and softwoods, and at the same time, improve our forests from both the standpoint of production and aesthetics.

It is the general consensus that natural gas is the ideal energy fuel for most

Wood-A Source of Energy

uses other than transportation. Due to the low cost of obtaining and providing this efficient fuel, it was not economically feasible to consider wood as a substitute energy source. However, prices have rapidly increased for natural gas and other fossil fuels over the past three years. At present, wood is economically feasible. A considerable savings can be realized once the conversion from oil to wood is completed.

It is economically practical to combust wood in many industrial operations. Preliminary tests indicate wood can be used to fuel industrial boilers and dryers.

Estimates of Georgia's available wood supply, 8.25 million cords which includes annual wood waste and cull timber, indicates an average oil equivalent of 48 million barrels annually. This wood supply is in addition to wood-using industry production needs.

This volume is based on conservative estimates involving 10 percent logging waste, 10 percent cull trees, 25 percent of the excess annual growth and 50 percent of the wood waste derived from processing.

Wood energy obtained from these sources represent \$330 million annually

that could stay in Georgia's economy. Georgia is importing about 97 percent of its energy at a cost of more than \$3 billion annually.

An effort is being made to begin pilot demonstrations in converting energy systems, now using gas, oil and coal, to wood. The wood gasification process offers clean fuel with no detrimental effects on the environment.

The Forestry Commission has been working closely with the Georgia Tech Engineering Experiment Station to establish a wood energy center in Georgia.

As a result of the energy and economic impacts of wood, the Natural Resource Committee of the Georgia House of Representatives, this year, has voted to create a subcommittee to look into developing wood as an energy source.

The Georgia Forestry Association has appointed a wood energy committee headed by Robert E. Ware of Hogansville. The committee has been active in determining uses for wood energy, and what is being done by various companies in the United States in the development of equipment and combustion systems.

A small tree harvesting demonstration was held recently in Monroe Coun



chips per acre. The remaining stems, trees

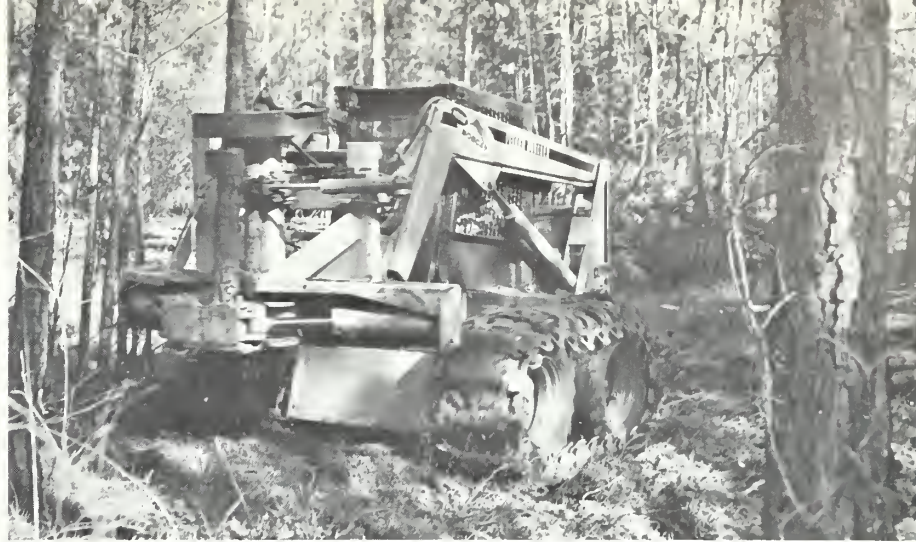
ty illustrating the feasibility of harvesting potential energy wood. The one-acre site was comprised primarily of an overstory of loblolly pine and an understory of sweet gum, maple, yellow poplar and oak.

The harvest, of trees less than six inches d.b.h. and an age of 27 years, yielded 25.3 tons of wood chips. There were 13 cords remaining in the one-acre plot following the harvest. These trees were above six inches d.b.h. and represented more than 34 tons of wood.

There is a need for an evaluation and demonstration program to advise homeowners on wood-using equipment systems for slow burning stoves and central heating equipment. Wood energy systems can be easily adapted to institutional heating needs, industrial uses, small electrical plants and others.

Wood residues, unmerchantable wood in cut-over and well-stocked stands and poor quality hardwood trees are available in abundance in Georgia. The technology is available to utilize them efficiently. And, the economics would justify the prospect of conversion even if there were not an energy crisis.

A portable chipper - can chip complete tree through 12 inch diameter.



In Georgia, 20 to 30 percent of the total energy used annually could be reaped from the forests. Estimates of Georgia's available wood supply, 8.25 million cords which includes annual wood waste and cull timber, indicates an available oil equivalent of 48 million barrels annually.



Grapple Skidder - Used to move felled trees to mechanical chipper.



Forestry



◆ Fred H. Baker, right, Coordinator of Rural Fire Defense, Georgia Forestry Commission, has retired after 25 years of service to the State of Georgia. He was presented a Faithful Service Award by James C. Turner, Jr., Chief of Forest Protection, Georgia Forestry Commission.

◆ Frederick W. Haeussler, manager of Land Use and Forest Practices, Union Camp Corporation, Savannah, has been elected a member of the Council of the Society of American Foresters. Haeussler, 48, will assume his two-year post on the Society's governing body beginning January 1, 1978.

Haeussler's 16-year membership in SAF has included various positions with the Society's Alabama Chapter and Southeastern Section, including chairman of both, as well as member of the Southeastern Section's Land Use Committee.

With representatives from federal, state, private and academic forestry, the SAF Council reflects the diversity of the Society's 21,000 members.



◆ Turner F. Barber, Jr., associate chief, Forest Management, Georgia Forestry Commission, has been elected chairman-elect, Georgia Chapter, Society of American Foresters. Barber will serve during 1978. There are 800 members in the Georgia Chapter, SAF.



◆ James Reid, center, McRae, has retired from the Georgia Forestry Commission. Stepping down after 34 years of service to landowners in the State, Reid plans to work part time and farm. He was assistant forest management chief. Presenting Reid with a Faithful Service Award is Druid Preston, Commission Forest Management Chief. Looking on were Mrs. Reid and their son, Jamie.

Faces and Places

◆ William H. Greiner has been named executive vice-president of the Soil Conservation Society of America. Based in Ankeny, Iowa, he replaced H. Wayne Pritchard, who recently retired. Greiner was the director of the Iowa Department of Soil Conservation.

◆ Steve McWilliams was elected chairman of the Georgia Environmental Education Council at the organization's Fall meeting. McWilliams, executive director, Georgia Mining Association, will serve his second term as the leader of the Council.

◆ Elected as chairman-elect was Professor R. N. Saveland, College of Education, University of Georgia, Athens. Other officers include Theresa Moen, U.S. Forest Service, Gainesville, secretary and Al Pepper, U.S. Forest Service, Atlanta, treasurer. New Board members include David Cranshaw of the Georgia Department of Natural Resources, Atlanta and Jeff Jackson, Extension Service, University of Georgia, Athens.

MEETINGS...STATE FFA Forestry Field Day, Veterans Memorial State Park, Cordele, April 27...WARE County Forest Festival, Waycross, May 2-3...HARDWOOD Research Council, High Hampton Inn, Cashiers, N.C., May 4-6...FOREST Farmers Association, Savannah, May 17-19...RURAL Fire Defense Equipment Show, Coliseum, Macon, May 18...ENVIRONMENTAL Education Institutes, Shorter College, Rome and Valdosta State College, June 12...GEORGIA Forestry Association annual meeting, Jekyll Island, June 18-20...GEORGIA Chapter, Soil Conservation Society of America, Douglas, June 23, 24...FOREST Products Research Society annual meeting, Peachtree Plaza, Atlanta, June 25-30...NATURAL Resource Conservation Workshop for Youth, South Georgia College, Douglas, July 9-14.

◆ Robert W. Slocum, Jr., has joined the staff of Southern Forest Institute as manager, Conservation Forestry and will be responsible for promoting the American Tree Farm System with committees in the 13 Southern states. More than 20,000 landowners in the South (with 47 million acres of commercial timberland) are members of the American Tree Farm System. The industry-sponsored program gives recognition to outstanding examples of forest management by private landowners.



◆ Milton W. Rose, forest investigator, Georgia Forestry Commission, has been awarded one of the highest Boy Scouts of America awards given; the Silver Beaver Award. Rose, a Scout Master of Macon Troop 275 since 1955, also is chairman of the Camping and Activities Committee for the Central Georgia Council. He has served on and chaired several other committees in the past and has received many honors by the Scouting organization including the District Award of Merit, Scouters Key and Scouters Training Award.



◆ H. Glenn Anthony, one of the most familiar business spokesmen in Georgia for the past 18 years with the Georgia Chamber of Commerce, has been named executive director of the Georgia Forestry Association. He succeeds Harold Joiner who resigned last year.

Anthony was manager of the Chamber's Governmental Department, where he was described by one observer of State House politics as the most prominent and effective governmental affairs specialist in Georgia.

One of his first undertakings is the launching of a drive designed to more than double the size of the 2,000 member Forestry Association. The drive is being coordinated by W. J. Barton, an official of Union Camp Corporation, Savannah.

The Georgia Forestry Association is made up of individuals, business firms and organizations promoting forestry, one of the state's major industries. Among the members are owners of forest land, pulpwood dealers, sawmill operators, lending institutions, furniture manufacturers and others involved in the timber industry and its products.

Before joining the Georgia Chamber of Commerce, Anthony was a newspaper reporter in Florida, and worked for United Press International in Tennessee, Alabama and Georgia. He is a member of the Advisory Council of the State Labor Department Employment Security Agency, and has served on the staff of five Georgia governors.

President Plants Georgia Tree

President Jimmy Carter maintained a tradition dating back to John Quincy Adams when he planted a red maple from Georgia on the White House lawn. The maple tree was three years old, seven feet tall and came from the Georgia Forestry Commission's Walker Nursery in Tattnall County.

Ray Shirley, Commission director, said the red maple was selected over Georgia's official tree, the live oak, because Washington is out of the tree's natural range while the red maple grows well all across the East. He said the red maple has beautiful foliage which turns yellow and gold during the Fall. Soon, a bronze plaque will be placed next to the tree telling of its origin, species and date of planting.

The Commission Director also had loblolly pines, sycamores and dogwoods sent to the White House, all Georgia grown, which will eventually be planted on the White House lawn.



President Jimmy Carter has planted a red maple tree from his home state on the North Lawn of the White House. Taking part in the ceremony were, l-r, Georgia Forestry Commission Board chairman, Henry E. Williams, Woodbine; U. S. Forest Service chief, John McGuire, Washington, D. C.; Georgia Forestry Commission director, Ray Shirley, Macon; White House head groundskeeper, Irvin Williams; and First Lady Rosalynn Carter. (Official Photo by The White House, Washington, D.C.)

Prince of the Forest



A huge white oak, reputed to be over 200 years old, has the unique distinction of owning itself. The giant tree, measuring seven feet in diameter, can be seen near Oxford College at Emory University.

Back in 1929, the Oxford City commissioners, supported by the women's clubs, deeded the tree to itself. The tree has 1,256 square feet of land. Known as the Prince of the Forest, the oak is now a tax free property owner.

Some 75 years ago, the Rev. John W. Yarborough and his son, George, pruned and cultivated the tree so that it would develop into the eye pleasing symmetrical shape it now boasts.

It has been said that the late Rev. George Yarborough made annual visits to "my good friend the tree," and every Christmas sent a card of greetings so addressed. The Oxford Postmaster would then attach the card to the gigantic trunk.

The oak tree is included in a film and book, *Great Trees of America*, produced by Weyerhaeuser Corporation.

Savannah Tree Conference

There were two days of talks and discussions held at the first annual Savannah Tree Conference. The conference was held at the Savannah Civic Center. Also included in the conference was a tour of city parks and Wormsloe Island.

The tree conference was co-sponsored by the Georgia Forestry Commission and the Savannah Park and Tree Commission. Those in attendance included homeowners, developers, foresters, and others interested in trees.

Other organizations involved were the University of Georgia Extension Service, Coastal Chapter, The Georgia Conservancy, the Men's Garden Club of Savannah and the Oleander District of the Garden Club of Georgia, Inc.

Topics discussed were ornamental and flowering trees, trees in an urban setting, trees for homeowners, pollution of our trees, common tree insects and diseases, the dollar value of trees and urban trees versus urban development. The conference ended with a discussion of the Chatham County Tree Ordinance which entails regulating the removal or damage of trees on multi-family residential and commercial building sites, public property and highway rights-of-way.

Further information concerning the conference is available by contacting H. L. Neal, Jr., district forester, Georgia Forestry Commission, P. O. Box 113, Midway, Georgia 31320.



Savannah Shade Tree Conference Committee and speaker panel (l-r), James H. Cook, forester, Georgia Forestry Commission; Dr. Frank S. Santamour, Jr., Research Geneticist, National Arboretum, Washington, D.C.; Harold V. Hagens, II, chairman, Savannah Park and Tree Commission; Judge Alexander A. Lawrence, Southern District, U.S. District Court; Jerry Conner, director, Savannah Park and Tree Commission; Hon. Brooks Stillwell, alderman, City of Savannah and Mrs. Mary Helen Ray, The Garden Club of Ga., Inc., Savannah.

Youth Workshops Scheduled

Applications are being taken for the 17th annual Natural Resources Conservation Workshops. This year, the workshops will be held June 11-16 at Gordon Junior College, Barnesville, and July 9-14 at South Georgia College, Douglas. Applications may be obtained at county offices of the Georgia Forestry Commission, Soil Conservation Service, Soil Conservation District Supervisors and offices of the State Department of Natural Resources. To date, almost 4,000 teenagers have attended the workshops, according to Doug Pope, Workshop director.

The purpose of the workshop is to instruct senior high school students, boys and girls, in the fundamentals of conserving natural resources. Also the course stimulates an interest in participating in and supporting conservation. In addition, the course gives an overview of conservation work for the students and helps them to make up their mind if he or she wants to go into the conservation profession.

More than \$1,000 in prizes are awarded to outstanding students each year including a year's scholarship to any college in the University of Georgia system.

Teacher Institutes Scheduled

For the 13th consecutive year, Georgia's award winning Environmental Education Institutes for teachers have been scheduled. Teachers interested in the out-of-doors and the environment and the obtaining of ten quarter hours of college credit are invited to attend the institutes.

There will be two three-week sessions in 1978. Both Institutes will begin June 2; one at Shorter College in Rome and the other at Valdosta State College.

The Environmental Education Institutes may be used to fulfill requirements for additional study for teacher certification or certificate renewal.

The purpose of the course is to give teachers an adequate background in the conservation and wise use of the State's natural resources. This information in turn, can be passed on to their students to give them an awareness of the environment.

Applications may be obtained from Shorter College or Valdosta State College, or by writing to the Environmental Education Council, Box 819, Macon, Georgia 31202. The completed application should be mailed to the college the teacher wishes to attend.

Our office recently received a copy of your pamphlet entitled "Hypoxylon Canker of Oaks and Hickories in Georgia". We have seen widespread evidence of this disease on oaks in East Texas. Many homeowners have inquired as to why their trees were dying and what could be done to protect remaining oaks. Your Hypoxylon canker brochure is very effectively prepared and would be excellent to give to selected homeowners to explain the problem.

H. A. Pase III
Entomologist
Texas Forest Service

Thank you very much for your 17 August letter and attached information regarding modern resin extraction methods and the naval stores industry. These reports will certainly prove useful in the evaluation of my idea to produce resin for the Brazilian market.

Now that I have some realistic resin yield data, I can better determine the economic pros and cons of perhaps producing resin from my larger trees, versus their resultant growth retardation when translated into sawwood values. Top quality planed pine board currently sells for 70-75 U. S. cents per board foot in the local market.

Many thanks for your prompt help in this matter. If I can provide you with any general information about Brazil's forestry situation, please let me know.

James M. Smith
Brazil

I would like to salute members of the Macon County Forestry Unit for their quick work in putting out a fire on our property.

We were not aware that the fire had started until Patrolman W. T. Cromer drove up and began unloading equipment to put out the fire. The fire started from an electric fence near our barn and would have burned the barn and other buildings as well if the forestry unit had not acted quickly.

The fire was spotted by Ferman Lane in the forestry tower about 12 miles from our house. He set the unit in action and Mr. Cromer arrived and plowed a fire lane around the fire. Because of his splendid work, the fire only damaged about one-fourth acre.

We really appreciate the fine work of this unit supervised by Ranger Chesley Gilmore.

Rogers Streetman
Ideal, Georgia

We wanted to let you know how proud we are of the dogwood and pine trees. They have all been set out and this is just another step forward in improving our community for our people and our visitors. Who knows but what in the years ahead we might decide to change the name "Plains" to "Plain Beautiful".

Thanks again for this and all your kindness toward us.

Mrs. Clarence Dodson
Plains

Thank you for the Forest Management Plan for my property in Newton County, which you sent to me on September 7, and for all the work that went into the preparation of this plan. Please accept my apology for my tardiness in acknowledging your excellent assistance.

The plan is clear and reflects extraordinary thoroughness and most admirable professionalism. It will be of great help to me in the management of the property.

Robert M. Joiner
Atlanta

I appreciated very much your bringing me up to date on the area fires. Having my land over there in an absentee ownership position presents difficulties. I am not interested in keeping people away that might want to fish on the land. However, it is unfortunate that some people are careless and abuse the privilege.

Some neighbors told me that if you post your land that the other situation can also occur. They say that they will go out and burn your property out of spite.

I would welcome any suggestions you could give on how to stop people from creating these brush fires. Some of it is carelessness and some of it is meanness.

I am always wondering about the responsibilities of citizens today. When I was a boy the people believed the golden rule about "doing unto others as you would have others do unto you". However, today people get a six-pack and a pack of cigarettes and off they go.

I also appreciate you checking for insects. If anything comes up, I certainly want to keep up with it. You have an excellent Forestry Commission down there in Georgia. I very much appreciate the excellent cooperation and splendid advice you have given me.

Rep. James M. Collins, N. C.
Congress of the United States
Washington, D. C.

Logging The



Chris Barneycastle



Jerry Barron



Tommy Loggins

Foresters...



Mike McMullen



Kerry Thomas

PERSONNEL...D. CHRIS BARNEY-CASTLE, new forester, Fayette County forestry Unit...JERRY BARRON, patrolman, promoted to ranger, Dawson County Forestry Unit...TOMMY LOGGINS, urban forester, promoted to Harvesting and Residue Specialist, Atlanta...MIKE MCMULLEN, patrolman, promoted to ranger, Monroe County Forestry Unit...KERRY THOMAS, new ranger, Randolph-Terrell Forestry Unit.

IN MEMORIAM...CLYDE T. CANTRELL, JR., 56, retired district ranger, died following an extended illness. The native of Hall County began his Forestry Commission career August 1, 1952. He was a member of the Society of American Foresters, and a Registered Forester in Georgia. He was a member of the Broadway Baptist Church.

RETIREMENTS...FRED H. BAKER, Rural Fire Defense coordinator, Macon, Aug. 1952-Nov. 1977...FLOSSIE MAY, towerman, Wayne County Forestry Unit, Jesup, Oct. 1953-Jan. 1978...ARVEL E. POPE, towerman, Bartow County Forestry Unit, Cartersville, Oct. 1962-Feb. 1978...JAMES REID, staff forester, McRae, Jan. 1949-Feb. 1978...MILLARD E. STANFIELD, assistant patrolman, Treutlen County Forestry Unit, Soperton, Aug. 1960-Oct. 1977...ELIZABETH M. WILSON, towerman, Clarke County Forestry Unit, Athens, Jan. 1955-Nov. 1977.

Service Awards

30 YEARS

- William C. Harper.....Assistant to the Director
Macon
November 1952
- Ollie L. Knott, Jr.....Forester
Macon
July 1949
- Lester L. Lundy.....Staff Forester
Macon
January 1949
- William G. Morris.....Ranger
Jesup
December 1947
- James Reid.....Staff Forester
McRae
January 1949

25 YEARS

- Fred H. Baker.....RFD Coordinator
Macon
August 1952
- Armand J. Cote.....Forester
Dacula
July 1953
- Harold D. Hawk.....Patrolman
Franklin
November 1952
- Joe Y. Hunter.....Patrolman
Newnan
December 1952
- Theophilus Johnson...Patrolman
Cairo
February 1951
- James E. Pinson.....Ranger
Covington
July 1952
- Lila Proman.....Towerman
Richmond Hill
December 1952
- Ruby M. Spells.....Towerman
Nashville
December 1952

20 YEARS

- Billy P. Barber.....District Forester
McRae
August 1957
- Griffin W. Bond.....Storekeeper
Macon
July 1957
- John S. Dickinson.... For
Monroe
December 1957
- Martin W. Erwin.....Patrolman
Lula
October 1957
- Arthur J. Green.....Patrolman
Butler
August 1957
- Wilber Helms.....Patrolman
Abbeville
November 1957
- Josie L. Hobbs.....Patrolman
Thomson
December 1957

Georgia FORESTRY

March, 1978

WHAT IS A WATERSHED?

A watershed is the land area from which a stream gets its water supply—it may be smaller than a camp or as large as several states. A “good” watershed is blotter-like, soaking up water from rain or melting snow, slowly feeding streams, and being held in the soil for plants, while excess water runs off slowly over the surface. A “poor” watershed like a parking lot or bare soil does not hold water; it flows rapidly into streams causing floods and muddy water (siltation).



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Georgia

FORESTRY



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A. Ray Shirley - Director

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Cruising The News

Wood May Replace 48 Million Barrels of Fuel Oil

Georgia wood may soon replace 48 million barrels of fuel oil annually — 20 to 30 percent of Georgia's energy if the industrial community will convert, according to forestry officials.

Energy costs have risen rapidly. Industrial natural gas costs have jumped from 40 cents per million British thermal unit (a measure of heat) in 1970 to \$1.50 in 1977, according to Jerry Birchfield of the Georgia Institute of Technology Engineering Experiment Station. Fuel oil went from 57 cents to \$2.71.

However, the current price for a million BTU's from wood is on a par with natural gas — \$1.60, he said.

Georgia's timber could produce 277.4 trillion BTU's while state industries currently use about 284 trillion BTU'S, the engineer said.

Georgia Forestry Commission and Georgia Tech have received \$500,000, beginning July 1, 1978, to encourage commercial enterprises to convert to wood-based energy, Tommy Loggins of the Commission said.

Direct burning of wood, one of the oldest methods of providing energy, is being tested commercially at Russell Mills in Alexander City, Ala., Birchfield said. The \$2-million system, after initial problems, saved the textile plant \$500,000 in fuel costs last year, studies show.

Also, Georgia Tech is working with the Georgia Poultry Federation to test wood firing boilers to heat brooders in Carrollton. About 150,000 chickens a year are raised in the two wood-heated houses, Birchfield said.

Wood gasification, used since World War I, produces a gas to be used conventionally, he said. Gasification units can be fitted to most package boilers, he said. A Union City saw mill and a Maine wood fabrication plant use wood gas as an energy source, he said. Keeping energy purchasing funds within the state would strengthen the economic situation, he said.

The state grows 24 million cords (one cord is 128 cubic feet or a pile of wood 4 feet by 4 feet by 8 feet) of wood annually and harvests 14 million cords.

About 25 percent of the 10 million cord excess, or 2,500,000 cords, could be used as well as 10 percent (3,600,000 cords) of the 36 million cords of cull trees not presently used by industry, Loggins said.

In addition to cull wood, about 10 percent of the in-forest waste wood (tops left when cut for lumber) — about 437,000 cords — can be used as an energy source, he said. Also, 50 percent of the processing waste (bark and chips) or 1,700,000 cords would be available.

Unlike fossil fuels, forests can be regrown in 15 to 30 years (average growth rate of timber in Georgia is more than 2.5 tons per acre) and pollution potential is much less, Loggins said.

Using this excess timber "would not affect the pulpwood or saw timber market" in the state the forestry official said. Low-quality trees not useable by these industries could be tapped for energy, he said.

In addition to the energy source potential, wood is much cleaner-burning than coal — another abundant energy source in the Southeast, Loggins said. Air pollution equipment to filter out sulfur is not a necessary expense for industries using wood-fired boilers, he said.

Timber cutting should not cause an environmental problem, Loggins said, because selective cutting "helps the looks of a forest and makes it almost like a park. Trees grow more rapidly because more sunlight is allowed in. The light on the forest floor also increases the small wildlife like deer and rabbits."

"We don't anticipate an erosion problem — even in clear cut areas," he said.

Birchfield said he thinks wood unit conversion will occur mostly in the industrial segment of Georgia. Conversion costs will be \$1,200 to \$1,500. Most homes in this area use natural gas, and few people are going to pay the conversion costs. Residences are priority customers for natural gas and will be able to obtain it far longer than industries, he said.

(By Jenny Munro, Augusta Chronicle)



Timber stand improvement is needed to provide healthy, vigorous growing timber and prevent the problem of cull tree intrusion.

tage is that loggers and wood producers may find the harvest of energy wood gives them a greater degree of protection against loss of income from quota restrictions, mill shut downs and market slumps. He added that it offers the potential of a wood market to some areas where such markets are poor or non-existent.

Tentative plans are to have a balanced pilot program to include one small facility of 100 horsepower or less. Two state facilities will be selected to convert to wood energy, from gas or oil, with a boiler capacity of more than 250 horsepower. This will include engineering and equipment through construction and operational start-up.

In addition to physical operations, Shirley emphasized that field studies will be made. Harvesting, where tops, limbs and other residues are left in the woods, will be compared with techniques of logging an entire tree, where it is brought to a landing for chipping or where sawlogs and pulpwood are cut out before chipping the remaining parts of the tree.

State Funds Allocated For Wood Energy Projects

The Georgia Forestry Commission has been allocated \$500,000 by the state legislature to conduct a series of wood energy studies. Governor George Busbee, members of the General Assembly of Georgia, Georgia Forestry Association, Georgia Institute of Technology, and experiment stations all supported the program.

Governor George Busbee said there is significant potential for economical development and employment in the state if wood energy can be developed. He pointed out that the jobs created by developing another market for our natural resources will be significant. The income to individuals who will have a new market for previously useless wood waste will provide additional economic benefits. Governor Busbee emphasized that it is in the best interest of the state

to provide the required leadership through demonstration projects and incentives for developing all aspects of wood energy systems simultaneously.

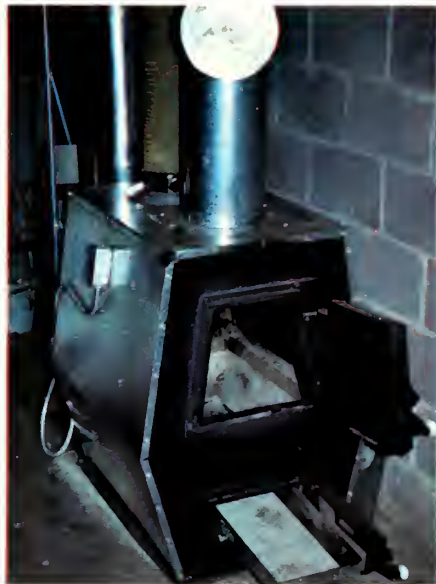
Forestry Commission Director Ray Shirley noted that energy wood will be utilized to keep many plants and businesses open during periods of petroleum fuel scarcity. Another economic advan-



Field studies will include comparing harvesting the entire tree with harvesting that leaves top and limbs in the woods.



Space heaters and stoves, utilizing wood, will be demonstrated and evaluated.



ing quantities to be removed is needed as well as minimum levels of harvest removal that are economical. Work will be done with loggers and landowners in harvesting and establishing a market for trees.

In Georgia last year, 87 percent of the timber harvested consisted of loblolly, longleaf and slash pine. Unless timber stand improvement is practiced,



This will involve time and economic studies of harvesting under both concepts so cost-benefit ratios can be established.

In North Georgia, there are 13.7 million cords of cull or low quality hardwood trees. Thinning is needed to improve growing conditions and to leave higher quality, faster growing trees for future harvest. A method of inventory-

There are 13.7 million cords of low quality hardwood trees in North Georgia. Thinning is needed to improve the quality and growing conditions.

when pines and other softwood are removed, the problem of cull trees will present itself.

There are a few industries using all of their waste and generating all of their energy other than electrical energy needed to operate their plants. Equipment is available to those that will utilize sawdust, bark, chips and waste in an efficient automative manner that meets all environmental standards. Manufacturers are producing equipment that can be used for forest, textile, carpet, kaolin, brick and other industries. Hospitals, schools, colleges and correctional institutions would be receptive facilities for this type of equipment.

It is the objective of these projects to investigate the opportunities afforded by the existence of timber and residues not currently marketable or that have low market potential, Shirley added.

There will also be established for the public a demonstration and evaluation of equipment for central heating of residences and other buildings as well as space heaters and stoves using wood for fuel.

The Commission will work jointly with the Georgia Tech Experiment Station on the engineering and the evaluation and demonstration of central heating systems and space heating equipment. There will be consultation with commercial engineering and manufacturers of wood energy equipment.

It is the Commission's policy to fully utilize present knowledge on wood energy systems.

Energy In Georgia's Timber Supply

Georgia has the best opportunity of any state in the nation to fulfill the nation's future demand for forest products and energy. We are one of the nation's leading forestry states in forest area, timber supply, timber product output, forest protection and forest management.

Georgia, with 24.8 million commercial forest acres, has more timberland than any other state except Oregon. Georgia is also a major agricultural state and since the early thirties, changes in land use have swung back and forth between forest and agriculture. For at least three decades, the natural reforestation of idle and abandoned agricultural lands, along with extensive tree planting on open areas, more than offset all diversions of forest to other land uses.

The inventory of growing stock timber on commercial forest land increased by 29 percent during the last ten years. This sizeable buildup in timber inventory is largely attributed to the high proportion of young stands which grew

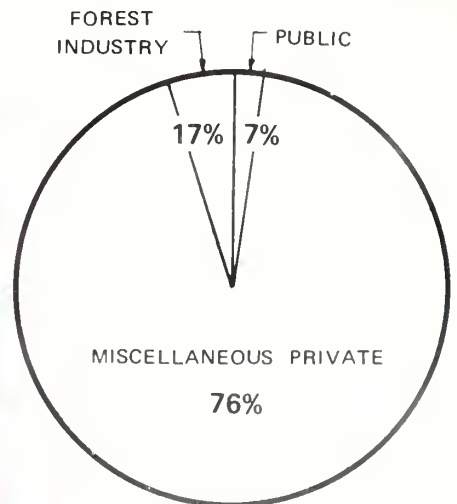
WOOD VOLUME IN GEORGIA			
	(thousand cords)		
	(thousand tons)		
	<u>Softwood</u>	<u>Hardwood</u>	<u>Total</u>
2" & 4" Timber	42,455 cds. (106,138 tons)*	70,563 cds. (176,408 tons)	113,018 cds. (282,545 tons)
5" & Above Timber	195,500 cds. (488,750 tons)	187,300 cds. (468,250 tons)	382,800 cds. (957,000 tons)
Cull Timber	3,000 cds. (7,500 tons)	33,000 cds. (82,500 tons)	36,000 cds. (90,000 tons)
Waste Material	78,200 cds. (195,500 tons)	74,900 cds. (187,300 tons)	153,120 cds. (382,800 tons)
Total	319,155 cds. (797,888 tons)	365,783 cds. (914,458 tons)	684,938 cds. (1,712,345 tons)

*Two and one-half tons of chips per cord.

from sapling to poletimber size during this ten-year period. In 1972, sapling and seedling stands occupied 25 percent of the commercial forest, as compared to 45 percent in 1961.

This buildup in timber inventory has

FOREST LAND OWNERSHIP



There are 24.8 million commercial forest acres in Georgia. Following good forest management practices, present growth of one cord per acre per year could be doubled over the next two decades, from 24 to 48 million cords per year.





1.



3.

The 8.25 million cords of annual wood waste and cull timber available in Georgia consists of: (1) 10% logging waste (2) 10% cull trees (3) 25% excess annual growth (4) 50% wood waste derived from processing.



2.



4.

not been uniformly distributed across the state. Almost 80 percent of the volume increase has occurred in the piedmont and mountains.

Net annual growth has responded to an improvement in stocking, better protection, and more intensive timber management to a point where growth exceeds annual removals by 55 percent. Net growth of growing stock is almost 1.6 billion cubic feet and includes more than 5.2 billion board feet of sawtimber. This means that the net growth averaged about 63 cubic feet per acre of commercial forest or roughly 50 percent better than the growth rate in 1961.

With a 29 percent increase in inventory volume and annual growth exceeding removals by 55 percent, the timber supply outlook is bright in Georgia.

Even more so when one considers the amount of undesirable trees that comprise one-third to one-half of the hardwood forest stand in the state.

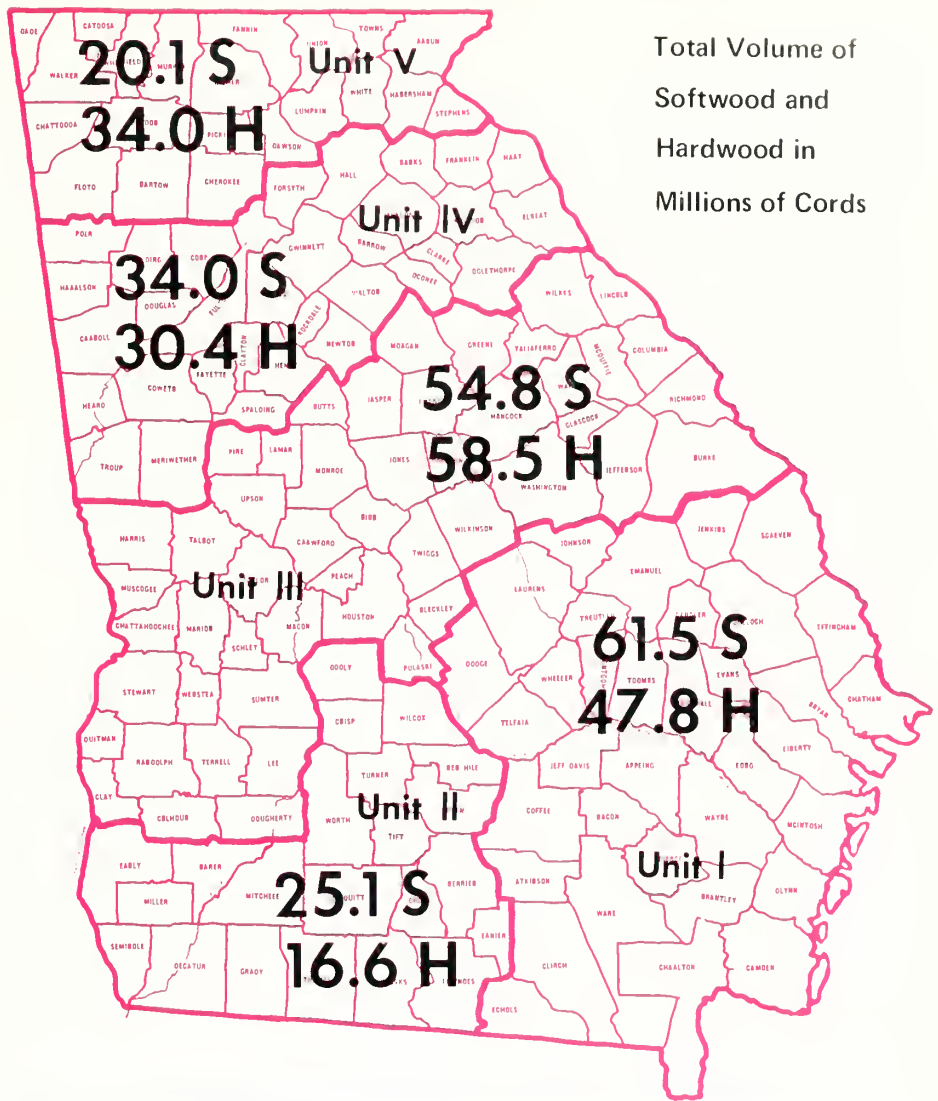
Up to the present, there has been very little demand and, consequently, a very sparse commercial market for this type of timber. Hardwoods make up 52 percent and pine stands 48 percent of Georgia's forests.

Now, the economics of utilizing non-commercial wood for fuel has become feasible for us to consider. The continued upward spiral of costs for fossil fuels and other energy has made the use of forest energy an economic reality compared to oil, gas, coal and electricity.

The U.S. Forest Service surveys have never considered volumes in a diameter class of less than five inches. Using this size class in wood energy, through the chipping process, represents a volume of 113 million cords in Georgia. Of this volume, 43 million cords represent low quality and most often times stagnant

trees that will never reach merchantable size.

There are 8.25 million cords of annual wood waste and cull timber available for wood energy in Georgia. This volume is based on conservative estimates involving 10 percent logging waste, 10 percent cull trees, 25 percent of the excess annual growth and 50 percent of the wood waste derived from processing. This is equivalent to 48 million barrels of number two fuel oil. This has a fuel value of \$330 million that would remain in Georgia with many thousands of jobs created in rural Georgia. Available on a renewable basis, this energy could contribute from \$600 million to one billion dollars to the state's economy each year.



Total Volume of
Softwood and
Hardwood in
Millions of Cords



About 25-30% or more of the pine harvested in Georgia could be coming from plantations by 1985. About 3.5 million acres had been planted or seeded in the state as of June 1975.

Over time, the wood supply can be increased within the limitations established by the growth capacities of those lands available for production. Provided good management practices are followed, present growth of one cord per acre per year could be doubled over the next two decades or from 24 to 48 million cords per year.

With more than 90 percent of Georgia's timberland in private ownerships, the amount of timber harvested each year is largely determined by the forces of supply and demand. The basic concept of sustained yield, accepted and practiced in sound forest management, suggests that the net annual growth should establish an acceptable growth over drain in the foreseeable future.

Opportunities do exist for expanding the growth capacity for Georgia's forest lands. Some of the more promising opportunities center around timber stand improvement, site preparation and planting, and genetically superior trees.

Over the next 30 years, an increasing share of the cut will come from the thinning and harvesting of pine plantations. Conceivably, a third or more of the pine harvested in Georgia could be coming from plantations by 1985. About 3.5 million acres had been planted or artificially seeded in the state as of June 1975.

A breakdown of various volumes of wood shows that Georgia has enough of low grade wood sources to supply 25 to 30 percent of the state's energy needs indefinitely without using wood now going to pulp and paper, lumber and other uses.

Merchantable and unmerchantable wood and wood residues are available in abundance in Georgia. The technology is available to utilize them efficiently, realizing a total multiple-use of our forest resources.



As our country becomes increasingly aware of the risks associated with imported oil and decreasing natural gas supplies, wood as an alternative fuel source is being given greater attention. Industrial, commercial users and homeowners have become aware of the advantages of wood as a fuel source.

Wood has been a heat source since fire was discovered, but in the last few years a renewed interest has been shown in it due to the rising cost of fossil fuels. Wood's renewability is perhaps its greatest asset, because it insures a long-term supply.

All areas of Georgia are blessed with trees. We are fortunate in Georgia to have a market for higher grade trees such as poles, pulpwood and sawtimber. Stumpage prices have varied across the state depending upon competition and local conditions.

However, there are areas of the state, primarily North Georgia, which have low-quality trees competing with the better quality trees for nutrients, light and growing space. This slows growth of the better trees, causing them to take longer to mature and reducing per acre

Economics Of Wood As Fuel

yield. This in turn increases carrying costs for the landowner, and makes his investment less profitable than it could be.

Due to Georgia's favorable climate and soils, forest land has the potential of being replenished on the average of every 25 to 30 years. Under proper management, our forests will provide wood for both higher-use products and wood fuel and increase the returns to the landowners.

Some of the advantages that wood fuels enjoy include:

1. Wood is a clean burning fuel using technology now available, such as the gasification processes. It also has a negligible sulfur content.

2. The ash content of wood is low (1-3%) and it can be disposed of easily. The ash doubles in benefit as a fertilizer or soil conditioner.

3. Wood fuel, under many conditions, is less expensive per B.T.U. (a

SAMPLE FUEL COSTS FOR MANUFACTURING PLANTS

City ^{1/}	Fuel Oil (Gal.)	Type	Coal	Natural Gas (MCF)	Wood Chips- Clean (Ton)
Dalton	\$.34	No. 6	No Reply	\$1.58	\$13.30
Gainesville	.375	No. 2	No Reply	1.56	13.30
	.339	No. 5			
Atlanta	.391	No. 2	\$35.00	1.72	13.30
	.389	No. 2			
Macon	.34	No. 6	37.00	1.33	12.35
	.37	No. 2			
Albany	.45	No. 2	No Reply	No Reply	12.50
Augusta	.34	No. 6	35.00	1.69	12.35
Savannah	.40	No. 2	No Reply	1.52	12.50
	.282	No. 6			
Columbus	.37	No. 2	37.00	1.75	12.35

1/ Prices obtained were gathered from utilities, oil suppliers, individuals knowledgeable of the cost data and from individual manufacturing plants of various sizes in the cities indicated. Wood chip prices were obtained from published data for clean hardwood chips.

FUEL COST PER MILLION BTU

City ^{1/}	Fuel Oil ^{2/3/}	Type	Coal ^{4/}	Natural Gas ^{5/}	Wood Chips ^{6/7/}
Dalton	\$2.23	No.6	---	\$1.58	\$1.40
Gainesville	2.67	No.2	---	1.56	1.40
	2.23	No.5			
Atlanta	2.78	No.2	\$1.45	1.72	1.40
Macon	2.23	No.6	1.54	1.33	1.30
	2.64	No.2			
Albany	3.21	No.2	---	---	1.32
Augusta	2.23	No. 6	1.45	1.69	1.30
Savannah	1.85	No.6	---	1.52	1.32
	2.85	No.2			
Columbus	2.64	No.2	1.54	1.75	1.30

^{1/} Prices between cities and within individual cities are not directly comparable since there are many variables which impacts upon a particular plant's fuel costs. These factors include length of purchase contract, sulfur content, volume used, volume purchased at one time, varying BTU content, and graduated rate structure of supplying firms. However, these figures are a representative indication of prevailing costs over the state.

^{2/} Assume no. 2 fuel oil contains 140,000 BTU/Gallon.

^{3/} Assume no. 5 and 6 fuel oil contains 152,000 BTU/Gallon.

^{4/} Assume coal contains 12,000 BTU/Pound.

^{5/} Assume natural gas to contain 1,000,000 BTC/MCF.

^{6/} Assume wood chips contain 4,718 BTU/Pound at 40 percent moisture content.

^{7/} Costs for wood chips were made from data assuming clean hardwood chips. Dirty chips for both pine and hardwood are currently selling for considerably less than "clean" chips. Dirty chips are whole tree chips.

measure of heat energy) than fossil fuel.

4. Locally available wood fuel is readily attainable, and is not as subject to interruption due to political and labor problems.

5. Creating a market for previously unmerchantable wood creates a new industry, and allows landowners to economically clear and replant unproductive acres.

6. Wood is a renewable resource; fossil fuels are not. During timber harvesting, removal of all refuse will be economical. This will allow replanting with desired species to increase production several fold.

Three main categories of wood fuel are residues from wood product firms, logging residues, and cull and low-grade timber.

Wood products residues are usually available in a form that is ready to use and may often be obtained immediately. Logging residues and low grade timber may be the best long-term sources of wood fuel for many industries. Excess growth over removals does exist, and is pronounced in low-grade hardwoods. A large amount of low grade timber is unused and is left in the woods to further deteriorate from decay, insects, or to stagnate.

In addition, harvesting systems are being developed, such as whole tree chipping, which makes it cost-effective to harvest otherwise unwanted material. Some advantages of whole tree chipping are efficiencies in completely utilizing the entire tree, including limbs and leaves. Greatly increased yields of timber are obtained with this system, which can be used with selective thinning. Cull and low-grade trees can be taken out, leaving the best trees to grow into other products.

This system, besides providing much needed fuel, can be tailored to save the landowner many dollars in forest management costs. Areas of largest impact include timber stand improvement, site preparation cost reduction, and removal of fire hazard following thinning. Many of these operations have in the past required heavy financial outlay. With careful planning, these costs can be reduced or in some instances, even eliminated.

Supply potentials, energy conversion technologies, and economic impacts have been explored by several agencies.

WOOD CHIP PRICES FOR MAY 1978 ^{1/}

HARDWOOD CHIPS - FOB

Clean:

\$13.30/ton north section of state
 \$12.35/ton central section of state
 \$12.50/ton south section of state

Dirty:

\$ No price for north section of state
 \$7.00/ton central section of state
 \$8.25/ton south section of state

^{1/} Timber Mart data

PINE CHIPS - FOB

Clean:

\$14.25/ton north section of state
 \$14.40/ton central section of state
 \$14.50/ton south section of state

Dirty:

\$No price for north section of state
 \$7.57/ton central section of state
 \$9.00/ton south section of state

and organizations. There appears to be considerable opportunity for uses of wood as industrial boiler and dryer fuels in the forest products industry as well as in other segments of industry.

It is economically feasible to combust wood in many industrial operations. With increasing natural gas costs, economic comparisons against other fuels are even more promising. The burgeoning use of firewood as a domestic heat source is also showing great acceptance.

The wood using industry and many other industries such as textiles and others are switching from fossil fuels to wood. Many sawmills have switched from natural gas and oil to dry wood waste in firing their dry kilns. Most pulp mills generate their own electricity from wet wood wastes, and recover additional heat from the spent steam.

The economic benefits to Georgia, the South and the Nation from development of wood as an energy source, are significant and warrant considerable activity. Conservative estimates of available supplies of wood in Georgia show that practical achievable levels of utilization of annual wastes and cull timber could supply at least 48 million barrels of oil-equivalent energy each year without significantly impacting supplies of wood for conventional uses. This figure was derived by using conservative estimates of utilization in which 10 percent of annual logging wastes, 10 percent of cull trees, 25 percent of excess annual growth (growth above that used for conventional purposes) and 50 percent of annual processing plant wood wastes were assumed to be available for wood energy and do not assume complete utilization of our forest resource. In Georgia 20 to 30 percent of the total energy used annually could be reaped from the forests. Nationally, using the same utilization estimates, approximately 761 million barrels of oil equivalent energy may be available at a current value of over \$11 billion.

The potential markets for wood energy will vary depending upon the regions of the State. In Georgia there is very little coal utilization equipment in place other than at utility sites. These utilities generally have long term supplies of coal available to them. If it cannot be assumed that they would be interested

in utilizing wood. The primary market for wood energy in Georgia and in the Southeast would probably be in manufacturing facilities, especially those utilizing package boilers and dryers. Most manufacturing plants utilize boilers and many of these also utilize dryers to dry products.

Where coal or solid fuels have been burned previously, wood chips could be directly combusted in these facilities. A new way of densifying wood has been utilized to reduce shipping charges and to increase ease of handling. This is wood pellets. They can be stored safely and have a uniform energy content. They are approximately two and one-half times as dense as wood chips and consequently cost less to ship.

Wood waste burners have been in use in the forest products industries for many years. Wood fuel may also find utility in many coal firing installations, since wood can be used to "dilute" high sulfur fuels.

It is important to realize that industrial users, who use large quantities of energy and whose production is critically dependent upon available energy, are going to require supplies which can be projected reliably in terms of both delivery and cost into the future. This situation requires the development of networks of supply for these types of customers.

It is not expected that all wood wastes and cull trees in Georgia be one

hundred percent utilized. However, a substantial socio-economic gain can be achieved even with a partial utilization because of the tremendous volume of existing waste.

In Georgia, wood from energy resources could exceed \$330 million per year. This \$330 million per year could conceivably stay in Georgia and would result in many additional new jobs, and through multiplier effects would produce the equivalent of over one billion dollars of economic activity. Utilization of wood as an energy source would also reduce the dependence of both Georgia and the Nation on foreign oil. Another benefit would be fuller utilization of forest resources which would result in a greater efficiency of forest management and wood processing plants and would increase profitability of these operations.

Several thousands of new jobs could be created for the purpose of harvesting, collecting waste, designing conversion technology, running conversion plants, and marketing the converted energy products. Many of these jobs would be created in rural areas rather than urban areas because of the location of the forest in these areas.

Utilization of wood energy would provide an outlet for wastes which are becoming a major problem for many wood processing plants and for low-grade trees that are hindering the development of better timber in Georgia.

Wood And Bark Residue Disposal



YESTERDAY – Waste Disposal

Throughout American history, wood has been an important source of fuel, building material, and products such as housewares and chemicals. By today's standards, early manufacturing techniques for making rectangular lumber from round logs were very inefficient. Large amounts of waste were generated at sawmills and planing mills because of manufacturing tolerances and methods used, and the low values assigned to logs and other wood raw materials.

The earliest sawmills were man-powered, where a man stood beneath a log and slowly hand-sawed the log length to produce two or three boards a day. Residues accumulated slowly. Water power was an adaptation that greatly speeded lumber production as circular saws and multiple saws could be powered through line shafts, belts, and ropes. With use of this tremendous, constant, and cheap power source, residue disposal came to be an important consideration for the mill manager. Open pit burning probably was used by some of these water-powered mills.

TODAY – Fuel Storage



The steam engine revolutionized the sawmill industry by increasing production and residue yields.

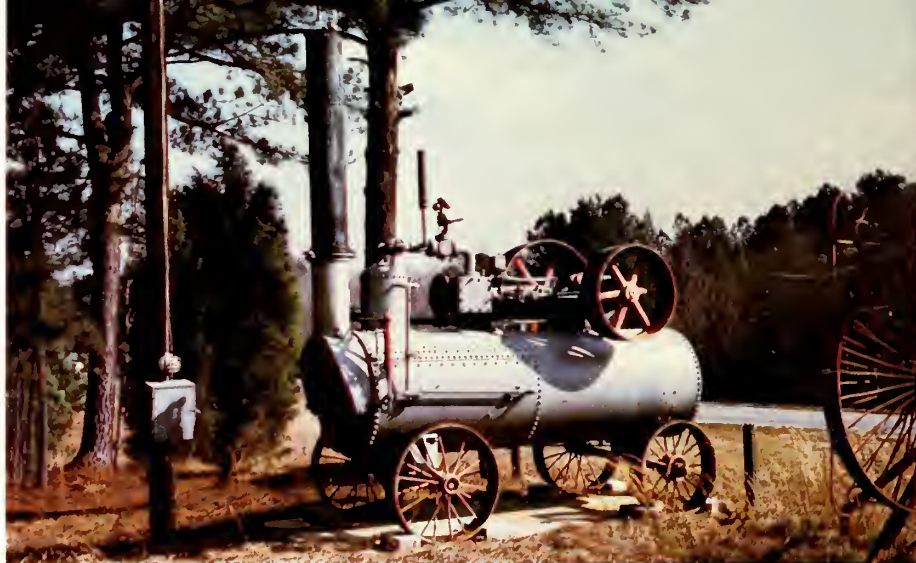
Steam engines further modernized manufacturing, with increased lumber turn-out and larger residue yields. Sawmills were no longer restricted to large streams. Being self-powered by their slabs, edgings, and trims, they could be located almost anywhere. Sawmills were also local power sources, as many businesses and homes used surplus mill residues for fuel. By the time all available timber in an area had been sawed, large piles of sawdust and shavings had accumulated. Forced air burning was not generally available, and this is required to burn residues.

Gasoline or diesel engines improved the business of sawmilling even more, and turned residue disposal into a major problem. Portable mills could move to another site, but many large mills were up to their ears in residue. Local fuel markets, steam for kilns, log turners and carriage drives used part of the production, but mountains of sawdust and shavings accumulated at many mills. Remains of large sawdust piles are still visible, and these are being used to fire modern boilers today.

Development of a market for pulp chips helped ease the residue problem, and even if chips were sold at cost, it was a welcome relief to many mill operators. Pulp chips called for debarking, which in turn eliminated the need for washing dirt from logs. The use of forced air tepee burners for excess dust and bark along with sawmill steam requirements took care of the remaining residue problem. By economics of size, the developing pulp industry was able to use most of its bark residue from the beginning of process steam.

Further technical and economic developments brought electricity into sawmilling as a major power source. Tepee burners, profitable chip markets, and

Abandoned sawdust piles are evidence of the disposal practice of many small sawmills



Open pit burning was once the best way to dispose of slabs and edgings.





A modern wood-fired boiler produces steam for a sawmill operation.

in the Western states have used electricity from residues for many years as their product volumes made economics of this practice feasible. Average sawmill size in Georgia is increasing yearly. The State's lumber production increased 77 percent from 1964 through 1977. Combined with increasing cost and decreasing availability of conventional fuels, this means that mills here will soon be operating with electricity generated on-site. At least two sawmills in the state are reported to be constructing generating facilities. Wood residues are being considered by others to replace oil and natural gas for dry kilns.

Even though the use of wood and bark residues for fuel is once again becoming an accepted business practice, a considerable amount is still in the nuisance category. This material is dumped, burned or sold for a small price to remove it from the mill site. As combustion technology and fossil fuel prices both continue their rapid advancement, these materials will become increasingly important, both as a power source and as a valuable manufacturing by-product.

steam for kilns kept residue disposal under control. The cost of handling bark and dust for steam later caused many to switch to oil or natural gas for all steam and heat needs. Requirements of a developing particleboard industry provided additional markets for dust and shavings. In some areas, the poultry industry had already been a strong market for these items.

Air pollution regulations of recent years have caused residue burners to be modified or shut down. This shifted residue disposal practices once more. Some plants, unable to find markets, again resorted to piling or dumping of bark and sawdust. Others were able to profitably dispose of bark in the rapidly developing decorative mulch industry.

Soaring prices of electricity, oil and gas are presently forcing still other major changes in wood residue disposal. Pulp mills, with their existing boiler capacity, are buying bark and dust from sawmills, veneer mills, and other smaller operations. Each increase of fossil fuel prices makes woody material more eco-

nomically attractive, and several pulp companies, of the ten contacted, indicate plant modification with additional purchase of outside residues is probable.

In these plants, high pressure steam is produced from multiple boilers burning coal, oil, and bark to turn turbines for generation of electricity. Steam from turbines, at reduced pressure, then goes on to heat digesters and dryers. Mills interviewed reported that up to one-third of steam requirements presently comes from bark and sawdust. As much as 50 percent of this material is purchased from outside sources. Some reported a substantial part of steam requirements from chemical recovery boilers, where lignin is burned from spent pulping chemical before their re-use.

Very large sawmills and veneer mills

Modern lumber dry kilns are once more being operated with steam from wood residue boilers.





Logging Wood Energy

If some middle Georgia industries converted from natural gas to wood fired boilers could enough fuel wood be produced to supply the new demand? "Certainly, no question about it," said Bill Shepherd, co-owner of Shepherd Brothers Timber Company, Inc. of Irwinton.

Bill and his brother, Frank, know what they are talking about. Just 12 years ago, with only one pulpwood truck, several chain saws, and one other employee, they began producing wood. Now extremely successful in business, they operate a chipharvester capable of grinding whole trees 22 inches in diameter and smaller, both pine and hardwood, into domino size wood chips useable for conventional wood products and also wood energy systems. Two feller bunchers feed two grapple skidders which feed the machine. The chipharvester fills each of seven 25 ton chip vans in about 18 minutes. Two long log trucks haul off valuable saw and veneer

logs. This is just the largest of several logging operations managed simultaneously by the Shepherd Brothers.

"Excellent employees are the key to a successful company and we have the greatest men around," said Bill. "Monday seems to be our most productive day and a few weeks ago on Monday alone we produced and shipped 30 loads of chips." However, Bill went on to say that the problem is not buying timber to harvest but finding places to sell chips. "We are on a quota of 60 loads per week to Armstrong Cork in Macon and since we chip 55-60 percent hardwood we need new markets for our products. At the recent wood harvesting demonstrations sponsored by the Georgia Forestry Commission, we met several representatives from industries considering installation of wood fueled energy systems. We certainly hope their plans work out because we sure can get them the wood."

Bobby House, president, Woodland

Chippers, Inc., Calhoun, also feels that supplying fuel wood definitely would benefit the timber situation in his area of North Georgia. "There is plenty of timber on the stump available for sale," Bobby said. "Naturally, those companies wanting to purchase fuel wood will be competing price wise with pulp mills and other wood chip using industries. Really, the landowner will benefit because stumpage prices probably will increase."

Woodland Chippers, Inc. is operating the newer model chipharvester which replaced the older model they had operated very effectively for about five years. Of course, enough shears, skidders and chip vans are operated to keep the big machine efficiently crunching along with very little down time. "We assist developers with land clearing operations by shearing and chipping all trees from street and drive areas then thinning out undesirable trees from building lots. We leave about 20 good, healthy



trees to the acre. Compared to push up and burn type land clearing ours is cheaper for the developer, a better use of the resource, and more aesthetically pleasing for the future homeowners."

Quite a lot of the production also comes from land being converted to pasture and 15 percent of the timber is sold as valuable high grade logs. All chips are presently sold to the Georgia Kraft pulp mill in Rome. "It makes sense for the farmer to let us clear the land. For example, we know one farmer who paid \$300 to have land cleared for pasture by a crawler tractor and then had windrows of wasted timber to contend with. (Even conventional pulpwooding leaves piles of tops and limbs.) Later we paid the same farmer \$300 for the timber in another area and when we finished there was nothing left there at all; even the stumps were sheared at ground level. With no extra work he seeded the land to pasture right after we pulled out and absolutely none of the timber was wasted."

Bobby House went on to say that, "New markets are needed in this area for wood chips. Why not wood energy? When the demand is there, Woodland Chippers will put in the forest all the men and equipment needed to do the job right." And the future looks good, "For every acre we harvest it seems that another acre or more is reforested. Supplying wood for energy will be no problem at all," he said.



Georgia has no energy crisis - just a shortage of gas and oil. This is the contention of the industrial equipment manufacturers as they "gear up" to produce systems using wood as a basic energy source. Wood is indeed an energy source which is readily available and renewable.

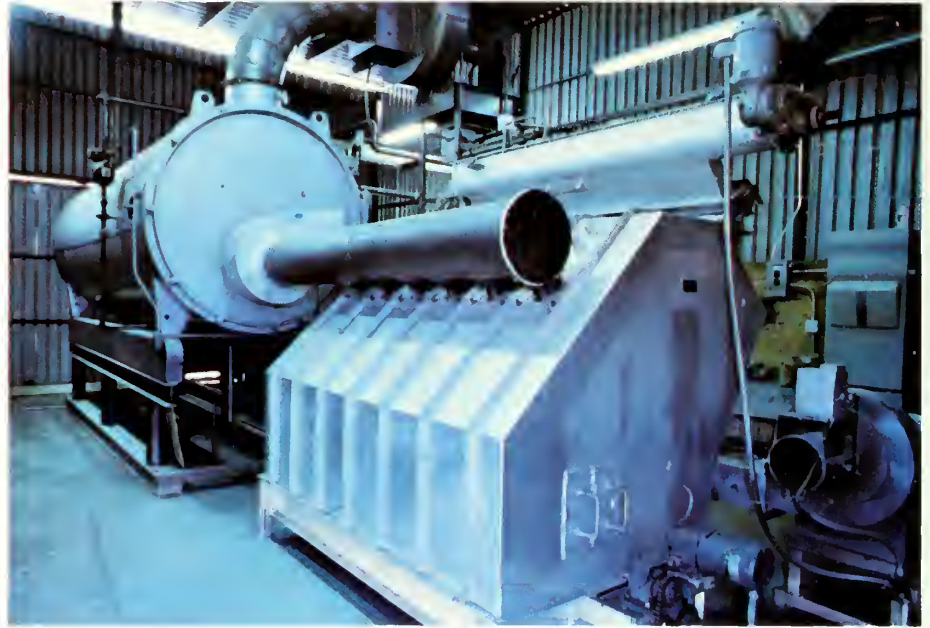
The manufacturers of forest products have at their disposal a large directory of suppliers, manufacturers, technical consultants and professional engineers offering products and services relative to energy sources, utilization and conservation in the forest products industry. More than 109 companies in 31 states and three foreign countries offer energy producing systems and services which may be applied to the manufacturing needs of Georgia's timber processors.

Each of these agencies agree that wood as a source of energy offers no threat to the environment. It contains no sulphur and when combusted with gasification systems, produces little particulate emissions. The environmental impacts on the land itself can also be controlled with careful forest harvesting techniques.

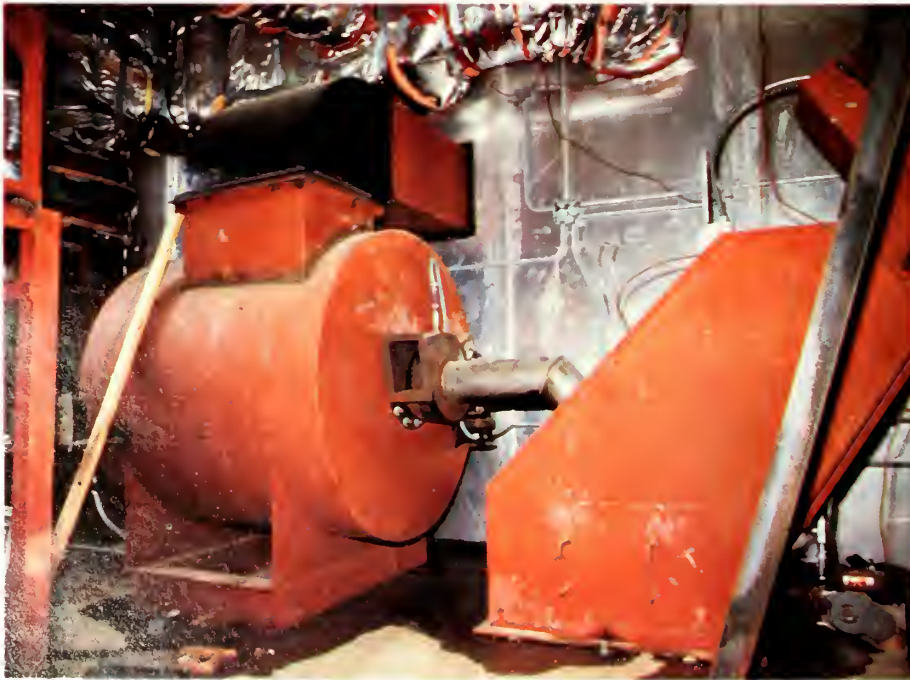
Most of the energy systems offered to forest products industries are matched to the steam boiler as a heat genera-

Wood - Using

Systems Available



This wood/gas energy system operates on green wood waste. It is currently operating six hardwood dry kilns with a maximum capacity of seven. This furnace is believed to be the largest gasification system in the southeast.



Wood/gas burners of this type are designed to operate on green sawdust and shavings. This system has the capability of firing two heavy duty dry kilns continuously.

tor and transport carrier. Many examples of these systems are in use today throughout the state and in order to describe these units, the technology and state of the wood being combusted must be considered.

Many companies continue to use the refuse boiler. This old conventional system of direct firing recovers only about 55 percent of the energy from wood waste as steam is generated for on-site use. Also there are companies in some locations which continue to attempt burning wood in boilers designed to burn coal. However, there are few coal type boilers in the southeast which can burn wood chips.

An excellent example of a direct fired wood waste system is found at the Langdale Company in Valdosta. This company reclaims all wood waste from bark to trimmings. This gross waste is further processed and separated in merchantable components. The first screening takes out all large chips which are sold for wood pulp. The second screening removes small chips for particle



Boilers of this type have a great potential to produce energy when matched with wood waste burners. They are customized to meet the specific requirements of any plant and are mass produced in Thomasville, Georgia.

board. The residue is a rough mixture of ground bark and cambium which is fired into a large furnace and combusted with an air blast. The heat is used to generate steam and force dry pine lumber in the two large dry kilns on the plant yard.

The Industrial Boiler Company, Thomasville, specializes in customized boilers with furnace systems designed to burn most any combination of wood waste. This company produces units which will operate on gas, oil, coal, dry waste wood, green waste wood, or combination gas-oil and waste fuel or as a waste gas recovery boiler. Many of the units produced by this company are being used throughout the state today.

The alternate wood energy system to be offered forest product industries is technically a process called pyrolysis. In this process wood can be converted into oil, gas and/or char by the degradation of wood in an oxygen poor environment. Pyrolytic oil is somewhat similar to petroleum in combustion characteristics, and contains about 75 percent as much energy. Pyrolytic gas yields about

Estimates of available supplies of annual wood waste, and cull timber in Georgia could supply 48 million barrels of oil equivalent annually without affecting wood for conventional uses.

20 percent to 40 percent of the energy of natural gas. Char is high in carbon and by pyrolyzing wood, approximately 90 percent of its energy can be removed, versus 55 percent in refuse boilers.

The final and apparently the most efficient wood energy system available is a process called wood gasification. The gasification of wood is a special type of pyrolysis. In this process, wood is converted almost completely to a combustible gas. Only about one percent to three percent of the wood remains as ash and the wood gas burns cleanly.

Gasification offers the benefit of producing a clean fuel which may be used in boilers and dryers. Gasification units can be made simple and reliable enough to permit practical matching with existing boilers and dryers. Gasification units can be made simple and reliable enough to permit practical matching with existing boilers and dryers. Gasification allows about 90 percent of the energy in wood to be recovered through combustion of waste wood fuels.

Examples of modern gasifier systems in production are demonstrated at the Atlanta Southern Corporation, Loganville and the South Atlanta Dry Kiln Company, Union City. Both plants are operating hardwood dry kilns by burning green sawdust and shavings in gasifier-boiler type energy systems. The Loganville plant mass produces very high grade hardwood pallets. It has recently installed a small gasifier green waste fuel system with a maximum capacity of firing two hardwood dry

kilns. Willis Byrd, representing the South Atlanta Dry Kiln Company, stated that his company was forced to install waste wood gasification systems because of extremely high gas bills and prolonged "shut offs" during severe winter months.

The gasifier-boiler type heat system is well adapted to plants which have adequate wood waste residues on the plant yard. Conveyors and storage systems are easily engineered to shuttle waste wood fuels to storage silos where conveyors may automatically dispense the fuel as needed.

Wood as a fuel is difficult to handle and ship unless some advance processing takes place. One recent development involves wood pellets. These pellets can be easily handled, stored safely without spontaneous combustion, and have a uniform energy content. They are approximately two and one-half times as dense as wood chips and consequently cost less to ship.

Georgia and the nation's forests offer industry a renewable, expandable and economical source of fuel. By utilizing this unlimited source of fuel our state and nation could greatly reduce our dependence on foreign sources for energy fuel.

Production demands energy and Georgia's forests are perpetual sources of energy. If properly harnessed with the availability of modern ingenuity, the trees of this state can continue to supply a large percentage of our nation's energy, not only for this generation, but for generations to come.



As man's ever-growing knowledge of wood and chemistry is combined with engineering advances, architects and engineers confidently specify wood in a wide range of aesthetic and structural applications.

Today, wood is more important than at any other time in history. As man begins to accept his responsibility for the conservation of energy, air, water and other resources, he is appraising wood, the renewable resource.

The Langdale Company of Valdosta is making use of wood's earliest application, fuel.

Harley Langdale, Jr., Company Board Chairman, noted that their present outlook is for increased volume in the products being manufactured and, at the same time, remaining alert for opportunities to manufacture other items from products of the soil. Fuel produced from wood is such an opportunity, Langdale emphasized.



Mill Residue Utilized For Energy



The Langdale Company produces approximately 400 tons of fuel per day. This includes bark, sawdust and pole shavings.

Approximately 200 tons are sold and utilized in making other products. The long, shredded material from poles is used in the manufacture of particle board and by roofing companies. Nurseries utilize the bark for soil conditioning and mulch.

The bark and sawdust are separated because the sawdust is more attractive to the particle board industry. The chips are sold to area paper mills. The slabs and trim ends go into chips.



The remaining 200 tons of the wood residue is used in the boiler, creating steam to run three dry kilns and a pressure treating plant. This tonnage produces 32,000 pounds of steam per hour. The boiler capacity is 65,000 pounds of steam per hour.



The dry kilns are used for lumber, poles and posts. The kilns are capable of handling up to 200,000 board feet of lumber. They are high temperature, high velocity kilns, requiring 20 to 30 hours drying time depending on dimension. The kilns are operated under automatic controlled conditions.



The fuel system has eight variable speed chains that feed into four air sweep fuel distributors. The fuel is fed evenly over the grates with combustion air flowing under the grates and through air holes in the grates. There is a continuous flame 24-hours a day. The grates are set in a fire box. The wood residue

is blown into the combustion chamber that is automatically controlled. This also includes the feed rate and fuel ratio. In an emergency, there are protective devices that shut the system down.

The system is almost entirely pollution free. The "over fire air system," which is a blanket of air over the fuel, insures total combustion. All the char and dust material is separated and collected. The burnable material that is not combusted is rerouted back into the feed system.

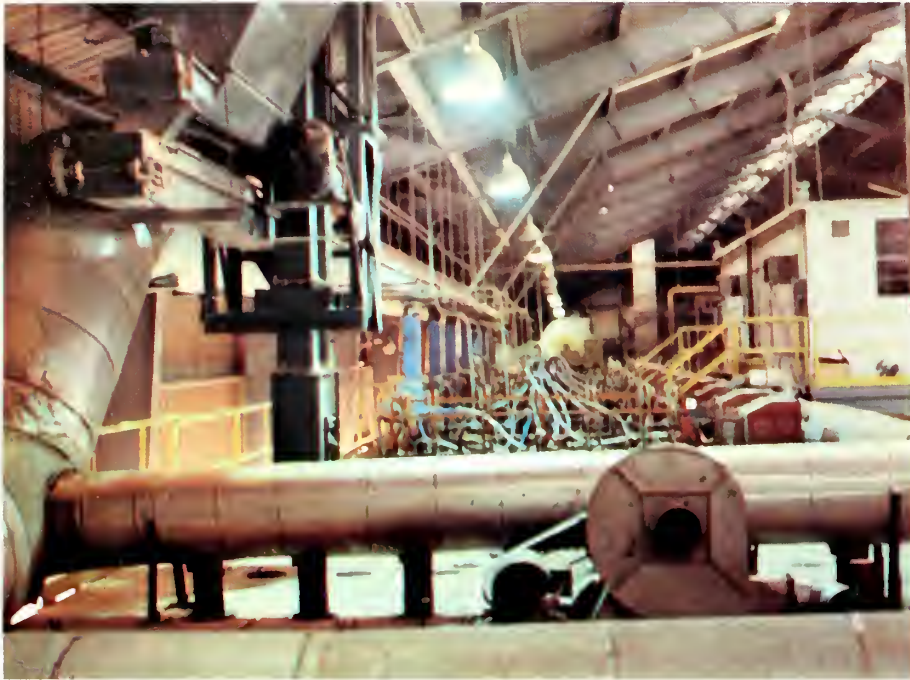
The moisture content of the wood residue is not reduced prior to burning in producing the steam. However, the lower the moisture content the more efficient the operation. The existing flame lowers the moisture content of the wood residue enabling it to reach the flash point.



The 200 tons of wood residue equals 2.1 million cubic feet of natural gas, or 73 tons of bituminous coal, or 21,000 gallons of number four fuel oil. Langdale added that natural gas was used prior to the conversion to wood residue. He cited rising fuel costs and the need for residue utilization as the major factors in making the conversion.

The Langdale Company has a multi-million dollar payroll, employing approximately 500 people. Their production of forest products involves lumbering, wood preservation and pulpwood operations. The family-owned company's forest holdings consist of approximately 200,000 acres. The Langdale Company was founded in 1894.

A Find In Brick Manufacturing



An enclosed conveyor chain, upper left, moves the sawdust to six feeder chutes, left background, the unused sawdust is returned to the hopper, upper left, by a small bucket elevator, lower left. The six burner groups are located in the center. The control room is on the right.

The sawdust is fed through 10 burner hoses to the burner group distributor on the kiln. The cap rotation enables the sawdust to be released into the kiln from each hose separately. The surrounding pipes were used for gas firings, and can be put back into use if necessary.

Prevention of unemployment and stimulation of economic development in Georgia requires continued availability of energy. The winter of 1976-77 with its energy shortage and associated unemployment, painfully illustrated this point.

There was one Georgia firm, however, that eluded the fuel shortage with nature's own natural remedy, wood.

At the Merry Brick Division, Merry Companies, Inc. one of their brick plants was in the process of being converted from fossil type fuels (coal, gas and oil) to sawdust. This addition allowed them to keep operating when gas allotments were reduced.

The experimentation of utilizing sawdust as fuel stemmed from the company's use of sawdust in the brick, producing a 25 percent lighter brick. This method also significantly reduced the drying and firing time and the fuel required to complete these processes. Other benefits derived included reductions in clay consumption, shrinkage in drying and firing, shipping costs and an increase in plant capacity.

Peter Knox, III, Company President, said the success of the new brick initiated experiments culminating in the



utilization of sawdust in heating the brick kiln, replaced natural gas and fuel oil. We talk about solar energy plants, and here we have millions of acres of trees storing the sun's energy daily, Knox pointed out.

Doug Cone, energy manager, said that firing their kiln with sawdust has cut their drying time from 25 hours to 17 hours. Previously, 28 percent of the

b.t.u.'s were used in drying. This has been reduced to zero. Cone noted that the sawdust produces a long flame which provides for a better distribution of heat, thereby improving the quality of the brick. He added that the b.t.u.'s required per brick have been reduced from more than 10,000 to less than 3,000 b.t.u.'s per brick over a period of six years.



The fine sawdust is stored in a newly constructed silo with built-in safety devices against explosion.



Phil Hedges, Plant Manager, said a complete sawdust handling system and burner system was installed on the kiln last July. It is operated entirely on sawdust through six burner groups. Each group has 10 burners. The sawdust burns completely leaving very little ash on the brick and no visible smoke emission from the exhaust stack.

The sawdust, for both brick manufacture and firing, is available within a 60-mile radius of Augusta. Hedges said the kiln requires approximately one ton of sawdust per day. The sawdust is stored in a newly constructed silo with built-in safety devices against explosion, Hedges emphasized. The fuel is already sized from slivers about one-quarter inch long to fines. From the silo, the sawdust is moved to the tunnel kiln storage hopper. Enough sawdust for one hour operation is held in this hopper on the kiln.

An enclosed conveyor, with a drag chain, is used to pull the sawdust from the kiln storage hopper and distribute it into the six burner groups. Sawdust that isn't utilized is returned by the chain into a small bucket elevator and returned to the storage hopper.

Each burner group is fed by a chute designed like an inverted cone. This prevents bridging and jamming that could occur with sawdust. A small window, in the lower part of the chute, allows the operator to visually inspect each group.

A small screw at the base of the chute, operating on a variable speed re-

ducer, feeds a blower to move the sawdust through a two and one-fourth inch hose to the burner group distributor. The distributor is a rotating cap in which the feed hose enters the center top, and 10 individual burner hoses surround the stationary base. As the cap rotates, the burner hose inlets are opened, one at a time, in sequence to allow sawdust to enter. This means each burner receives a squirt of sawdust every 10 seconds.

Hedges added that the kiln controls for adding the sawdust are tied directly into the regular kiln instrumentation and work automatically. Only minor changes were needed in the actual kiln

operation to accommodate the addition of the sawdust.

Knox added that we feel we have helped turn one industry's problem, sawdust, into a source of revenue, and at the same time, complied with President Carter's mandate to conserve gas and oil as well as contributing to an environmentally sound operation.

For the future, Knox pointed to the new "air transfer process" with which competing companies are beginning to experiment. It will burn virtually any kind of solid fuel that can be put in it. However, the primary fuel will be wood waste such as sawdust, planer shavings, bark and nut shells.



Through the use of sawdust in the manufacture of brick, fuel utilization was reduced in the firing and drying time.

Wood Energy At Home

For Joe McCoy, his wife Norma, their 8-year old son and 11-year old daughter, this past winter was the warmest ever. The McCoy's did not move to Key West, Fla., they live in an inviting 2,000 square foot home north of Gainesville and spent only \$45 per month for utilities. For \$130 per month they shivered through the winter of '77.

Since the weather hadn't changed much the difference had to be their stove and home furnace with filter box and blower.

A gimmick? "No, sir," said Joe, a soil scientist with the U. S. Forest Service for 10 years. "We stayed toasty all winter. Since Christmas when I installed the wood furnace for a total cost of only \$600, we burned five cords of hardwood. I cut the wood from my own property and some off the National Forest. Next year I'll probably cut some from Georgia Kraft land. There are many acres of logging slash and low grade areas needing regeneration. This is just good utilization of what usually is wasted because it is uneconomical to use it otherwise."

Joe worked about 20 days to cut, haul and split the years supply of fuel wood. Much was done a few hours each evening after work but several Saturdays were also committed. For a family like the McCoy's who love being in the forest, good exercise and hard work, cutting wood is a great family experience. "Why, we use to cut wood for our fire place anyway, but most of the heat there goes up the chimney. Now, we are hanging on to much more of the heat."

Even people who enjoy activities other than cutting wood, golf, for example, could still be dollars ahead with wood heat. The McCoy's in previous years used about 263 gallons of liquified gas per month which at the current price of \$.44 per gallon equals \$115.72. Hardwood fire wood, cut, split and delivered, costs about \$60 per cord around Gainesville. Since one cord was burned per month, the monthly savings, had Joe bought wood, would have been over \$55.



The wood furnace of Joe McCoy requires about 4-5 sticks of wood four times per day. Hot air ducts carry heat from the fireplace to each room in his north Georgia home.



Joe has even figured out how to save more money. "I've spoken with a logger who will deliver long hardwood logs to the house for \$30 per cord. I'd cut them into firewood length sticks and sell enough to get back my \$30 then heat my house with the remainder. But actually there are so many timber stands needing improvement, so many trees being removed or trimmed by utility companies, so much slash left after logging, and so much wood being thrown away in the form of pallets, packing crates, etc., that as long as I'm healthy and live here I'll never need to buy fuel wood."

Joe installed his furnace so that the cold air is drawn from his conventional cold air return system, filtered, blown around the hot fire box, ducted directly to the plenum above his conventional gas furnace then carried by the hot air ducts to every room in his house. The furnace needs to be loaded with four or five small sticks of fuel wood four times per day. Norma doesn't mind loading the furnace and emptying the 8"x14"x4" ash container only once each week is also no problem.

Joe does have some advice for people considering wood heating. "First insulate your house well no matter what



Cold air, via duct material, is introduced into the fireplace to support combustion. Earl Worthington states that hot air ducts were connected to the fireplace. Warm air is circulated throughout the house by the blower system of the conventional gas furnace.

Energy efficient windows play an important role in holding house heat.



sort of heating system you have. When building a new house plan for a wood fired furnace by allowing room for a straight flue. This will help pull wood moisture completely out of the system thus helping to eliminate creosote build-up and the necessity to clean your flue as often. Always design easy access for later installation of a conventional furnace or initially build one in as a back-up system because if you ever must sell the house, the new buyers might not want a wood furnace. Also keep in mind that your homeowners insurance rate may increase because of having a wood furnace. Mine hasn't, but I've read where this may happen."

The McCoys left many trees, in good condition to shade their house and Joe definitely feels they help lessen winter wind speed allowing the house to better retain heat. "But, I still wish we had insulated better," Joe said.

Lack of insulation is absolutely no problem with the home of Earl Worthington who lives in Jonesboro. Earl, a food scientist with the Georgia Experiment Station in Griffin since 1964 and an active member of the Georgia Christmas Tree Growers Association, subcontracted the 3300 square foot house himself. "All the extra insulation material and labor increased the cost of the house about \$3,000 but the investment will be easily paid off in 10 years," Earl said.

Has the insulation done a good job? "You bet! We cook and heat with natural gas. Last winter our highest monthly gas bill was \$36. Even then the hot water heater had been accidentally set to its highest temperature and was spewing water out of the relief valve. No telling how much of that \$36 went down the drain." Earl went on to give another example, "One blustery winter evening I turned the furnace completely off to see how much heat would be lost from the house overnight. While the outside temperature dropped from 45 degrees to the mid 20's, the inside temperature dropped from 70 degrees to 68 degrees."

Where haven't the Worthingtons insulated would be a rather simple question to answer. "I think the most important part of the insulation is the energy efficient windows. Absolutely no air gets through or around those windows! The metal doors are hollow and completely filled with a dense foam material and when closed meet up to magnetic weather stripping which works much like the gasket on a refrigerator door."

Earl's insulation begins at the foundation where all air pockets between foundation, floor joists and basement ceiling are stripped with excess pieces of styrofoam. The exterior walls from outside in are brick, celotex sheets, 2x4 stud construction filled with formaldehyde foam covered with various decorative

interior material giving a R (resistance) value greater than 25. The foam was spread in place, then allowed to dry before any interior finishing material was put up. Minimum shrinkage was encountered and these spaces were then filled with glass wool.

The attic is insulated with six inch bats covered with eight inches of blown in glass wool for an R value of at least 50.

Earl also built his two fireplaces around the Heat Form System. The metal fire box built into a brick fireplace, has air blown around it then out into the room. However, Earl had modified the system in at least two ways. First, cold air, via pieces of duct material from the outside, is introduced into both fireplaces just in front of the grate to support combustion. This allows warm air to remain in the room; in fact, the fireplaces can be sealed off with glass doors while the fire still burns very well. Second, hot air ducts were connected to both fireplaces and by turning on just the blower system of the conventional gas furnace warm air from fireplaces is circulated throughout the entire house.

Both the Joe McCoys and the Earl Worthingtons are saving money and energy. They are keeping accurate, precise records to back up their claims.

How economical and comfortable would a home with Joe's furnace and Earl's insulation be? Soon someone will find out. If you build a new house why not ponder the question?

Georgia FORESTRY

June, 1978

Wood - An Energy Bonanza

SECOND CLASS POSTAGE
PAID AT ROME, GEORGIA



600
71
3/1/3

Georgia

FORESTRY



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Sept. 1978 No. 3 Vol.30

George Busbee - Governor
A. Ray Shirley - Director

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GEORGIA FORESTRY COMMISSION

DISTRICT OFFICES

Coosa Valley
P. O. Box Z, Mt. Berry 30149

North Georgia
Rt. 7, Box 83, Canton 30114

Atlanta - 7 Martin Luther King, Jr. Dr.
Room 545, Atlanta 30334

Chattahoochee Flint
P. O. Box 1080, Newnan 30263

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Rt. 8, Columbus Rd., Macon 31206

Oconee
Hwy. 49, Milledgeville 31061

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Cruising The News

A Splendid Idea

If you see a nice looking young lady and young man walking around Madison studying the trees along the city streets, feel reassured. They are two students from the University of Georgia who are working with the Forestry Commission in surveying trees in the city.

Once they have completed their survey - which will include determining the condition, location and species - they will make recommendations as to tree care, need for replanting, etc. The survey will also include suggestions as to what areas are lacking in trees and will offer recommendations as to the kind of trees that should be planted in these bare sections of town.

Where it is decided the condition of a tree is very poor, recommendations will be made to take the tree down and a determination offered as to what species should be used for replacement, if replacement is warranted.

One area will also be used as a demonstration area where the foresters will further a pilot project to demonstrate good tree care and planting policies.

Madison and Macon were selected by the Georgia Forestry Commission for this pilot project and study. The goal is to study urban trees, in an effort to protect the trees and to educate local citizens as to good conservation and planting procedures.

This is a splendid idea and we hope that the study will result in a better understanding among Madisonians of the need to plant and conserve trees as well as to learn the type of tree that is most suited to a given area.

(From the Madisonian-Madison)

Pine Trees Vital

The Georgia Forestry Commission issued the following release concerning our forests:

Much thought is being devoted to energy and conservation of our natural resources. Wood is not only a natural resource but a renewable resource.

The slash pine adds another important product vital to our economy. Not only does it contribute wood, but it is the nation's largest producer of gum which is in demand for the manufacture of products such as paint thinner, varnishes, solvent for rosin, lacquers and varnishes, drugs, insecticides and others.

Slash pine exceeds all other commercial pine such as loblolly as a tree for flat, wet sites. A 15-year study by the Southern Forest Experiment Station indicates the odds are with those planters who choose slash over loblolly pine for this type site. On drier sites, slash planted judiciously may perform equally as well as loblolly.

Other advantages include slash pine's tolerance to the devastating southern pine beetle that seems to prefer loblolly. The susceptibility of slash pine to fusiform rust compared to loblolly pine seems to vary considerably to differing conditions. There is no clear cut resistance of one specie over the other. By using improved slash, this susceptibility may be lessened.

In addition, slash pine tends to prune itself of limbs making a cleaner bole that is preferred by harvesting crews, thus providing more utilization and less debris left on the site.

Being a dual purpose tree, slash pine may generate more than twice the monetary return per acre over loblolly pine by harvesting gum and wood products. By using improved slash planting stock, values are further enhanced.

By anticipating future chemical needs, it is the wise landowner who plants improved slash maintaining the United States as the producer of the world's highest quality gum.

(From the Baxley News Banner)

Champion Trees

The American Forestry Association has published its list of the largest trees in the United States. The name of the list has been changed from the Social Register of Big Trees to the National Register of Big Trees.

According to AFA President Carl Reidel, "The new name is a more accurate reflection of the fact that this list is the only one of its kind, and has a truly national significance."

"More importantly," Reidel said, "the new name signals our commitment to expand our efforts to locate the largest specimen of every native or naturalized North American tree species."

According to Reidel, a total of 661 species are represented in the current listing. However, more than 1,000 different species are eligible, meaning there are still several hundred not represented on the list.

AFA began searching for and listing big trees in 1940, and published the first list, of only 200 species in 1945. Seven trees on the original list are still champions. The others have died or been destroyed, or in most cases, been replaced after the discovery of larger specimens.

Thirty-nine states and the District of Columbia have champion trees. Florida leads the list of states with 112 champions. Georgia lists 22 national champions. The Georgia Forestry Commission is coordinating the search for champion trees in the State. Nominations may be sent to Forest Education, P. O. Box 819, Macon, Georgia 31202.

The species of trees accepted on the AFA Big Tree list are those listed in the U. S. Department of Agriculture publication, Checklist of Native and Naturalized Trees of the United States, by E. L. Little, Jr.



Seedling Price List

The following tree seedlings are being grown for sale by the Georgia Forestry Commission during the 1978-79 planting season.

SPECIES

	Per 1000	50	500
Pines:			
Eastern White	\$20.00	\$3.00	\$10.00
Improved Loblolly	10.00	2.00	5.00
Improved Slash	10.00	2.00	5.00
Slash-High Gum	10.00	2.00	5.00
Virginia	10.00	2.00	5.00

Species below are priced FOB Page Nursery, Reidsville, Georgia.

Longleaf	10.00	5.00	2.00
Catalpa	15.00	7.50	3.00
Lespedeza	15.00	7.50	3.00
Oak, Live	40.00	20.00	4.00
Oak, Sawtooth	20.00	10.00	3.00
Oak, White	20.00	10.00	3.00
Redcedar	25.00	12.50	4.00
Red Maple	15.00	7.50	3.00
Sweetgum	15.00	7.50	3.00
Sycamore	15.00	7.50	3.00
Yellow Poplar	15.00	7.50	3.00

A transportation charge of \$1.00 per thousand trees and \$.50 per five hundred trees must be added to above cost on all seedlings moved from one nursery to another due to stock not being available or on seedlings delivered to County Ranger Headquarters for landowner pick up.

Sales of less than 500 trees must be in packages of 50 at above 50 price which includes delivery to County Ranger Headquarters.

Received
NOV 01 1978
DOCUMENTS
LIBRARIES

APPLICATION FOR NURSERY STOCK
GEORGIA FORESTRY COMMISSION MACON, GEORGIA 31202
P.O. BOX 819

ORDER NO _____

NAME OF APPLICANT _____ PHONE NO _____
ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

SHIP TO ADDRESS ABOVE OR
NAME _____ PHONE NO _____
ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

DATE	SPECIES	NUMBER OF SEEDLINGS	COUNTY OF PLANTING	FOREST DISTRICT

TYPE OF OWNERSHIP Check one
 1. Private persons - Clubs, Associations & Private Schools
 2. Private Forest Industry - Lumber Mfg
 3. Private Forest Industry - Pulp & Paper
 4. Private Forest Industry - Naval Stores, Plywood, etc.
 5. Private other industry - seeds
 6. Town, County, and Public Schools
 7. State and other Public Lands
 8. Federal Government
 9. Other specify _____

METHOD OF SHIPMENT Check one
 1. STATE TRUCK TO COUNTY FORESTRY OFFICE
 2. APPLICANT WILL PICK UP AT NURSERY

SEEDLINGS RECEIVED IN COUNTY UNIT (IN _____)

HEREBY CERTIFY THAT THE ABOVE IS THE WAY TO BE SEPARATED UNDER FEDERAL INSURANCE TO BE PAID BY THE FOREST
 PAYMENT \$ _____ DATE _____ SIGNATURE _____

DO NOT WRITE BELOW THIS LINE

HERTY WALKER MORGAN

GFA Holds Annual Meeting

Theme - Motivate in '78'

U. S. Senator Sam Nunn and Georgia Governor George Busbee shared the spotlight at the 1978 annual meeting of the Georgia Forestry Association.

Senator Nunn, in his prepared remarks, stated that the increase in capital gains tax has increased the risk while decreasing the rewards for providing risk capital. As could be anticipated this decreased availability of risk capital has had a devastating effect on the development of small businesses, minority owned businesses and new businesses in general. He has recently co-sponsored legislation with Senator Hansen which if enacted, would roll back the maximum capital gain rate to the 1968 level of 25 percent. As a result of the rollback Senator Nunn estimated an additional 440,000 new jobs could be created, spending on plant and equipment would rise 5.7 percent a year instead of an estimated 4.7 percent a year and the federal budget deficit would be \$16 billion less in 1985 than it would have been otherwise.

Governor George Busbee discussed the current nationwide energy shortage, America's dependence upon foreign oil, the waste disposal problem of nuclear power and the problems with coal being a dirty fuel. He pointed out that wood as an energy source is a classic example of a neglected opportunity. He brought Dr. James Schlesinger, Secretary of the U. S. Department of Energy, to Georgia to show him the research Georgia Tech and the Forestry Commission are doing in the area of wood energy. He is optimistic that Georgia will be able to obtain close to \$1 million in federal funds to supplement the \$500,000 appropriated by the last General Assembly. These funds will be used to demonstrate to industry the cost effectiveness and feasibility of using wood to replace scarce fuels.



U. S. Senator Sam Nunn

Two speakers, Ray Shirley, director, Georgia Forestry Commission and Ben T. Wiggins, chairman, Public Service Commission, discussed Wood Energy Developments. Director Shirley told the Association members that two state facilities are slated to be used to demonstrate the feasibility of using wood as an energy source. One will be the Northwest Georgia Regional Hospital in Rome and the other will be in North-east Georgia. He has plans to outfit two mobile exhibits to show the average homeowner what type wood stoves are the most practical to use in heating homes. In addition, he said plans are being formulated to hold seminars for architects to show how wood energy systems can fit into building plans.

Chairman Wiggins pointed out that eventually other forms of energy will be available to replace petroleum, but not in the near future. To bridge this gap, he feels more electricity will be needed. He estimated by the year 2000, 50 percent of the fuels consumed in the United States will be for the purpose of generating electric power compared to 30 percent today. He predicted as much as 60 percent of the electric power will come from nuclear generating plants.



Georgia Governor George Busbee



*A. Ray Shirley
Forestry Commission Director*



Public Service Chairman Ben T. Wiggins

Edward W. Killorin was re-elected president. He awarded the GFA Presidential Citation to John R. Harcrow, Heard-Troup Ranger, for his close working relationship with area landowners. Harcrow was unable to attend the convention.



Performance awards were presented to, l-r, Joel W. Hall, Jr., Best District; Clarence C. Hilburn, Best Unit; Terrell L. Brooks, Genetics; John S. Dickinson, working with landowners; and Lloyd Rogers, development of the "gum buggy".



Georgia's Tree Farmer of the Year, C. W. Felder, center, was awarded a chain saw by Samuel L. Smith. Dave Mitchell, chairman of the State Tree Farm Committee, left, took part in the ceremony.

Edward W. Killorin, lawyer, Gambrel, Russell, Killorin and Forbes law firm, Atlanta, was elected president of the Association for a second term. Other officers reelected were James Fendig, manager, Timber Division, Gilman Paper Company, St. Marys, vice president and Fred W. Greer, Jr., vice president, C & S Bank, Atlanta, treasurer.

The 1978 Miss Georgia Forestry is 16-year old Kathy Mitchell of Hinesville. She was crowned by Association President Killorin. She is the daughter of Mr. and Mrs. William Mitchell. Miss Mitchell succeeds Tina Driggers of Waycross.

Miss Laurie Land, 17, of Macon, was runnerup.

Miss Mitchell, in winning the pageant, received a \$500 scholarship. During the year, she will represent the Association at various functions.

Kathy was chosen from a field of 26 county forestry queens.

The Americus District and the Glynn County Forestry Unit of the Georgia Forestry Commission were recognized through the Association's Performance of Excellence Awards program.

Special awards were presented to Terrell Brooks, Reforestation Department, for his work in genetics; John S. Dickinson, Forester, for his work with landowners and Lloyd Rogers, Dodge County Ranger for the development of the "Gum Buggy".

In another presentation, C. W. Felder of Blakely was chosen as Tree Farmer of the Year. He was cited for carrying out a well rounded forest management program on his holdings.



The 1978 Miss Georgia Forestry, Kathy Mitchell.

Mixon Named Research Head



John W. Mixon

John W. Mixon, field supervisor, Georgia Forestry Commission, has been named Chief, Research Division of the Forestry Commission, announced Ray Shirley, director.

Mixon, a native of Johnson County and graduate of the School of Forest Resources, University of Georgia, began his duties July 1, 1978. The Research Division was created when the State Legislature abolished the Georgia Forest Research Council and turned its function over to the Georgia Forestry Commission. H. E. Ruark, director of the Council, retired June 30, 1978.

As chief of the Research Division, Mixon will be responsible for developing and executing all program essential to the coordination, long-range planning, application and research support for forestry research in Georgia.

In order to fulfill this responsibility, he has begun a concerted effort to obtain input from Commission foresters, landowners, forest industry, consultants, Georgia Forestry Association, Society of American Foresters and others interested in Georgia's forests.

Research results will be published for the practicing forester, Shirley said.

Governor George Busbee will appoint a seven man advisory committee to work with the Commission in developing research projects, Shirley said. The

Commission plans to make this department a vital function of the organization to meet anticipated and future research needs to further the wise use of the State's timberlands.

Mixon's career has spanned many facets of forestry including experience with the wood industry, work as a Farm Forester with the Commission and help-

ing to develop the very successful Urban Forestry program now being used in the metropolitan areas of Georgia. For the past six years he has held the position field supervisor with the Commission with duties that include supervising field activities in Forest Protection, Forest Management, Reforestation, Education and Administration.

Ruark Retires



H. E. Ruark was the Man of the Hour as Curtis S. Barnes presented him with a Resolution citing his contribution to Forestry.

The retiring Director of the Georgia Forest Research Council, H. E. Ruark, and his assistant, Darrell Fuller, were honored at a retirement party attended by friends and colleagues from over the South. Both men, Fuller resigned to become Chief Forester for Forest Farmers Association, were praised for their role in determining research needs, coordinating forest research and publishing research results.

Presenting Ruark with a Resolution

is Curtis S. Barnes, associate chief, Forest Protection Division, Georgia Forestry Commission.

Ruark also received a certificate of appreciation from Dr. Robert E. Buckman, deputy chief of Research, U. S. Department of Agriculture, Washington, D. C., for his 19 years of promoting research in the South.

Upon Ruark's June 30 retirement, the Research Council merged with the Georgia Forestry Commission.

State Fire Equipment Show



The Commission's helicopter demonstrated its fire fighting capabilities.

Macon hosted over 1,200 volunteer firemen, city and county firemen and others interested in the latest fire fighting equipment last May at the Macon Coliseum.

The theme of the meeting, sponsored by the Georgia Forestry Commission, was Master Fire Planning for County-wide Fire Protection. Ray Shirley, director, Georgia Forestry Commission, said the main purpose of the Fire Equipment Show was to afford an opportunity for users of fire equipment a place to see and have demonstrated the latest fire and special use equipment.

In addition to the fire equipment demonstration, antique fire engines were displayed and the Forestry Commission demonstrated the fire fighting capabilities of its helicopters which were used so successfully during the spring forest fire emergency in Northwest Georgia.

Featured speakers and their topics were Ray Shirley, The Forestry Commission's Role in Countywide Master Fire Planning; William Bates, Staff Member, Sen. Herman Talmadge's Office, Washington, D. C., U.S. Government's Role in the Fire Service; Julian Mingledorff, chief, Hinesville Fire Department, Liberty County Fire Plan Implementation; R. O. McCann, chief, Richmond County Fire Department, Augusta, Richmond County Fire Plan Implementation; and Carl Puckett, engineer, Insurance Services Office of Georgia, Atlanta, Insurance Services Office of Rural Classification.

Also demonstrated were newly developed life saving equipment for use in car wrecks, plus hoses, nozzles and other fire equipment new on the market.



James C. Turner, Jr., chief, Forest Protection, discussed the Rural Fire Defense Program and Master Fire Planning.



The latest in fire equipment was displayed.

WOOD- USING INDUSTRIES IN GEORGIA

Georgia Forestry Commission

A 1978 "Directory of Wood-Using Industries In Georgia" has recently been completed and is currently being distributed by Forestry Commission personnel. The directory has listings for primary manufacturers, such as sawmills, and secondary manufacturers such as furniture plants. Companies listed are those which manufacture or process wood and which were in operation in early 1978.

The directory, containing 1,290 listings, is prepared as a marketing guide and aid in bringing buyer and seller together where Georgia grown or manufactured forest products are involved. It is anticipated that this will be of benefit to persons or firms seeking to buy or sell specific items.

A report on utilization of round timber by species, type product, and geographical area is in the front section. Included also is a report on residue disposal by hardwood and softwood. These data are designed for foresters and

others interested in the evaluation of timber production trends.

Plants are listed by broad type, such as boxes-pallets, in county and alphabetical order. Names, addresses, and a brief description of products sold and species used are given along with major facilities such as dry kiln or debarker. Number of employees are shown by a size class code.

Production data and residue disposal are grouped by geographical areas identical to forest survey units of the Georgia Forest Survey. This allows data to be compared directly to statistics from forest surveys dating back to 1936.

Sections are specific to the forest resource, sawmills, veneer and plywood, treating plants, pulp and paper, other round timber processors, and residue disposal. In addition, the report shows how production volumes are distributed with details on species utilized by each type of industry.

The utilization report shows that in

1977 Georgia's wood-using industries, excluding pulp and paper, processed 2.255 billion board feet of round timber. This was an increase of 32 percent over 1974. The 1977 volume was 84 percent pine and 13 percent oak, gum, and poplar. Cypress, hickory, maple, and several other minor species accounted for the remaining three percent.

Sawmills utilized 1.807 billion board feet or 80 percent of the total. Another 354 million board feet were used by the veneer and plywood industry. Treating plants processed 61 million board feet equivalent, mostly pine, and other round timber processors accounted for 33 million board feet.

Roundwood and plant by-products used for pulp and paper showed a small increase from 1976 to 1977. Roundwood use was 5,830.3 thousand cords, or 5,133.2 thousand cords softwood and 697.1 thousand cords hardwood. Plant by-product use was 2,535.2 cords, or 2,244.4 thousand cords softwood and 290.8 thousand cords hardwood.

Estimated stumpage value of the state's total 1977 timber harvest was in excess of \$275 million, of which 34 percent was round pulpwood. This record stumpage value is reflected in the historical comparison of sawmills, which have decreased from 2500 in 1950 to 235 in 1978.

The combined report and directory was compiled by Paul M. Butts and Wesley L. Wells, Jr., Forest Products Utilization Specialists.

FOREST SURVEY UNITS



Sawmills

In early 1978, 241 Georgia sawmills were in operation. Fifty-six mills produced over 10,000 MBF each during 1977 and accounted for 77 percent of the year's lumber output. Nineteen mills produced over 30,000 MBF each and accounted for 45 percent of lumber production. Thirty percent of 1977 lumber was manufactured by 11 mills cutting over 40,000 MBF each.

LUMBER PRODUCED BY GEORGIA SAWMILLS, 1977

Forest Survey Units:	Total (MBF)	Yellow Pine	White Pine	Cypress	Other Sftwds.	Gum	Poplar	Oak	Hickory	Other Hdwds.
I	547,606	495,217	--	5,234	--	15,758	1,300	19,944	1,423	8,730
II	231,415	220,979	--	786	--	1,700	1,000	5,225	600	1,125
III	667,494	564,234	--	1,395	--	26,444	22,076	30,042	9,146	14,157
IV	238,661	200,317	2,361	--	--	6,538	10,507	13,723	861	4,354
V	122,050	88,434	4,191	--	100	3,512	5,637	13,949	3,363	2,864
Total	1,807,226	1,569,181	6,552	7,415	100	53,952	40,520	82,883	15,393	31,230

YEARLY LUMBER PRODUCTION AND SAWMILLS BY PRODUCTION SIZE CLASS, 1977

Production Class MBF Per Year	Number by Survey Unit							% Of Total No.	Volume Produced (MBF)	% Of Total Volume
	I	II	III	IV	V	Total				
Less than 2,999	15	12	20	33	43	123	52	122,114	7	
3,000 - 4,999	5	1	8	5	11	30	13	111,563	6	
5,000 - 9,999	2	3	14	4	3	26	11	172,468	10	
10,000 - 19,999	10	3	12	4	2	31	13	438,942	24	
20,000 and more	10	4	8	3	--	25	11	962,139	53	
Total	42	23	62	49	59	235	100	1,807,226	100	

GEORGIA LUMBER PRODUCTION BY SAWMILL SIZE CLASS 1961, 1964, 1967, 1970, 1974 & 1977

Production Class MBF Per Year	1961		1964		1967		1970		1974		1977	
	Volume (MBF)	Total Volume	Volume (MBF)	Total Volume	Volume (MBF)	Total Volume	Volume (MBF)	Total Volume	Volume (MBF)	Total Volume	Volume (MBF)	Total Volume
Less than 2,999	273,727	23	301,379	30	268,928	26	221,727	20	164,529	13	122,114	7
3,000 - 4,999	291,502	25	144,401	14	140,079	13	176,442	16	133,960	10	111,563	6
5,000 - 9,999	219,219	18	297,142	29	313,918	30	234,240	21	300,538	23	172,468	10
10,000 and more	400,519	34	278,104	27	329,360	31	488,700	43	702,289	54	1,401,091	77
Total	1,184,967	100	1,021,026	100	1,052,285	100	1,121,109	100	1,301,316	100	1,807,226	100

Shirley Presented EFG Award



A. Ray Shirley, right, director, Georgia Forestry Commission, Macon, has been recognized for his innovative Forestry programs by the Economic Forestry Group (EFG) of the United Kingdom. Presenting the award is John Campbell, Group Chief Executive, EFG, London, England.

A. Ray Shirley, director, Georgia Forestry Commission, Macon, is the recipient of the second EFG award presented by the Economic Forestry Group of the United Kingdom. The award was presented by John Campbell, Group Chief Executive, Economic Forestry Group (EFG), London, England.

The first EFG award was presented two years ago to Jens Havass of Denmark who is a founder and director of a Danish Forestry concern. Havass, 82, had previously been presented the King's Forester award by the King of Denmark for his contribution to Danish Forestry.

The award itself is a color rendition of a Scottish (Tawny) Owl mounted on a plaque with an inscribed silver plate. The original photograph was taken by K. H. C. Taylor, an English Forester.

The colorful wall plaque is presented to individuals who render outstanding service to world Forestry. Campbell, in presenting the award to Shirley, stated that A. Ray Shirley is an outstanding Forester and man. He has met many great people over the world and Ray

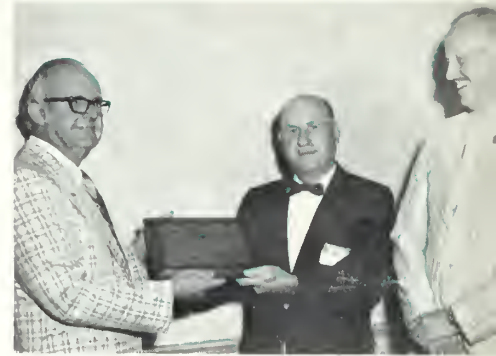
Shirley is one of the greatest. As an outsider looking at the Georgia Forestry Commission, he has been most impressed by the morale and attitude of the Commission's employees. The staff leadership and team spirit is very evident all up and down the line. The importance of Forestry to Georgia cannot be over emphasized and it is in good hands," he concluded.

Campbell, who previously visited the Commission in 1970, made the return trip to study plantation Forestry management techniques. He chose Georgia because "this is where the action is."

During the award ceremony, Campbell presented EFG ties to William C. Harper, assistant to the director; Druid N. Preston, chief, Forest Management; and Shirley.

Campbell explained that the ties are awarded to dignitaries who contribute to the support of world Forestry. On the 25th anniversary of the company, tie holders from all over the world will be issued a special invitation to visit the United Kingdom.

Craig Installed in Hall of Fame



Douglas A. Craig, center, has been inducted into the Georgia Foresters' Hall of Fame. Inducting Craig is William F. Miller, left, chm., Selection Committee. Sanders Brightwell, right, is chairman of the Georgia Chapter, SAF.

Douglas A. Craig, who is retired from the U. S. Forest Service, has become the 24th inductee into the Georgia Foresters Hall of Fame. Craig was inducted by William F. Miller, Jr., chairman of the Hall of Fame Committee, during the annual meeting of the Georgia Chapter, Society of American Foresters. The meeting was held at Stone Mountain near Atlanta.

Miller stated that Craig was recognized for his excellent leadership, not only in Georgia but also in the South. His reputation as an administrator of U. S. Forest Service programs and the guidance and development of these programs to the overall advancement of forestry was outstanding. "Doug Craig represents the highest standards of the forestry profession and his many contributions have been of great value in helping forestry in Georgia and the South reach its present high level of productivity and value," he said. He pointed out that during a period of great change, stress and growth in Forestry, Craig provided leadership in the development of U. S. Forest Service State and Private Forestry work in the South from 1957-74.

Craig has served the SAF in many capacities including his present assignment, Business Manager for the Southeastern Section.

His name will be inscribed on the permanent plaque located in the foyer of the School of Forest Resources at the University of Georgia.

Georgia's

Tree Farmer of the Year

What is it like to live with a tree farmer? "It's just great," laughed Winifred Felder, standing beside her husband of 30 years, Georgia Forestry Association member C. W. Felder. "However, living with a row crop farmer, seed cleaner or cattleman is more difficult!" Winston Felder, born, raised and still residing in the same house near Blakely, Georgia has been all of these and is convinced that tree farming is an excellent way of making a living. At Jekyll Island on June 18 during their annual meeting, the Georgia Forestry Association recognized this conviction by proclaiming Mr. Felder Georgia's 1978 Tree Farmer of the Year.

Felder earned a B.S. degree in Agriculture Science from Auburn University in 1947 and returned home to farming. However, his farm also produced fairly good timber. Winston recalls that, "Timber kept up with inflation better than anything except land. And the taxes haven't been much of a burden when you consider that timber prices and taxes have risen about equally over the years."

Winston was in the cattle business 20 years. After keeping very close records of income and expenses the last 10 and with the threat of imports when the cycle turned profitable, the technology for the "meatless hamburger", the unsatisfactory labor situation and an article written by Dr. Uvacek in the *American Cattle Producer*, January 1969 explaining why there would probably always be a large enough segment of the cattle industry willing to work for reasons other than profit which would keep prices too low, tree farming looked continually better. In 1970 he sold all his cattle and planted pastures to trees.

His farm totals 3700 acres, 600 of which is leased to a row crop farmer. About 1500 acres are in natural pine and a small amount of hardwood and the rest is in planted pine. All planting is contracted and all forest management is handled by F&W Forestry Services,



Winifred and C. W. Felder

Inc. of Albany, Georgia. "But I'm not off in New York somewhere while the work is going on, I'm here keeping tabs on what is happening," Winston added.

The management plan is totally aimed at timber production stressing a pine sawtimber rotation with occasional pulpwood thinnings. However, good timber management inherently leads to good wildlife production and most of the land is leased to hunters who bag most all types of game.

To someone considering a life of tree farming, C. W. Felder has the following advice. "Plant row crops on that land suited to row crops. Plant the rest in genetically improved pines. Don't watch the trees too much. You won't see much happen and you'll have a falling out with them." Winston also went on to explain that prescribed fire has

proved to be an excellent forest management tool and only marked timber should be sold.

Should all tree farmers depend on a consultant forester for management services? "I'm a businessman, not a woodsman. So, speaking for myself, employing a reputable consultant has been the way to go."

Winston and Winifred are not only the parents of two daughters, but also proud grandparents. They hope the tree farming tradition carries on in the family, however Felder concluded the interview by saying, "I am not going to tie up the tree farm in any kind of trust for my family. If I live a normal life the trees will be grown and if the family can ruin grown trees they should have the right to do so. People learn by their mistakes."

Forestry Faces



◆ W. G. "Bill" Morris, left, has retired after 31 years of service with the Georgia Forestry Commission. He came with the Commission in 1947 as a Patrolman in Glynn County and took over as Wayne County Ranger in 1951.

Jerry Lanier, district forester, Statesboro, presented Morris with a Faithful Service plaque and a set of silver goblets on behalf of Morris' co-workers.

The veteran ranger will continue to reside in Jesup.

◆ Four new appointments to the faculty of the Georgia School of Forest Resources have been announced recently by Dean Allyn M. Herrick. Two hold regular faculty status and two are new adjunct positions via research units recently assigned to the University.

Sister Regina Bircham has been appointed Research Associate.

Dr. Bruce C. Bongarten, a native of Pittsburgh, PA, was appointed Assistant Professor in the plant sciences area.

Dr. George H. Haas was appointed Adjunct Assistant Professor upon his transfer to the School in charge of the Migratory Bird and Habitat Research Unit.

Dr. Parley V. Winger is the Leader of the newly established Environmental Contaminant Evaluation Program (aquatic systems).

These additions to the faculty and staff will materially enhance the teaching and research programs of the School and will enlarge its capabilities for outstanding graduate opportunities, particularly in the plant and animal sciences, according to Dean Herrick.



◆ Herbert W. Darley, forester, Georgia Forestry Commission, Macon, has retired after 30 years of service. He has served as a county forest ranger, assistant district forester, engineer and at the time of his retirement was working with timberland owners in Monroe and

Jones Counties.

Garland Nelson, right, district forester, Macon, presented Darley with a rod and reel at a recent retirement ceremony held in Macon.

Darley and his wife, Colleen, plan to continue to reside in Macon.



◆ Ernest Rahn, Effingham County Forest Ranger, has received an Honorary FFA Chapter Farmer Membership by the local FFA Chapter. Presenting the award to Rahn is Marty Edwards, FFA Treasurer.

The local FFA Chapter votes each year to give this award to the person they feel has contributed the most to the local chapter in assisting with projects and furnishing them information necessary in their school work.

And Places

RETIREMENTS...JAMES AVERY, forest nurseryman, Horseshoe Seed Orchard, Glenwood, July 1963-Aug. 1978 ...**HERBERT DARLEY**, forester, Macon, Jan. 1951-Apr. 1978...**LAWRENCE DAVIS**, towerman, Fannin County, Jan. 1953-July 1978...**JAMES D. MORRIS**, patrolman, Laurens County, Jan. 1950-June 1978...**WILLIAM B. MORRIS**, ranger, Wayne County, Dec. 1947-Aug. 1978...**IDA MAE MOSELEY**, germination analyst, Macon, July 1959-July 1978.

◆ Macon County has been named as the location of a large new pulpwood plant to be operated by a Proctor and Gamble Company subsidiary, the Buckeye Cellulose Corporation. The plant will initially employ some 550 persons. The 1,600 acre site is located near the cities of Oglethorpe and Montezuma.

The plant, which conforms to federal and state environmental protection requirements, will turn out cellulose pulp for use in manufacturing household paper goods such as facial and toilet tissues, paper towels and disposable diapers.

Proctor and Gamble officials said the

company anticipates an investment of some \$200 million in the plant which will produce about 300,000 tons of pulp annually.

Corporate spokesmen said the location was selected because it was near the Flint River and had a large timber supply within a 45 mile radius as determined by the Georgia Forestry Commission.

In addition to the 550 jobs at the plant, company officials estimate more than 1,000 jobs will be created in support operations such as supplying pulpwood and other materials.



◆ Chris Edwards, Camilla, received a check for \$50 and a plaque for achieving the highest grade in the Forestry Quiz at the 17th annual Natural Resources Conservation Workshop. There were 139 teen agers attending the workshop held at South Georgia College in Douglas. Making the presentation is Charles B. Place, Jr., Georgia Forestry Commission, Macon, who acted as assistant workshop director. The workshop is cosponsored by the Georgia Chapter, Soil Conservation Society of America and the Georgia Association of Soil and Water Conservation Districts. The Forestry Commission is one of the State and Federal agencies cooperating with the workshop.



◆ The University of Georgia School of Forest Resources has received an award from the Georgia Trust for Historic Preservation for restoration of White Hall, a turn-of-the-century Victorian-Gothic mansion owned by the Forest resources school. Standing before the building, forestry Dean Allyn Herrick, center, accepts the award from John C. Waters of Athens, left, trustee of the Trust for Historic Preservation and Dr.

Robert Crout, president of the Athens Historical Society, which nominated the school. Built in 1894 by descendants of an early Georgia textile manufacturer, White Hall was restored in 1976 with money from the salvage of insect killed timber. The mansion, which features grand mantels and exquisite woodwork, is in Clarke County on land owned by the forest resources school.

LETTERS

I wish to take the opportunity to thank you (John Dickinson) for being kind enough to spend the time you did with me on March 15th. I would further like to especially thank you for the trouble you went to to compile the information which you sent to me in your letter of March 16th. This information is obviously of immense aid to me in planning my land use and is information that I simply cannot come by myself.

Thank you once again for your assistance. I hope one day you will be able to see something more attractive on the land than what you saw two weeks ago. I look forward to seeing you again.

Donald W. Fellner, M.D.
Decatur, Georgia

I have recently moved to Georgia and I have acquired some timberland. I contacted your forester who services this district and I requested his assistance with the problems concerning my timber.

Mr. Terry Cross contacted me and consulted with me regarding my problems and gave me a forestry plan that I feel is exceptionally good. I am, of course, no authority on forestry or the management of timberlands.

I feel that Mr. Cross's assistance has been excellent. In any event, he has been most cooperative and helpful to me at a time when I needed his help.

I want to thank the Commission for the services rendered by Mr. Cross and to advise you of the excellent job he is doing in this area.

S. L. Sayles
Hazlehurst, Georgia

During the several years I have known James B. Simpson, Camden County Ranger, I have been impressed with his interest as a private citizen in a broad range of activities in the county and the respect with which he is regarded by other leaders of the community. I also know that he represents the Commission well, and I would expect him to have a good record of achievement in his official assignment.

However, it is in his role as a community leader that I wish to commend. Over and above his role as a technical advisor to the Camden County Steering Committee, he has filled a significant leadership position as a committee member and officer, serving as Chairman for the second time. In both capacities, he has provided invaluable assistance to the local District Conservationist in promoting the RC&D program and installing RC&D measures.

I want you to know of his community leadership qualities and that we appreciate the contributions Jimmie has made to the RC&D effort.

C. Fred Brackin
USDA, SCS
Hinesville, Georgia

PERSONNEL...FRED ALLEN, urban forester, promoted to wood energy specialist, Atlanta...ED BANKS, forester, promoted to district forester, Atlanta...DWIGHT HAMBY, patrolman, promoted to ranger, Toombs County Unit...WESLEY JONES, project forester, promoted to Macon Management Staff...TOMMY LOGGINS, wood energy specialist, promoted to district forester, Macon...MARVIN "TONY" LOVE, patrolman, promoted to ranger, Bibb

Logging The

County Unit...GARLAND NELSON, district forester, promoted to assistant chief, Administration Division, Macon...LARRY THOMPSON, transferred from Reforestation Division to Macon Management Division as forestry specialist...DAVID WESTMORELAND, assistant chief, Administration Division, promoted to field supervisor, Southern Region.



Fred Allen



Ed Banks



Dwight Hamby



Wesley Jones



Tommy Loggins



Tony Love



Garland Nelson



Larry Thompson



David Westmoreland

Foresters...

Darrell L. Fuller has been appointed chief forester for Forest Farmers Association, Atlanta, Georgia-based southern regional association of private timberland owners.

His prior experience includes work with the Georgia Forestry Commission at Waycross, Augusta and Americus in field and metro forestry activities. In 1975 he joined the Georgia Forest Research Council and immediately before

coming with Forest Farmers Association was deputy director of that agency.

Fuller is a member of the Georgia Forestry Association, Society of Research Administrators and the Society of American Foresters. He is currently secretary-treasurer of the Georgia chapter of the latter group.

Walter Myers, executive vice president of Forest Farmers Association, said that Fuller's responsibilities will cover work in all phases of association activities, including important responsibilities in the publication of Forest Farmer magazine, as well as Forest Farmer Manual.

Larry E. Biles has been appointed Urban and Community Forestry Specialist, according to John A. Vance, area director, Southeastern Area of the U.S.D.A.'s Forest Service. Biles will work through state foresters to aid with funding applications and training in urban forestry techniques. In addition, he will coordinate urban and community forestry activities with other cooperators.

Dr. Benton H. Box, former executive vice president of Southern Forest Institute, became the Dean of the Clemson University College of Forest and Recreation Resources on July 1, 1978.

Box headed SFI for almost five years. Prior to that he taught and did research at LSU and served as a LSU extension service specialist.

Service Awards



Service awards were presented to four members of the Georgia Forestry Commission's Macon Staff totaling 110 years of service. Ray Shirley, Commission director, center, presented the Faithful Service Awards.

Pictured, l-r, are Lester L. Lundy, assistant chief, Forest Protection, 30 years; James C. Turner, Jr., chief, Forest Protection, 35 years; Shirley; James C. Wynens, chief, Reforestation, 25 years; and Druid N. Preston, chief,

Forest Management, 20 years.

Shirley had high praise for the veteran employees saying that because of their dedication and knowledge, the Georgia Forestry Commission is recognized as one of the top state forestry organizations in the nation by the United States Forest Service. He also said they are a credit to the community as they participate in local civic and church related activities.

35 YEARS

JAMES C. TURNER, JR., Staff Forester, Macon, May 1947

25 YEARS

NELLIE R. HANSON, Towerman, Nashville, Ga., May 1953

BILLY ROWE, Ranger, Valdosta, Ga., August 1954

H. P. VARNADORE, Assistant Maintenance Shop Supervisor, Macon, April 1953

20 YEARS

BENNIE B. BRANT, Forester Milledgeville, June 1958

RICHARD D. GRINER, Forester, Washington, Ga., June 1958

JACKIE RAY HOLTON, Patrolman, Douglas, Ga., January 1963

ROBERT M. MCMURRY, Forester, Lavonia, Ga., June 1958

HERSHEL L. NEAL, JR., Forester, Midway, Ga., June 1958

DRUID N. PRESTON, Staff Forester, Macon, Ga., July 1955

HENRY A. SWINDELL, Forester, Griffin, Ga., June 1958

CHARLES D. WEIR, Aircraft Pilot, Douglas, May 1963

Georgia FORESTRY

September, 1978

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DISTRICT OFFICES

Coosa Valley
P. O. Box Z, Mt. Berry 30149

North Georgia
Rt. 7, Box 83, Canton 30114

Atlanta - 7 Martin Luther King, Jr. Dr.
Room 545, Atlanta 30334

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Cruising The News

Fire Fighters Praised

During the autumn months we're reminded daily of the beauty of one of Middle Georgia's most prized natural resources—the woodlands. A walk down a country road reveals to us a plethora of natural wonders—the brightly colored leaves weaving a tapestry of orange and red against a backdrop of green pine, with the fallen flora packed tightly on the forest floor to provide a many-colored carpet for travelers.

But right now we're in danger of losing this natural wonderland. Middle Georgia is experiencing an abnormally dry autumn, with temperatures high and rainfall way below normal. The number of fires reported in Georgia in the last two weeks alone is more than

double those recorded the entire month of October in 1977, according to forest officials.

So hunters and other travelers through our forests must now be especially careful. Officials have issued a fire alert asking people to refrain from outside burning until the next rain, and those who frequent the woods should report any they see not complying with this request.

Inevitably during a season like this fires do start (more than 1,200 have been reported in the last two weeks) and so travelers in our forests must also be on the lookout for that small fire that could, if not reported immediately and fought, deprive us all of this treasured natural resource.

(From the Macon Telegraph)

Saving Our Woodlands

Friday's \$5 million fire at Dolco Packaging Corporation in Lawrenceville—the worst blaze in Gwinnett's history—was a tragic loss for the county, the city, the company, and the employees who work at the plant.

But despite the loss, firemen from four separate local departments deserve the highest praise for their efforts in battling the blaze.

Gwinnett County Fire Department, Lawrenceville Fire Department, Dacula Fire De-

partment and firefighters from the Georgia Forestry Commission all teamed up to fight the blaze, and their collective efforts helped contain the fire and limit it to a warehouse.

We're happy to know that such professionally-trained, dedicated public servants are ready, willing and able to come to the assistance of local residents and businesses when they are needed.

(From the Gwinnett Daily News)

About Those Arsonists

About those arsonists who burn their way to the woods—they're the meanest people in the county. As well, there's not a stronger word to describe those who destroy the property of others.

The arson rate is high in Georgia, weather and according to a fire ranger here in the state.

It's hard to prove arson, said Rowe, because you and a witness have to catch the arsonist in the act. What's so foolish about the whole thing is that it's often an act of spite. When arsonists are caught, however, we hope the judge throws the book at them. Maybe if they're punished severely, others will think twice before setting woods fires just because they can't get along with the property owner.

(From the Valdosta Daily Times)

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Georgians See Energy Exhibit

Many of the homeowners, farmers, businessmen, manufacturers and others who came by to see the exhibit were amazed to learn that wood stoves and furnaces have kept up with the times in engineering and design.

They were viewing the Georgia Forestry Commission's wood energy demonstration showcase - a mobile display now touring the state to acquaint the public with modern wood burning heating equipment and the availability of fuel wood from the forests of Georgia.

The attractive display, housed in two trailers, is a cooperative project of the Commission and the Georgia Institute of Technology.

During a brief ceremony in Carrollton in early October to officially launch the statewide tour, Felton Denney of Carrollton, a member of the Commission's Board, declared that "from our forests we can produce good, clean energy cheaper than coal or oil," and he urged Georgians to take advantage of this tremendous fuel supply.

Ray Shirley, Commission director, told the gathering that industrialists and others throughout the nation are "looking to Georgia to see what we are doing with our waste wood." He said forest harvesting operations are presently "leaving 15 to 16 percent waste in the woods" in the form of limbs, tops, stumps and other materials which could be converted into needed energy.

"Two years ago we couldn't compete with gas or oil," Shirley said, "but with the present high cost of these fuels, wood is the cheapest energy source in Georgia."

The Commission Director said "we can grow more than a cord of wood per acre and we are now producing 10,000,000 more cords each year than we are using." He predicted that "within five years, thousands of people will be working in the forests of Georgia to get out wood for fuel."

Shirley pointed out that the modern stoves and furnaces burn wood more efficiently and economically than in the past and he told of furnaces that are engineered to burn wood or/and oil. He said wood as a fuel should be especially attractive to Georgia's carpet, textile and brick manufacturing industries, as well as other enterprises requiring extensive drying facilities.

The director also told of the new gasification process - a method of extracting gas from burning wood - which is in the development stage and holds out great promises for the future of wood energy. He announced that the heating plant at Northwest Regional Hospital in Rome is being converted from natural gas to wood as a fuel source and he said similar pilot projects are planned in the state.

Rudy Yobs, Director of the Technology and Development Laboratory, Georgia Tech, reminded the group that "Georgia's most plentiful resources are not limited to peaches, peanuts and poultry, but also include an impressive abundance of forest products." He cited the cooperation of the Forestry Com-

mission and Tech as an example of a "university and a state agency teaming up" to advance a resource beneficial to all citizens of the state.

Robert Ware, Chairman of the Wood Energy Committee, Georgia Forestry Association, Atlanta, told the Carrollton audience that "largely through the efforts of Ray Shirley, Georgia now stands first in the nation in forestry." He pointed out, however, that the state has imported fuel for the past 75 years.

Shirley expressed appreciation to Denney and the other four members of the Board of Commissioners. He also noted that the wood energy promotion has the enthusiastic support of Governor Busbee and state legislators who have been briefed on the program.

In his role as master of ceremonies, Denney introduced Sen. J. Ebb Duncan of Carrollton. Rep. Charles Thomas of Temple and Rep. Gerald Johnson of Carrollton were also among the dignitaries in attendance.

The exhibit features equipment ranging from a simple wood stove priced at \$35 to a large furnace with a \$1,565 price tag. The exhibit, of course, is not promoting any particular trade name, but lists retail prices and provides other general information.

The two mobile units will travel from city to city until all Georgians have an opportunity to view the exhibit. It will be shown two days in larger urban areas and one day in smaller cities.

Two foresters of the Georgia Forestry Commission, who have been especially trained to provide information to the public regarding the equipment, will man the exhibit.





Raymond Sullivan is shown at one of the log yards at his lumber mill as he explains some of the innovations at his company to personnel of the Georgia

Forestry Commission. At right, the veteran lumberman checks growth in one of his pine forests.



RAYMOND SULLIVAN

It was the summer of 1926 and young Raymond Sullivan was proud of his new job as bookkeeper and lumber checker for a small sawmill near Ellaville, Georgia.

Although the Great Depression was destined to come crashing down within three short years, the eager young graduate of Trinity College (later renamed Duke University), was beginning his career with high hopes for a bright and prosperous future.

His degree in business administration was an asset that paid off handsomely and when a shake-up in personnel came, his boss was quick to elevate him to the position of mill manager.

Now he had two jobs - mill manager during the long work days and bookkeeper at night. A third duty thrust

upon him was the cruising and buying of timber.

"I didn't know anything about timber cruising and log buying in those days," he admitted, "but I had to get out and learn it in a hurry." That was more than 50 years ago and now he chuckles when he recalls how he learned through a trial and error method.

Today, it would be difficult to find one who is more knowledgeable than Sullivan in growing, buying, harvesting and utilizing timber. He can also be counted among Georgia's greatest pioneers in conservation.

Ride with him along the forest trails on some of his property and he will point out tracts he planted in pines back when land in certain sections of the state was considered almost worth-

from sawmill bookkeeper to one of Georgia's largest landowners

less. The planted areas matured, the trees were harvested for timber and now another generation of planted trees on the same sites are waist high.

After his arrival from North Carolina, Sullivan made a survey of land around the sawmill and in adjoining counties. He discovered that a tremendous number of acres were overgrown with broom sedge. Much of the land was poor, often depleted acreage that many farmers considered worthless or of very little agricultural value.

The prudent young man eventually bought a 175 acre tract in Sumter County and added additional acreage as finances permitted.

Sullivan said he survived the depression by working long, hard hours and "by 1934 things were getting better."

That's the year he and a friend decided to strike out on their own.

They built a steam powered sawmill at Dumas, a rural community between Plains and Preston on Georgia Highway 180. They opened a commissary to accommodate their employees and the little mill prospered.

Within a few years, Sullivan bought out his partner's interest in the enterprise and as sole owner he continued to buy land and improve his mill operations down through the years.

The mill burned in March of 1973, but plans were made immediately to rebuild on the same site.

NOTHING WASTED

Sullivan recently invited representatives of the Georgia Forestry Commission to don hard hats and join him in a tour of the modern new mill.

Most of the traditional lumber mill operations in the highly automated plant of Sullivan Lumber Company are handled by employees who operate control panels from glass booths stationed throughout the plant. They expertly guide the timber through the mill from the log yard to the dry kilns, while by-products are automatically de-toured to loading areas.

Nothing in the tree is wasted. When a tree begins its journey through the mill, bark from the debarker is conveyed to a loading zone where it is sold to nurseries for mulch. Sawdust and some bark makes its way to the boiler room for fuel. Lumber from the saws is automatically bundled for transport to the kilns. Slabs are made into chips and sent directly to rail cars. Shavings travel a conveyor to a loading area to be shipped to particle board plants.

During the tour, Sullivan showed several steel drums of fly ash near the boiler room. "We have yet to find what to do with this," he said as he picked up a handful, "but we're working on it."

Although electricity is the main source of energy for the big ultra modern mill, two huge boilers with wood burning furnaces have been installed. The steam is used in the kilns and to power the high speed carriage gun.

If the visitor is impressed with the highly advanced mill, he is equally impressed with Sullivan's vast land holdings and his intensive forestry program.

The landowner, who pointed out that he "started out on a shoestring," now owns 47,000 acres of land. That, of course, places him among the top - if not the very top - landowners in Georgia.



“... I Said I Was Going To Plant One Million Seedlings A Year For Five Years”

The acreage is in six Georgia counties and in one Alabama county. Only about 2,000 acres are in crops and pastures and the remainder are in well managed forests. Some of the land borders on property owned by President Jimmy Carter. "I've been knowing him since he was a little boy," Sullivan said of his famous neighbor.

In managing his land, Sullivan in

1945 inaugurated a bold plan that caused some skeptics to shake their heads. "You know, that was about the time Russia was talking about their Five Year Plan," he said. "Well, I set up my own Five Year Plan...I said I was going to plant one million seedlings a year for five years."

And that is what he did. At the end of the five years, however, he extended the massive planting schedule for three more years.

Those eight million seedlings are part of an overall planting schedule over the years which now totals 32 million tree seedlings set out on Sullivan's property. Most of the seedlings came from nurseries of the Georgia Forestry Commission.

Three full time men manage his forestlands. They tend to the planting, cruising, harvesting and stay on top of special problems as they travel the lands in radio-equipped pickup trucks. The

(Continued next page)



Mixture of sawdust and bark feeds the furnaces at Sullivan Lumber Company.

men are not graduate foresters, but he said they keep abreast of forestry procedures and advances through short courses at the University of Georgia and other training.



Sullivan is in the process of deeding the mill to his two sons, Colin and Matt, both of Americus. Colin works with his father in the management of the lumber mill and Matt owns and operates a building materials and decorating center in Americus.

Ask Sullivan if he is looking forward to retirement now that ownership is being shifted to his sons and he is quick to reply that he "will never retire!"

He looked up from his big desk cluttered with lumber orders, freight invoices and machinery catalogs and declared that he found too much pleasure in his daily work to ever consider retirement.

"I tried golf for a little while," he said, "but I soon got tired of that."

Sullivan, however, does have one diversion. In the mid sixties, he became interested in quarterhorses. "Went to several shows," he said, "and I enjoyed them...decided to raise my own horses."

PRIDE IN HORSES

He now has stables at his Sylvandale Farm and a full time manager and trainer to care for 55 horses. His pride is a beautiful sorrel stud named One Shot. The horse recently won the Junior Reserve Cutting Horse Award in the World Championship Show in Oklahoma City. One of the walls in Sullivan's office is lined with trophies and plaques won by his horses in various shows across the country.

The prominent landowner and lumber manufacturer is also extremely proud of his three grandchildren. Granddaughter Robbie, 19, likes to come down to the stables and ride the horses. Grandsons Blake, 20, and John, 16, are showing a keen interest in the mill.

Sullivan has seen logging advance from sluggish mule power to giant machines that handle whole trees like match sticks. He has seen lumber prices range from \$4.50 per thousand for one-by-fours in the twenties to \$200 per thousand in the late seventies. He has seen land transformed from desolate, empty acres to deep forests of towering pine and hardwood.

He has been close to forestry and lumbering for more than half a century and he wants to keep it that way.

That's why you will find Raymond Sullivan up before dawn each day and the first to arrive at the mill.

Sullivan at green chain, with prize horse, at small timbers mill chain.



Forest Activities Cause Little Water Pollution

People interested in forestry and forest related enterprises were recently pleased to learn that water pollution from forest activities is not a significant problem in Georgia.

The finding came from a report of the Georgia 208 Forest Nonpoint Source Technical Task Force.

Ray Shirley, director, Georgia Forestry Commission, and Task Force chairman, said some areas, activities and practices were isolated where the application of Best Management Practices will lessen the quantity of sediment that may enter streams. Although all water quality parameters were considered and evaluated, Shirley emphasized that sediment is the only potentially significant problem associated with silviculture.

The task force cited the need for care and prudent operation in the Streamside Management Zones. Timber harvesting and regeneration are not considered a contributor to major water pollution problems. However, where there exists a combination of highly erodible soils, steep slopes and operations in close proximity to streams, logging operations should be tailored to meet the conditions.

As a result of the findings, the task force recommends that a nonregulatory education and training program be established to include various phases of logging and the laying out of logging roads. Landowners, land managers, loggers and equipment operators will be encouraged to make forest management decisions which balance environmental, social and economic benefits utilizing Best Management Practices to mitigate water pollution problems.



Paul Butts, Utilization and Management Specialist, Georgia Forestry Commission, demonstrates the wood gasifier for interested citizens.

The gasifier burns dry wood under starved air conditions to produce a clean, odor free flame and particulate emission is minimal. The demonstration model is furnished through the courtesy of Mr. John Calhoun, Forest Fuels, Inc., Keene, New Hampshire.

The temperature inside the gas generator (primary burning chamber) is maintained between 1200^o and 1600^o Fahrenheit by the primary combustion of charcoal. In this temperature range, incoming wood is distilled destructively, yielding a distillate gas and charcoal. Primary air supplied to the glowing charcoal reduces charcoal to carbon monoxide gas and ash. The mixture of distillate gas and carbon monoxide gas flows through the nozzle burner assembly, where secondary combustion occurs. The heat released in primary combustion is carried with the gas stream into the secondary combustion zone.

Experimentation in the practical use of wood gasification holds bright promises in the continuing search for new sources of energy.

Barber Appointed To State Board

Turner Barber, Jr. of Macon, Associate Chief of Forest Management, Georgia Forestry Commission, has been appointed to the State Board of Registration for Foresters by Governor George Busbee.

In announcing the appointment to the Board, which administers examinations and other procedures foresters must undergo to become eligible to practice in Georgia, the governor thanked Barber for accepting "the responsibility and challenge" of serving in this capacity.

A graduate forester must serve as an apprentice to a registered forester for two years before he or she is eligible to go before the Board for an examination to qualify to practice the profession.

Georgia was the first state in the nation to require registration for foresters. The law was inaugurated in 1951, officials said.

The five man board is headed by Professor A. E. Patterson, School of Forest Resources, University of Georgia. Other members consist of foresters in industry and private practice.

Barber, a graduate of the University of Georgia School of Forest Resources, started work with the Commission in 1949 as a ranger and was promoted to district forester three years later. Following other promotions, he was named Assistant Chief, Fire Control, at headquarters in Macon in 1956. He was named to his present position in 1970.

Barber is married to the former Miss Marcia Jones of Albany and they have three children. He is a member of the official board of Shurlington United Methodist Church in Macon and is active in several forestry and forestry related organizations.





Timber Growth Conditions Essential

By A. Ray Shirley

The major concern in forestry today is putting our forests in good timber growth condition to obtain maximum production.

About one-third of the land area of the U. S. is forested. Products and services from those lands are important to the economic, social and environmental well-being of the nation.

There are 242 million commercial forest acres in the United States. Non-industrial private landowners own 108 million acres. This acreage has an inventory of 111 billion cubic feet. This represents 25.7 percent of the nation's total. However, it is accounting for 47.7 percent of the growth and 39.6 percent of the total removals.

Of the nonindustrial private forest land, 73 percent is in ownerships of 500 acres or less. The average ownership is about 70 acres.

One of the major physical opportunities for enhanced timber production

appears to be establishing and managing commercially desirable species on selected, high-site lands that are stocked at less-than-optimal levels. Non-stocked acreages in 1970 totaled 20.7 million acres of which 74 percent were on farm and miscellaneous private holdings. In addition to non-stocked acreages, millions of acres were sparsely stocked, or stocked with such undesirable trees, that artificial regeneration appeared warranted. There are 19.6 million acres in the southeast according to the "Outlook For Timber In The United States". The report identified large acreages considered suitable for treatments that can improve tree growth and quality.

REFORESTATION NEEDED

The need for reforestation on private nonindustrial private lands is evident in that approximately one-half of the pine stands harvested are not being adequate-

ly regenerated with pine. An analysis of timber survey inventories shows, in 13 southeastern states, that a net loss of 7.2 million acres has occurred in the pine type. Nearly 6.6 million acres of this have reverted to hardwoods.

The eastern and southern United States, in particular, consist of mixed pine and hardwood stands. The undesirable trees comprise from one-third to one-half of the average forest stand in this section of the country.

Up to the present, there has been very little demand and, consequently, a very sparse commercial market for this type of timber.

In the south, more than 50 percent of the forest area is classified as hardwood.

In Georgia last year, 87 percent of the timber harvested consisted of loblolly, longleaf and slash pine. Unless timber stand improvement is practiced, when pines and other softwood are re-

removed, the problem of cull and junk trees will present itself, especially in the piedmont and mountain areas. Private, industry and federal lands are left with an assortment of tree sizes and species for which there is no market due to haphazard cutting practices. This is particularly true of a sawtimber harvest which is the final cut. Fire hazards and obstacles to reforestation are also visual results of this type practice.

Thinning is needed to improve growing conditions and to leave higher quality, faster growing trees for future harvest. This is an area where timber markets are limited, and efforts are needed toward providing a market for the unsaleable timber.

At present and during the past, TSI operations to remove types of material described required a large investment with no resulting returns except in better growth conditions. It has been almost impossible to interest the non-industrial forest owner to economically make an investment of this type. The exception is where the owner has been subsidized by the federal government and in some special conditions by industry.

COSTS LOWER IN SOUTH

In the far west it costs from \$70 to \$300 per acre to reforest the land. In the south the cost ranges from \$30 to \$200 per acre. The uncertainty associated with timber growing is great because of fire, insects and disease. The return from his investment is only realized after many years have elapsed.

The economics of utilizing non-commercial wood for fuel has become feasible for us to consider. The continued upward spiral of costs for fossil fuels and other energy has made the use of forest energy financially possible.

It is conceded by most economists, business and political leaders that energy and inflation are two of the most serious problems facing our nation today.

For the first time in many decades, wood is now economically feasible as a fuel for most industries and small businesses as well as schools and other public facilities.

In fact, today's prices for coal, oil, gas and electricity makes wood the most economical fuel we have for many uses.

Good thinning practices greatly improve growing conditions in the forest and leave larger, higher quality trees for a profitable harvest in the future.

There are currently several proposals in various states of development which have a positive bearing on the creation of an economic climate that will help attract the necessary private capital to timber growing. They are (1) the Steiger Amendment that would roll back the capital gains rate to the pre-1969 level, a maximum of 25 percent, (2) the Weaver Proposal, that is to be introduced by Jenkins of Georgia, which provides the investment tax credits and a seven year amortization for all capitalized forest expenses, (3) and the proposed two year congressional study of the Death Tax Laws. The National Forest Products Association resolution 78S-6, passed by the Board, contains the provisions proposed by Congressman Weaver.

The increased levels of investment will create jobs at low skill levels in rural areas, help retain world low cost producer status for U. S. forest products and provide timber resources for the future.

Prevention of unemployment and stimulation of the economy in the nation requires continued availability of energy. The winter of 1977, with its energy shortage and associated unemployment, illustrated this point painfully. During that time, natural gas from outside the state was widely curtailed, and most industry was shut down for several weeks.

Next to hydropower, biomass is the largest source of commercial solar energy in use in the United States. About 1.3 quads per year, or about 1.7 percent of the nation's energy, is now supplied by biofuels. Today's economically competitive uses include electric power generation, process steam generation from wood and pulp residues and the direct combustion of fuel wood to provide space heat for homes.

The nation is blessed with abundant resources of wood, which if developed as an energy source, can greatly reduce our dependence on outside energy sources and stimulate the state's economy. Our fast growing forests are capable
(Continued next page)



(Continued from page 9)

of being replenished every 25 to 30 years. In Georgia, 20 to 30 percent of the total energy used annually could be reaped from the forests. For the nation, seven percent of the total energy needs could be annually supplied from forest waste and low value tree species. This would leave us with our more valuable hardwoods and softwoods, and at the same time, improve our forests from both the standpoint of production and aesthetics.

PINE DOMINATES

The estimated rate of pine harvest in the south has averaged about one million acres annually, excluding intermediate cutting. Pine was retained on less than half of this acreage. Pine dominated 50 percent of the southeast's commercial forest land and produced 38 percent of the timber volume 20 years ago. Today, production is still 38 percent but only 40 percent of the acreage according to a Southeastern Forest Experiment Station report.

Georgia is growing 24 million cords of wood annually, or approximately one cord per acre. Tree removal is 14 million cords annually, leaving a plus of 10 million cords.

In forest waste, tops, limbs, needles, leaves, loading ramp material, broken trees and other material amounts to 4.3 million cords, waste from wood processing, 3.4 million cords; and cull trees, 36 million cords.

Harvesting only 10 percent in forest waste, 50 percent processing waste, 25 percent excess growth and 10 percent cull trees will yield 8.3 million cords. This is equivalent to 48 million barrels of number two fuel oil. This has a fuel value of \$300 million that would remain in Georgia with many thousands of jobs created in rural Georgia.

Residues, resulting from logging operations, constituted 10 percent of all softwood removals and 15 percent of all hardwood removals of growing stock in 1970 throughout the United States. This represented approximately 20 million cords of solid wood fiber. About one-half of the softwood residues were on Pacific Coast operations and one-fourth in the south. Not included is the volume of material under four inches in diameter.

In 1970, there were 12 million cords of material left unused at sawmills and other primary manufacturing plants. About two-thirds of this unused material was softwood. About 3.4 million cords, 40 percent, was chipable residues such as slabs, edgings and other coarse material. Unused sawdust and other fine residues amounted to 7.4 million cords in 1970.

U. S. Forest Service surveys have never considered volumes in a diameter class of less than five inches. Using 2" to 4 1/2" size class for wood energy through the chipping process, represents a volume of 113 million cords in Georgia. Of this volume, 43 million cords represent low quality and most often times stagnant trees that will never reach merchantable size.

Wood produced from this and other sizes that need to be removed makes it economical to do timber stand improvement on most forest lands in Georgia and in the south.

Wood energy systems have been in widespread use in the forest products industry for several years. In other sectors, ready supplies of previously available and cheaper petroleum fuels made wood energy systems unattractive. Also achieving widespread wood energy use requires simultaneous development of harvesting, fuels processing and wood combustion techniques.

Recent technological developments in forest harvesting equipment, including small whole tree chippers and equipment to economically harvest cull wood and small trees, open up an entire new supply of wood material previously wasted. The whole tree chipper can be readily moved within close proximity of the felling operation which makes possible the harvesting of the total tree from two inches in diameter and up.

HARVESTING FEASIBLE

With the advent of the small, highly mobile tractors equipped with shear and fellouncher, high speed rubber tired skidders with hydraulic grapple, harvesting of this heretofore unmerchantable wood is commercially feasible. Mechanical equipment can be used to thin crowded stands and unmerchantable timber and leave the stand in a condition for quality timber growth without damage to the remaining trees. In many

cases this will permit areas to be planted without additional site preparation. The cost can be reduced 50 percent or more.

There are a few industries using all of their waste and generating all of their energy other than electrical energy needed to operate their plants. Equipment is now available to them that will utilize sawdust, bark, chips and mill waste in an efficient automotive manner that meets all environmental standards. Manufacturers are producing equipment that can be used for forest, textile, carpet, kaolin, brick and other industries. Hospitals, schools, colleges and correctional institutions and other public and private buildings would be receptive facilities for this type equipment.

We have loggers and raw material suppliers that can produce and process trees into chips or other forms needed by most industries.

The wood-using industry should lead the way since they have the type of raw material to make them self-sufficient for energy.

The outlook for increasing forest production to meet the growing population and timber needs is a reality.

POTENTIAL GREAT

There is significant potential for economic development and employment if wood energy can be developed. The jobs created by developing another market for our natural resources will be significant. The income to individuals who will have a new market for previously useless wood waste will provide additional economic benefits. By developing another source under our closer control, jobs can be protected and new industrial development can occur. It is in the best interest of the state to provide the required leadership through demonstration projects and incentives for developing all aspects of wood energy systems simultaneously.

Energy wood promises to become an alternate fuel, thereby keeping many plants and businesses open in periods of petroleum fuel scarcity. It also offers the potential of a wood market to some areas where such markets are poor or nonexistent. A third economic advantage is that loggers and wood producers may find the harvest of energy wood gives them a greater degree of protection against loss of income from quota

restrictions, mill shut-downs or market slumps.

Wood residues, unmerchantable wood in cut-over and well stocked stands and poor quality hardwood trees are available in abundance. The technology is available to utilize them efficiently. And, the economics would justify the prospect of conversion even if there were not an energy crisis.

If the non-industrial forest owners of the nation are to make their lands more

productive, it must be economically feasible to do so. If weed trees and undesirable trees can be removed that are not now merchantable and still return a profit, the land can be reforested or the most productive trees can put on quality growth with increased timber for quality products.

There is, in most parts of the United States, very little abandoned land available for timber production. We have to improve the site and stand. If this can

be done without cost to the owner, you have a viable program. If not, the only course open is some type subsidy. And, who is going to pay for it?

The private landowner is in business. It is not profitable to advocate programs to increase production in nonindustrial forest land unless we as foresters can show the economic feasibility of doing it. This can best be done in renewable energy resources through timber stand improvement.

RESEARCH ADVISORY COMMITTEE NAMED

A Research Advisory Committee, consisting of seven Georgia citizens, has been named by Governor George Busbee to work with the Forest Research Division of the Georgia Forestry Commission.

Ray Shirley, Commission Director, listed the members as Mrs. William S. Clark, Waycross, chairwoman; S. C. Cadwell, Chauncey, vice-chairman; Pratt Secrest, Thomasville; James G. Fendig, St. Marys; Dr. Claude Brown, Athens; Duross Fitzpatrick, Jeffersonville; and Bill Davis, Madison.

The director said all members of the newly formed committee have a forestry or forest related background and "each has a keen interest in the advancement of forestry in our state."

John W. Mixon, Chief of the Research Division, said the initial meeting for the group was held at Commission headquarters in Macon and plans were mapped for future sessions. He said the committee favored meeting at locations where forestry research projects are now being carried out. He said they are especially interested in current studies in

gasification of wood and other wood energy projects.

Shirley said the committee, which elected to meet quarterly, has shown "considerable enthusiasm at the outset and we know these dedicated people will provide us with valuable assistance in the presentation of suggestions and opinions."

He said they will work with the Research Division in the solicitation of research suggestions from forest landowners, industries, associations, colleges and other groups.

YEAR COMPLETED IN ELM DISEASE BATTLE

The Georgia Forestry Commission, in cooperation with the University of Georgia Extension Service, has completed the first year of a proposed five-year battle against the destructive Dutch Elm Disease.

Approximately 200 diseased trees were removed and 200 were pruned in the Atlanta area during the initial year of the program, which is 100 percent federally funded. The disease control demonstration sites included Fairburn, Milstead, Covington and the campus of Georgia Tech.

Forester Ken Bailey of the Commission's Third District, coordinator for the program, said when symptoms of the disease are observed in trees in the study area, cuttings are made for laboratory examination at the university. If the disease is confirmed, pruning is done to save the tree. Tree Service companies prune and remove trees on a bid basis.

Bailey said the demonstrations are

being used as an educational tool to aid other municipalities, counties and individuals in the recognition of the disease and to advise steps to be taken for its control.

Dutch Elm Disease was first noticed in the Atlanta area by the Commission in 1965 and requests for assistance prompted an incidence survey in 1968. Funds for a cooperative control program, however, were not available at that time.

Bailey pointed out that the Dutch Elm Disease was brought to the New England states in the 1930's by a ship load of infested logs from Holland. The disease devastated a great percentage of elms in that section and gradually spread to the South.

The elm is not a leading timber tree and is maintained chiefly for its aesthetic value and for shade in lawns and parks and along city streets.



TREE INVENTORIES AID CITY BEAUTIFICATION

Extensive inventories were completed this fall in six Georgia cities to aid urban centers in the management and expansion of trees along city streets, in parks and on other public grounds.

The largest survey was carried out in Macon, where it was determined that more than 9,400 trees were growing along streets in the inner city. Some 380 were dead and have to be removed, while 804 needed to be pruned. It was recommended that the city plant 2,504 trees along the streets.

The inventory, made by the Georgia Forestry Commission with funding assistance from the U. S. Forest Service was also carried out in Madison, Perry, Forsyth, Thomasville and Monroe.

Trees on city property were inventoried to include species, size, condition and location. College students who have completed courses in tree identification were employed to make the inventories, while foresters drew up management plans, made planting recommendations, handled disease and insect problems and carried out other technical phases of the program.

The Macon study was supervised by District Forester Garland Nelson and Urban Forester John Clarke of the Macon District.

They met with Macon Mayor Buckner Melton and the city's Public Works Department to outline the program. The city readily accepted the proposal and the inventory was carried out with full cooperation from Macon officials.

MODEL STREET SELECTED

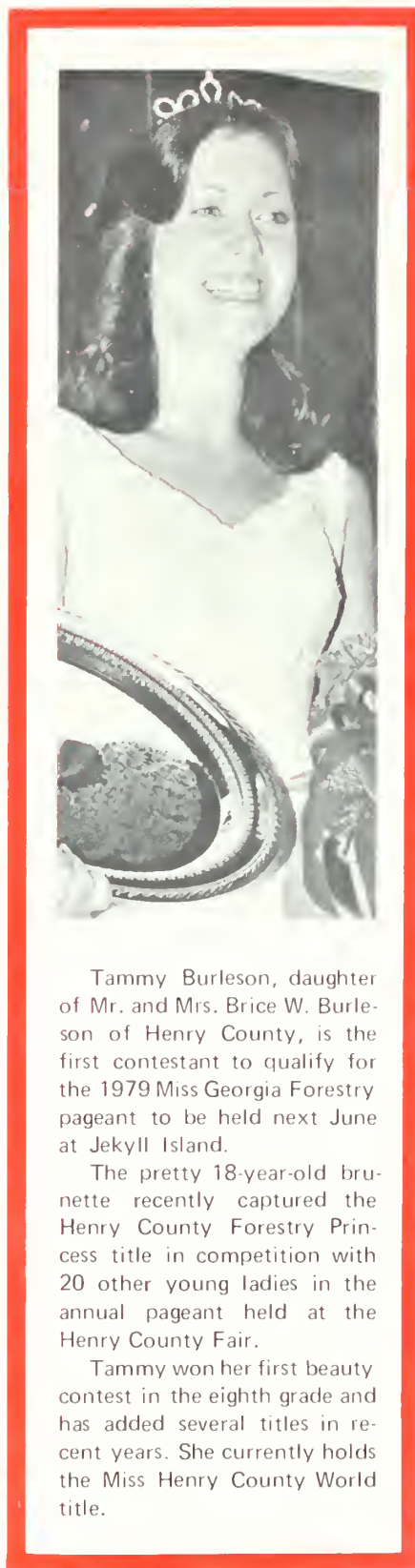
Carling Avenue was selected as a "Demonstration Street". Commission personnel will supervise tree pruning in the area, treat any insect or disease problems, plant trees in vacant areas and fertilize where needed.

Carling Avenue will be designated a model for the city in upgrading and establishing urban tree management. City officials were also advised that a sound tree ordinance will be needed if a good tree program is to be effective.

It was recommended that Macon establish a "holding area" in which seedlings would be planted for later transplanting when large enough for effective use along city streets.

In the Madison study, work was under the supervision of George Collier,

Field Supervisor, Georgia Forestry Commission, and District Forester Theron Devereaux, Athens. Based on the survey, recommendations were made to Madi-



Tammy Burleson, daughter of Mr. and Mrs. Brice W. Burleson of Henry County, is the first contestant to qualify for the 1979 Miss Georgia Forestry pageant to be held next June at Jekyll Island.

The pretty 18-year-old brunette recently captured the Henry County Forestry Princess title in competition with 20 other young ladies in the annual pageant held at the Henry County Fair.

Tammy won her first beauty contest in the eighth grade and has added several titles in recent years. She currently holds the Miss Henry County World title.

son city officials for additional tree planting in the downtown area and in certain residential districts.

A plan for management was drawn up and the city is being asked to implement the plan. A demonstration street has been selected.

In the planning, building owners were taken into consideration and the scale of trees to the buildings and signs determined species, spacing and other factors.

It was pointed out in all the inventories that the Commission is interested in urban tree management, as well as management in rural areas, and considerable professional aid is available for the cities of Georgia.

Surveys and recommendations in the other four cities were essentially on the same basis as those in Macon and Madison.

The Commission has divided species for urban planting into small, medium and large street trees.

20 SPECIES LISTED

Small trees include dogwood, redbud, flowering crabapple, crape myrtle, hawthorne, Japanese maple, golden rain-tree, Japanese magnolia and Bradford pear.

Medium trees are red maple, Carolina cherry laurel, sourwood, black gum, and black locust.

Large trees recommended for city street planting include pin oak, scarlet oak, sycamore, yellow poplar, sweet gum, willow oak, water oak, and Darlington oak.

Death Claims Sidney Weitzman

Sidney Weitzman, 63, retired Area Director of the USDA Forest Service's Southeastern Area, State and Private Forestry, died recently of a heart attack in St. Paul, Minn.

Weitzman served as Area Director in Atlanta from 1974 to July 1976. As Area Director he occupied a key field position in the Forest Service. In this capacity, he worked with the State forestry agencies of 13 states, Puerto Rico, and the U. S. Virgin Islands. He was also responsible for maintaining liaison with forestry-related industries and businesses in the South.

WOOD HEATERS INSTALLED IN COMMISSION BUILDINGS

The Georgia Forestry Commission this winter is heating many of its buildings, shops and other structures from a source it knows best - the Georgia forests.

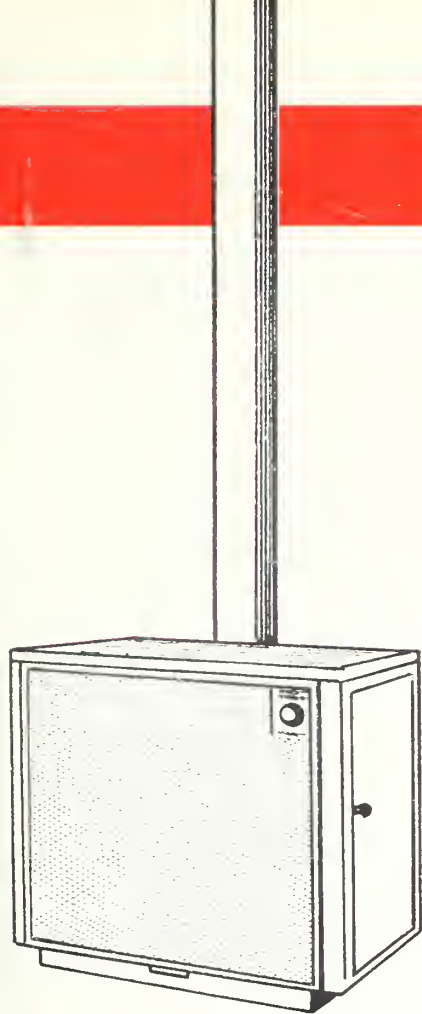
More than 85 buildings, including many district and county unit offices throughout the state, have wood burning stoves installed and an additional 40 stoves are on order, according to A. Ray Shirley, Commission director.

He pointed out that the wood to be utilized by the Commission is actually forest waste - cull trees and other undesirable species, tops and limbs left by logging operations and other materials of no commercial value.

The Commission is in the midst of a campaign to promote the use of fuel-wood in homes and industries and Shirley said "the use of wood in our own buildings hopefully will encourage others to turn to this abundant fuel and our conversion from natural gas and other energies will also save considerable taxpayer dollars."

Shirley said heaters installed by the Commission are "a far cry from the old wood burner of yesteryear." He said the new style heaters are carefully engineered to burn wood more slowly and provide greater heat.

As part of the wood energy campaign, the Commission is currently co-operating with Georgia Tech in the sponsorship of two mobile units displaying modern wood burning stoves and furnaces (see story page 3). The traveling exhibit is accompanied by two foresters and will visit more than 106 Georgia cities and urban centers.



SERVICE AWARDS

30 YEARS

GEORGE LYON, Ranger,
Stone Mountain, Dec. 1950

HERBERT MOORE, Ranger,
Greensboro, Feb. 1950

25 YEARS

CHARLES H. MERCK, Patrol-
man, Jefferson, Sept. 1953

GERALD J. RIDLEY, Ranger,
Eatonton, Sept. 1953

DREW B. ROWE, SR., Mainte-
nance Equipment Operator,
Waycross, Nov. 1955

20 YEARS

LOUIE F. DEATON, Forester,
Atlanta, Sept. 1958

JERRY R. LANIER, Forester
Statesboro, Sept. 1958

JERRY D. MARSH, Forester,
Statesboro, Sept. 1958

ROBERT H. MCDONALD, Ran-
ger, Lula, July 1958

WALLACE R. SOCKWELL,
Patrolman, Stone Mountain,
July 1958

HENRY G. WILLIAMS, Forester,
McRae, Sept. 1958

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Please accept our sincere thanks for your help in bringing under control and extinguishing the woods fire that had gotten out of hand around my home and the home of my son, Robert E. Bentley. Without your help we could have lost our homes.

It is organizations like yours who lend neighbors a helping hand in times of emergency that make this a great community in which to live. The professionalism that surrounds your people is amazing to me, and I know a satisfaction to you.

E. J. Bentley
Taylorsville, Georgia

Appreciate very much the publications and other materials you have supplied me with over the years. You and your staff have been very helpful. Forestry interests me and I find a keen interest among our youth today.

J. R. Cook
Vo-Ag Instructor
Greenville, Georgia

My wife and I just wanted to thank you and your men again for the excellent and professional help you rendered recently in helping to control the fire burning of our new land to be cultivated.

We sincerely feel that your presence and guidance from the beginning steered us in the right direction. We shall remember with gratitude the excellent service you and your men gave to us in this matter in Tattnall County.

William David Blalock
McRae, Georgia

On behalf of the teachers of Vocational Agriculture attending the Forestry Clinic at the State FFA-FHA Camp, I would like to express appreciation to Jack Long for the presentation he made on Forest Protection-Forest Fires and Control Burning.

Although I had to miss his presentation, I did hear many complimentary remarks from the teachers in attendance. I am sure the teachers will find the information presented will be of value in planning and conducting classes in forestry during the coming year.

Thomas C. Weaver
Instructor, Ag Education
University of Georgia
Athens, Georgia

Thank you so much for the time and effort put forth by Mr. Crawford Bramlett and the Georgia Forestry Commission to help make the Smokey Bear Reading Club such a success.

Your cooperation with the library and the Dalton Junior Woman's Club is greatly appreciated.

Eugenia Cavender
Director, Regional Library
Dalton, Georgia



Frank Craven of Macon, left, Governor of Georgia District of Kiwanis, receives his Certificate of Election from Hilmar L. Solberg of Appleton, Wisconsin, during ceremonies at a recent meeting.

Craven Elected Kiwanis Leader

Frank Craven, Chief of Forest Education, Georgia Forestry Commission, Macon, was recently elected Governor of the Georgia District of Kiwanis International.

The statewide district is composed of 150 clubs with a total membership of 7,800.

Craven received the Certificate of Election during ceremonies of the annual Council meeting of the organization in Chicago. Some 200 Kiwanis leaders were in attendance and Craven joined 30 other district governors from throughout the United States and Canada in receiving the honor.

Craven pointed out that Kiwanis International was founded in Detroit, Mich., in 1915 and is made up of business and professional men interested in community improvement and youth development. There are approximately 300,000 members in 7,000 clubs around the world.

The Education Chief, who has been with the Commission since 1951, is married to the former Miss Millie Morgan of Athens. They live in Macon and have two daughters, Karen and Valerie.

Logging The Foresters...

LYNN B. HOOVEN has been promoted from Forester in the Newnan District to District Forester of the Macon District...Forester LARRY T. MORRIS recently joined the Commission and has been assigned to the Cobb County Unit, Atlanta District...ELZA CLIFTON, Jenkins County Ranger, was recently honored at a retirement ceremony after 31 years with the Commission...CLIFF HARGROVE recently came with the Commission and has been assigned to the Macon District.

M. B. (Dick) Dickerman has been appointed Acting Executive Vice President of the Society of American Foresters, according to President Bernard L. Orell.

Dickerman, who has been serving the 22,000-member professional society as Director of Science Programs, will have full responsibility for staff activities and member programs, Orell said.

Dickerman succeeds Hardin R. Glascock, Jr., who resigned to enter consulting work from his home base in Corvallis, Ore.

Gary W. Johnston has recently accepted the post of Associate Publisher and Editorial Director of American Logger and Lumberman.

Officials of the publication said that although Johnston is strongly oriented in the Southern U. S. and will make his headquarters in Atlanta, he is extremely knowledgeable about forest industry throughout North America.



CLIFTON



HOOVEN



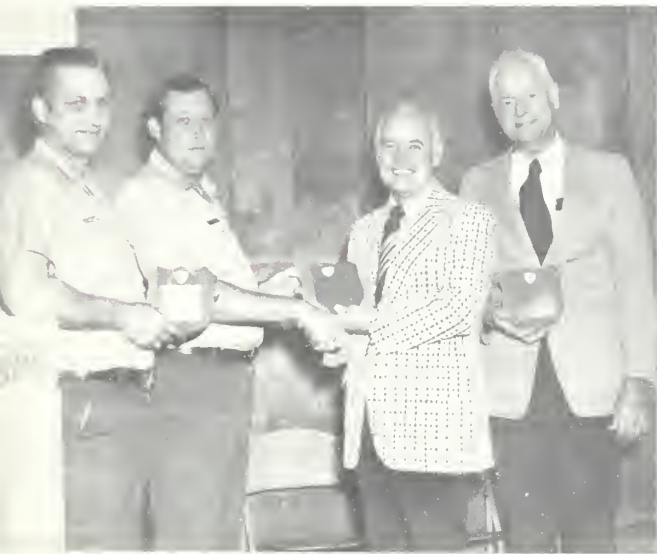
HARGROVE



MORRIS



AWARDS



Fourteen certificates of appreciation and safety awards were presented to Commission personnel by Director A. Ray Shirley at recent training sessions at Norman Park and Covington.

North Georgia supervisory personnel receiving Safety Awards from Director Shirley are, l-r, Theron Devereaux, Athens District, for 218,239 miles driven by district personnel without a preventable accident; Don Griner, Washington District, 427,902 miles; Henry Swindell, Griffin District, 146,188 miles; Tommy Mauldin, Rome District, 306,523 miles; Preston Fulmer, 171,603 miles; and Ed Banks, Atlanta District, 28,559 miles. The Griffin District was also recognized for 3,405 safe hours without medical or lost time injury among personnel.

Jack Busby of South Georgia Technical and Vocational School of Americus, left, and A.B.C. "Brad" Dorminy, Fitzgerald, are presented certificates of appreciation by the Director, Busby was recognized for his expediting repairs of Commission motorized equipment at his school, resulting in a substantial savings to the Commission. Dorminy was cited for his role as a state legislator serving as chairman of the House Natural Resources Committee. He helped pass the four cents

per commercial acre cost for county fire protection and later was instrumental in establishing Georgia's highly successful Rural Fire Defense Program. Director Shirley also presented the South Georgia Technical School with a Smokey Bear Certificate expressing the Commission's appreciation for its services. Busby accepted that award.

South Georgia supervisory personnel receiving safe driving awards on behalf of their districts are, l-r, Jerry Lanier, Statesboro, 357,310 safe miles; James Tidwell, Ashburn, 302,072 miles; and Julian Reeves, Atlanta Office, 9,467 miles.

Receiving special awards from Director Shirley are, l-r, Lynn H. Smith, Ringgold; John R. Harcrow, Heard-Troup ranger; and Wesley Wells, Forest Utilization specialist. Smith was recognized for volunteer work the past five years at Ca toosa County Unit. He worked on equipment, fought fires and stood by during weekends and holidays to aid the unit. Harcrow was presented the Georgia Forestry Association Presidential Award for his work with area landowners. Wells has been recognized by the U. S. Forest Service as being one of the nation's outstanding foresters in the Utilization Program.

Georgia FORESTRY

December, 1978

wishing
you
and
yours
a very
merry



Christmas

and a healthy, happy new year

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Cruising The News

TIFT VIEWS ENERGY EXHIBIT

With the cold weather of recent days, many Tift Countians are thinking about the high cost of energy to heat their homes.

There is a way to cut down on these heat costs according to Ray Shirley, director of the Georgia Forestry Commission.

Shirley suggests using wood as a heat source. He noted that there has been a tremendous improvement in wood heating systems during the past few years.

Tift Countians will have an opportunity to view several new heating systems on Saturday at Town and Country Shopping Plaza. Two trailers housing eleven wood heaters and five

central heating systems will be displayed.

Georgia Tech, which designed the two traveling exhibits, and the Georgia Forestry Commission are sponsoring the trailer exhibits.

Tift County forest ranger Curran Wynn said the trailers will be open to the public from 10:00 a.m. until 6:00 p.m. on Saturday. There is no charge for the displays.

The Forestry Commission is making a survey to determine where fuel wood may be obtained. This list will be available soon through the Tift County Forestry Unit or by writing Forest Management, Georgia Forestry Commission, P.O. Box 819, Macon, Ga. 31202.

(From the Daily Tifton Gazette)

CLUB DISTRIBUTES TREES

Five Forks Middle School students prepared for Arbor Day by bagging 4,000 trees, which were planted by elementary school children in the Lilburn area on Feb. 16.

"Arbor"—which means "tree" in Latin—is a day on which the importance of tree planting is emphasized, according to Fay Moore, conservation chairman of the Lilburn Woman's Club.

Students at Camp Creek, Knight, Bethesda, Lilburn and Gwin Oaks Elementary Schools planted most of the trees on Arbor

Day. Five Forks Middle School students planted one tree per classroom, in honor of the classroom teachers. The trees will beautify the grounds of Gwinnett's newest school.

"The observance of Arbor Day provides the opportunity to develop a more beautiful, productive and healthy state in which to live, work, study and play," Mrs. Moore said.

Through its conservation and beautification efforts, the Lilburn Woman's Club has distributed over 12,000 trees to area school children in the past three years.

(From the Gwinnett Daily News)

WOOD HEATING PROMOTED

Timberland in Georgia can be utilized for more than pulp production, officials of the state Forestry Commission say. A mobile exhibit sponsored by the Commission, which visited Jesup last week, points out wood can serve as an alternate energy resource and can save homeowners up to 50 percent on heating costs.

The Commission is trying to promote wood energy, saying thousands of cords of wood are rotting in forests when it could be used for heating homes. Advances in the de-

sign and performance of wood heating systems has encouraged the Commission's attempt to ignite public interest in burning wood rather than gas or electricity.

"Observations by our foresters in the field indicate there is an awful lot of wood just rotting, not being used at all," says Forester Sharon Nix, who is one of two Commission employees traveling with the exhibit.

"Instead of letting it go to waste the Commission wants to see timberland used for its energy value," adds Forester Nix.

(From the Press Sentinel, Jesup)

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ON THE COVER: The fifth grade class of Blanchard Elementary School, Columbus, gathers in the school yard on Arbor Day to participate in a tree planting ceremony. Forester Floyd Cook of the Commission's District 6 coordinated Arbor Day programs in several Columbus schools.

Death Claims Pioneer Nurseryman

Fifteen big pulp and paper mills across the state continued their ceaseless production as funeral services were held in the town of Fayetteville for the man who helped make this dynamic Georgia industry possible. There was a paper mill or two in Georgia when Murray Murphy started growing pine seedlings back in 1933, but they were nothing compared to the giant plants of today that devour mountains of pulpwood daily and turn out an endless production in their around-the-clock operations.

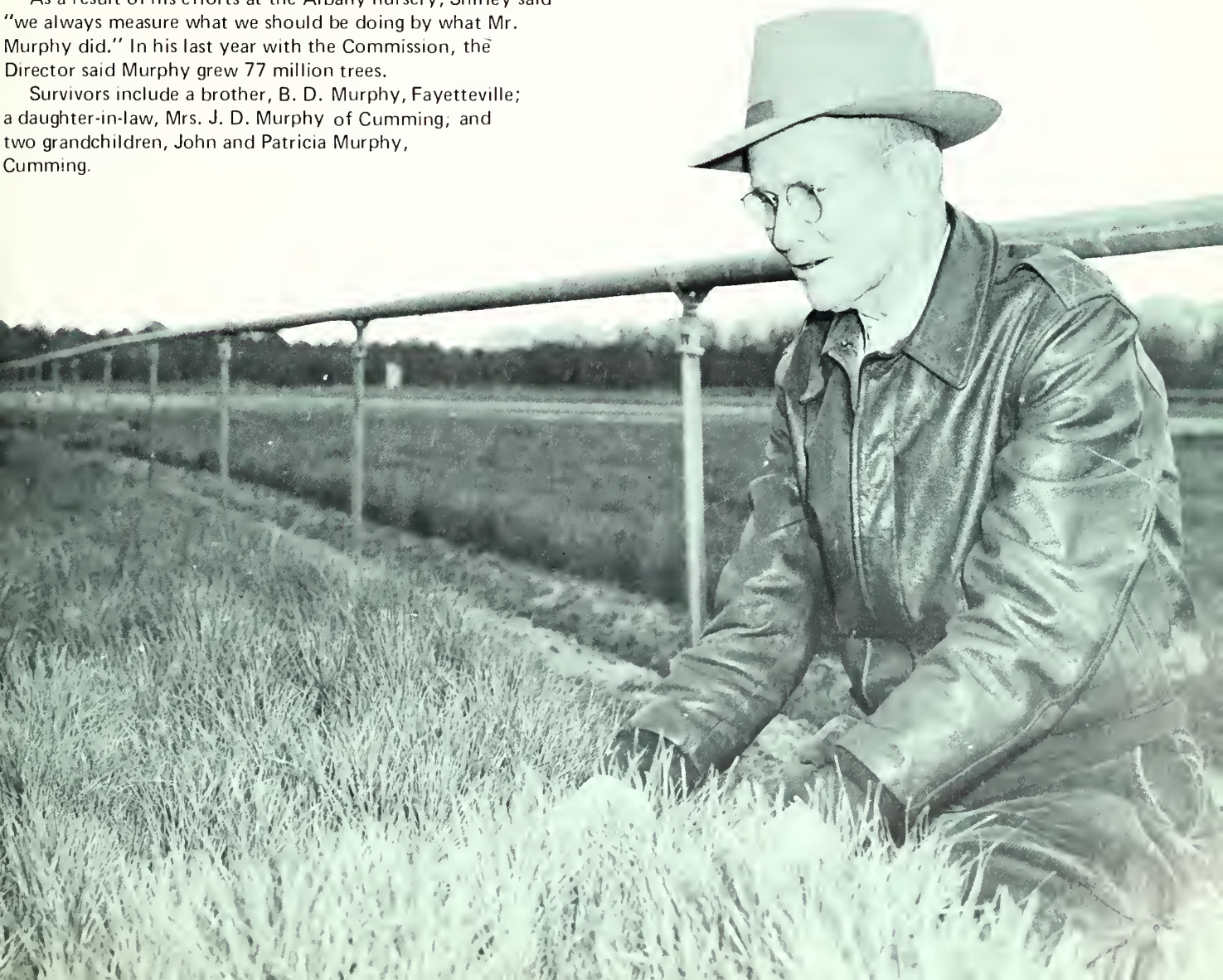
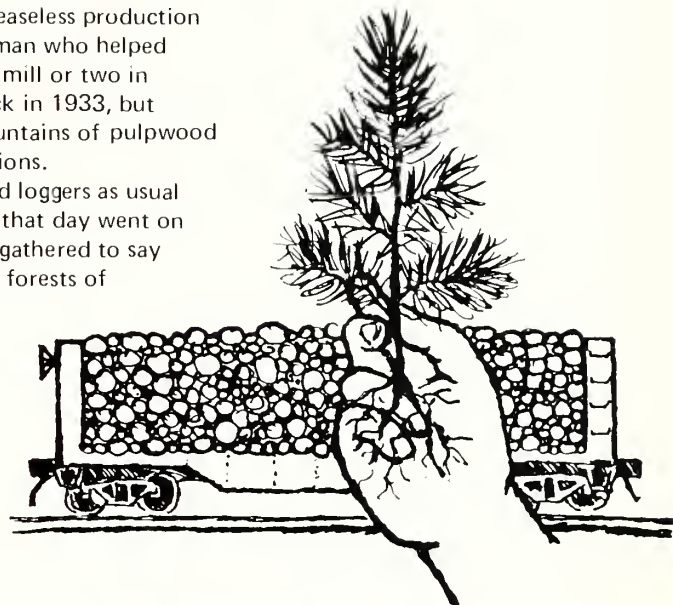
Thousands of pulpwood trucks moved across the Georgia pinelands and loggers as usual felled timber throughout the state for the booming lumber industry. Life that day went on at a rapid pace in the vast forest related industries as relatives and friends gathered to say farewell to a devoted nurseryman who produced 363 million trees for the forests of Georgia during his 24-year career.

Mr. Murphy, a native of Fayette County, worked with the Georgia Forestry Commission from 1933 to 1957 and helped establish the Herty Nursery in Albany. Shortly before his death, friends gathered to honor him at a 90th birthday celebration.

Ray Shirley, Director of the Georgia Forestry Commission, said Mr. Murphy "grew the trees and started an industry in the state." He pointed out the scope of that industry to those attending the birthday celebration by reporting that Georgia now has 15 pulp mills and two others are under construction. He said the state now leads the nation in the production of pulp and paper.

As a result of his efforts at the Albany nursery, Shirley said "we always measure what we should be doing by what Mr. Murphy did." In his last year with the Commission, the Director said Murphy grew 77 million trees.

Survivors include a brother, B. D. Murphy, Fayetteville; a daughter-in-law, Mrs. J. D. Murphy of Cumming; and two grandchildren, John and Patricia Murphy, Cumming.





NAVAL STORES CONSERVATION PROGRAM

**Allotment
For 1979
Announced**

Back in the 1930's, a program was initiated to encourage naval stores operators to restrict their gum operations to the most productive timber and to prudently conserve and protect the worked trees.

That beneficial project, entitled the Naval Stores Conservation Program, has continued down through the years and in 1979 an allotment of \$300,000 has been made to carry out the cooperative effort.

In announcing the federal program for the new year, Georgia Senator Herman Talmadge said the funds have been earmarked for cost-share payments earned under the NSCP. He pointed out that gum operators this year will receive the highest cost-share payments ever approved.

Under the program, the Federal Gov-

ernment shares the cost with turpentine farmers for carrying out approved conservation practices. It is computed on the faces and ranges from 50 to 75 percent.

Jim Gillis, Jr., President of the American Turpentine Farmers Association, Valdosta, made the request for the continuation of the program on behalf of the association and noted that naval stores is truly a conservation program because of the accumulation of timber inventory created while trees are worked.

The use of a new plastic cup at a cost-share of 25 cents is a new practice this year and the initial installation (virgin faces) calls for payments of 25 cents per face on a nine inch practice. Other payments are 31 cents per face on a ten inch practice, 35 cents on 11 inch, ten cents on first and second elevations of aprons and cups, and 33 cents per face on a restricted practice.

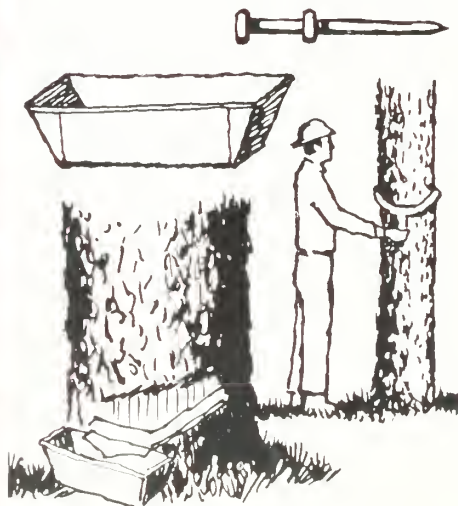
Ray Shirley, Director of the Georgia Forestry Commission, said the field phase of the program is under the direction of the state foresters of Georgia, Alabama, Florida and Mississippi. He pointed out that the Georgia Forestry Commission coordinates the field services for the NSCP in the four states.

Henry Grady Williams, Naval Stores Specialist, and Wesley Hartley, Naval Stores Forester, both of the Commission's District 16; Naval Stores Forester James Castleman, Toombs County Unit; and Naval Stores Forester Edward Herbert, District 12, work closely with producers by demonstrating the latest workmanship techniques, training personnel and handling special problems.

Williams said the use of the plastic cup is being encouraged in Georgia's 48 naval stores counties, as well as producing areas in the other states, because it reduces corrosive contaminants, thus improving the gum grade. He said the non-contaminating cups also allow working a tree longer, resulting in larger trees at harvest.

The Naval Stores Conservation Program shares costs for limiting cupping to nine, ten and eleven inch diameters at breast height and for using the latest type hardware to conserve the tree. Cupped trees 10 inches and larger bring the producer the maximum profit, as the timber stand is improved and a greater cost share is realized.

The four foresters are active at producers' regional meetings and are involved in film and slide presentations, field trips and other means of communications to keep producers abreast of latest practices in naval stores.



FIRE PREVENTION ADS PLANNED



Large companies are moving South from the West Coast, foreign investors are buying tracts of land in this area and more families are moving to a rural setting from which they commute to work.

These and other factors are compounding the problem of preventing forest fires in Georgia and the South, according to findings at a recent conference of the Southern Cooperative Forest Fire Prevention Program. Forestry officials attending the session to plan forest fire prevention through the public service advertising campaign, said the above groups are new people who need to be alerted to the dangers of carelessness and poor judgment in regard to fire.

It was reported at the Atlanta meeting that debris burning and incendiary blazes are the principal causes of forest fires in the South and it was agreed that there remains a continuing need for a special effort to inform the public of this costly waste.

A. Ray Shirley, Director of the Georgia Forestry Commission; and chairman of the program, suggested that these causes are augmented by automobile traffic movement on busy highways which traverse the forests. He said the movement creates drafts which fan roadside fires that might otherwise remain small. The group

was told that catalytic converters attached to automobile exhaust systems are also causing a problem. It was noted that excessive heat from the converters is sufficient to ignite grass when the vehicle is parked off the road.

The program is a special regional effort to reduce the damage caused by forest fires, with participation by Southern forestry agencies and the U. S. Forest Service. It is sponsored in the mass media by the Advertising Council, Inc., and materials used are developed by a volunteer advertising agency, Liller, Neal, Weltin, Inc., of Atlanta.



SCFFP Committee members and observers: 1. Roger Hatch, U.S. Forest Service; 2. Ray Shirley, Chairman, Georgia Forestry Commission; 3. Frank Craven, Georgia Forestry Commission; 4. Don McFatter, Louisiana Forestry Commission; 5. Tad Jeffery, Florida Department of Citrus; 6. Ken Bowman, U.S. Forest Service; 7. Dick Hodges, Liller, Neal, Weltin, Inc.; 8. Russ Daley, U.S. Forest Service; 9. Wayne Ruziska, U.S. Forest Service; 10. Dick Maddox, Liller, Neal, Weltin; 11. Nelson Peach, South Carolina Commission of Forestry; 12. Ralph Winkworth, North Carolina Division of Forestry. Photo left: Richard Hodges, center, Board Chairman of Liller, Neal, Weltin, receives award for his firm's 20 years of public service in the SCFFP Program. Looking on are Ray Shirley, Director of the Georgia Forestry Commission, left, and Roger Hatch, U.S. Forest Service.

ANNUAL REPORT REFLECTS GOOD PROGRESS IN '78

A vigorous campaign was launched to encourage the use of waste from the woodlands as an abundant energy source and more than 55 million superior tree seedlings were produced for the Georgia forests of tomorrow.

These and other achievements are outlined in the 1978 annual report of the Georgia Forestry Commission which was recently presented to Gov. George Busbee and the State Legislature by Commission Director Ray Shirley.

The report refers to comprehensive studies on the feasibility of Georgia forests as a prime source of fuel for home and industry, with utilization of cull trees, logging residue and other materials formerly considered waste. It tells of plans underway to convert the energy source of two state facilities from natural gas to wood. The conversion will involve a wood gasification process and will be used to further research in a cooperative program with Georgia Tech.

The Commission's genetics program has produced superior seed in its seed orchards and the results are reflected in the millions of greatly improved slash and loblolly pine seedlings grown last year in the nurseries, according to the report.

More than 50,800 woodland owners throughout the state were provided management assistance by the Commission during the year.

In the area of forest protection, the report shows that more than 10,400 miles of firebreaks were plowed for Georgia landowners as a preventive measure and Commission personnel suppressed more than 11,800 wildfires, averaging only 4.18 acres per fire.

At the close of fiscal 1978, there were 383 rural fire departments in the state under the Rural Fire Defense program, which is federally funded and administered by the Commission. Equipment and training is provided to approximately 7,500 volunteer firemen statewide by Commission personnel.

The report showed that property valued at more than 50 million dollars was saved by the rural firemen.

ARBOR DAY 1979



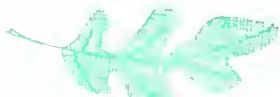
Thousands of boys and girls in schools across the state observed Arbor Day in Georgia on February 16 by participating in classroom programs and planting trees on school grounds.

Thousands of adults also observed the day as civic clubs, garden clubs, fraternal orders and other organizations sponsored impressive tree planting ceremonies. Several municipalities held planting rites in plazas and city parks.

It was a day set aside by a proclamation by Governor George Busbee in which Georgians were asked to pause and give attention to the vital role our trees play in the beauty, recreation and industry of our state.

The Georgia Forestry Commission prepared Arbor Day literature which was distributed to the schools through the district and county unit forestry offices.

Meantime, Commission Director Ray Shirley appealed to all citizens to observe the day by considering the great wealth the state finds in her abundant forests. He pointed out that wood using industries are annually manufacturing about \$4.3 billion worth of products, thus creating a tremendous amount of employment for Georgia citizens.



LOWER INSURANCE RATES

A Georgia County Finds Another Advantage Of Participating In The Rural Fire Defense Program



An effort to reduce the cost of fire insurance for residents of the small towns and rural areas of Wilkes County started back in 1975 and in this new year that goal has become a reality.

Thanks to the Wilkes County Commissioners, the Georgia Forestry Commission and several individuals, the fire insurance classification in the county has been reduced from Class 10 to Class 9.

The insurance rate reduction is attributed to the Rural Fire Defense Program, an activity administered by the Forestry Commission and funded by the Federal Government.

The Wilkes County participation began in 1975 when District Ranger Hollis L. Winn was requested by the county commissioners to plan the location of several fire departments in the county for the best possible coverage. The ranger's plan was readily accepted and fire knockers were placed in the departments.

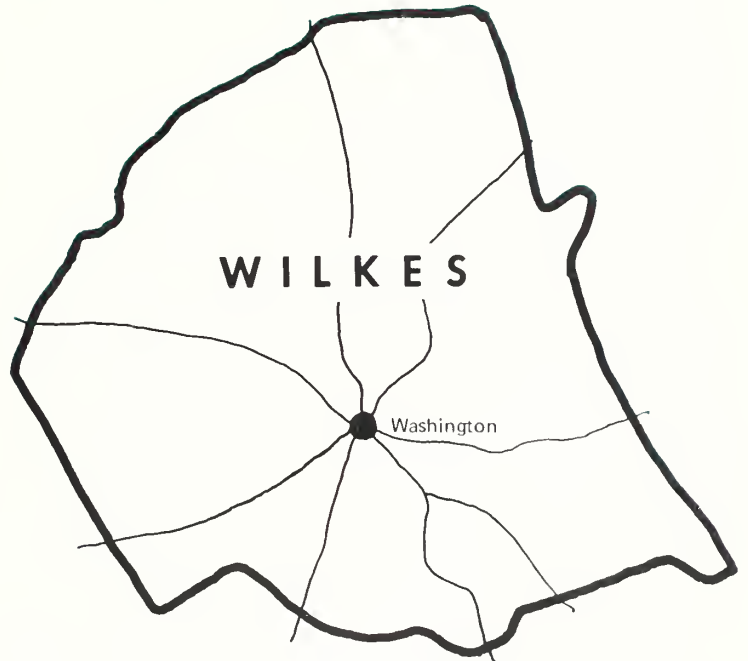
The insurance rating is determined by the Insurance Service Organization of Atlanta and a representative of the ISO was asked to survey Wilkes' rural fire departments. Mr. Carl E. Puckett, Jr. made the inspection and it was found that the county needed certain additional equipment to meet Class 9 standards.

Ranger Robert Wright of the Wilkes-Taliaferro Unit of the Georgia Forestry Commission surveyed each department for their equipment needs and with the aid of County Commission Clerk David Tyler, the equipment was obtained.

The rural departments, as well as those in Rayle and Tignall, were issued the equipment.

Henry Harris, chairman of the Wilkes County Board of Commissioners, said the new insurance classification is a major step in cutting the cost of insurance for the property owners of the county and such a reduction has been the goal of the commissioners for several years. He praised all who participated in the achievement.

The Rural Fire Defense Program in Wilkes and many other Georgia counties is a valuable addition to the Forestry Commission's statewide fire suppression capability. More than 630 pieces of equipment are maintained and the departments are manned by approximately 7,500 firemen.



Rural firefighters, using equipment issued through the Georgia Forestry Commission, draw water from a stream along a country road.



Services offered landowners by the Forest Management Department, Georgia Forestry Commission, range from providing advice to a city resident on the proper care of a single shade tree to marking timber and preparing a forest management plan on several acres.

Professional foresters working from the Commission's 18 district offices throughout the state aid Georgia landowners in the battle against forest diseases and insects and provide advice on planting, thinning and control burning. They keep landowners abreast of utilization advances and market conditions. They work closely with them on federal cooperative programs.

Although thousands of landowners have taken advantage of these services, there are many who are not aware of the Commission's varied programs and the benefits they entail.

In essence, the forest management personnel in the Commission are concerned with achieving the greatest potential of Georgia's forests through the

FOREST MANAGEMENT



Providing A Wide Range Of Valuable Services To The Woodland Owners Of Georgia



sound development and utilization of timber, soil, water and recreation in the state's woodlands. This, in turn, provides the landowner with a greater profit from his forest resource.

Assistance on land within the state is provided by technically trained personnel when requests are received through one of the district or county unit offices. Service is limited to four days field work, including travel time, for each landowner during a fiscal year.

There are, however, some services provided by industrial and consultant foresters which are not available through the Commission. When possible and

Photos on these pages depict some of the services provided woodland owners by management foresters of the Georgia Forestry Commission.

tical, it is recommended that these
esters be engaged. A list is available
the landowner upon request.

As a result of Georgia's natural tim-
growing potential, landowners are
ding that profits are greatly enhanced
ough good forest practices. Many are
ning to the Commission for timbered
d examinations and advice.

A letter of recommended practices is
vided each owner following examin-
on of his tract. When a forest man-
ment plan is requested, the forester
es an analysis of the property and
vides the owner with a systematic
cedure and methods to insure a sus-
ined income from his woodland.

An aerial photograph accompanies
h management plan. The map shows
landowner the recommended prac-
s for each acre.

n working with the landowner in
e planting, the management forester
vides assistance by determining the
ds, site, species, spacing, techniques
other factors to assure efficient re-
estation. Preplanting advice is given
site suitability and preparation, sea-
s for planting and care of seedlings
or to planting.

Upon request, Commission personnel
assist the landowner in locating a
e planter or commercial vendor.

Prescribed burning is a forest man-
ment tool, and when used properly
very valuable practice in the success-
growing of merchantable timber.
en requested, the forester will ex-
ine the landowner's tract and if burn-
is recommended and prescribed, a
ailed burning plan is prepared.

Prescribed burning reduces the heavy
gh on the forest floor, controls unde-
ble species, halts or retards brown
t disease and facilitates woods work
seedbed preparation.

Unfortunately, diseases and insects
tinue to plague Georgia forests from
e to time. Through research, how-
r, great strides have been made in
control of this problem.

An aerial survey of the state is made
e times each year in search of signs
ttack-by diseases and insects. Com-
sion entomologists use this data to
ermine where pest control measures
needed. Technical and suppression
stance is provided in counties in
ch the outbreak tends to threaten to
g about a high mortality in com-
cial forest areas.

Timber marking is another important
ice provided by the Commission.
es are marked for selective cutting
an estimate of volume is given the

landowner. In addition to the profit
realized from properly marked timber,
the thinning operation results in an im-
proved tree stand which promotes bet-
ter future growth. There is a charge for
this service.

A sample sales contract is furnished
the landowner when a cutting is recom-
mended. It should be used by the own-
er's attorney as a guide to a contract
to be used in an actual sale of the tim-
ber. Forestry Commission personnel, of
course, are not permitted to participate
in sale negotiations.

Although most of the forest man-
agement work concerns the forested
rural areas of the state, the Commission
is also responsive to the needs of city
residents. In recent years, intensive ur-
ban forestry programs have been under-
way to aid city dwellers and municipal
governments in the protection, replace-
ment and maintenance of trees.

In the area of wood utilization, the
Commission provides information on
characteristics and various uses of
forest products. Computerized efficien-
cy analysis is done upon request for
logging, sawmilling and secondary man-
ufacturing operations.

Commission studies on wood as an
energy source reveal that there is a great
volume of wood waste in the Georgia
forests, thus opening a new market for
the woodland owners. Continuing re-
search in wood gasification and other
projects is enhancing the market for cull
trees, logging operations residues, limbs
and other forest waste. Management
foresters stand ready to provide land-
owners with information on the harvest
and sale of this material.

The management foresters of the
Commission work closely with Georgia
landowners in the forestry phase of the
Agricultural Stabilization and Conserva-
tion Program, Rural Development,
Farmers Home Administration, Water-
shed, Naval Stores Conservation Pro-
gram and other federal cooperative pro-
grams.

Detailed information on the various
federal programs is available at any
Commission office.

The Commission provides a wide
range of free literature dealing with a
host of forestry problems and topics.
Landowners are invited to contact the
nearest district or county unit office of
the Georgia Forestry Commission for
literature or further information on
services offered by the management for-
esters.



ANOTHER BIG ONE



Retired State Forester Now Lives on Jekyll

A former state forester who once ordered 11 tons of black locust seed from Austria, gained encouragement from the legendary Gifford Pinchot and put up one of President Roosevelt's sons in his home, now lives in retirement on Georgia's picturesque Jekyll Island.

But retirement for Joe Kaylor, former Director of Maryland's Department of Forests and Parks, is not a rocking chair seclusion. He continues to have a very keen interest in forestry around the nation and enjoys extensive travel.

Kaylor and his wife, Val, spent summer months last year in the Orient and returned to the United States to attend the annual meeting of the National Association of State Foresters, where he was presented the first Lifetime Achievement Award to State Foresters.

Kaylor, a native of Greensboro, Pa. has had a wide and varied career in forestry and related activities. In high school, he was privileged to meet Gifford Pinchot, first chief of the federal forestry, who encouraged him to receive an education in forestry.

He attended the State School of Forests, University of Pennsylvania, and after graduation in 1927 became Assistant State Forester of Indiana. In the early 1930's, the CCC camps were established and Kaylor found locust seed in Austria, which were shipped to the nurseries in Indiana. Seedlings were produced for the CCC youths to plant, thus beginning an intensive reforestation effort.

Kaylor came with the TVA in 1936

(Continued on Page 12)

The Rev. Kenneth Schuff of Crawfordville said he was about eight years old at the time he and his cousin, Jim Hancock, tried to cut down the biggest tree in Taliaferro County.

The gash the youths made on the ancient loblolly pine with a crosscut saw many years ago is clearly visible today. The playful attempt to fell the towering 122-foot giant, however, apparently had no ill effect on the health of the tree.

Patrolman Darrell E. Stewart of the Taliaferro-Wilkes Unit, Georgia Forestry Commission, recently came upon the huge tree and later asked Assistant Ranger Jimmy Shelton to join him for a look.

When they discovered the tree had a circumference of 14 feet and six inches, they promptly nominated it for the American Forestry Association's National Register of Big Trees.

The Rev. Schuff, pastor of Margaret's Grove Baptist Church, said the 183-acre tract on which the tree is located was given to him when he was 12 years old by his grandfather. He said he remembers the big tree from early childhood.

Estimates on the age of the tree range from 100-150 years.



Kimberly Schuff, 5, daughter of Rev. and Mrs. Kenneth Schuff, poses at the big tree on her father's property. Below, James Shelton, left, and Darrell Stewart of the Georgia Forestry Commission examine bark on the huge pine.



Whenever and wherever wildfire breaks out in Georgia, a highly efficient strike force of men and equipment moves swiftly to the scene to suppress it.

This statewide firefighting team is, of course, the Forest Protection Department of the Georgia Forestry Commission.

Down through the years, the suppression techniques, personnel training and equipment design have been perfected by the department to the extent that the average size forest fire in Georgia today is held to less than five acres!

This enviable record, however, was not achieved overnight. Many of the Commission personnel well remember the early days when great fires raged over thousands of acres of timberlands as firefighters struggled to halt the devastation with Jeep-drawn plows and pine tops.

Today, suppression is handled by some 104 forest rangers and 427 firefighters. They work out of 104 single and multi-county units strategically located throughout the state.

The units are under the direction of the Commission's 18 district offices, with overall coordination from state headquarters in Macon. A total of 349 modern crawler type tractors with fire line plows, along with trucks and other support equipment, are assigned to the units.

Most fires are contained by plowing a line down to the mineral soil, thus eliminating the understory and other fuel on the forest floor and blocking the path of the fire.

In times of extreme or unusual fire activity, the ground operation is often aided by the Commission's helicopters. The copters - surplus craft obtained from the Department of Defense - are equipped with 250-gallon buckets. Water is scooped from a nearby lake, pond or river and dumped directly on the burning forest.

The three helicopters are especially effective over rugged mountainous terrain.

In fire detection, the Commission maintains 100 lookout towers on a permanent basis, with an additional 68 staffed during the fire season.

In recent years, detection has been greatly enhanced by the use of fixed wing airplanes. Nine pilots have permanent status with the Commission, while 20 additional pilots are employed during the fire season or other periods of emergency. The planes fly 29 designated patrol areas to provide a sky watch for the entire state.



FIRE DETECTION & SUPPRESSION

WELL TRAINED AND ALERT PERSONNEL, MODERN EQUIPMENT AND A SOPHISTICATED COMMUNICATIONS NETWORK PROVIDE A SUPERIOR FIRE SUPPRESSION FORCE FOR GEORGIA WOODLAND OWNERS

A vital factor in the Commission's fire suppression effectiveness is a sophisticated radio communications network. Radio contact provides an instant link between the Macon headquarters, all district and county unit offices, tower personnel, the ground suppression crews and the air support pilots.

Despite this elaborate organization of men and machines, however, forest fire remains a serious threat in Georgia.

In 1978, a record was set for the greatest number of fires in a single year since the Commission was formed more than 50 years ago.

A total of 16,406 fires destroyed more than 68,000 acres. In causes of fire, debris burning led the list and was followed by incendiary burning. Records show that 98 percent of the fires last year were man-caused.

Although the ever alert forest protection arm of the Georgia Forestry Commission has been able to hold the average fire size to an impressively small figure, it continues to struggle with the age-old problem that brings about the great volume of fires - the carelessness of man!

NEW SOUTHERN PINE HANDBOOK NOW AVAILABLE

The USDA Expanded Southern Pine Beetle Program has published an attractive color-illustrated booklet for homeowners with pines on their property.

The free publication, "Southern Pine Beetles Can Kill Your Ornamental Pines," contains descriptions and photographs of different beetle species and of attack symptoms, and suggestions for dealing with the insect once they have attacked.

The booklet points out that beetles are not just a forest problem. Because beetles prefer weakened or damaged pines, urban or suburban trees - which are commonly exposed to landscaping and construction hazards - can become likely targets.



Actual Size

The southern pine beetle, three species of Ips, and the black turpentine beetle are discussed, along with pitch tubes, galleries, and foliage fade. The handbook also suggests ways of keeping pines healthy and methods of treating infestations.

The homeowner is alerted to conditions that weaken pines and is warned to take quick action should signs of beetle attack appear. Single copies of the booklet are available from the Forest Management Division, Georgia Forestry Commission, or from the U.S. Forest Service, Southeastern Area, State and Private Forestry, 1720 Peachtree Road, N.W., Atlanta, Georgia 30309.



The winners in the 1979 Smokey Bear and Woodsy Owl Poster Contest have been announced by Mrs. Jesse L. Way of Savannah, Georgia, Chairman of the Deep South Division, 1979 Environmental Poster Contest, National Council of State Garden Clubs.

The contest is held in cooperation with the U. S. Forest Service.

The Georgia Forestry Commission congratulates the boys and girls for their achievement in this competition and commends Mrs. Way for her active role in working with and encouraging these young Georgia citizens.

The Winners include:

KINDERGARTEN-SECOND GRADE

- 1st Place - Laura Halverson (2nd Grade)
Columbus
- 2nd Place - Dan Bruner (2nd Grade)
Columbus
- 3rd Place - Patty Miller (2nd Grade)
Waycross

THIRD GRADE - FIFTH GRADE

- 1st Place - Eric Minear (5th Grade)
Talmo
- 2nd Place - Quentin Heyward (3rd Grade)
Savannah
- 3rd Place - Melissa K. Martin (5th Grade)
Hartwell.

SIXTH GRADE - EIGHTH GRADE

- 1st Place - Michael Brisbon (6th Grade)
Savannah
- 2nd Place - Darrell Johnson (7th Grade)
Savannah
- 3rd Place - James Landing (6th Grade)
Savannah

NINTH GRADE - TWELFTH GRADE

- 1st Place - None
- 2nd Place - Kathy Murray (12th Grade)
Savannah

SOCIETY HOLDS ANNUAL MEET AT CALLAWAY

Awards, panel discussions, new officer installations and speakers highlighted the 50th annual meeting of the Southeastern Section Society of American Foresters held at Callaway Gardens. There were over 300 Foresters and their wives in attendance.

The program theme was "The Forester's Role in Meeting Tomorrow's Challenges." The meeting was highlighted by SAF President Bernard L. Oreil making the keynote address, in which he discussed the proposed SAF reorganization.

Three panels, The SAF and Public Policy, The SAF and Communications and The SAF Technical Programs, were held to give an overview of these topics.

During the awards luncheon, Rexford A. Resler, newly appointed Executive Vice President of the American Forestry Association, pointed out that every Forester should have a personal commitment to influence public policy.

Awards were presented by Bob Nonnemacher, Chairman-Elect, to Ed Ruark, recently retired Director of the Georgia Forest Research Council, the 1978 Forest Research Contribution Award, and to David E. Hampe for his influence on the practice of Forestry in the Southeast. Hampe was also recognized, along with Arthur Hartman, by Fred Haeusster, SAF Council member, for 50 years membership in SAF.

At the conclusion of the two day meeting, Robert M. Nonnemacher, Mobile, Alabama, was officially named Chairman of the Section.

(Continued from Page 10)

to work in a land use program. At that time, Mrs. Eleanor Roosevelt had asked the TVA to hire one of her sons so he could gain the experience of working in the "great outdoors." Before long, tall, lanky John Roosevelt, son of the president of the United States, was a member of the Kaylor household.

The forester was named to the Maryland post in 1942 and served the department with distinction until his retirement

FEATURE PAGE

GEORGIA FORESTRY

It was one of those long, wintry afternoons on the farm and George Mann went out to the barn in search of something to do. He found a tattered old basket and decided to patch a hole in it's bottom.

And that's how he became hooked on basket weaving.

Instead of repairing the basket, he took it apart to learn exactly how it had been woven. He studied the weaving process step by step and soon fashioned his first basket.

"Guess I've made over a thousand since then," Mann said recently. "All shapes, all sizes."

When the young farmer began his new craft, however, he was hard pressed to find a market for his basketware. Indeed if people in the farm community were able to raise the price of a basket, chances are they had nothing to put in it. The country was in the midst of the Great Depression.

"But I enjoyed making them," Mann said. "It was in the 'Hoover Days' and nobody had any money, but it was just a hobby, anyway."

Within a few years, World War II beckoned Mann and he left the family farm on Mann Road near Winston for a military tour of duty in England, South Africa and Italy.

He remained in the army several years after the war, but eventually took a job in Atlanta, some 30 miles from his homeplace.

Today, he is retired and back on the farm. There are no crops, no cows, no chickens. At 71, Mann spends his days making baskets, watching television, reading his Bible and occasionally doing small carpentry jobs in the community.

In this age of sophisticated packaging, basketry in this country is somewhat of a lost art. Perhaps that's why so many people beat a path to the door of Mann's remote country home.

Last year, the Douglas Neighbor, a weekly newspaper, ran a story on Mann and his craftsmanship. "That article really brought the poeple," Mann said. "Before Christmas, I couldn't make baskets fast enough. People wanted them for presents, you know."

He was later contacted by Forester David Barneycastle of the Georgia Forestry Commission, who arranged for him to appear on Atlanta television.



BASKET WEAVING

Retired Farmer, War Veteran
Uses Georgia's White Oak
In Interesting Hobby

"That brought another wave of customers," Mann said.

He makes his baskets from white oak. "Cut every white oak on my place," he explained, "and now I have to go out and buy two or three white oak logs from other farmers and bring them in."

Mann peels strips from the oak log with an old fashioned draw knife. He then sands and dries the long white strips and weaves them into baskets ranging from seven to 20 inches at the base.

What do people do with baskets nowadays? "Well, lots of things," Mann

replied. "They use them for flowers, for Easter eggs, feed, seed, produce, laundry, picnics, you name it."

His biggest basket is a sturdy container known by many oldtimers in rural Georgia as a "cotton basket". Some people stop by for one of those "for sentimental reasons," Mann pointed out. He said he has had several requests for odd shape baskets. Some he makes, but others are impossible to weave.

When it comes to profit, the basket weaver takes in a mighty small revenue. He sells his baskets from \$6 to \$20, but "when you figure the many hours I put into them, I make less than minimum wage," Mann chuckled. But look this kindly man in the eyes and they tell of a different kind of profit - a more lasting reward. He finds joy in making something beautiful with his hands and passing it along to someone who will keep it a lifetime.

What happens when advanced age eventually halts George Mann's trained hands from weaving his intricate baskets? "Well, I have a daughter-in-law and a granddaughter interested and they are coming along real fine. They'll keep it going!"

And, indeed they will. They are being taught by a master craftsman!





It certainly was a pleasure meeting the foresters and rangers with your group here at the Georgia Farmers Convention.

I was very pleased with the fine attendance and strong interest of everyone visiting your trailer exhibit here. I felt that our exhibit here was a help toward energy conservation, and appreciate every bit of information that was available, there, especially thru your fine speeches.

Your leadership in gasification is especially interesting to me, as I am director of a fine textile mill in Greenville, S.C. using tremendous amounts of fossil fuels. Will be watching your Rome, Georgia operation closely.

Clifton Corley, Jr.
Buck Stove
Brunswick, Georgia

I want to thank you for your promptness in answering our call for your help yesterday afternoon. Your quick arrival and getting the fire contained, probably averted what could have been a fire of serious magnitude.

Maybe some day, someone will apprehend the culprits who are guilty of setting these fires. I hope so!

Mrs. Allen L. Brewer
Twin City, Georgia

It is my privilege to nominate Mr. Louie F. Deaton for the South Fulton Kiwanis Club "Citizen of the Month" award sponsored by the South Fulton Kiwanis Club.

Mr. Deaton's work with civic and youth groups is too numerous to elaborate item by item, however, I am sure that every member of South Fulton Kiwanis Club has at one time or another been a recipient of Mr. Deaton's generosity, time and labor. All of South Fulton County has benefited from Mr. Deaton's efforts of conservation and reforestation. His work with adults and youth in this area has made him a friend to all.

I know of no more deserving individual than Mr. Louie F. Deaton for South Fulton Kiwanis "Citizen of the Month" award

Phillip Lackey
South Fulton Voc. Center
College Park, Georgia

On behalf of Magnolia Manor I want to thank you for providing us with the Forestry Management Plan for the woodland tract that we own. While I have yet to finish studying the plan, I can tell already that you have done a thorough job and I am sure that this will be of great benefit to us.

Ray Edwards, Executive Director
Magnolia Manor
Americus, Georgia

IN MEMORIAM

Personnel throughout the state were saddened in recent weeks to learn of the death of two members of the Commission.

RICHARD C. SMITH

Patrolman Richard C. Smith of the Randolph-Terrell Unit, died Sunday, December 31, in the line of duty.

The unit reported that Smith, who had been with the Commission 13 years, burned to death while battling a blaze in Terrell County.

Patrolman Ronnie Roland, who served with Smith in the unit, said the fire was apparently meant to be a controlled burn, but "everything pointed to a wildfire."

Investigators said Smith was believed to have been overcome by smoke and then badly burned. They said there were indications that he may have been trying to get to his tractor, which was still running, but apparently was blinded by thick smoke.

Survivors include his wife, Mrs. Ethel Kisor Smith; three sons and four daughters.

THOMAS E. BALDREE

Thomas E. Baldree, a general trades craftsman specializing in carpentry, was taken ill January 2 while at work and died several hours later in a Macon hospital.

He was assigned to the Macon shop and worked at the Georgia Forestry Commission headquarters. Fellow workers praised him for his skill and were shocked by his sudden death.

Baldree was married to the former Miss Irma Lois Crosby and they had four daughters. He was born in Berrien County near Nashville in 1914, but had made his home in Gordon in recent years.

He came with the Commission in February, 1974.

Logging The Foresters...

JAMES MCDANIEL, a former patrolman in Appling County for seven years, has been named Forest Ranger in Wayne County, a position recently vacated by Bill Morris...WILLIAM H. WOODYARD has been named Ranger of the Coweta County Unit of the Georgia Forestry Commission. He has served as patrolman with the Heard-Troup Unit since 1972 and assumed his new position effective Jan. 1...WALKER P. RIVERS, III, of Columbus has been assigned to the Newnan District of the Georgia Forestry Commission as Forester. He will have the responsibility of working with individual landowners and industry in Coweta and Meriwether Counties. D. L. VAUGHN of Macon has joined the Commission as Rural Fire Defense Specialist. He was formerly a member of Robins Air Force Base Fire Department.

Secretary of Agriculture Bob Bergland has named Forest Service Deputy Chief Douglas R. Leisz to the position of associate chief, the number two spot in the agency.

Rexford A. (Rex) Resler has been named the new Executive Vice President of the American Forestry Association.

Forest Service Chief John R. McGuire has announced the appointment of Dr. J.B. Hilmon, Director of the Southeastern Forest and Range Experiment Station in Asheville, N.C., as Associate Deputy Chief for Research in Washington.



WOODYARD



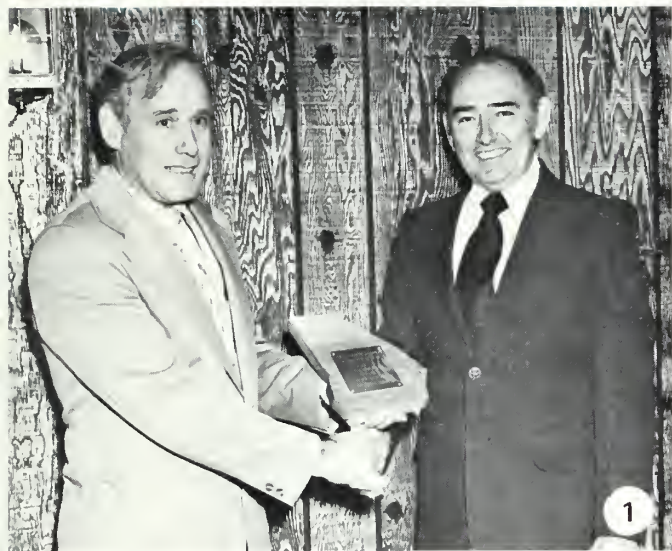
MCDANIEL



VAUGHN



RIVERS



1



2



3



4

Photo 1. Ranger Charles Dunn of the Murray County Unit, right, Georgia Forestry Commission, receives a retirement plaque from Second District Forester Frank Eadie during recent ceremonies in which he was honored for more than 25 years of service.

Dunn, a graduate of Murray County Schools and a veteran of World War II, started work in the winter of 1951 with the Coosa Flood Control, which was merged into the Forestry Commission two years later. He served as a patrolman in the early days when the unit was located on the mountain east of Chatsworth and the equipment consisted of just two Jeeps.

Photo 2. David E. Hampe of Birmingham, Alabama, center, is recognized by the Southeastern Section, Society of American Foresters, for his profound influence on the practice of forestry in the Southeast. Section Chairman-Elect R. M. Nonnemacher, Mobile, presented a plaque to Hampe on behalf of the 1,400 member Section. Mrs. Hampe accompanied her husband to the meeting and is shown with him at the award presentation.

Photo 3. H. E. Ruark, center, recently retired Director of the Georgia Forest Research Council, is awarded the 1978 Research Contribution Award by the Southeastern Section, Society of American Foresters. Presenting the plaque to Ruark as his wife looks on is Section Chairman-Elect R. M. Nonnemacher. Ruark, who now lives near Bostwick, became director of the Council in 1959 and retired last year. Ruark was praised for his active role in promoting forest research in Georgia and the Southeast. The presentation was made during the annual meeting of the Southeastern Section, Society of American Foresters. Ruark now owns and operates an extensive Christmas tree farm.

Photo 4. Urban Forester Floyd Cook, District 6, Georgia Forestry Commission, left, and Bernard L. Orell, president of the Society of American Foresters, are shown taping a television program during the recent SAF meeting at Callaway Gardens. The interview was later televised on Cook's weekly TV program on WYEA-TV, Columbus.

MARSH, 1777



There was a time when savings and loan associations gave color TV sets, Disneyworld trips and \$50.00 savings accounts at grand openings. Now look what happened when a savings institution in Clarksville, Georgia, recently held the grand opening of its new building, an attractive structure of an architectural style out of the past. One of the grand opening

prizes was firewood! It illustrates a trend that is taking place across the state as more and more energy-conscious Georgians are turning back to wood as a heating source. Surveys by the Georgia Forestry Commission reveal that there is an abundance of firewood in the form of waste materials in our forests.

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COMMISSION SALUTED

A vigorous campaign was launched to encourage the use of waste from the woodlands as an abundant energy source and more than 55 million superior tree seedlings were produced for the Georgia forests of tomorrow.

These and other achievements are outlined in the 1978 annual report of the Georgia Forestry Commission.

The report refers to comprehensive studies on the feasibility of Georgia forests as a prime source of fuel for home and industry, with utilization of cull trees, logging residue and other materials formerly considered waste.

More than 50,800 woodland owners

throughout the state were provided management assistance by the Commission during the year.

At the close of fiscal 1978, there were 383 rural fire departments in the state under the Rural Fire Defense program, which is federally funded and administered by the Commission.

The report showed that property valued at more than 50 million dollars was saved by the rural firemen.

We salute the efforts of the Georgia Forestry Commission.

(From the Douglas Enterprise)

FIRE CAUTION URGED

Examination of the Georgia Forestry Commission's 1978 annual report shows there were 11,864 wildfires in the 27,279,400 acres of woodlands under the Commission's protection during the past fiscal year.

Total forest and open land burned during that 12 months period was 49,949 acres -- or an average of 4.21 acres per fire.

Anyone who has bought or sold any timber of late is aware that trees are valuable on the present-day market - both in price and as a usable product in the economy.

No cost estimate of the wildfire losses was supplied, but when nearly 50,000 acres of timberlands burn, the destruction is serious. And just for the record, the 1978 losses from wildfires were less than the year before.

We inquire, as a matter of conservation

and economy, as to what might be done to prevent such losses from wildfires.

The answer is couched in a section of the Commission's report dealing with fire causes.

Debris burning in 1978 "continued to be the major cause of fire in Georgia for the second year," the summary noted. "The 3,953 trash fires ravaged 16,599.88 acres, which represented 33.2 percent of fire destruction in forested lands from all causes."

So, we find that approximately a third of all wildfires in Georgia woodlands last year -- and the year before -- were caused by debris burning which got away from the burners.

A brief dry spell could turn the woodlands again into a tinderbox. So, be extremely careful in trying to burn debris.

(From the Moultrie Observer)

BACK TO FIREWOOD

The Georgia Forestry Commission has launched a campaign to encourage the use of waste from the woodlands as an abundant energy source.

Wood was once the most prevalent means of heating homes in South Georgia, but homeowners were told that cleaner, more efficient fuels were gas, electric and fuel oils.

Now the move is being reversed as the oil shortage is surfacing. Fortunately new homes are featuring fireplaces more frequently.

But what a little foresight could have done in preventing such a drain on fossil fuels at the end of this century. At least firewood can be grown again when it's used up.

(From the Coffee County Progress)

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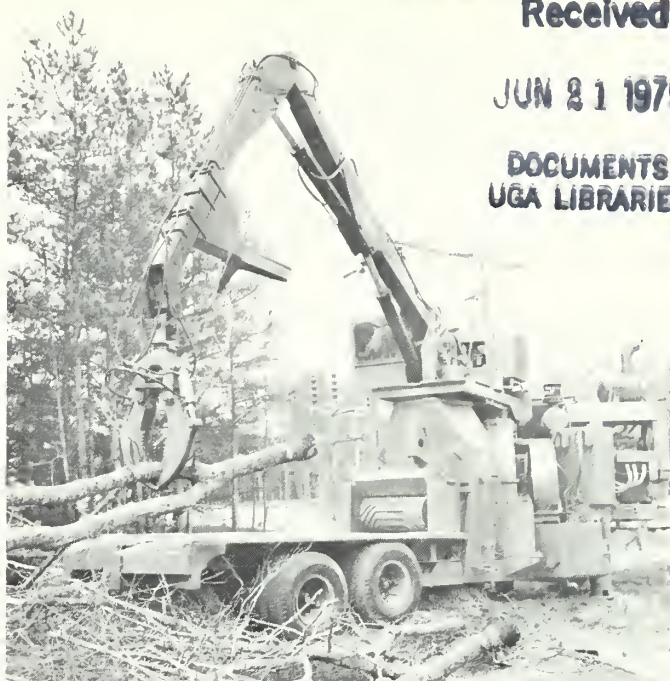
ON THE COVER - Good forestry concerns the wise conservation of forests, soil and water. This peaceful river scene near Dublin, Georgia, depicts nature's blend of these resources.

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**FROM FELLER
BUNCHER
TO GRAPPLE
SKIDDER
TO PORTABLE
CHIPPER...**



MODERN HARVESTING EQUIPMENT SHOWN

"Many mills today make their profit on what was once discarded," said Ted Ross of Ross Equipment Company.

He could have added that many Georgia woodland owners are also making their profit on what was once discarded.

Ross was one of several speakers at a briefing held in Gainesville prior to a field demonstration of some of the highly sophisticated timber harvesting equipment distributed by his company.

He was referring, of course, to the sawmill slabs, cull logs and other materials that are now converted into wood

chips rather than ending up on the waste pile.

John Mixon, Chief, Forest Research Division, Georgia Forestry Commission, pointed out to the gathering that green wood chips are more economical as an energy source than natural gas, propane gas or electricity and showed slides concerning gasification projects.

The recent two-day demonstration, with emphasis on the harvesting of wood as an energy source, was co-sponsored by the Commission and the equipment company. The field portion was held near Lula.

It was a demonstration of two chipper and other component equipment used in full tree harvesting. A good crowd of landowners, processors, industrialists and others watched the giant

machines devour whole trees and spew out a steady stream of wood chips into waiting truck vans.

At the briefing, Mixon pointed out predicted widespread use of wood as an energy source and told of proposed legislation that would give loggers a tax break for harvesting wood for energy purposes. He also pointed out that full tree harvesting on land that is being clear cut provides instant site preparation, thus saving the landowner considerable costs.

Druid Preston, Chief, Forest Management, Georgia Forestry Commission, told the gathering that 70 percent of the land area within a 50 mile radius of Gainesville is in commercial forests. He said more than 1½ million cords are being grown annually in the area, but only one million cords are being harvested each year.

Meantime, Robert Ware, Chairman of the Wood Energy Committee, Georgia Forestry Association, declared that there is a "revolution in the wood using industry" and it will ultimately add "a billion dollars annually to the economy of Georgia." He said this increase will come about not only in the marketing of wood, but also through the sale of modern logging equipment, delivery systems, drying systems and in other activities associated with the industry.

Equipment company representatives discuss features of modern machines with landowners during harvest demonstrations.





**" ALL THE TIME
IS FORESTRY TIME"**

WARE FOREST FESTIVAL

The colorful Ware Forest Festival has become one of the largest celebrations in Georgia and this year - the 22nd anniversary of the event - the annual observance was the most spectacular in its history.

It was a time when local residents and many visitors attracted to the South Georgia city enjoyed a long glittering parade through the business district, a traditional barbecue at Laura Walker State Park, a banquet at the Elk's Lodge, a pageant featuring 22 pretty young ladies and numerous other activities that rounded out the two days of celebration.

Georgia Commissioner of Agriculture Tommy Irvin, keynote speaker at the banquet, told a capacity audience that the United States must do everything possible to open all commodities, including timber, to the many markets around the world. The official said farmers are only harvesting 45 percent of the trees grown in this country and that the "\$5 billion Georgia end of the industry" is just beginning to hit its stride.

Miss Brenda Kay Manning, 17-year old Ware County High School student who was runner up in the pageant last year, captured first place in the competition this year and was crowned Miss Ware Forestry of 1979. She will compete for the state title at Jekyll Island this summer.

Special forestry equipment was on

Top: Timber industry representative Robert Peagler makes a presentation to Brenda Kay Manning, Miss Ware County Forestry. Center: Ranger R.T. Kirkland of the Ware Forestry Unit, GFC, left, receives the Outstanding Conservationist plaque from Donald Outlaw, Woodman of the World. Bottom: Peagler is presented a Forestry Promotional Award by Waycross banker John Shipes.

The Ware Forest Festival is a natural for Waycross and Ware County.

We are in the heart of Southeast Georgia great pine country and if anyone has reason to be thankful for the fruits of the forestry industry, it is our community.

For the 22nd year, we are, you might say, "celebrating" our good fortune to live in an area of bountiful natural resources.

Since its inception, the Festival has been a delightful event with private industry cooperating with governmental agencies and the people of the community in arranging outstanding programs.

(From the Waycross Journal-Herald)

display at the state park during the barbecue to show the latest methods in which trees are planted and timber is mechanically harvested. Hundreds of posters entered by students in the area were also on display at the park.

The Ware County Festival is sponsored by the Waycross-Ware County Chamber of Commerce. Chairman of the festival committee this year was Irwin Malphrus. Vernon Holt was secretary.

The theme of the festival this year was "All the Time Is Forestry Time." Personnel of the Ware County Unit, Georgia Forestry Commission, headed by Ranger R. T. Kirkland, and the Commission's Waycross District Office, under the direction of District Forester James A. Henson, have given full cooperation in the event each year and have played prominent roles in its direction.

Drew Barton, left, Area Forester, and Maurice England, Tract Manager for ITT Rayonier, stand beside the massive trunk of the cypress that will be on display at Southern Forest World.

childhood. He said the low branches supported a treehouse and swings and many deer were dressed while hanging from the big branches.

He said the tree was pruned and shaped back in 1889 by Joe Newsome, a former resident of the farm, and the trimming caused the tree to branch out in all directions and give a wide circle of shade.

The circumference of the big oak at 4½ feet is 21 feet and six inches. Total height is 70 feet and the crown spread 119 feet. Nominator for the tree to be included in the Georgia Forestry Commission's Champion Tree Program is Ranger Robert A. Wright of the Taliaferro-Wilkes County Forestry Unit of the Georgia Forestry Commission.

TWO GEORGIA GIANTS

Two huge trees - one an ancient cypress that grew on a river island and the other a Wilkes County Southern red oak that shaded a farm house for generations - have been brought to the attention of the Georgia Forestry Commission.

The area from which the cypress was cut is known as Boyles Island, located three miles south of Jesup between the Old River, Penholloway Creek and the Altamaha River. The tree is being donated to Southern Forest World near Waycross.

The original timber stand probably contained very large cypress. Much of this was estimated to have been cut in the 1700's. The huge picturesque cypress that remain today are generally hollow and are the culls of a hundred years or more ago.

Boyles Island was acquired by ITT Rayonier, Incorporated in 1970 as a portion of a 25,000 acre tract on both sides of the Altamaha River. Rayonier's management plan for the island does not include the harvest of cypress trees.

The tree which was delivered to Southern Forest World came from a remote section of the island. The removal required the construction of a road and the tree was cut to fall into other trees to break the fall.

Alex Dunaway and Ranger Robert Wright of the Wilkes Unit, GFC, examine the big oak in Dunaway's back yard.

Diameter of the butt outside the bark is 106 inches and diameter at the top of the 35 foot trunk is 60 inches.



The sprawling oak is on the Alex Dunaway home place between Georgia Highway 80 and U.S. Highway 78 near Washington.

Dunaway, who operates an egg farm several miles from his home where the big tree is located, said he fondly remembers playing in the tree during his





Members of the Herty family attending the Herty historic marker ceremonies pose before the marker and with Georgia Southern College president Dale W. Lick. From left, Mr.

Charles Herty Hooper, Athens, Ga.; Dr. Lick; Mrs. Frederick Brown, Princeton, N.J.; Mr. Frank Herty, St. Petersburg, Fla.; and Mrs. John Blackmon, Charlotte, N.C.

HERTY HISTORIC MARKER UNVEILED

Around the turn of the century an event occurred near the town of Statesboro which revolutionized an important agricultural crop of the region.

Dr. Charles Holmes Herty of the Chemistry Department, University of Georgia, conducted a series of tests on land where Georgia Southern College now stands to determine an improved method of collecting resin from pine trees.

Those successful experiments in 1901 greatly improved the naval stores industry and brought substantial financial reward to the turpentine farmers of the South.

A historical marker commemorating Dr. Herty's great contribution to southern forestry was unveiled during recent ceremonies held on the campus of Georgia Southern College. Dr. Dale Lick, president of the college; Dr. Maxwell Courson, marker researcher; and Mr. Kenneth Robison, Historic sites representative, were among those participating in the impressive program. Mrs. Frederick Brown represented the Herty family.



At left, a worker collects resin from a pine tree in Europe around the turn of the century. Note narrow, vertical "faces" on the tree and the metal cup and gutters.

While traveling in Germany in 1899, Dr. Herty observed methods of gathering gum from pines without severely damaging the trees. He studied the European method and upon returning to Georgia he experimented with the cup and gutter technique which replaced the traditional "deep box" method that was destroying many trees.

Perhaps Dr. Herty's most famous accomplishment was his discovery in the early 1930's that southern pines could be used in the manufacture of paper. His series of experiments ultimately led to the establishment of pulp and paper mills throughout the state. Today, 15 large mills dot the state and two others are under construction.

Dr. Herty was active in forestry and conservation in the southern states until his death in Savannah in 1938.



Dr. Charles Herty

In the early 1930's Dr. Herty was appointed director of the Savannah Pulp and Paper Laboratory, an experimental facility funded by the State of Georgia, the City of Savannah and the Chemical Foundation. Herty and his laboratory colleagues sought to disprove the widely-held idea that southern pines contained excessive pitch, which would foul the paper-making machines and make newsprint too dark in color.

Herty proved young slash pines contained only 1.38 percent resin, roughly the same percentage found in the northern spruce trees then used to produce newsprint. Further tests showed pine pulp easily could be processed into newsprint and could be bleached successfully. Thus, Herty became the first to make newsprint from southern pines.

Eventually, Herty was able to persuade some southern businessmen to build a plant to process slash pine pulpwood into newsprint, and the facility--named after Herty--was constructed in 1939 in Lufkin, Texas, by the Southland Paper Mills, Incorporated. This launched the mammoth pulpwood industry in the south.



JAMES L. GILLIS, JR.

Farmers Asked To Convert To New Type Cups

Georgia turpentine farmers have been warned that they must convert to plastic cups in working their trees to avoid contamination and to keep gum at a high grade and at a profitable level.

Speaking at the recent regional meeting of the American Turpentine Farmers Association in Soperton, Jim L. Gillis, Jr., association president, said "We now have the best program we have ever had...but we can't continue to stay in it with galvanized cups."

Gillis was referring to the Naval Stores Conservation Program which recently allotted \$300,000 to operators on a cooperative plan. The program calls for installation of plastic cups on a cost-share basis with the turpentine farmer.

Ralph Clements of the USDA Olustee Station in Florida reminded the gathering that naval stores is a "300 year old industry" and said it will continue to be a profitable enterprise if producers will upgrade equipment to gain a superior product.

He said experiments have been made on the use of paper as a material for gutters, but the studies have been disappointing. Now research is being made on plastic gutters, he said, and prospects for success are good. In fact, he said

(Continued on Page 15)

RECLAMATION

SURFACE MINED LAND B



Jack Walton, recently retired mine manager, examines soil on a grassy tract that was once the site of a vast mining pit.

Jack Walton of McIntyre stood on the scarred earth of a kaolin mining operation in Wilkinson County and waved his hand toward distant rolling hills studded with young pine trees.

"Not long ago all of that was a deep pit," Walton, a recently retired mine manager, said of the green vista. "It was 30 to 40 feet deep, but look at it now!"

The scene represented a transformation that is taking place wherever surface mining is conducted in Georgia.

There are, of course, many sites where deep pits filled with lifeless water and sterile soils serve as mute reminders that the giant machines once came and unearthed deeply buried treasures.

Some of this wasteland has been abandoned to erosion and has caused steady siltation for many years and may perhaps remain in an unreclaimed state, but there is a bright and productive future for lands that have been mined since 1969.

Thanks to a law passed by the General Assembly, beginning in 1969, mines are now required to obtain a permit and post bond up to \$1000 per acre of land to be affected by mining. If the land is not rehabilitated within a reasonable time after mining is completed, reclamation work is carried out with proceeds from forfeited bonds.

Walton, after a mining career of 47 years and four months, said "back when I started nobody gave reclamation and pollution a second thought."

During the past decade, however, Walton, who was mine manager for Englehard Minerals and Chemicals, was in charge of one of the most extensive and effective reclamation programs in the state.

Under his guidance, a bleak and sterile landscape over hundreds of acres of Wilkinson and adjoining counties were transformed into forestlands and clean lakes. "First came the grading...lots of grading," he said, "Then we added fertilizer and planted grass. Once the land was stabilized, we planted pine trees."

Although terms of the law were not retroactive, Walton said his company chose to go back to lands that were disturbed prior to 1969 - called orphan lands - and included them in the reclamation project.

Sanford Darby, Program Manager for Georgia's Surface Mined Reclamation Program, said he considered Walton "a real inspiration to all of us who are concerned with good reclamation practices...he has done an excellent job and I highly commend him and his company."

Darby of Macon, a professional forester and conservationist, said the most expensive phase of the program for the mines is the extensive grading. "Some pits are more than 100 feet deep and they must be filled or sloped to create a terrain that can be planted or accommodate a safe useful body of water," Darby added.

Darby said considerable knowledge has been gained by experimentation with various fertilizers, grasses and planting methods.

"When you're dealing with overburden - dirt that is dug 30 to 60 feet or even 100 feet or more below the surface and piled adjacent to the mine pit - you have material that can't be classified as soil," Darby said.

He pointed out that "it's nothing like farmland...it is just about a sterile medium with all plant nutrients lacking."

Darby said Serecia Lespedeza, a kind of legume which returns nitrogen to infertile soils, as well as certain types of rye, have been found to be effective cover crops on the road back to productive land.

As soon as the soil is stabilized, Darby usually recommends a tree planting program. Some companies are planting "super" pines from the nurseries of the Georgia Forestry Commission.

Kaolin, of course, is not the only product mined in Georgia. In fact, the state ranks fifth in the nation in mining production and takes 25 different commercial products from the earth.

STERILE DIRT FROM THE DEPTHS OF MINING PITS IS CONVERTED TO SOILS THAT SUPPORT GREEN FIELDS AND HEALTHY FORESTS

RIGHT BACK TO LIFE

When the 1968 law was enacted there were over 35,000 acres of desolate wasteland throughout the state that were discarded by generations of surface mining. Today, Darby said there are approximately 26,600 acres that have been mined and each year another 2,500 acres are added.

"As one can see, mining is an extremely important industry in Georgia as it adds millions to our economy," Darby said. "The cooperation shown by the mining interests now proves that we can have economic development by an industry that could have an adverse environmental impact on the lands and waters of Georgia. The mining industry has shown with reclamation that minerals can be harvested and, at the same time, create productive land...lands where new tree plantations will produce fiber and fuel - a commodity all Georgians will need in the future."



An aerial view of surface mined land and scenes showing how such land has been reclaimed and transformed into productive lakes and forests.





MILL BECOMES POWER INDEPENDENT

Some people are not taking the energy shortage seriously, but don't count Thomas A. Guthrie among these skeptics! Guthrie, president of Greensboro

Lumber Company, took a very serious look at his energy bill following the Arab embargo and decided that some very drastic measures had to be taken.

Within four short years, he had taken

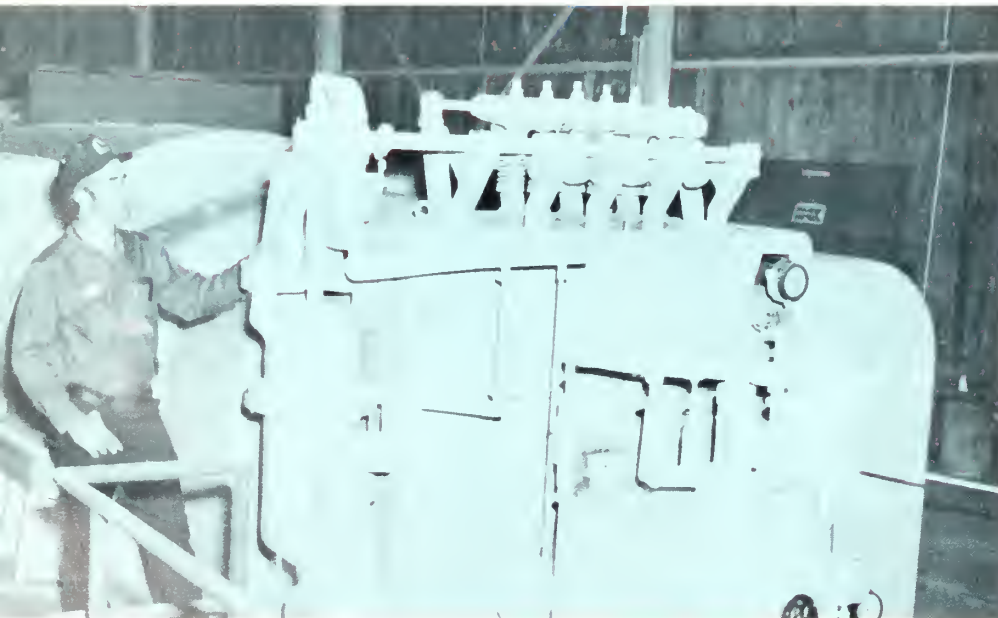
a giant step toward solving his problem. He had turned sawdust and bark into electricity!

Now the modern mill just east of Greensboro, Georgia, is operating 10 hours a day on power generated at the site.

The idea of the mill creating its own energy started in 1975 when the oil crisis first hit the nation. Guthrie said natural gas was selling for 21 cents per unit in 1971 and jumped to \$1.47 in 1976. The gas bill at the company was running more than \$20,000 per month, he said.

In early 1977, a large boiler with 75,000 pounds of pressure went into operation to produce steam and replace natural gas for the dry kiln and other heating purposes.

Construction got underway in 1978 on a turbine generator to produce electricity. This spring it went into operation and Byron Wofford, with an engineering firm which aided in the construction, declared that, "This operation is the first east of the Mississippi and to my knowledge the first business in the United States operating as an independent island of power with no back ups



Donnie Bailey, power plant superintendent, checks the big generator while Mike Bashore (other page) monitors the control panel.

from power companies."

Gutherie said his company is "now energy independent...and we are only using 20 percent of our potential in the operation of our mill." He said he could generate enough additional power to "supply 500 homes."

He readily admitted, however, that under Georgia law the Public Service Commission would not allow him to sell off the surplus power that could "light up Greene County."

Now that the company has converted waste material to useful energy and eliminated high REA and natural gas expenses each month, visitors are coming to the mill to witness the marvel. Donnie Bailey, power plant superintendent, usually takes them on a tour of the steam generating plant.

The transition wasn't simple and it was costly, but Gutherie and his more than 100 employees consider it a progressive milestone for the family owned company that was founded in 1937 by Gutherie's father, the late Melvin C. Gutherie.

Sawdust and bark are the only materials that travel the conveyor to the big furnaces beneath the boiler. All other wood not used in the actual manufacture of lumber is chipped and routed to rail cars.

In the course of a year, Gutherie said his company exports "about one and a half million dollars worth of chips to Sweden and about two million dollars worth are sold in this country."

Considering that sawdust, bark and slabs - which are now reduced to chips - were sent to the waste pile to be burned just a generation ago, Mr. Thomas Gutherie and the Greensboro Lumber Company are receiving nothing but high praise from conservationists who view the unique operation.



SCOUTS PLANT ALONG INTERSTATE

A large group of Boy Scouts from the Atlanta area recently received a dual lesson in conservation and beautification. They planted 6,000 pine trees in the large grassy islands at the busy Interstate Highway hub near the Atlanta Stadium.

The project, aimed at promoting tree farming in Georgia and encouraging the use of trees for urban landscape purposes, was sponsored by the Georgia Forestry Commission.

Forester Chris Barneycastle of the Commission's Atlanta District office, who directed the project, said The City of Atlanta and the Georgia Department of Transportation cooperated in the program.

Barneycastle said the Interstate planting project was planned to get Scouts and other young people involved in setting out seedlings on idle land along the highway, which would make the land more productive and at the same time reduce the cost of mowing and maintaining the public areas.

Dan Singletary, representing the American Tree Farm System; Jay Lowery, Arboricultural Manager, City of Atlanta; and representatives from the Scout organization and the Department of Transportation were on hand to assist in the program.

Prizes, including caps and wind breakers, were awarded to the youths by the Southern Forest Institute. The Forestry Commission has had several highway right-of-way plantings in recent years.





These young ladies have won the title of Miss Forestry in their home counties and now they will compete for the state title of Miss Georgia Forestry at the annual convention of the Georgia Forestry Association on Jekyll Island, June 11-12. They are, top row, left to right, Jeanne Carter, Johnson-Washington

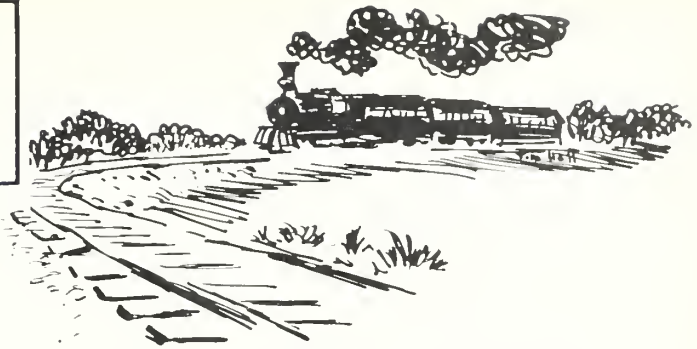
Counties; Barbara Brantley, Treutlen; Laura Osborne, Harris; Leila Davis, Sumter; and Beth Barrett, Oconee. Second row: Jo Stone, Wilcox County; Karen Chandler, Bibb; Joy Curlee, Elbert; Connie Van Meter, Muscogee; and Kathy Padgett, Richmond. Bottom row:

Debra Harris, Macon County; Lyn Browning, Crisp; Tammie German, Fannin; Tammy Burleson, Henry; and Lynda Brannan, Emanuel. Other counties represented in the state finals will be Bryan, Candler, Charlton, Columbia, Evans, Glynn, Jefferson, Lee, Liberty, Lincoln, Lumpkin, Pickens, Toombs and Ware.



FEATURE PAGE

GEORGIA FORESTRY



What does an energetic and resourceful forester do with his spare time?

Well, there's one in the Georgia Forestry Commission who likes to spend some of his leisure hours - when he can find them - in making trees. Tiny trees. Trees only three inches tall!

Forester Louie Deaton of the South Fulton Forestry Unit is into model railroading and on a rainy Sunday afternoon you'll find him up in the attic of his home in Fairburn fashioning miniature trees from reindeer moss and tiny farm buildings and shopping centers from popsicle sticks and match stems.

It's all part of the painstaking and detailed work that train hobbyists contend with to enhance their train layouts.

The train layout Deaton and his son, Michael, have built contains over 160 square feet and includes 12 locomotives that pull more than 100 freight and passenger cars along 200 feet of track.

The trains snake through mountain tunnels and across deep gorges. Alongside the tracks are villages and farms, industrial plants and suburban depots. Trees and shrubs dot the landscape and a blue lake mirrors the passing trains.

Deaton became intrigued with trains during the many summers of his childhood when he rode the old steam trains from Atlanta to Gray to visit Jones County relatives. His best loved Christmas present came when he was seven. It was an electric train set.

He became a confirmed rail buff at that tender age and has been unable to shake off that certain fascination that firmly grips all model railroaders.

Deaton, who came with the Commission in 1958 as ranger in Upson County, said his son was three years old when he gave him his first train as a Christmas present. "Or was I giving it to myself?" he asked. "After all, what does a three-year-old know about a shiny, new electric train?" he reasoned. "But I sure enjoyed it!"

Since that time, Michael has received locomotives, rail cars and railroad accessories on Christmas, birthdays and every other occasion. Naturally, he wasn't long in acquiring the same fondness for trains that his dad has had for many years.

Deaton moved to Newnan in 1959 to become Assistant District Forester

and later transferred to Pike County as watershed forester. He joined the South Fulton Unit in 1965 where he serves as urban forester. Each time he moved he had a larger train collection to place on the moving van.

The forester is active in Boy Scout activities and as scoutmaster he enjoys taking his troop to Gainesville to visit a railroad museum. They make the trip on a special excursion - a string of vintage passenger cars pulled by a steam locomotive.

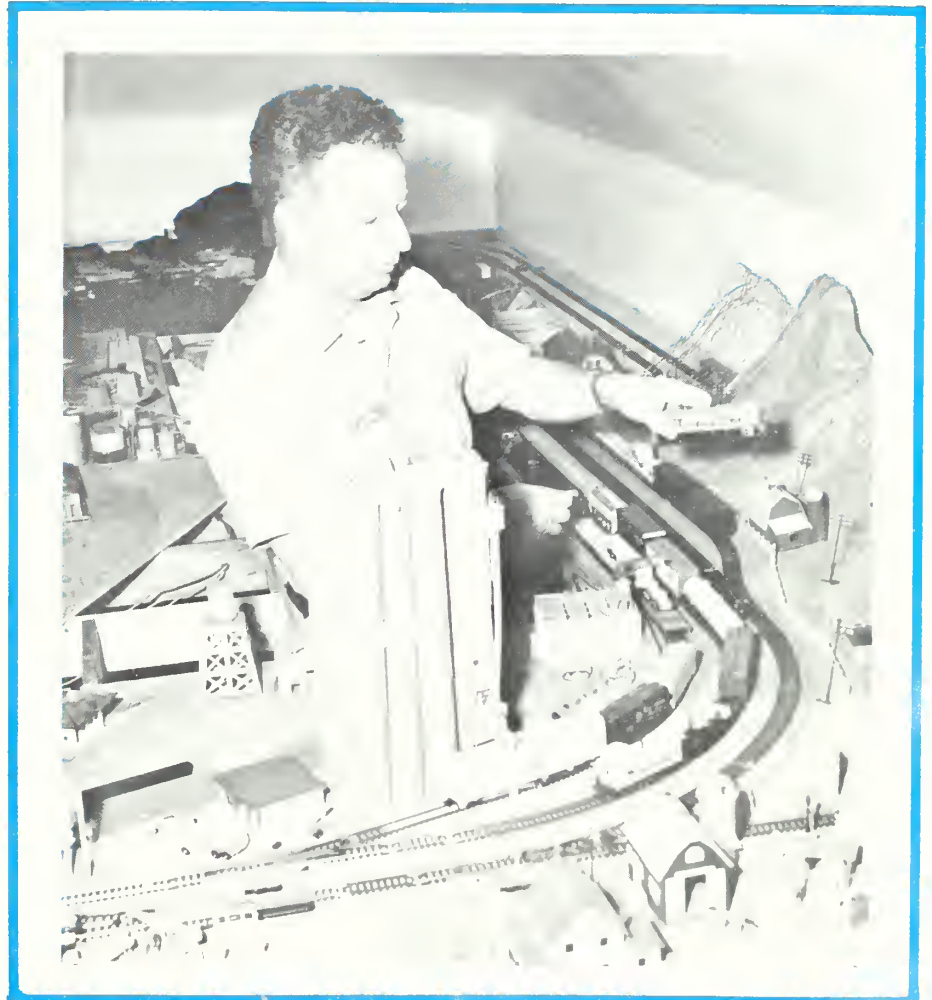
Deaton and other model railroad enthusiasts are quick to point out that the miniature trains and trackage are not toys, but intricate scale models of the

real thing. They go to great lengths to make the bridges, tunnels, switching yards and rolling stock as authentic as possible.

Finding time for the hobby, however, presents a problem. Deaton said he has had to neglect his train layout in recent months and Michael's interests "have turned to his car and girls."

The forester pointed out that model railroading is something you can always come back to and just "start in where you left off."

Deaton and his son both know that they will keep coming back to the attic room when they need to lose themselves in a carefree fantasy world.





I want to express my sincere appreciation for the prompt, efficient and professional assistance by Mr. Tommy Hewell of the Clarke-Oconee Forestry Unit recently when we had trouble with a controlled burn on Union Church Road.

Charles N. Dobbins
Whitehall, Georgia

Cub Scout Pack 11 of Albany, Georgia, wishes to express appreciation to you for making available the Junior Forest Ranger program. We've had 20 boys complete the program thus far and have found it to be both enjoyable and educational. We've had wonderful cooperation from the local forestry unit in the way of tours and pack programs. The boys especially enjoyed the visit from Smokey the Bear.

Again, thank you for your help and the help of Danny Smith of Albany who has been very helpful in all of the above programs.

Dan Stout
Cubmaster, Pack 11
Albany, Georgia

Let me take this opportunity to tell you how much we appreciate all that Charles B. Place and the Georgia Forestry Commission has done for Girl Scouting in the past. The Girl Scouting program is always strengthened through association with community resources and since environmental education is a big part of the Girl Scout program emphasis, I hope that our association with you will continue. About Mr. Place, I cannot begin to tell you how much we think of and appreciate him.

Ms. Joanne Searcy
Middle Georgia Girl
Scout Council

Recently you contained and put out a woods fire on the J. B. Fryer Estate property on Highway 88 near the Patterson Bridge Road intersection in Richmond County. I am a member of the Fryer family and we wish to express our thanks and gratitude for your prompt response and successful efforts. What could have been a major loss was held to a minimum.

All of us in this area and especially those interested in forestry feel more secure and comfortable with you outstanding people protecting our homes and woodlands.

John J. Sewell
Bon Air Hotel
Augusta, Georgia

CUT WOOD NOW FOR WINTER USE

Although it is a time for pleasant summer living, energy conscious Georgians who intend to use wood for fuel next winter are advised to cut and cure wood now for best results during the coming heating season.



Spring and summer harvesting of fuelwood is being urged because green wood provides a much greater heat loss and buildup of creosote than dry material, according to Ray Shirley, Director of the Georgia Forestry Commission.

The campaign to use wood as an energy source was initiated by the Commission, which has reported that a vast amount of fuelwood is available by utilizing forest wastes.

Shirley pointed out that green wood in weight is about half water and requires considerable BTU's to drive off the moisture before the wood is actually burned. He reasoned that this same heat could be used in warming a home when dry wood is used.

Although well seasoned wood creates some creosote, he said the dry wood holds the deposits to a minimum. Shirley also explained that most modern wood burning heaters are now designed to use seasoned wood. He said green wood should be stacked under a shelter or cover, with both ends of the sticks exposed to the air.

The Commission Director advised that green wood usually dries within three to six months in Georgia.

Logging The Foresters...



TANKERSLEY



SMITH

STEVE TANKERSLEY has been named ranger of the Murray County Unit... JODY SMITH, who has served in the U.S. Air Force and attended school in Americus, has been appointed aircraft mechanic at Macon Headquarters.

Dr. Eldon W. Ross and Dr. Robert A. Hann have been named to head two major research facilities for the Forest Service, USDA, Chief John R. McGuire announced recently. Ross has been named Director of the Southeastern Forest Experiment Station in Asheville, N.C. He succeeds Dr. J.B. Hilmon who is now Associate Deputy Chief for Research in the Washington, D.C. office. Hann has been named Director of the North Central Experiment Station in St. Paul, Minn., succeeding John Ohman who is now Director of the Forest Insect and Disease Research Staff, Washington, D.C. Ross has a bachelor's degree in agricultural science and a master's degree in plant pathology from West Virginia University, and a Ph.D. in forest pathology from the State University of New York. Hann did his undergraduate and graduate work in wood technology at the University of Michigan.

PRESIDENT TO USE WOOD

The White House is turning to wood as a source of heat for the coming winter.

A major news agency has reported that President Carter intends to have a wood burning heater installed in the historic dwelling on Washington's Pennsylvania Avenue before the winter season begins.

The agency also reported that 750,000 Americans had purchased wood burning stoves last year.

AWARDS

35 YEARS

JOHN E. HAMMOND, Forester, Macon

30 YEARS

ANDERSON F. BROWN, Housekeeper, Macon...SAMUEL M. MARTIN, Forester, Gainesville...LEON A. RAY, Ranger, Swainsboro...PRESTON ROZIER, Ranger, Townsend.

25 YEARS

WALTER H. JONES, Ranger, Good Hope...EDNA F. MANNING, Tower Operator, Leesburg...RAY A. MARR, Patrolman, Woodbine...JAMES W. MCGLAUN, Ranger, Buena Vista...JONNIE Y. PHILLIPS, Clerk, Brunswick...JACK WRIGHT, Patrolman, Lyons...CHARLES D. WEIR, Pilot, Midway...WILLIAM MILLIANS, JR., District Forester, Milledgeville...JOSEPH S. ROZIER, Patrolman, Townsend...WALTER F. SMITH, Patrolman, Greensboro...EDWARD L. WRIGHT, Ranger, Cumming...JAMES F. BASS, Ranger, College Park.

20 YEARS

RICHARD A. ALLEN, Patrolman, Cannon...JOHN R. BURNS, JR., Forester, Macon...PAUL M. BUTTS, Forester, Macon...WARREN A. COOK, Ranger, Pooler...THERON A. DEVEREAUX, District Forester, Athens...THOMAS R. FONTAINE, JR., Planner, Macon...KENNETH P. HIX, Patrolman, Elberton...THURMAN A. MCDONALD, Pilot, Waycross...WILLIAM R. JOLLY, Storekeeper, Macon...HERBERT R. COTHRAN, Patrolman, Cumming...WARREN COURSON, JR., Patrolman, Statesboro...VERNON L. CROUCH, Aircraft Mechanic, Macon...CHARLES R. GOREE, Patrolman, Columbus...J. D. MILLER, Patrolman, Lula...LLOYD ROGERS, Ranger, Eastman...JAMES B. SMITH, Assistant Ranger, Cumming.

al class of products produced from the sap of pine trees.

This year's program will be similar to last year's, with the price of crude gum, supported through Commodity Credit Corporation loans on gum rosin. The 1979 loan rate is \$23.75 per 100 pounds of WG rosin, up \$2.35 from 1978.



The Patterson FFA Chapter includes, front row, left to right, Bill Dubberly, Eddie Sapp, Ronnie Foster, Stevie Boyett and Timmy Newton. Back row, l-r, are Jimmy Mock, instructor, James Palmer, Alesia Woodcock, Wesley Brown, Kelly Walker, Edmond Thrift and Tony Turner.

Patterson Wins Forestry Day Finals

They came in third place for the past two years and this time they decided to go all out for first place.

NEW TYPE CUPS

(Continued From Page 7)

a manufacturer for the gutters is now being sought.

A motorized dipping cart, which is now in use on a limited scale, was shown at the meeting. Lewis Knight, Director ATFA, said engineering work continues on the vehicle and it is hoped it can be outfitted for both chipping and dipping.

Bob Reynolds of the Olustee Station said experimental work includes a hydraulic system which would make the machine more flexible. Forester Grady Williams of the Georgia Forestry Commission, McRae, who along with Dodge County Ranger Lloyd Rogers invented and built the machine, also told of improvements that are being made.

Marketing officials at the session said the market situation for naval stores is excellent at this time, but emphasized that some of the poor quality that is now being seen is not profitable for the farmer or the processor. They, too, stressed the need for clean, high grade gum.

The extra effort paid off. The Patterson Chapter of the Future Farmers of America captured first place at the 20th annual FFA Forestry Field Day state finals.

Echols County took second place in the annual event held at Veterans Memorial State Park near Cordele.

Top regional winning FFA Chapters from throughout the state were on hand to compete in tree planting, sawtimber and pulpwood estimation, tree identification, land measurement, selective marking and other forestry skills.

The Trust Company of Georgia and its affiliated banks in the state sponsored the state finals and F. W. Golson, an executive of the company, presented prize money to the individual winners.

GUM SUPPORT SET

The 1979 support level for the basic grade of crude pine gum will be \$70 for a 435-pound standard barrel, Ray Fitzgerald, administrator of the U.S. Department of Agriculture's Agricultural Stabilization and Conservation Service has announced.

This compares with the 1978 level of \$65 per barrel, he said.

The 1979 support is about 60 percent of parity as of April 1, the beginning of the marketing year, Fitzgerald said.

Gum naval stores refers to the gener-

Georgia FORESTRY

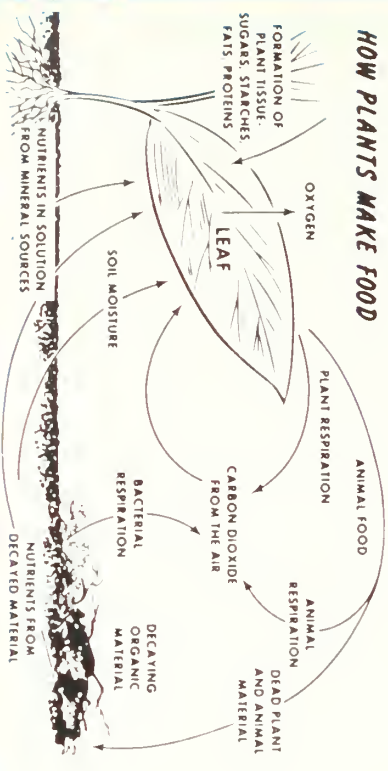
JUNE, 1979

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SUN: THE ENERGY SOURCE

Sunlight is essential to photosynthesis, the process by which green plants make food—light in combination with **chlorophyll**, the substance that colors plants green, enables plants to make sugar from water and carbon dioxide. Without plants, animal life could not exist for a long period of time.

HOW PLANTS MAKE FOOD



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Georgia

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Cruising The News

Stewardship

Soil Stewardship Week is a good time to take a look at the role forests play in conserving our soil. Probably the most obvious effect is in controlling soil erosion. Trees blunt the effect of rain and wind on moving the soil and their roots, fallen leaves, and other tree litter help hold the soil in place.

Trees are also beneficial in improving poor soil, especially when used in conjunction with some sort of herbaceous vegetation, such as legumes and grasses. The organic material from the trees and other plants decays and becomes incorporated in the soil improving the soil structure, fertility, and water and nutrient holding capacity. This in turn helps the trees.

Little, if anything, on earth is truly independent. Just as the quality of the soil affects tree growth, the various forest management activities affect the soil the trees are growing

in. The key is to plan whatever forestry activities are in order in such a way as to get the best return with the least damage to the site.

First, consider what is the best alternative on a particular area. Does the stand need thinning or has it reached the point where a complete harvest is needed? Is the area suited to being planted in pines, or would something else be better?

Second, decide how best to accomplish the work. Is a particular time of year better for this type work? Can it be done with a minimum of equipment use, or will extensive site preparation be needed?

If you need advice about a particular forestry activity you are planning, or if you are having some problems with your trees, the Georgia Forestry Commission is available to assist you.

(From the Fitzgerald Herald)

Fire Prevention Urged

Examination of the Georgia Forestry Commission's 1978 report shows there were 11,864 wildfires in the 27,279,400 acres of woodlands under the commission's protection during the past fiscal year.

Total forest and open land burned during that 12 months period was 49,949—or an average of 4.21 acres per fire.

Anyone who has bought or sold any timber of late is aware that trees are valuable on the present-day market—both in price and as a usable produce in the economy.

No cost estimate of the wildfire losses was supplied, but when nearly 50,000 acres of timberlands burn, the destruction is serious. And just for the record, the 1978 losses from wildfires were less than the year before.

We inquire, as a matter of conservation and economy, as to what might be done to prevent such losses from wild fires.

The answer is couched in a section of the commission's report dealing with fire causes.

Debris burning in 1978 "continued to be the major cause of fire in Georgia for the second year," the summary noted. "The 3,953 trash fires ravaged 16,599.88 acres, which represented 33.2 percent of fire destruction in forested lands from all causes."

So, we find that approximately a third of all wildfires in Georgia woodlands last year—and the year before—were caused by debris burning which got away from the burners.

In recent weeks we've had more than the average amount of rain through this section of Georgia. In fact, there was one stretch in which 9 out of 10 consecutive weekends witnessed bad weather. A bad dry spell...could turn the woodlands again into a tinderbox. So, be extremely careful in trying to burn debris.

(From the Moultrie Observer)

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ON THE COVER—Kathy Padgett of Augusta, recently crowned Miss Georgia Forestry, is our "cover girl" for this issue of Georgia Forestry. The pretty 17-year old is considering a career in fashion merchandising or medicine. See story Page 6.



NEW PAPER MILL IN PRODUCTION

"This is a second hand newspaper... sections of today's Courier Herald are printed on newsprint made from 100 percent recycled wastepaper at Dublin's Southeast Paper Manufacturing Company."

This recent front page announcement in Dublin's daily newspaper heralded the beginning of operations of Georgia's newest paper mill, a \$100 million manufacturing facility that employs 200 persons and turns out approximately 500 rolls of newsprint daily.

Southeast Paper Manufacturing Company is a general partnership owned equally by Cox Enterprises, Inc.; Knight-Ridder Newspapers, Inc.; and Media General, Inc.

The three newspaper groups publish a total of more than 50 daily newspapers across the country, including the Atlanta Journal Constitution, the Macon Telegraph and News and the Columbus Enquirer in Georgia.

The plant - the 16th pulp and paper mill to locate in Georgia - is located on an Oconee River site approximately five miles from Dublin in Laurens County. It produces newsprint from two main sources of raw materials; wood

chips and recycled newspapers.

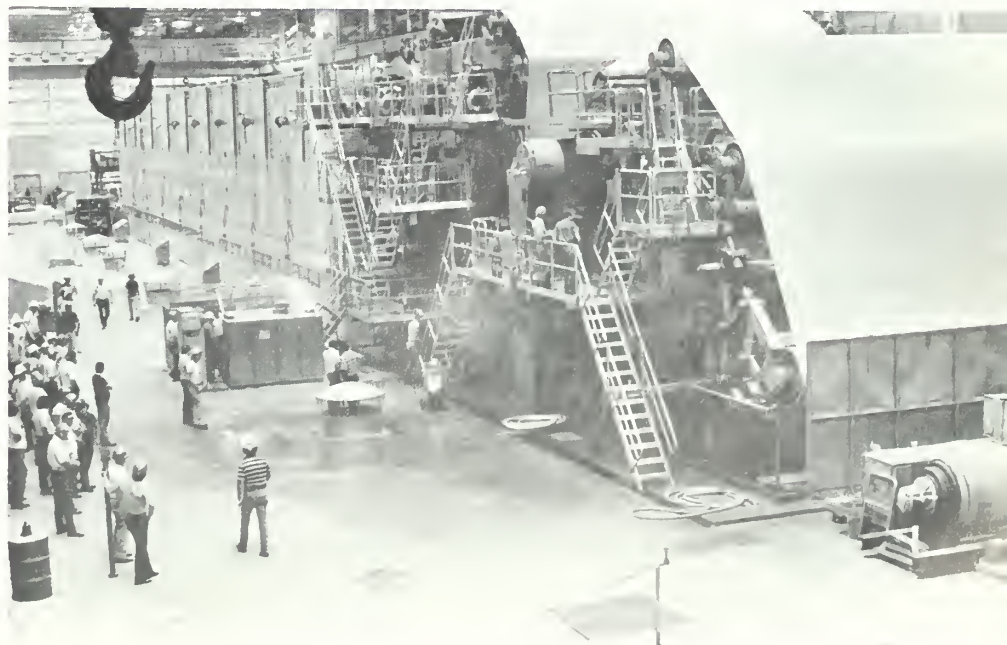
More than 90 percent of the supply consists of recycled newspapers and the remainder is loblolly pine chips. Newspapers are purchased from throughout the Southeast through Southeast Recycling Corporation, a wholly owned subsidiary formed to develop a continuous supply. Pine chips are purchased within an economical radius of Dublin.

Production of newsprint consists primarily of converting cellulose fibre raw material into pulp and then forming

the fibres into a sheet of paper.

The plant has storage capacity for 40,000 tons of waste paper, both inside and outside. The pulping operation is a highly developed de-inking process on the newspapers and thermo-mechanical pulping of the wood chips.

For some time, Georgia has led the nation in the production of pulp and paper and the opening of this new mill in Laurens County, as well as a large mill now under construction near Montezuma, will enhance that lead.



Above, a broad view of the new paper mill near Dublin. Photo at right is the paper machine at Southwest that turns out a continuous sheet of newsprint.



URBAN FORESTRY **IT'S WORKING IN ATLANTA!**

Atlanta, Georgia was carved from a lush forest and for generations it has been admired as a beautiful "city of trees."

Professional foresters in the area, however, generally agree that too many Atlanta residents take the city's spectacular greenery for granted. They often fail to protect trees on their own property or consider the need for continuing programs to perpetuate this natural beauty throughout their town.

In recent years, however, some dramatic progress has been made. The Georgia Forestry Commission proposed a shade tree ordinance for the city and after some delay, city council passed the legislation in 1968. The ordinance protects trees on the edges of property being developed for residential, commercial and industrial purposes and aids in the preservation of trees in certain other areas.

The city has an abundance of trees,

but the development of shopping centers, expressways, airports, subdivisions and industrial plants, as well as neglect, disease and vandalism, is taking a steady toll.

The city ordinance and a vigorous replanting program have checked some of this loss.

A year prior to the enactment of the legislation, the Commission established the Metropolitan Atlanta Forestry Area, which consisted of Clayton, Cobb, DeKalb, Douglas, Fayette and Fulton Counties. Six professional foresters were assigned to the urban program, with assistance available from county rangers in the area and their protection personnel.

At the outset of the program, television messages, news articles and special exhibits informed the public of the expanded services. During the first year, thousands of telephone requests were handled and field visits were made.

Many forest conservation talks were given before civic, youth, church and womens groups and demonstrations were held on various forestry problems.

For a decade, the program has steadily built an awareness of the value of good forestry in the public mind and now many solid benefits are being seen throughout the city.

Forester Robert Mason of the Georgia Forestry Commission's Third District, who helped write the shade tree ordinance, works closely with Atlanta City Forester Jay Lowery and City Arborist Reinald Dersch. Some of the projects in which the state agency and the city have cooperated include:

Peachtree Street

Square openings were made about 40 feet apart in the sidewalks to accommodate the planting of young trees in an area between North Avenue and 14th

At left is busy Peachtree Street in downtown Atlanta. Vigorous green trees along the sidewalks add beauty and charm to the famed street. Below, District Forester Ed Banks of Atlanta, examines young trees recently planted on another section of Peachtree Street.

Street. Although some sections of the lengthy street are lined with beautiful trees, replanting was necessary in other sections.

Through the efforts of the Federated Garden Clubs of DeKalb County and the cooperation of the Commission, the city and the Georgia Department of Transportation, several species of trees were planted in the grassy islands of one of the busiest highway interchanges in the metropolitan area.

The project resulted in the beautification of the area, a significant reduction in the traffic noise and a reduction in grass mowing and other maintenance by highway personnel. Similiar projects have been carried out along the interstate system in other areas of the city.

Storm Salvage

On a March morning in 1975, a tornado cut a 300-yard-wide path through a residential section of Atlanta and destroyed thousands of trees. Some were fine trees that had shaded streets and yards for more than a century. Shortly after the black funnel had struck, the Commission and the Forestry Division

(Continued on Page 10)



Lucius B. Proctor, seated, was recently honored for serving 45 years on the Camden County Forestry Board of Commissioners. Proctor, owner of Proctor Timber Company, was praised for his faithful service by officials of the Georgia Forestry Commission. Others in the photo, left to right, are George Hannaford, chairman, Camden County Commissioners; J.D. Proctor, member of the Camden Forestry Board; H.E. Williams, chairman, Georgia Forestry Board of Commissioners; Ranger James Simpson, Camden Forestry Unit; District Forester H.L. Neal, Jr.; and Walter C. Merck, member of the Camden County Forestry Board.



*Former U.S. Congressman Carl Vinson is shown near one of the largest pecan trees in Georgia. The tree—a *Carya Pecan*—is in the backyard of Mr. and Mrs. Tilman Sneed on West Montgomery Street in Milledgeville with whom Mr. Vinson makes his home. The tree was measured by District Forester W.D. Millians of the Milledgeville District. It is 16.4 feet in circumference. That is just 11 inches less than the state's champion pecan in neighboring Wilkinson County. The tree has a 115-foot spread, and is 90 feet high.*



JUDY WESTER



KATHY PADGETT

1940

1979

Miss Forestry Pageant Is 40-Year Tradition

She was considered the town beauty and many people in Abbeville knew she would be a winner in any local competition.

Judy Wester, however, wasn't inter-

ested in competing against the other pretty girls in her home town but finally gave in when members of the sponsoring Lions Club and a close friend of the family insisted that it was her "civic duty" to cooperate.

To the delight of her parents, the late Mr. and Mrs. D. L. Wester, Sr., her three sisters, four brothers and other friends, young Judy won the Wilcox County Forestry Queen title and went on to win the state finals and become the very first Miss Georgia Forestry!

That was 39 years ago.

Today, the former queen is Mrs. Robert Hicks of Cordele and the mother of two children.

"After it was all over, I was certainly glad I was talked into entering the pageant," she said. "It was all very exciting...I had a wonderful time." The pageant, held during the Slash Pine Festival in Waycross, was staged in the Ware Hotel. Those were the days when hotels were the center of social activities and the old Ware was somewhat of

At left, Mrs. Hicks - the pageant winner of 1940 - at her home in Cordele. At right, the new queen as she pursues some of her hobbies at her home in Augusta.

a "Grand Hotel" of South Georgia.

"After I had won," Mrs. Hicks recalled, "I came home to Abbeville for more clothes and returned to Waycross to attend luncheons and participate in parades and other functions during the week long Festival.

She said the 22 girls in the contest never knew who the judges were and that they were not aware that they were being observed and judged on poise and personality as they mingled with other people in the hotel lobby and in other places around town.

"There was no crown for the winner," she said, "so they made a crown of flowers for my head."

There was another memorable event in her life just one month after she captured first place in the pageant on that November day in 1940. She was married to Mr. Robert Hicks in December.

Since that time, many lovely Georgia girls have won the coveted title and each has represented an ever expanding forest industry that has had an overwhelming impact on the economy of her state.

Now - almost 40 years after Judy Wester's reign - another pretty brunette wears the crown. She is 17-year-old Kathy Padgett of Augusta. She was named Miss Georgia Forestry of 1979 at the recent annual convention of the Georgia Forestry Association on Jekyll Island.

She is the daughter of Mrs. R. K. Leonard and attends Westside High School in Augusta.

Jeanie Elaine Carter, daughter of Mr. and Mrs. W.C. Carter of Wrightsville placed second and Amy Parrish, daughter of Mr. and Mrs. J. R. Parrish of Dahlonega was selected Miss Congeniality.

Miss Padgett, a senior at the Augusta school where she was elected "Miss Westside High" last year, is undecided on the career she will pursue but presently leans toward fashion merchandising or medicine.

"I would like to model and later get into fashions," she said. "Maybe someday own my own shop." She said her entry in two contests has helped her develop poise, personality and confidence that would better prepare her for any career.

On the other hand, Kathy said she could possibly turn to dentistry. "After all," she reasoned, "We have a fine medical school right here in Augusta and I could just live at home while I get my education in that field." She said she

(Continued on Page 10)





CRAVEN NAMED CHAIRMAN OF SOUTHERN I&E CHIEFS



FRANK CRAVEN

The Southern I&E Chiefs met in Columbia, S.C. to discuss methods of stimulating tree planting in the South. Following the meeting, an ad hoc committee made up of Frank Craven, Georgia, chairman; Bill Colvin, Mississippi; Ernest Haskins, Tennessee; and Nelson Peach, South Carolina, met in Atlanta to draft a Reforestation proposal as requested by the Southern Group of State Foresters.

Haskins presented the suggestions to the State Foresters during their annual meeting held in Nashville.

The proposals included suggestions on how to motivate Southern landowners to plant acres in need of reforestation to meet the demand for wood that is facing America and the world.

As has been the custom, the I&E Chiefs during the Columbia meeting, held an Around the States session. Each state I&E Chief discussed any new or novel public relations program inaugurated since the last meeting. This enables other states to obtain the benefits of these programs without having to go through the trial and errors of starting a program that has been successful in other areas.

The I&E Chiefs, as a final order of business, elected Frank Craven, Georgia, Chairman and Ed Rodger, Virginia, Chairman-elect. The group, authorized by the State Foresters, plans to meet again during late spring of 1980 at a location to be determined.



Southern States I&E Chiefs include, left to right kneeling, E. E. Rodger, Virginia; Jim Culpepper, Louisiana and Jim Grant, Arkansas. Standing, Bill Colvin, Mississippi; Gilmer G. Green, Jr. North Carolina; Townley Bergmann, Kentucky; John A. Haislet, Texas; Frank E. Craven, Georgia; Nelson L. Peach, South Carolina and Ernest Haskins, Tennessee.

COLUMBUS

GEORGIA'S FIRST TREE CITY

TREE CITY USA has been designed to recognize those communities that are effectively managing their tree resources. Just as important, it is geared to encourage the implementation of a local tree management program based on the TREE CITY USA Standards through the professional leadership of participating state foresters of the National Association of State Foresters.

Public Law 92-288 of 1972 gives the state foresters authority and responsibility for providing technical services for the "protection, improvement and establishment of trees and shrubs in urban areas, communities and open spaces."

A quick check with the city forester or the Mayor's office will tell you whether your community is meeting the standards and therefore is eligible for TREE CITY USA recognition.

-Arbor Day Foundation



Above, Mayor Harry Jackson, left, receives the Tree City plaque from Urban Forester Floyd Cook and Cash Harper, assistant to the director, GFC. Scenes below show density of trees in a residential area and the abundance of shade trees in downtown Columbus. Above right, Mayor Jackson and Harper display flag presented to the city.



Columbus is the first municipality in Georgia to become officially recognized as Tree City USA by the National Arbor Day Foundation.

In recent ceremonies at City Hall in Columbus, a plaque and large white and green flag were presented to the city by William C. Harper, assistant to the director, Georgia Forestry Commission. They were accepted by Mayor Harry Jackson.

Also presiding in the brief ceremonies was Forester Floyd Cook of the Commission's Columbus District. He was given credit for working closely with city officials, schools and various groups in planting and caring for trees in all sections of the city.

Officials said the forester's continued devotion to urban forestry projects and his constant encouragement to others were major factors in the city's ability to meet certain standards to qualify for the Tree City recognition.

Mayor Jackson said his city was "highly honored in being the first city in Georgia to attain the Tree City USA distinction" and that the plaque and flag would be "proudly displayed" on the premises of the impressive City Hall complex in Columbus.

Harper pointed out that Columbus earned the designation by effectively managing its tree resources and he congratulated the mayor and the residents of the city for working together to meet the standards set by the Arbor Day Foundation.



In a letter of congratulations to the mayor and his city for achieving the honor, the Arbor Day Foundation advised that Columbus is among 109 towns and cities across America that have been recognized as a Tree City USA.

State forestry agencies, as well as the U.S. Forest Service, are working closely with the Arbor Day Foundation in the Tree City program.

Harper said application forms, which detail qualifications for the Tree City USA designation, are available through the Commission's central office in Macon or any of the district or county offices throughout the state.



Wood Burning Stoves Cut Heating Costs

A survey just completed by the Georgia Forestry Commission shows that wood burning stoves installed in many of the agency's offices and shops around the state last winter cut heating costs approximately \$18,365.

William C. Harper, assistant to the director of the Commission, said 116 modern wood burning stoves were installed in the facilities and more are being added for the coming winter.

He said the air tight and slow burning stoves only require wood about three times during a working day and the conversion from gas to wood resulted in an average saving of \$159.32 per stove.

Harper pointed out that only waste wood, in the form of cull trees, limbs and logging residue, were used for fuel wood and most of it was gathered and cut by Commission personnel.

John Mixon, chief of the Commis-

sion's Forest Research Division, said a study was also made among residents in certain areas who had switched to wood as a heating source. In discussing some of the findings, he said an engineer in the Warm Springs area saved \$80 per winter month by burning wood and a forester in Hall County saved approximately \$70 each winter month by installing a wood heater in his all electric home.

Mixon, who also cited a Pike County school teacher who saved \$100 per month, emphasized that in all three cases the individuals owned land on which they gathered wood or had access to free wood.

He said a spokesman for the Tennessee Valley Authority in the Dalton area pointed out, however, that if wood has to be purchased at \$60 per cord, the heating bill would continue to be less than the cost of electrical heat.

Miss Georgia Forestry

(Continued from Page 6)

would probably have to go to New York to seek a successful modeling career.

The pageant winner said she enjoys chemistry and other science courses in school and her interest in these studies has caused her to seriously consider a future in dentistry.

Kathy said she is "very much an outdoor girl. "She enjoys camping, fishing and water sports. "In fact, I just like being outdoors...walking, enjoying nature," she said. She likes to tend to flowers and shrubs and spends some time working in the lawn at the attractive home she shares with her mother and brother, Hardy.

She also has indoor interests and one of her favorites is cooking. "I really do love to cook," she said, "It's fun the year round but I especially like to cook during the holidays." She also enjoys sketching and reading.

Kathy won the Miss Richmond County Forestry Pageant to qualify for the state pageant on Jekyll Island. The South Augusta Womens Club sponsored the local contest and gave Kathy enthusiastic support as she entered the statewide competition.

The new Miss Georgia Forestry has a steady boyfriend. "I've dated him several years," she said. But when questioned about marriage, she declared "that's out in the future...way out in the future!"

Her friends agree, however, that whenever she does decide to marry, she will be one of the prettiest Richmond County brides ever to walk down the aisle.

Urban Forestry

(Continued From Page 5)

of the Atlanta City Parks Department were on the scene to assess the damage and clear the devastation.

Industry joined in the recovery effort and the downed trees were quickly and efficiently converted into sawlogs, pulpwood, firewood and wood chips. Residential replanting was encouraged.

Plant Dig Day

The Commission in 1973 initiated a plan to invite residents to dig free plants at a highway construction site for replanting in their yards. The area concerned land being cleared near Douglasville for the construction of Interstate 20.

Permission was granted by the De-

partment of Transportation and the "Plant Dig" day was set for a Saturday, with the media providing widespread publicity. Hundreds showed up for the event and Commission foresters were on the scene to identify species and give advice on lifting and transplanting the maple, gum, yellow poplar, pine, cedar, cherry, dogwood, oak and other native trees in the area.

Tree Workshop

The Commission has conducted several highly successful shade tree workshops for arborists, architects, tree surgeons, residential and commercial developers, mortgage bankers and other interested persons and groups in the Atlanta metro area.

The one-day sessions are usually held in the fall on the campus of Georgia Tech.

The Commission has been active in aiding the city in its continuing program to register historic and other outstanding trees. The trees are located in all sections of the city and the project has generated considerable civic pride.

When the conservationists learned excavation for a reflecting pool at Martin Luther King, Jr. Memorial Park would destroy a pecan tree that was on the Registry of Historic Trees, they contacted Washington and convinced architects that plans should be altered. They were.

District Forester Ed Banks, with offices just across the street from the state capitol building, said many of the more than a million inhabitants of the city that surrounds his Third District headquarters are beginning to show a deeper appreciation for their trees.

He said the current programs, as well as projects planned for the future, will make Atlantians even more aware of their great asset.

Urban Forestry is a statewide program, of course, and the Commission's services are available to cities and towns across the state.

Extensive tree inventories have been made in Macon and Madison and individuals in numerous municipalities have turned to the Commission's foresters for guidance in caring for their trees.





ATTENDANCE RECORD IS SET AT ANNUAL GFA CONVENTION

Discussions on timber valuation and taxation highlighted the recent 72nd Anniversary Convention of the Georgia Forestry Association on Jekyll Island which drew the largest attendance in the history of the organization.

Officials said more than 850 persons attended the banquet, business meeting and other events of the annual convention.

The Honorable Thomas B. Murphy, Speaker of the Georgia House of Representatives and featured speaker at the convention, reminded the audience that the bulk of Georgia's forest resources are held by small woodland owners and that they need protection from high taxation.

William Condrell, General Counsel, Forest Industries Committee on Timber, Valuation Taxation, Washington, D. C., spoke to the large gathering on the new tax law and its effect on timber and land.

Hugh Roberts Rogers, chairman of the Association's Workers Compensation Committee, and Charles Petteway of Corporate Group Service, Orlando, Fla. addressed the convention on the

Association's stand on workmens compensation.

The convention opened with a colorful country and western "Chuckwagon Spread" at which Edward Killorin, president of the Association presided. He presented awards of excellence to Georgia Forestry Commission personnel, including Forester Bill Millians of Mill- edgeville, Outstanding District; Ranger Tommy McClendon, Clayton-Fayette, Outstanding County Unit; Ranger Maurice Mathews, Oglethorpe County, Best Fire Record; and Forester Charles Hill, Griffin, Special Award. (See photos Page 15)

Frank Craven, Chief of Forest Education, GFC, introduced Miss Georgia Forestry contestants representing 28 counties and served as coordinator during the judging process.

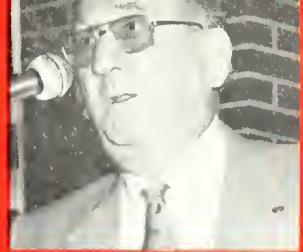
Craven presented the winners during the banquet and the new Miss Georgia Forestry, Kathy Padgett of Augusta, was crowned by Killorin. (See Story, other winners, Page 6).

Dr. John Furbay, world traveler and commentator, was featured speaker at the convention banquet.

E. E. Yawn of Eastman was awarded "Tree Farmer of the Year" for his superior management of 525 acres of forestland he owns in Dodge County. (See story Page 14)

Bill Barton, manager of the Savannah Woodland District, Union Camp Corp., was installed new president of the Association at the close of the annual meeting.

At left, W.J. (Bill) Barton, new president of GFA.



MURPHY



KILLORIN



CRAVEN



FURBAY



CONDRELL



ROGERS

Nurseries Taking Seedling Orders



Orders for tree seedlings from the Georgia Forestry Commission for the 1979-80 planting season are now being accepted, according to James C. Wynens, Chief of the Reforestation Division.

Wynens said orders for the 16 species offered will continue to be taken through October and shipments will be made from December 1 through March of 1978. He pointed out that a transportation charge of \$1.00 per thousand and \$.50 per five hundred trees is added to the seedling cost when they must be moved from one nursery to another or delivered to a county unit headquarters for landowner pick up.

The seedlings are sold only in packages of 1,000, 500 and 50.

Wynens said the tree seedlings are produced by the Commission for reforestation purposes in Georgia. Out of state orders will be considered, he said, only if a surplus exists.

Seedling application forms may be obtained from any Commission county unit or district office or by writing to the Commission state headquarters at P. O. Box 819, Macon, Georgia 31202. Forms are also available through the offices of county agents, Soil Conservation Service and the Agricultural Conservation Program.

Wynens predicted a "very good crop" of seedlings this year and said he expects an adequate yield to satisfy the needs of all landowners.

A price list for the current season, as well as an order form is shown below.



	Per 1000	500	50
Eastern White	\$20.50	\$11.25	\$5.00
Improved Loblolly	10.50	6.25	3.00
Improved Slash	10.50	6.25	3.00
Slash High Gum	10.50	6.25	3.00
Virginia	10.50	6.25	3.00

Species below are priced FOB Page Nursery, Reidsville, Georgia.

Longleaf	10.50	6.25	3.00
Catalpa	15.50	8.75	4.00
Dogwood	40.50	21.25	9.00
Lespedeza	15.50	8.75	4.00
Oak, Sawtooth	20.50	11.25	5.00
Oak, White	20.50	11.25	5.00
Redcedar	25.50	13.75	6.00
Red Maple	15.50	8.75	4.00
Shortleaf gum	15.50	8.75	4.00
Sweetgum	15.50	8.75	4.00
White Pine	15.50	8.75	4.00
Yellow Poplar	15.50	8.75	4.00

APPLICATION FOR NURSERY STOCK

GEORGIA FORESTRY COMMISSION P.O. BOX 819 MACON, GEORGIA 31202

NAME PHONE NO.

ADDRESS

SHIP TO ADDRESS ABOVE OR

NAME PHONE NO.

ADDRESS

CITY STATE ZIP CODE

DELIVERY DESIRED AS SHOWN BELOW

DATE	NUMBER OF SEEDLINGS	AMOUNT OF ORDER	ORDER TOTAL

TYPE OF OWNERSHIP Individual Partnership Corporation Other Other

METHOD OF SHIPMENT TRUCK (FOR COUNTY UNITS ONLY) AIR MAIL AIR MAIL WITH EXPRESS RECEIPT

DATE SIGNATURE

DO NOT WRITE BELOW THIS LINE

AIR MAIL MDP PLAN

FEATURE PAGE

GEORGIA FORESTRY

Back when CB radios were all the rage, Ranger Herbert (Buster) Moore of the Greene County Unit, Georgia Forestry Commission, saw it as an excellent opportunity to greatly broaden his communications effort.

His first move was to approach the county commissioners and ask that they buy CB equipment to be used in the unit.

Before long a county financed base station was installed in his office and a special antenna was affixed to the fire tower.

"Before this," the ranger said, "we had our own Commission radio network and our phone system, of course, but the CB gave us a link with the traveling public."

Moore said the added radio equipment began paying off immediately and "as a result many motorists who spot fire as they are driving along now call us on the radio in their car."

He said a private pilot, a Mr. Fred McCannon of Union Point, "has spotted several fires from the air and has called us on his radio."

The ranger, who also has a base station in his home and a CB radio in his truck which were purchased with his own funds, monitors the railroad's radio in Greene County, the State Patrol in the area and the local ambulance service.

"We're not far off Interstate Highway 20," Moore pointed out, "and we often get distress calls from motorists, which we relay to the sheriff's office."

Moore, a 29-year veteran with the Commission, said his personnel work closely with the four rural fire departments in the county. Sometimes the fire calls come to us over the CB first and we relay it to the fire stations."

Some of the 225,000 acres of protected forests in Greene County is a mecca for deer hunters and that often presents a problem for the forestry unit.

"But we usually get good cooperation from the hunters," Moore said. "At the beginning of the hunting season, I visit the hunting camps and talk with the men about fire problems and give them my CB handle."

At right, Ranger Moore at his radio, monitors fire call.



Sometimes, his handle "Gray Cat" comes in handy for people deep in the woods. Every now and then, a person is lost or has car trouble and calls in for help.

"Many farmers in our area have CB

radios in their trucks and they call in for weather information and advice on control burning," Moore said.

The Ranger remembers that there was a lot of "childs play and nonsense" over the airwaves when the CB buying boom hit its peak three or four years ago, but he feels now that it has leveled off and more drivers are relying on their radio for strictly serious communications.

A huge new lake is being established in the area by the Georgia Power Company's Wallace Dam and Moore foresees

Ranger Provides Aid To Hunters Through Radio Communications

problems as new homes are built and more families move into the lake region.

"But we'll handle it," the ranger said, "It's a matter of public relations and our CB will make it easier."

The forest ranger and his wife live just three miles "down the road from the office in a farm house I was born in." They have two sons.

Moore, a combat veteran of World War II, is an active member of Wesleyan Chapel, a long established rural church near his home.

When emergencies occur in Greene County, you can be sure immediate action will be taken because Forest Ranger and CBER Buster Moore "will have his ears on."





We would like to express our sincere appreciation for the good work of Mike Brown and Faye Simmons (Gordon County Forestry Unit) in our school recently.

This is the third year in a row that they have visited the first grades and have shown the wonderful films about the forests and Smokey the Bear. We look forward to having them each year as a part of our Career Education Program in First Grade.

It is nice of your department to give the children the litter bags filled with coloring books, etc., to remind them about preventing forest fires.

Thanks again for sending these two nice people to visit us.

Mrs. Barbara Overton
Mrs. LaRue Williams
Mrs. Shirley Bennett
Belwood School
Calhoun, Georgia

Thanks so much to Forester Louie Deaton for visiting our class recently. The children and I learned so much from him and it was such an enjoyable way to learn! Thanks, also, for all the very interesting handouts which he gave to the class - We've already read and discussed most of them.

I really do appreciate his interest and enthusiasm in helping us and I look forward to seeing him again next year!

Marie Donahoe
Evoline C. West Elementary School
Fairburn, Georgia

This is in reference to the Natural Resources Conservation Workshop held at South Georgia College, Douglas.

There were 277 students from 128 counties in Georgia. This was the greatest participation ever for the workshop. We had some of the best of the best students attending.

I would like to take this opportunity to thank you and the personnel from the Georgia Forestry Commission for the wonderful support. I assure you without your support it would not have been possible to give our youth the opportunity to learn about the importance of improving and protecting our natural resources for our present and future needs.

Let me again thank you for your support and look forward to working with you and your agency personnel in the future.

D. L. Pope
Workshop Director

Wanted to drop you a note to let you know what an outstanding job Mr. George Story, Ranger of the Lincoln County Forestry Unit, along with a man (I did not get his name) from Wilkes County, and also the Beulah Volunteer Department, did.

The reason I am writing you is that on July 4th around midnight, apparently a meteor or something similar, fell on a vacant lot next to my place on New Ford Creek in Lin-



E. E. Yawn of Eastman, prominent Dodge County landowner and former member of the Georgia General Assembly, has been named the state "Tree Farmer of the Year" for his wise management and utilization of some 525 acres of forests.

Dave Mitchell of St. Regis Paper Co., chairman of the Georgia Forestry Association's Tree Farm Committee, said Yawn was selected from approximately 2,000 tree farmers across the state.

At one time the Dodge County native worked 3,000 naval stores faces and has successfully grown and marketed Christmas trees on a portion of his land. He has planted cottonwood in an experimental plot and helps meet the energy crisis by using undesirable species and other waste wood for fuel purposes.

He has cross fenced his land from posts produced on his own property and has set out food plots to enhance game hunting. He has created a fish pond and recreation area.

The versatile landowner and his wife have two sons, Gary and Dwight. He is a member of the First Baptist Church of Eastman. He served in the General Assembly in the 1940's.

coln County, and caught the woods on fire. Someone, apparently in a boat, spotted the fire and in no time, the volunteer units and the Forestry Unit from Lincoln and Washington were on the scene with machinery and cut a firebreak and contained the woods fire from doing serious damage to the woods, as well as a number of dwellings that were in the area.

I wanted you to know this and all of us appreciate the fine work that they did on a holiday and in the middle of the night.

R. E. Lee, Jr.
Elberton, Georgia

Logging The Foresters...

William M. Oettmeier, Jr., of Superior Pine Products Company, Fargo, Ga., whose late father was founder and first president of the Forest Farmers Association, has assumed the presidency of the 38-year-old organization. The gavel was passed to Oettmeier by outgoing President Ralph Law at the conclusion of the recent annual meeting of the organization in Memphis. Noll A. Van Cleave of Valley Wood, Inc., Richland, Ga., was chosen president-elect to take over the office in 1980.

Max Peterson, a deputy chief of the Forest Service in the U.S. Department of Agriculture for the last five years, has been designated the 11th chief in the 74-year history of the agency, according to Secretary of Agriculture Bob Bergland. Peterson succeeds John R. McGuire, who retired June 30 after a 39-year career with the agency. McGuire had been chief since 1972 and recently received the president's Award for Distinguished Federal Civil Service. Peterson began his career with the department's Forest Service 30 years ago after graduation from the University of Missouri with a degree in civil engineering. He later was awarded a master's degree in public administration by Harvard University.

Ed Kerr has retired as Chief of the Information and Publications Group at the Southern Forest Experiment Station in New Orleans. Laurence E. Lassen, Director of the Station, said a new Chief of IPS will be named soon. Kerr had been with the Station since 1975. Before that, he was Chief of Technical Publications for the State and Private Forestry Office in Atlanta. He worked earlier with the U. S. Department of the Interior, the Public Land Law Review Commission, the Louisiana Forestry Commission, and the Louisiana Forestry Association. While with the Southern Station, Kerr won several awards for writing and editing. In 1978, his work earned two prizes in national competition of the Society for Technical Communication, and a First Prize Blue Pencil Award in competition among federal editors.

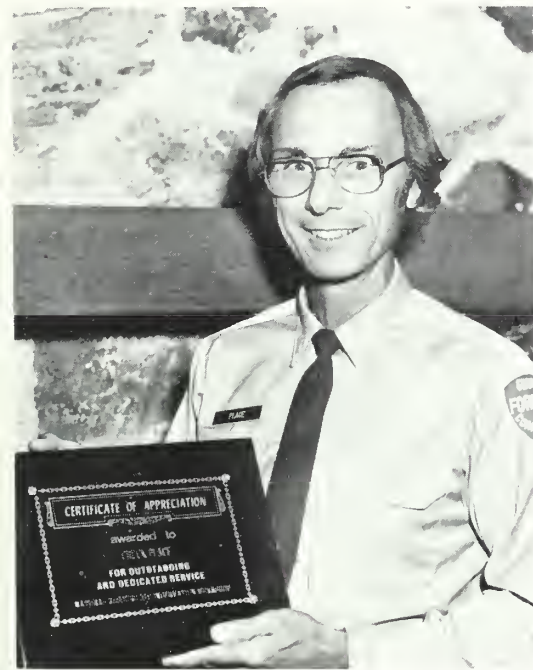


AWARDS



Commission personnel shown here were presented performance of excellence awards at the recent annual GFA convention. Top left is Bill Millians, Milledgeville, Outstanding District; top right, Ranger Tommy McClendon, Clayton-Fayette County Unit, Outstanding County Unit; bottom left, Ranger Maurice Mathews, Oglethorpe County, Best Fire Record; and bottom right, Forester Charles Hill, Griffin, Special Achievement Award.

Mrs. Sharon L. Bennett of the Waycross District, the Commission's Secretary of the Year, is presented a plaque by Director Ray Shirley. She was named to the honor for her superior performance of duties.



Forester Chuck Place of the Education Division, above, receives a plaque for outstanding service to the Natural Resources Conservation Workshop...Commission Director Ray Shirley was honored by the Georgia Chapter, Soil Conservation Society of America, and Cash Harper, assistant to the director, accepted for Shirley (top right) from Pat Thomas, chapter president...Patrolman Charles Goree (bottom) of Columbus, receives a certificate from Thomas.



Ranger Ronald L. Drury, Bacon-Coffee Unit, right, receives a faithful service plaque and watch from District Forester Jim Henson at a recent retirement dinner honoring the ranger who has served the Commission for 31 years. Co-workers and many other friends were on hand to pay tribute to Drury.

Georgia FORESTRY

SEPTEMBER, 1979

YOUNG TREE

A tree when it's young is a beautiful thing,
As it reaches for life in the early spring;
Wanting by all the world to be seen,
It dresses itself in bright leaves of green,
That wave ever gaily to the world passing by,
While its branches begin to reach up toward the sky;

When raindrops start falling, its leaves open up,
To drink all they can from each living cup,
And its branches stretch ever outward and up;

After the rain, when the rainbow's in view,
Its buds become bold, and burst open too,
Hoping to capture all they can hold,
Of the rapture that's promised with the sun's gold.

And when summer breezes begin to blow,
Its branches sway gracefully to and fro,
Dancing in rhythm with the breeze,
As tho' listening to faraway melodies;

Yes, the world that surrounds the young tree becomes a part
Of all that it knows it will be in its heart:
Its branches stretch ever outward so wide
To embrace all of life, while deep down inside,
Its roots circle endlessly into the land,
To create a foundation on which it can stand;

And as the tree grows, it welcomes each day
To store up the treasures that life sends its way;
Ever conserving, our water preserving;
Always collecting, our soil protecting;
Counting the years with each passing spring,
Awaiting whatever tomorrow will bring;
Yet always and ever reaching so high,
As tho' trying to reach from the earth to the sky.

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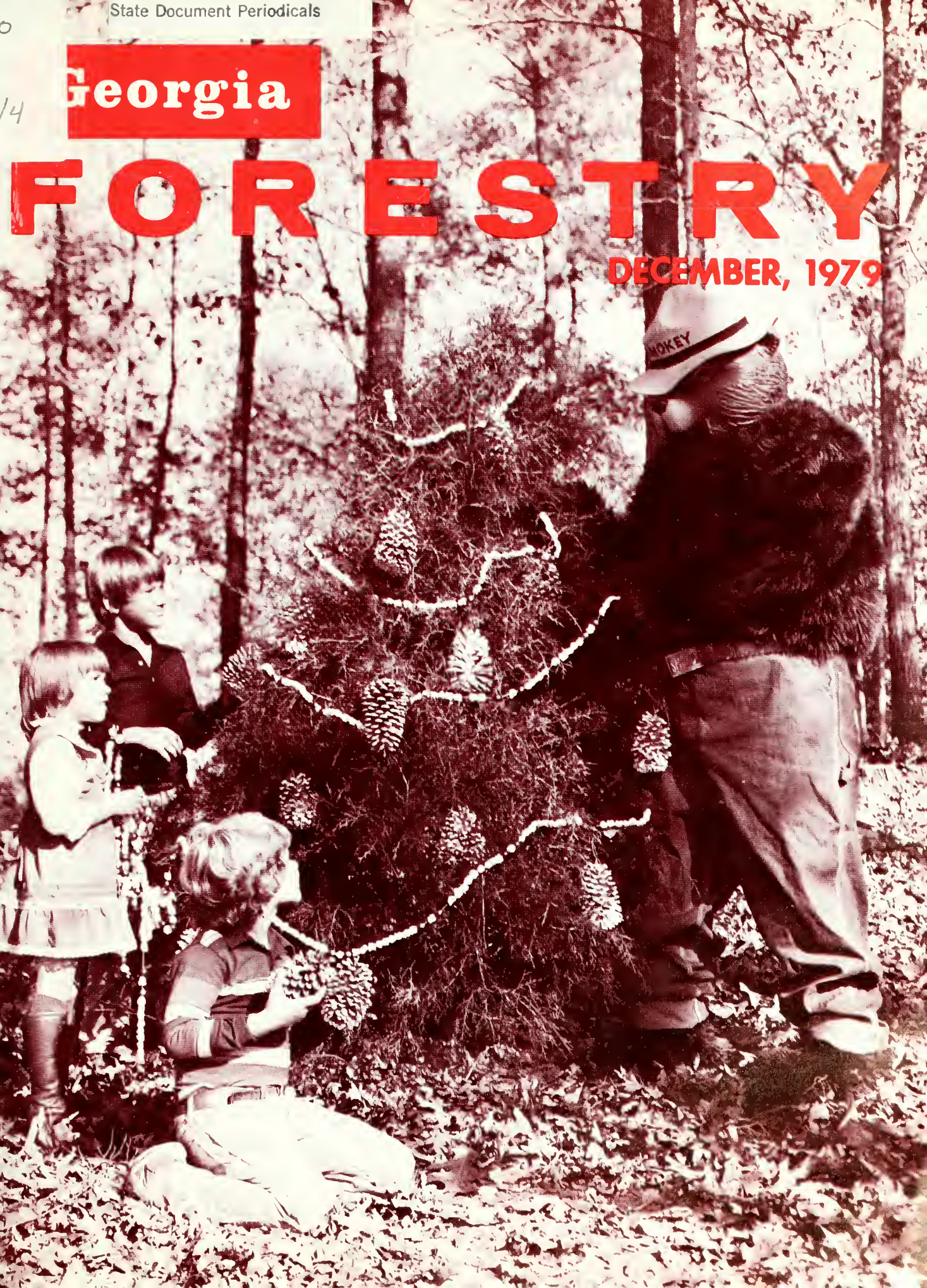
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14
Georgia

FORESTRY

DECEMBER, 1979



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A. Ray Shirley - Director

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Rt. 7, Box 83, Canton 30114

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Cruising The News

HARVEST BALANCE URGED

Once the ball gets rolling, it is usually harder to stop. That simple fact often forms the foundation for much of the opposition preservationists and environmentalists have to so-called progress.

Yet, as in ecology, there must be a balance, a point where "need" squares with "consequence."

This is true in the search for alternative energy sources.

Sen. Herman Talmadge, speaking at Georgia Tech recently, announced a major legislative push to develop agricultural energy and wood fuels.

Talmadge said new and increased development of agricultural and wood fuels from the state's fields and forests can give Georgia a "new cash crop," promote industrial expansion and rural development, create new jobs and increase incomes where they are most needed.

At the heart of Talmadge's proposed bill is the accelerated use of Georgia's forests as a source of energy.

Opposition from conservationists could be expected, and justifiably so. It is reasonable to assume that once the state's forests become viewed as energy sources, there will be wholesale timber cutting.

But Talmadge's proposal offers the balancing feature that is necessary to assure the preservation of the state's woodlands while offering new energy, employment and economic opportunities.

"By using only the twigs, bark and other forest wastes, we could supply as much as 25 percent of (Georgia's) current energy needs now purchased at a cost of about \$750 million annually," Talmadge suggested.

He explained: "In the mixed hardwood forests of the Appalachians, the logger who removes 1,000 board feet of saleable wood leaves 11 tons of tops and limbs lying on the ground when he has finished. This 'waste' material is equal to 750 gallons of number two fuel oil or five tons of coal.

Talmadge's proposal may sound futuristic to some, but the state of Georgia has already taken a leadership role in wood energy technology. The state Forestry Commission was allocated \$500,000 last year by the Georgia Legislature to conduct a series of wood energy studies in cooperation with Georgia Tech. And in the Laurens area, a wood energy system will be installed at the new correctional facility under construction in Chester.

(From the Dublin Courier-Herald)

SWITCHING TO WOOD

More industries than ever are using wood for fuel, but more would make the switch from fossil fuels if they could be sure that wood boilers and gasifiers worked well, and that an adequate supply of wood was available. That's good news for rural areas such as Coffee County.

This was the major finding of a Georgia Tech survey of more than 200 industries in the Southeast to find ways to increase the use of wood for industrial purposes. The study was prepared for the Georgia Forestry Commission under the sponsorship of the Appalachian Regional Commission.

Dr. T. I. Chiang, a co-author of the study, said that a more reliable technology is the number one concern of the industrial boiler

users who responded.

"More than one-third of the industries said that improved technology is the most important incentive for a switch to wood-fueled boilers and gasifiers," said Chiang. Gasifiers turn wood into fuel gas which can then be burned in boiler or direct-fired heaters.

The industrial users generally supported the idea of government money for research to improve wood-burning technology.

Chiang said that the survey showed that the use of wood fired boilers is on the rise, particularly in rural areas where there is a better chance of having a guaranteed supply of wood.

(From the Douglas Enterprise)

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ON THE COVER - Little Miss Caitlin Brady, daughter of Mr. and Mrs. Mike Brady of Macon, and brothers Chris (standing) and Cam Long, sons of Mr. and Mrs. Milton Long of Jeffersonville, aid Smokey in decorating a Christmas tree deep in the forest.

C

ircumstances involving a house trailer fire led to what could have been a tragic loss of life, but due to some quick thinking and medical training by Charles Padgett, patrolman, Pickens County Forestry Unit, Georgia Forestry Commission, Robert Taylor, 48 Manager of Operations, Amicalola Electrical Membership Corporation, Jasper, is alive today.

It all began around noon October 1, 1979, when Padgett and J.D. Johnson, a member of the Jasper Fire Department and the Pickens County Rescue Unit, were installing a radio in a rescue vehicle. A call came in about a mobile home on fire near the vicinity of the Tate and Waleska Highway crossroads and Old State 143 highway. When Padgett and Johnson arrived at the fire, the mobile home was engulfed in flames. They immediately ascertained no lives were in danger and began pumping water on the trailer to cool it down. Arson was suspected so they returned to Jasper to refill the tanker. They called the fire marshal and returned to the fire to finish putting the fire out.

While the men were spraying the fire, Robert Taylor was on the scene to check on the electrical wires. Padgett happened to turn and saw Taylor fall through a rotted piece of wood into an abandoned well. He immediately sounded the alarm, ran to the Amicalola truck and radioed Jasper to send an ambulance and rescue truck. Padgett then ran to the well, and disregarding his own safety, had Johnson tie two fire hoses around him and lowered him down into the well which was 40-50 feet deep.

Padgett heard Taylor moaning and knew he was still alive. There was water in the well along with logs, planks and other debris. Padgett found that Taylor was having difficulty breathing. He quickly checked him, pulled him up and held him so he could breathe. Taylor, conscious but in severe pain, had a compound fracture of the ankle and a back injury. The strain began to tell and Padgett called for help. J.D. Johnson came down and helped hold Taylor out of the water.

In the meantime, an ambulance had arrived and attendants lowered oxygen to those in the well. Then a stretcher was lowered. It was with a great deal of difficulty that the rescuers managed to strap Taylor in the stretcher due to the narrowness of the well. Johnson went up with the stretcher to keep it from bumping into the bank.

Taylor is now recovering in the local

**QUICK THINKING,
MEDICAL KNOWLEDGE
AID IN RESCUE**

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HEROIC ACTION OF COMMISSION PATROLMAN SAVES MAN'S LIFE

hospital and walking with the aid of crutches. He was to return home November 16. The veteran of twenty plus years with the Electrical Membership Corporation will be out for three to four months recuperating.

While talking with Padgett recently, Taylor said he saw the sheet of plywood but assumed it was a piece of wood out of the trailer. Closer inspection of the area later revealed children's footprints around and on the plywood which could have resulted in a child losing its life.

Charles "Rip" Collins, Ranger, Pickens County Forestry Unit, has realized the problem of abandoned wells found throughout Pickens County and in 1975 began a program of using his equipment to fill in these death traps. He estimates he has filled in almost 100 wells. A landowner must sign a permission form before Collins will fill in a well. He said by performing this service for county landowners, he feels he is protecting people

and animals from falling into these wells.

So it was, that a combination of events that occurred on October 1, 1979 averted a loss of life. The fact that Padgett suspected arson, caused his return to the trailer fire and the fact that he is trained as an Emergency Medical Technician, having taken a 144 hour course at Pickens Tech and a 40 hour reclassification course, enabled him to give emergency treatment while in the well.

Stan Dean, General Manager of the Electrical Coop joined Taylor in praising the quick thinking Padgett whose training and care for people resulted in saving a life. Ray Shirley, Director, Georgia Forestry Commission, also had high praise for Padgett, calling him a credit to the Commission and whose unselfish act of heroism exemplifies personnel of the Forestry Commission.

The Forestry Commission presented Padgett a commendation for his reacting to the situation.



Patrolman Charles Padgett of the Pickens County Unit, GFC, third from left, receives an award of appreciation for rescuing an employee of Amicalola Electric Membership Coop. Others shown are Pickens County Ranger Charles Collins, left; Frank Eadie, Commission District Forester, Canton; and Stan Dean, Manager, AEM Coop.



Archie E. Patterson, center, has been named to the Georgia Foresters Hall of Fame and is shown receiving a plaque from C. Nelson Brightwell, Athens, chairman of the Georgia Chapter's Hall of Fame Committee, Society of American Foresters. Looking on is Turner Barber, Jr., Macon, Chapter Chairman.



BROWNING

MYERS

FIRE SPECIALISTS AID RFD PROGRAM

Two new Rural Fire Defense Specialists have been assigned in recent weeks to the Forest Protection Department of the Georgia Forestry Commission.

Don Freyer, RFD Program Coordinator for the Commission, said Roger Browning, formerly with the Hall County Fire Department in Gainesville, and Milton Myers, who served with the Gwinnett County Fire Department, were named to the posts.

Both men work from offices at the Commission's headquarters in Macon.

Freyer said the firemen have a good knowledge of structural fire suppression, national electrical and heating codes, the availability of training in all facets of fire control and the maintenance of suppression equipment.

He said they perform all functions related to providing technical support and expertise to the Rural Fire Defense Program. The coordinator said they provide detailed information about the program to local government officials and gather master fire plan data.

Hall of Fame Inducts Patterson

Archie E. Patterson, Athens, became the 25th forester to be inducted into the Georgia Chapter, Society of American Foresters' Hall of Fame. The Hall of Fame was established in 1968 for the purpose of recognizing foresters who distinguished themselves in their profession. To be named to the Hall of Fame is the highest honor the chapter can confer upon a forester.

A plaque was presented to Patterson by C. Nelson Brightwell, Athens, Chairman of the Chapter's Hall of Fame Committee during the chapter's 30th annual meeting held in Savannah. Brightwell, in presenting the plaque, called Patterson "The Father of Forester Registration in Georgia," as he was a prime mover in having a bill introduced in the Georgia Legislature to create the nation's first State Board of Registration for Foresters. The Act was adopted in 1951.

Patterson, a professor of forestry for nearly 40 years at the School of Forest Resources, University of Georgia, and a Clarke County Commissioner, has written numerous articles and has spoken in many parts of the United States on forester registration.

He at all times advocates professionalism among foresters and has directed thousands of his former students toward the area of forester ethics and professionalism. In addition, he is one of the Society of American Foresters' staunch-

est supporters and has encouraged more students and foresters to become members of the SAF than any other Georgian. He has held many local, state and national offices in the SAF and as a national council member helped direct Society policy. He has been named a Fellow in the Society.

His name will be added on a permanent plaque displayed in the foyer of the School of Forest Resources at the University of Georgia.



Commission Forester Recognized As Outstanding Tree Farm Inspector

Forester Gene Rogers of the Commission's Statesboro District has been recognized as an Outstanding Tree Farm Inspector by the Tree Farm organization in Georgia.

J.W. Gnann, Chairman of District 10 of the Tree Farm Program, said "I am very proud to report that Gene Rogers... was selected as an Outstanding Tree Farm Inspector in the state for the period ending June 1, 1979...Gene was one of only two inspectors so honored in the entire state."

The announcement was made in late September.

During a period of seven months, the

Commission forester certified 15 new Tree Farmers and re-certified 37 Tree Farms.

Gnann said a number of Commission personnel are "working hard on the program and without their help, the program would not be as successful...we appreciate their help and support."

The chairman said the program, designed to encourage the private landowner to do a better job of managing the timberland "at a time when we are concerned about the future timber supply in Georgia," is gaining momentum in the state.



SHIRLEY

FRAZER

Society Honors Nine Georgians

Ray Shirley, Director of the Georgia Forestry Commission, and Eley C. Frazer, Commission Board member, were among nine Georgians recently named Fellows by the Society of American Foresters, an honorary title which recognizes outstanding service to forestry and the Society.

Fellows are elected in odd-numbered years by a majority of members voting. Nominees must be recommended by written petition of 25 members or Fellows of good standing in the Society.

Other Georgia foresters elected to the honor at the recent annual meeting of the Society in Boston were:

George A. Anderson, Brunswick; Claud L. Brown, Athens; Douglass A. Craig, Avondale Estates; Frederick W. Haeussler, and Louis F. Kalmar, Savannah; and Arthur W. Hartman and Walter J. Myers, Jr., Atlanta.

ENTOMOLOGY GROUP HEADED BY PRICE

Entomologist Terry S. Price of the Management Department, Georgia Forestry Commission, has been elected 1979-80 Chairman of the Georgia Council of Entomology.

Officials of the council said the organization seeks to improve the economic conditions and general welfare of the people of Georgia by advancing the science of entomology through stimulation of research, education, regulatory control and service activities.

Membership includes some 160 entomologists throughout the state who are assigned to federal, state and county agencies.

Price said he is now making plans for the group to gather in Macon in the fall of 1980 for its annual meeting.



Travelers on the Jim L. Gillis Highway (I-16) can now take the Soperton exit and come upon one of the most unique welcome centers in the state.

It's the Million Pines Welcome Center and it is housed in a 134-year-old log cabin. A new wood shingled roof and a wide porch have been added to the structure and it is furnished with antiques donated by citizens of Soperton and the surrounding area.

The center also features tools used in the early days of the naval stores industry and an exhibit especially designed for the building by the Georgia Forestry Commission. Contained in a glass case is an edition of The Soperton News which was the first newspaper ever printed on newsprint made from

The old log cabin and its furnishings provide a unique welcome for tourists traveling Interstate 16.

GOVERNOR DEDICATES MILLION PINE CENTER

Governor and other dignitaries address large group from front porch of the rustic welcome center.

southern pine.

The basic structure of the center, which was recently dedicated with ceremonies attended by Governor George Busbee, Senator Hugh Gillis, County Commissioner Jim Gillis and several other Soperton area leaders, was built about 1845 in Emanuel County by Curtis Barwick (1823-1902). It was moved to Treutlen County about 1960 and again moved to its present site this year when descendants of the original owner donated the cabin to the City of Soperton.

The Forestry Commission worked with J. Clayton Stephens, Jr., president of the Treutlen County Historical Society, in creating an exhibit and selecting naval stores tools and relics for the center.





The group of Georgia Forestry Commission personnel, weary from days of fighting mountain fires and the long trip back to Georgia, pose briefly at the Atlanta airport before heading home to their families.

Volunteers Ready For Next Big Fire

For nine days they were cut off from the world without telephones, television or newspapers. During their 12-hour working day, they sweated in heavy protective clothing in muggy 80 degree temperatures and when the late night thermometer dipped to 40, they tried to keep warm in sleeping bags.

There was no soap for bathing away the daily grim and meals often consisted of C-Ration.

Most of the men in the crew of 20, however, vowed that they would do it all over again if called on to volunteer.

They were personnel of the Georgia Forestry Commission who were quickly assembled at the Atlanta Airport on a hot August day and flown to Boise, Idaho to help battle one of the largest forest fires on record in the Western United States.

Their first day of duty included a 9½ mile hike to one of the fire scenes, followed by a mile-long climb virtually straight up a Montana mountain.

Ranger Joe Charles of the Commission's Gilmer County Unit at Ellijay, was crew chief for the Georgians and told of the men working with "a Pulaski and a shovel."

"It was a lot different than the way we fight fires here in Georgia," Charles pointed out. "But, of course, out there the terrain was very steep and there were absolutely no trails...no way you could use machinery."

He said there was very little undergrowth in the mountain region, but the sedge on the ground and heavy moss in the trees contributed to a "very hot fire."

The crew chief said the Georgia firefighters were stationed in a remote section that had been designated a "primitive area" and when they found time to bathe in the middle fork of the Salmon River, they were not allowed to use soap. "Soap would contaminate the water," Charles said. "In fact, we were told to pick up everything man made before we left the area."

The ranger said the only thing that reminded them that they were not completely removed from civilization was the buzzing of helicopters in the sky. "There were so many of them that at times they were like a bunch of giant gnats," he said. On occasion, the copters would fly in hot food and supplies and pick up cards and letters the men had written to their families back in Georgia.

Ranger Joe Charles of the Gilmer County Unit, GFC, shows wife, Maxine, a map detailing the wilderness area the Georgia crew secured during the big fires.



He said the men had no fishing gear, but managed to catch trout out of the river with safety pins fashioned into fish hooks. "They also ran down grouse for a campfire feast and some sighted bear, deer, wild goats and elk while on duty."

Charles said the men in his crew "worked exceptionally hard...they were well trained and well disciplined and there was no griping." He said their morale remained high and "they got along well with U.S. Forest Service people and others we worked with."

In fact, the Georgia Forestry Commission contingent received a very high Fire Crew Performance Rating from the U.S. Forest Service. Charles said they were cited for excellent attitude, physical fitness, production, safety, attention to fire fighting fundamentals and for other reasons.

Actually, the big fire in the West this year was not the first for Crew Chief Charles. It was the fifth time he has answered the call to help fight the stubborn mountain fires. He has served as crew chief in all fires except the first one in 1954.

In 1970, he was in charge of a Georgia crew sent out to Great Falls, Montana and in 1973 he led a group flown to Washington state on a 10-day mop up operation that ended up in Montana. He returned to the West in 1977 for a 13-day tour of duty that took his men from Idaho to California and then back to Idaho.

Charles, a native of Ellijay, has been with the Gilmer County Forestry Unit 25 years. He served two years in the Army and saw action in Korea as an infantryman. He is married to the former Miss Maxine Burnette and they have a son, Alan, and a daughter, Beth.

The ranger admits that danger is always lurking on the fire line, but he said his crew had only one "real close call."

"Back in 1973, our Georgia crew and a California crew were building a fire line on the side of a steep Montana mountain when we got word from an aerial observer that we were completely surrounded by fire," Charles said. "There were five bulldozers in the vicinity that day and they hurriedly leveled a place for helicopters to land and rescue us."

If the call comes, Ranger Joe Charles is ready to go again.

The first two local contests have been held to select girls to compete for the 1980 Miss Georgia Forestry title next June at Jekyll Island. The early pageants were held in Henry and Treutlen Counties.

Miss Lisa Orr, 15-year-old Henry County Senior High School student at McDonough, was selected Miss Henry County Forestry from a field of 26 contestants. She was crowned by Miss Tammy Burleson, the 1978 queen in her county.

The pageant judges selected Miss Sharon Johnson first and Miss Rita Miller second place winners in the contest sponsored by the Henry County Farm Bureau Women. The new Miss Henry County Forestry is the daughter of Mr. and Mrs. William M. Orr.

In the annual pageant in Soperton, Miss Suzanna Smith was crowned Miss Treutlen County Forestry. She was crowned by the former queen, Miss Barbara Brantley.

Second and third place winners were



PAGEANT WINNERS



Misses Gilda Ann Driggers and Michael McLendon and Little Miss Angela Nobles was crowned Miss Pine Seedling.

The new Miss Treutlen Forestry is a 16-year-old high school junior and the daughter of Mr. and Mrs. Winford Smith.

The pageant was sponsored by Epsilon Rho Chapter, Beta Sigma Phi.

The young lady selected from winners in local contests throughout the state will be crowned Miss Georgia Forestry next June at the annual convention of the Georgia Forestry Association on Jekyll Island. She will receive a \$500 scholarship and numerous other prizes.

The current Miss Georgia Forestry is 17-year-old Kathy Padgett of Augusta.

Top photo, Miss Lisa Orr of McDonough wears her crown as the 1980 Miss Henry County Forestry. At left, Miss Suzanna Smith poses following her coronation as Miss Treutlen County for the new year.

Proclamation



WHEREAS: The infestation of the Southern Pine Beetle has reached epidemic proportions in Baldwin, Bibb, Butts, Chattahoochee, Clarke, Coweta, Crawford, DeKalb, Douglas, Grady, Hancock, Harris, Heard, Houston, Jasper, Jones, Lamar, Meriwether, Monroe, Morgan, Muscogee, Pike, Putnam, Stewart, Taylor, Talbot, Troup and Upson Counties; and

WHEREAS: The threat represented by this growing hazard has the potential of seriously affecting one of this State's most vital, economic resources, forest products; and

WHEREAS: The Georgia Forestry Association and the Georgia Forestry Commission are coordinating efforts to implement a cooperative effort designed to initiate a program to remove from the forest and utilize wood which has been affected by the infestation of the Southern Pine Beetle; and

WHEREAS: It is imperative that all Georgians understand, appreciate and participate to the fullest extent possible in the activities of the forest industry in Georgia to combat this very real economic threat to this important industry.

NOW, THEREFORE, PURSUANT TO THE AUTHORITY VESTED IN ME AS GOVERNOR OF THE STATE OF GEORGIA, I DO HEREBY

PROCLAIM & URGE: That all Georgians, particularly forest industry representatives and landowners, take all necessary precautions and recommended remedies and concentrate their efforts to bring under control through recommended salvage operations and practices the very real and serious threat which the infestation of the Southern Pine Beetle represents to our forest resources.

BE IT FURTHER

PROCLAIMED: That the Director of the Georgia Forestry Commission is hereby directed to focus his attention and activities to the hereinabove counties with particular emphasis upon coordinating and prescribing these immediate efforts which are necessary to insure a containment of the infestation and minimization of the economic loss which might otherwise occur if the present disastrous conditions are not brought under control.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the Executive Department to be affixed. This 21st day of November, 1979.


GOVERNOR

T

here was a welcomed lull in the activity of the Southern Pine Beetle in 1978, but the stubborn insect came back in force this year to devastate trees in epidemic proportions in some sections of the state.

Druid Preston, Chief of Forest Management, Georgia Forestry Commission, recently told a group that "in some counties during the summer it was the heaviest beetle infestation I have ever seen."

Ray Shirley, Commission Director, said at a joint meeting of the Commission's Board, U.S. Forest Service representatives and other forestry interests, that he personally flew over Upson, Taylor, Crawford and other Mid-Georgia counties in June and was amazed at the extent of damage caused by the beetle.

He pointed out that the Commission is working with the landowner and industry in every way possible to control the infestation, but new and better methods are urgently needed.

Shirley said forest industries throughout the state have been extremely cooperative in buying beetle-killed timber and as a result many landowners have been able to realize some compensation for trees destroyed by the beetle. He emphasized, however, that only about one-half of the killed trees have been salvaged.

Preston said approximately 309,000 cords - about 48 percent of the beetle-killed timber - have been salvaged.

Commission Entomologist Terry Price said landowners are being advised that the recommended control calls for the immediate removal of all infested trees, as well as the clearing of all trees in a buffer zone 40 to 100 feet surrounding the killed timber.

As scientists continue to search for more effective methods of dealing with the problem, H.E. Williams of Woodbine, chairman of the Commission's board, declared that the first priority must be the salvage of the dead and dying trees now in the forests of Georgia. Board Member Jim Gillis, Jr., of Soper-ton, agreed with Williams but emphasized that "the final answer must come from research."

Robert C. Thatcher of Pineville, La., manager of the Southern Pine Beetle

Immediately following the issuing of the Proclamation by Governor George Busbee, the Georgia Forestry Association in cooperation with the Georgia Forestry Commission, called a meeting of wood industry personnel to discuss the problem of salvaging beetle killed pine.

As a result of this meeting, Commission District Foresters in Newnan, Griffin, Columbus, Americus, Washington, Athens, Macon and Milledgeville were named chairmen of Forestry Commission District Committees to be made up of personnel from city, county, state and federal agencies, forest consultants, wood industry, Farm Bureau, landowners and others interested in stopping the Southern Pine Beetle, to look into the coordination of salvage efforts in these areas. Industry pledged their cooperation in the effort. Both Bill Barton, President, Georgia Forestry Association, and Ray Shirley, Director, Georgia Forestry Commission, stated the beetle must be controlled during the next four months before they become active again in warm weather.

Program, U.S. Forest Service, said several important advances have been made in the detection and suppression of the

SALVAGE OF IN W

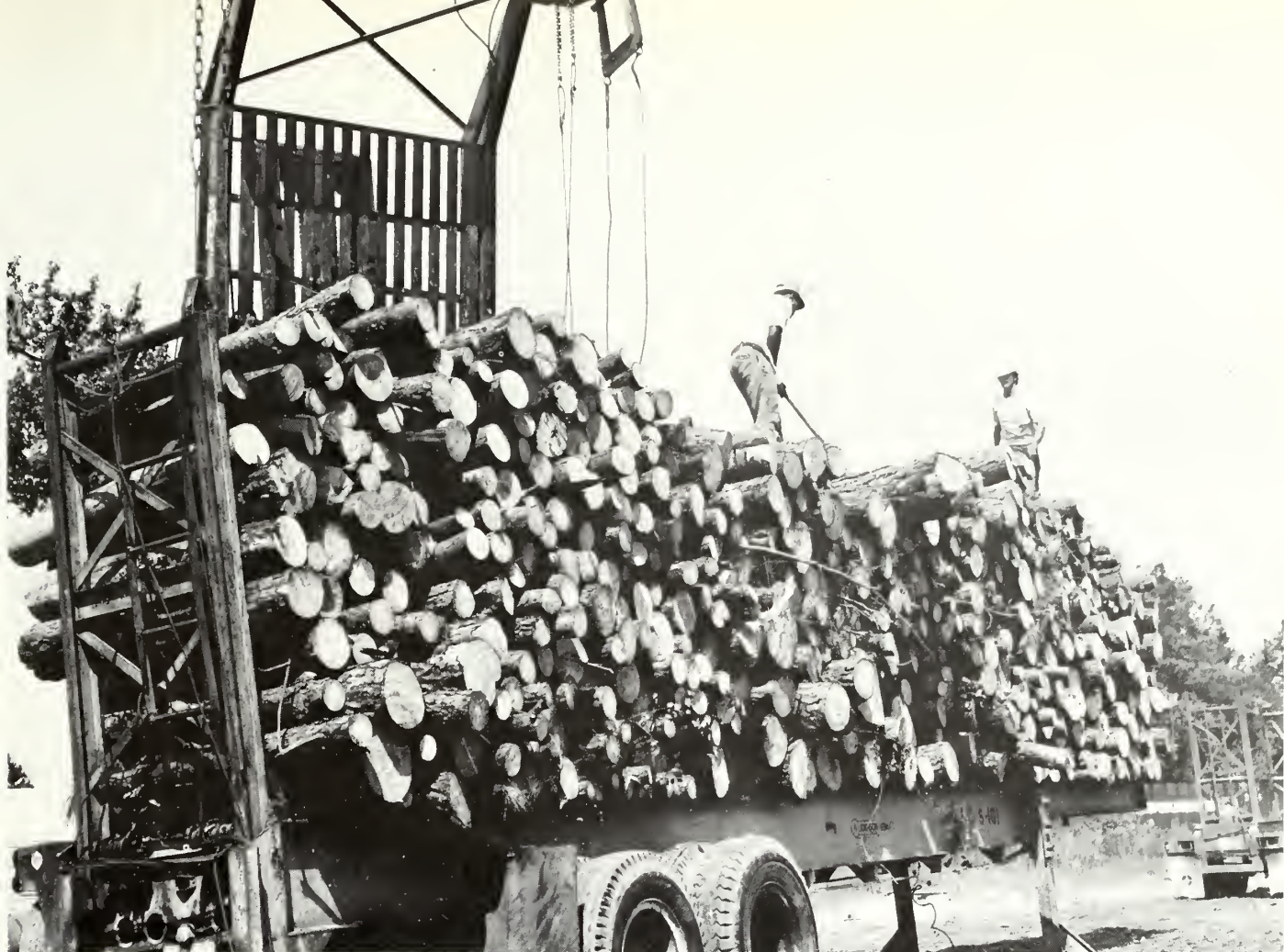
insect, but further study is necessary before broad field application can be realized.

In looking ahead to 1980, Price said there will be substantial beetle broods overwintering to cause continued mortality next spring. He said landowners are being advised to work this winter while beetles are dormant in clearing out all known spots of infestation.

Ira Tiller, procurement forester with the Wilkes County office of Southland Timber Company, noted that cold weather has considerably slowed the advance of the beetle in the counties in which he serves. For a time, he said he had difficulty in keeping up with the rush of landowners who called for salvage cutting.

"We now feel we are gaining on the





Workmen in Washington load pulpwood which has been salvaged from beetle-killed trees in the Wilkes County area. Many mills and timber companies are cooperating in buying wood hit by the beetles.

RATIONS CONTINUE E OF BEETLE INVASION

situation," Tiller said, "but we still have plenty to do."

Tiller's company maintains 14 regional offices and contracts wood harvesting on the lands of some of the state's largest pulp and paper mills. The company also buys timber from private landowners.

"In fact," said the forester, "some 40 percent of our volume comes from small landowners who have less than 200 acres."

Personnel of the Commission's Forest Management Department said many other companies are also working closely with timberland owners in the salvage of killed trees.

During the height of the Southern Pine Beetle invasion of Georgia forests this summer, the Commission found the

pest was killing trees in 79 counties and the infestation reached epidemic stages in 24 counties.

The Commission makes periodic flights over every section of the state to keep abreast of insect and disease activities. When significant spots of infesta-

We often hear that southern pine beetle-killed trees cannot be satisfactorily used for pulp or lumber. This is not true! Let's examine the facts. Research results from the USDA Expanded Southern Pine Beetle Research and Applications Program shows that much of the wood is sound enough for various products...in Texas, research shows that beetle-killed pines dead up to one year had nearly as much pulp yield as green-

tion are found, the landowner is contacted by Commission personnel and advised of measures that should be taken to help prevent the damage from spreading.

Although winter months will check the activity of the deadly beetle, it will not mark the end of the problem with the stubborn insect. The Georgia Forestry Commission will continue to maintain a constant vigil across the state to keep trace of its activity.

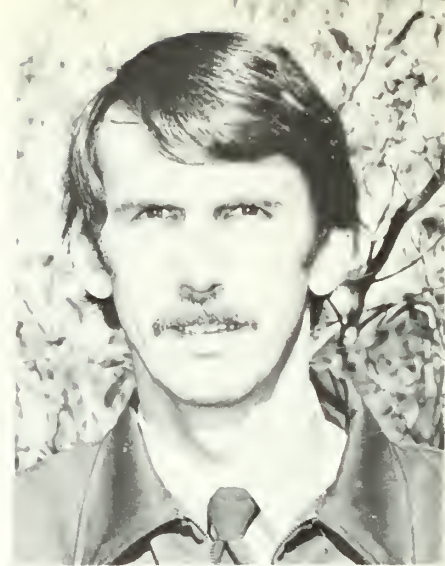
All landowners and others who have problems concerning the Southern Pine Beetle - or any other forest pest or disease - are urged to contact the nearest district office or county unit of the Commission.

U.S. Forest Service Fact Sheet

cut pines; in Virginia, the time was closer to two years...left dead in the forest six months or longer, wood in beetle-killed pines deteriorates and produces paper with lower tensile strength than that from unattacked pines. Not much tearing strength is lost for trees standing dead up to one year, but is after that...average volume for plywood veneer from beetle kills is not significantly lower than that from green trees.



Ray Shirley, Director of the Georgia Forestry Commission, right, receives the President's Achievement Award from the Georgia Forestry Association. The high award was announced at the association's annual convention, but Shirley was unable to attend due to illness. It is presented here on behalf of the GFA by Cash Harper, Assistant to the Director, Georgia Forestry Commission.



Parrish To Head Air Operations

Forester Phil Parrish, formerly assigned to the Commission's District 17 as a farm forester and helicopter pilot, has been named Air Operations Specialist with offices at the Macon Hangar.

In announcing the assignment, James C. Turner, Jr., Chief of the Forest Protection Department, said Parrish will take over all tasks and assume areas of responsibilities involving aviation that were formerly performed by the late Hank Slentz and currently performed by Curtis Barnes and Don Freyer.

Turner said the shift in responsibilities will free Barnes to devote full attention to other areas of fire control and Freyer will have more time to attend to the RFD Program.

Turner said Parrish is highly qualified in all phases of air operations through both military and civilian experience.

State's Christmas Tree Growers See Encouraging Future

Georgians this year will buy more than a million Christmas trees, but only 15 percent will be grown in the state.

The future of the Christmas tree industry in Georgia looks bright, however, and it is predicted that most residents could eventually enjoy trees grown within the state.

The Georgia Forestry Commission each year cooperates with the Georgia Christmas Tree Growers Association in compiling a list of growers. Some allow buyers to come to the tree farm and select and cut their own tree.

This sales method provides the buyer with the freshest possible tree and at the same time provides a family adventure that could become an annual tradition.

Some Georgia growers also offer live trees with complete root system protected by burlap for replanting on the lawn after the Christmas holidays.

Directories providing a list of growers featuring tips on the maintenance of Christmas trees are available at all Georgia Forestry Commission offices.



A portrait of Dr. Charles Holmes Herty, who revolutionized the naval stores industry through his turn-of-the-century experiments on what is now the Georgia Southern College campus, has been donated to the college by his daughter. The large framed portrait will hang in the college's Herty Building adjacent to the Herty Museum's collection of turpentine artifacts. The portrait, which measured 28 x 32½ inches including the gilded frame, was donated by Herty's daughter, Mrs. H. Philip Minis of Princeton, N.J. He conducted his turpentine experiments in 1901 on what are now the college grounds. The experiments revolutionized the naval stores industry.

WOOD PROJECTS SET

Secretary of Agriculture Bob Bergland has announced plans to expand to six New England states a pilot fuel wood project which may help reduce home heating costs this winter.

In remarks to the Society of American Foresters, Bergland said the project, part of President Carter's energy program, could result in savings of from \$11.2 million to \$14.5 million for New England residents.

Bergland said every cord of fuel wood used in airtight stoves and furnaces under the project will save three barrels of oil.

HEATING WITH WOOD



Forester Doug Joiner of Union Camp did considerable research before installing a money-saving wood fuel system in his home. Here is his story.



FORESTER SAVES \$700 ON WINTER HEAT COSTS

BY DOUG JOINER

I had expected some real savings when I got my new woodburning heater but my wildest imagination didn't come up to \$700 savings in one winter.

It all started a couple of years ago when many of us in total electric homes started getting winter bills of \$200-300 per month. I knew I couldn't afford that kind of heating bill. Being a forester, I knew I could cut enough wood to heat my house entirely.

A Department of Agriculture bulletin I ordered showed the relative value of heating with various fuels. By converting KWH's to "Therms" and doing a few more computations, I learned that 25 pounds of wood would furnish as much heat as about \$2.50 worth of electricity (in a woodburning heater of about 65 percent efficiency).

This meant that a heaping pickup load of oak wood should give about as much heat as \$250 worth of electricity with the right kind of heater.

I priced wood heaters and ordered a few books on wood heating. The shocking facts learned here were that a common fireplace is only 12-15 percent efficient compared to 25-30 percent efficiency for cheap wood heaters and 60-70 percent for good air tight wood heaters. After carefully looking at good heaters, I came to the conclusion that American made heaters of around \$300 compared favorably with Scandinavian heaters costing \$500. Tests have shown many of the better built American heaters were just as efficient.

The subsequent decision was tough because I hated to give up my fireplace. There aren't too many top efficiency heaters that can be used like an open fireplace for a few hours enjoyment in the evenings. The downdraft heaters and side loading cabinet heaters were out. I came up with an air tight heater weighing 460 pounds and costing about \$500. This heater was lined with firebrick, would accommodate 20 inch wood (across) like a fireplace and was guaranteed to last the lifetime of the original owner. I was a little concerned about heating 2,600 square feet on two levels without a blower but decided to give it a try.

The next step was to cut and split some oak wood to season. Green wood may burn OK in fireplaces but at least 60 percent of the wood for wood heaters should be dry. Split oak, if ricked properly, will season adequately if cut in June or July.

I cut and seasoned four pickup loads of oak and used three more loads of green wood cut during the fall and winter. Some pine cut in "stovewood lengths", 8-10 inches, dried and split in small pieces of one to two inch thickness, was necessary for good fire starting.

Hooking the wood heater to a fireplace is not an easy job but not too tough if you know how to do it. I used sheet metal to cover the fireplace but some of the literature recommended asbestos mill board or both. It is very important to hook up the heater properly, keeping both heater and stovepipe far enough away from walls, floors and other combustible materials. Also a good floorplate of asbestos and sheet metal must be put under the heater. No one should attempt to install a heater without reading up on these things because an improperly installed heater can set your house on fire.

Are wood heaters for everybody? Probably not! In the Manchester Area, a light pickup load of wood delivered to your door cost \$25-30 last year. This is the equivalent of \$175-200 worth of electric heat if burned in a good wood heater.

I could not have heated my house entirely with wood without good insulation. This is the best money one can spend in our age of high energy costs.

The kind of wood needed for heating is readily available in our area. Much small oak wood is wasted in modern timber harvesting operations or left damaged on the land. Such waste wood can often be bought on the site for very little money. Some of the timber companies will allow cutting at little or no cost in areas covered by scrub oak if proper permission is obtained.

Wood energy can be the answer for many people who are willing and able to go to some extra trouble to save money.

FEATURE PAGE

GEORGIA FORESTRY

When McIntosh County Forest Ranger Preston Rozier learned that Oldnor Island was ablaze, he knew that he had to take some swift and desperate action!

The tower at Townsend reported a great column of smoke rising from the island some nine miles off the Georgia coast and the ranger and three patrolmen quickly armed themselves with fire rakes, flaps, back pumps and axes.

The foursome headed for the coast with no idea how they would get across nine miles of water to battle the fire that was destroying a beautiful stand of pines.

"When we got to the coast...to Shellman Bluff," the ranger said, "we had a streak of luck...I ran into an old friend who is with the U.S. Fish and Wildlife Service and he had a boat."

The Georgia Forestry Commission personnel and the boat crew loaded into

McINTOSH RANGER HAS UNIQUE RESPONSIBILITY OF GUARDING PINE AND PALM STUDED ISLANDS AGAINST FIRE

the craft and took off for the burning island.

"We had to move fast," Rozier said, "because the tide was going out."

When the boat arrived at the 550-acre island, Rozier and Patrolmen Hayden Davis, J.S. Rozier and Danny Holmes



surveyed the situation and quickly went to work to make a wide firebreak with their hand tools.

"We never worked harder in all our lives," Rozier said, "and when the fire hit the break it showered fire on the other side."

He said the break, however, checked the momentum and they quickly extinguished the smaller blazes.

After it was all over, it was determined that lightning had caused the fire.

Suppressing a fire and saving hundreds of acres of valuable timber is not a unique experience for Commission personnel, but using hand tools to do the job on a remote island is not a challenge that faces most of the Commission's rangers and their crews.

The lady who owns the uninhabited island said she was very thankful for the way in which the ranger and his fellow firefighters responded to the difficult fire and she wrote a letter to Commission Director Ray Shirley commending their efforts.

Rozier has been fighting fires for the Commission for more than 30 years, but he said the island fire on that hot summer day in 1978 stands out in his memory as the most unusual. Oldnor is one of several in a chain of small coastal islands under his responsibility.

His favorite, however, is a 50-acre plot of pine and hardwood called Rozier's Island.

Ranger Rozier has owned it for 25 years.

Preston Rozier inspects some of the tall timber on one of the islands under the protection of the Commission's McIntosh County Forestry Unit.





CORK OAK IS STATE CHAMPION

A huge cork oak (*Quercus suber*) at Georgia Veterans State Park in Crisp County has been declared the new State Champion Tree for that particular species.

John D. Woodward of the Holt Walton Experimental Forest, U.S. Forest Service, Vienna, was the nominator of the big tree. His measurements show the circumference at four feet above ground level and below branch swell is ten feet and two inches.

Total vertical height is 47 feet and average diameter spread of crown is 65 feet.

Woodward said the oak, located near the traffic circle in the park, is in good physical condition.

Georgia Veterans Memorial State Park is located nine miles west of Cordele on U.S. Highway 280.

Photos by Wayne Adkins, U. S. Forest Service, Macon.



Personnel and friends of the Georgia Forestry Commission throughout the state were saddened October 22 to learn of the sudden death of Henry "Hank" Slentz, one of the Commission's veteran aircraft pilots.

Hank, who had been with the Commission 27 years, died at his home late Sunday, October 21, and news of his death reached the Commission the following morning. Funeral services were held two days later at Memorial Chapel in Macon and burial was in Middle Georgia Memory Gardens.

Hank was a native of Van Wert, Ohio, and was educated in Taft, California. He served five years with the Army Air Corps with rank of Major during World War II. His career with the Commission began in Atlanta in the fall of 1952 and he was transferred to Macon when the headquarters was moved to the Middle Georgia city.

Serving as senior pilot for the Commission, Hank was also an instructor and taught several others who became pilots in the organization.

Survivors include his wife, Mrs. Carol Neal Slentz of Macon; two sons, Allen E. Slentz and Richard M. Lynch, both of Macon; two daughters, Mrs. Laraine Toby of Longmont, Colorado and Miss Mary Frances Slentz of Macon; his mother, Mrs. Gladys Slentz of Taft, California; three brothers and five sisters.

He was a member of Cross Keys Baptist Church in Macon.

LETTERS

I am informed that it was largely through the effort, interest and cooperative spirit of Forest Patrolman Wilbur Copeland of the Ware-Pierce Forestry Unit, that we were finally able to gain control of the fire which enveloped the flat car of West Coast lumber which was found on fire in Train...Even though we had the support of five fire departments, the situation was such that satisfactory access could not be achieved and it was through the ingenuity and perspiration of Mr. Copeland that the load of bundled lumber was pulled from the car so that fire fighting personnel could extinguish the fire.

Please express to Mr. Copeland our sincere appreciation for his cooperative endeavor which enabled us to move the car clear of the main line and then extinguish the fire.

H. J. Pigge, Superintendent
Seaboard Coast Line Railroad

Many thanks for allowing Chuck Place to help us with the environmental education workshop at Rock Eagle 4-H Center. Chuck did his usual good job of instructing and representing the Commission.

The workshop was successful, and the 36 participants overall should contribute significantly to environmental education in Georgia and other areas of the South.

Thanks again for your fine cooperation.

Stanford M. Adams, Director
Office of Information
USDA, Forest Service
Atlanta, Georgia

The Fort Valley State College Youth Conservation Corps is greatly indebted to the Georgia Forestry Commission for its support. Cliff Hargrove has led an excellent forest investigation session and also spent a day working with us on tree identification. We appreciate his time spent in the planning of the session as well as his leadership.

We also have worked closely with John Branan on several work projects at Arrowhead Seed Orchard and Morgan Nursery. The work situations were always well organized and an excellent work environment made these work projects among the enrollees favorites.

We appreciate the help Chuck Place has offered in facilitating these activities. You have a very impressive staff and we have been privileged in working with them.

Cathy Belew
M. C. Blount
Fort Valley State College

We want to commend the Laurens County Forestry Unit for so quickly answering our call when our home was burning. Had it not been for these men, we would not have a roof over our heads. We are so deeply grateful!

May God watch over your men and keep them safe from harm as they so willingly do their good deeds.

The E. H. Floyd Family
Route 5
Dublin, Georgia

I am writing in regard to the quick actions of three of your employees who extinguished a fire in a mobile home in our county recently. Their actions saved the residents of the mobile home extensive loss from fire, smoke, heat and water damage.

The Dawson County Sheriff's Department responded to the fire by dispatching two fire knockers, both of which were built by your personnel. When Dawson County Volunteer Firemen arrived, they found that the fire on the cooking stove had been brought under control by Forest Ranger Jerry Barron and Patrolmen Randy Chester and Phillip Talley.

We feel very fortunate to have these three men, along with the other personnel you have, working in our county. My personal belief is that your department uses the taxpayer's money to the fullest. Your department is always willing to help in every possible way and we know that we can count on the Georgia Forestry Commission to render their services whenever the situation warrants.

Randall Townley, Chief
Dawson County Volunteer
Fire Department
Dawsonville, Georgia

This is to express my appreciation to you for sending to our library the quarterly publication Georgia Forestry. We have some students in our school who are planning on studying forestry and this periodical is very much looked forward to in our library.

We look forward to Georgia Forestry this year. Thank you.

Kay C. Wideman (Mrs. Brad)
Librarian, Westbrook School
Dixie, Georgia

As a reader of a very interesting article about the Miss Georgia Forestry Pageant, I enjoyed the article very much along with other classmates. We think that the article will encourage more young ladies to enter the contest in the future. And for Miss Kathy Padgett, my classmates and I hope that she has a nice year as Miss Georgia Forestry of 1979.

Althea Callaway
Route 2, Box 5-A
Union Point, Georgia

Just a note to thank you for participating in our recent triennial meeting in Atlanta. We had a good workshop, and your presentation "Regeneration Plan For The South" was well received. The southern I&E Chiefs are to be commended for the thoroughness of this plan, and you for the fine presentation.

C. Nelson Brightwell, Head
Cooperative Extension Service
University of Georgia

LOGGING THE FORESTERS



MILLIANS



HOLT



TOWNSEND



WILLIAMS



BRANTLEY

W.D. MILLIANS, JR., District Forester, Georgia Forestry Commission, Milledgeville, has been elected to the office of Secretary-Treasurer of the Southeastern Section, Society of American Foresters...STEPHEN JACK HOLT, a native of Jackson, Tenn., is the new Commission forester assigned to Macon, Marion, Schley and Taylor Counties...WILLIAM TOWNSEND, patrolman with the Richmond County Unit for seven years, has been named ranger of the Burke County Unit. He is a graduate of Butler High School in Augusta...CHARLES WILLIAMS, a graduate of Jenkins High School who came with the Commission as a patrolman in 1970, is now ranger of the Jenkins County Unit...ANDREW BRANTLEY, a native of Swainsboro who came with the Commission in 1970 as a patrolman in Emanuel County, has been assigned ranger of the Candler County Unit...NATHAN A. BYRD, a multiple use specialist, U.S. Forest Service, Tucker, has been named a Fellow of the Soil Conservation Society of America...THOMAS C. WISEMAN has been appointed assistant to the executive vice president of Forest Farmers Association and assistant editor of Forest Farmer magazine.



AWARDS



1

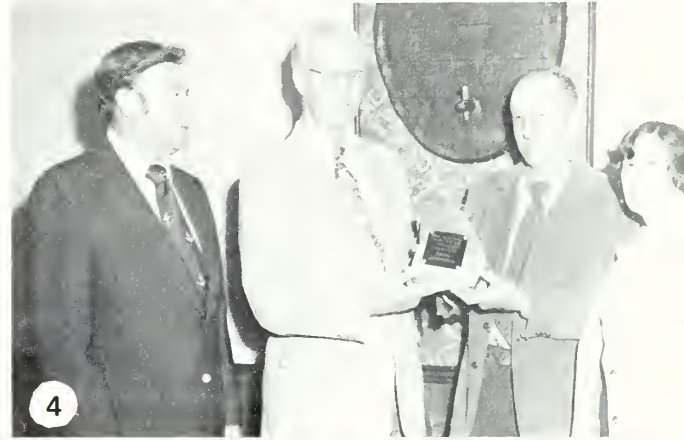


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3

(1) Veteran Forester Frank Pullen of the Commission's Columbus District admires a piece of luggage presented to him during a recent retirement luncheon given in his honor by fellow personnel. He served the GFC 40 years. (2) Patrolman Bill Williamson of Gray, right, receives a Georgia Forestry Commission award of appreciation from Macon District Forester Lynn Hooven. The retiring patrolman had 28 years service. (3) H.P. Varnadore, Assistant Shop Supervisor, Macon, served the Commission 26 years and is shown here examining luggage presented to him during a retirement dinner. (4) District Ranger J. Pendley Holmes, Rome, third from left, is presented an award for 34 years of faithful service by George Collier, Forestry Commission Field Supervisor, during recent retirement ceremonies. Looking on are the ranger's wife and Rome District Forester Tommy Mauldin. (5) Three District Foresters receive Commission Safe Driving Awards on behalf of the personnel of their districts at the recent South Georgia Training Session at Norman Park. Left to right are Joey Hall, Americus; Rowe Wall, Columbus; and Jerry Lanier, Statesboro. (6) Accepting Safe Driving Awards for their districts and the Atlanta office are, left to right, District Forester Tommy Mauldin, Rome; District Forester Frank Eadie, Canton; Orene Duvall, Atlanta office; and District Forester Preston Fulmer, Newnan. The awards were presented at the North Georgia Training Session at the FFA Camp near Covington. (7) These youngsters are members of the Chatsworth Smokey Bear Reading Club and they are shown here with Smokey during graduation exercises.



4



5



6



7

Georgia FORESTRY

DECEMBER, 1979

SECOND CLASS POSTAGE
PAID AT ROME, GEORGIA

WISHING YOU
AND YOURS
A JOYOUS

CHRISTMAS

AND A HAPPY
NEW YEAR

RAY SHIRLEY AND THE STAFF
GEORGIA FORESTRY COMMISSION



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Georgia

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North Georgia
Rt. 7, Box 83, Canton 30114

Atlanta - 7 Martin Luther King, Jr. Dr.
Room 545, Atlanta 30334

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Hwy. 49, Milledgeville 31061

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Cruising The News

LEGISLATION OFFERS BALANCE

Once the ball gets rolling, it is usually harder to stop. That simple fact often forms the foundation for much of the opposition preservationists and environmentalists have to so-called progress.

Yet, as in ecology, there must be a balance, a point where "need" square with "consequence."

This is true in the search for alternative energy sources.

Sen. Herman Talmadge, speaking at Georgia Tech recently, announced a major legislative push to develop agricultural energy and wood fuels.

Talmadge said new and increased development of agricultural and wood fuels from the state's fields and forests can give Georgia a "new cash crop," promote industrial expansion and rural development, create new jobs and increase incomes where they are most needed.

At the heart of Talmadge's proposed bill is the accelerated use of Georgia's forests as a source of energy.

Opposition from conservationists could be

expected, and justifiably so. It is reasonable to assume that once the state's forests become viewed as energy sources, there will be wholesale timber cutting.

But Talmadge's proposal offers the balancing feature that is necessary to assure the preservation of the state's woodlands while offering new energy, employment and economic opportunities.

"By using only the twigs, bark and other forest wastes, we could supply as much as 25 percent of (Georgia's) current energy needs now purchased at a cost of about \$750 million annually," Talmadge suggested.

Talmadge's proposal may sound futuristic to some, but the state of Georgia has already taken a leadership role in wood energy technology. The state Forestry Commission was allocated \$500,000 last year by the Georgia Legislature to conduct a series of wood energy studies in cooperation with Georgia Tech.

(From the Summerville News)

SOUTH INCREASES PRODUCTION

The South, already producer of 30 percent of the nation's wood, will be producing 60 percent by the year 2,000.

During the next two decades, more than two-thirds of the capital investment made by the forest products industry will be made in the South.

These are not idle predictions say experts in the forest industry.

"The South will be called on to almost double its wood products by 2,000," said Bob Slocum, manager of conservation forestry for the Southern Forestry Institute.

Demand for wood is shifting to the South

from the West, where the supply of commercial timberland is shrinking, Slocum said.

Out West, where the vast majority of available timberland is controlled by the government, increasing amounts of land are being set aside for national parks and wilderness areas.

In the South, 73 percent of commercial timberland is privately owned.

The South, which the Forestry Institute defines as a 13-state area, already produces 60 percent of the nation's pulpwood and 50 percent of its hardwood timber.

(From the Atlanta Journal)

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ON THE COVER: Ray Shirley, Director of the Georgia Forestry Commission, congratulates Columbus Mayor Harry Jackson (with sign) as that city is again designated TREE CITY USA. Shown are, left to right, Hoyt Adams, landowner, City Council Members Edna Kendrick and James Jernigan, Shirley, Council Members Gerald Saunders and Michael Henry, Jackson, Councilman Jack Land and Richard Saunders, landowner. See story page 11.

FORESTERS BRIEFED ON BEETLE RESEARCH

Entomologists of the Georgia Forestry Commission have completed a series of training sessions for industrial foresters throughout the state on current research aimed at curbing the spread of the destructive Southern Pine Beetle.

Entomologist Terry Price said salvage of insect-killed trees continues to be the recommended control procedure, with emphasis on the importance of cutting a buffer zone around the infested areas.

Price said before a spot of infestation can be effectively controlled by salvage, it must first be analyzed by the forester. Basic information was distributed at the sessions to aid the forester in making control decisions.

The foresters were also brought up to date on research in the area of beetle population dynamics.

Price, who was aided by Entomologist Kerry Thomas in the training sessions, said the Commission conducted aerial surveys in February to gain a better prediction of the beetle activity in the spring. He said the aerial inspection extended 100 percent over all infested counties and findings are invaluable in determining the severity of beetle damage.

Meantime, a report recently released on the 1979 salvage of timber killed by the Southern Pine Beetle showed that October was the peak month in the operations.

It revealed that 127,497 cords were salvaged in October, followed by 118,700 in December. Only 89 cords were salvaged in January of last year, but the volume had exceeded 85,000 cords by late summer. The total for the year was 542,062 cords.

The report, compiled by Commission personnel, listed the total volume killed - including red, fading and green topped trees - at 1,060,125 cords, of which 518,063 cords were not salvaged.

Total value of timber killed during the year was set at \$18,022,125 and value of timber salvaged was \$5,420,062. Values were based on \$17.00 per cord for green stumpage and \$10.00 for insect-killed wood, which represented the state average in the beetle infested area.

The greatest volume of timber salvaged during the past year was in Putnam County where 91,445 cords were cut and marketed. Counties salvaging more than 30,000 cords were Upson, Crawford and Jasper.

Foresters check beetle infested trees and workmen salvage timber in pulpwood and logging operations.



FIRE PREVENTION PROGRAM EXPANDED

The Forest Protection Department of the Georgia Forestry Commission has stepped up its program to remind citizens throughout the state of the dangers and high costs of wildfires.

Working through the Commission's Education Department, posters and leaflets have been produced and distributed to every forestry unit and district office in the state. Frequent news releases have been prepared and every weekly and daily newspaper has been contacted by local rangers. Radio and television stations are also aiding in the campaign to warn the public.

Although the public is requested to report all wildfires to their local forestry unit as soon as they are spotted, the rangers are also asking persons to call in when conducting controlled burning on their woodlands.

They point out that it is very costly to move crawler tractors mounted on heavy transport trucks to an area only to find that the smoke came from a brush or trash fire that was under supervision.

Although this is a critical time when energy is being conserved, the forestry firefighters must respond to all fires unless notification is given that they are controlled burns. They point out that it is well worth the expense when fire needs attention and in some instances thousands of valuable acres of timber are saved, but when it turns out to be a fire under supervision, the cost becomes prohibitive.

A forest fire summary for calendar year 1979 reveals that debris fires, which occurred 3,526 times throughout the state and burned 13,786 acres, was the major cause of wildfire during the year.

Jim Turner, Chief of the Commission's Forest Protection Department, said fires from all causes last year totaled 9,468 and burned 37,733 acres, an average of 3.99 acres per fire.

The annual statewide summary showed incendiary fires ranked second last year with 2,287 fires destroying 12,931 acres. Other causes were smoking, with 972 fires burning 3,149 acres; railroad, 800 fires burning 2,402 acres; children, 748 fires burning 1,878 acres; miscellaneous, 596 fires burning 984 acres; equipment, 394 fires burning 1,531 acres; lightning, 88 fires burning 843 acres; and campfires, 57 fires burning 225 acres.

Forest Ranger Preston H. Rozier of the Commission's McIntosh County Unit, tacks up a poster to remind citizens in his area that false alarms waste fuel and to urge them to notify the forestry unit before burning off fields or setting fire to trash.





Six members of Explorer Post 99 pose on a crawler tractor and transport truck, two of the pieces of equipment they are becoming familiar with in their training at the Commission's

Coweta County Forestry Unit. Shown with the boys are Ranger Bill Woodyard, left, and Patrolman Lynn McElroy.

YOUNG EXPLORERS RECEIVE FORESTRY TRAINING

Patrolman Lynn McElroy of the Commission's Coweta County Unit said he had "no idea what forestry was all about" back when he was in school.

Now, however, he has the opportunity to help acquaint school boys and girls of the Newnan area with some practical aspects of forestry and he finds it challenging and rewarding.

McElroy heard about a career orientation program for youth last year and asked Ranger Bill Woodyard if he thought their unit should sponsor an explorer post.

Woodyard immediately bought the idea and when the Coweta School System ran a computer survey and found 15 students were interested in pursuing forestry as a career, Explorer Post 99 was founded.

In sponsoring the post, Woodyard and

his unit personnel agreed to teach the 13 boys and two girls tree identification, tree planting methods, use of fire tower instruments, fire fighting techniques, control burning, functions of heavy machinery and other phases of forestry and forest protection.

The Explorers meet each Monday night at the forestry unit office. They are shown forestry training films and are conducted on frequent field trips. Much of the training is carried out on the unit's five-acre grounds.

Members of the post, which was founded last October, is currently cutting and selling firewood as a money making project. The proceeds will be used to buy uniforms. A local landowner has made his woodlands available to the young woodcutters and the unit's personnel give

instructions and set up strict rules in the use of chain saws. The youths are insured under a Boy Scouts of America plan.

The group has been treated to a cook-out at the unit and other outings are planned for the summer. They also plan to organize a softball team and enter a float in the homecoming parade.

Ranger Woodyard serves as committee chairman for the explorer post and McElroy is post advisor. Other committee members are Forester Walker Rivers and Patrolman Mike Dial.

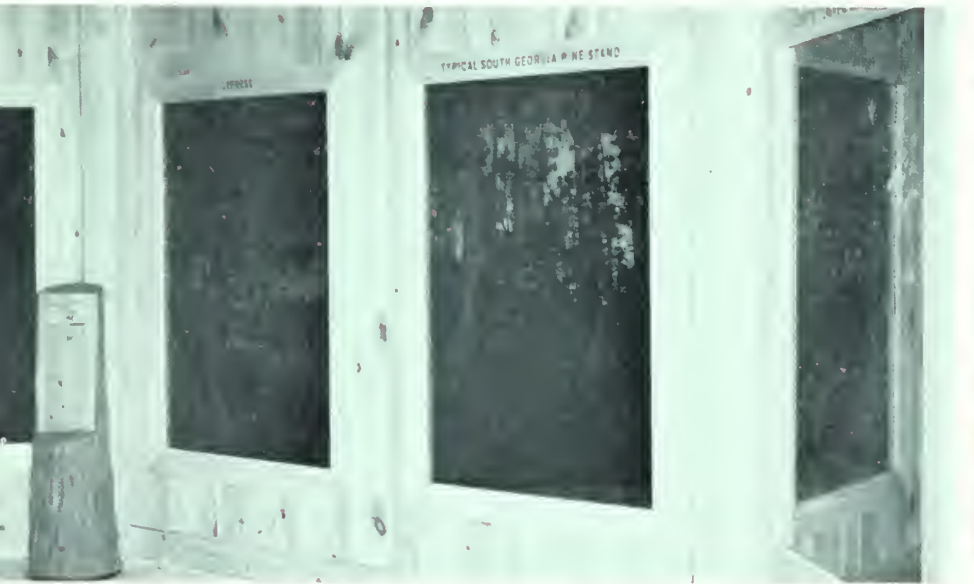
The Commission personnel said the boys and girls are all enthusiastic in their participation in Explorer Post 99 activities and it is believed that some of the members will go on to become professional foresters as a result of the early training.

SOUTHERN FOREST WORLD

Several dramatic exhibits have been completed on the ground floor of Southern Forest World as officials plan for an official dedication of the center.

Although the open house is set for May 6 to coincide with the annual Ware Forest Festival, the date is tentative and a final decision will be made by the board of directors. All the exhibits planned for the second floor of the building will not be in place at that time.

Southern Forest World, a unique educational showcase of the South's working forests, is located on the grounds of the Okefenokee Heritage Center in Waycross, Georgia. It is housed in a \$200,000 building especially designed to accommodate exhibits and educational programs that vividly illustrate the wise uses of forests.



Above, enlarged color transparencies of Southern forests form a beautiful circular display in the central section of the building. Top, right, a "talking tree" provides fascinating information as visitors pause just inside the main entrance. At right, a huge pine tree - 38 feet tall and five feet in diameter - extends from the ground floor to the skylight. The second floor is reached through a spiral stairway inside the big tree, with miniature displays dealing with the anatomy of a tree along the way.

RESEARCH FINDINGS PUBLISHED

Several new research reports have been published in recent months by the Research Division, Georgia Forestry Commission, and free copies are available to interested individuals, industries and organizations.

John Mixon, Chief of the division, said the reports were authored by Commission personnel, U. S. Forest Service scientists, university professors and others and reveal the latest research findings in several areas of forestry.

A Seed Orchard for Rust Resistant Pines - Progress and Promise, was written by H. E. Powers, Jr., John F. Kraus and H. L. Duncan, all with the U. S. Forest Service. The report predicts a dramatic decrease in infection levels when seedlings are produced from an experimental 60-acre seed orchard.

James D. Strange, USDA Forest Service (retired), and Albert A. Montgomery, a researcher at Georgia State University, are authors of Advantages of Improved Forest Management for the Timberland Owner. They said the purpose of the study is to present a method by which the owner and his advising forester may evaluate the economic advantages of investments in improved forest management. Several tables and worksheets are included.

Seed Collection From Loblolly Pine, by Jim Wynens, Chief of the Commission's Reforestation Department, and Terrell Brooks, Assistant Chief, deals mainly with a fabric net method of gathering seed from the seed orchards. The net method originated with the department and its advantages are outlined in the report.

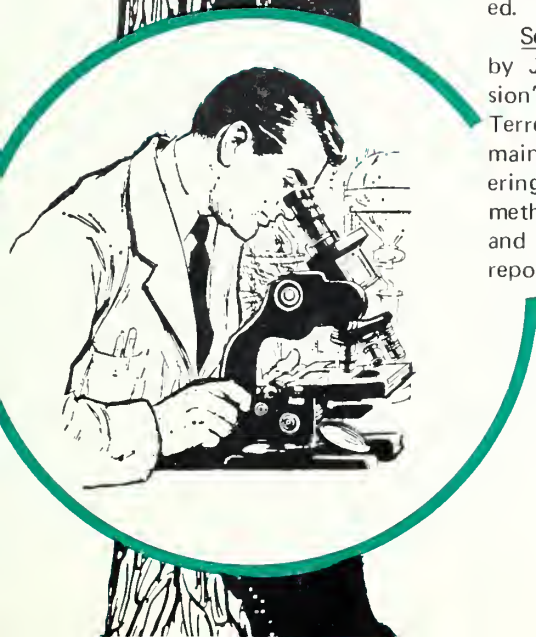
Whole Tree Chipping - A Forest Management Tool, by Druid Preston, Chief of the Commission's Forest Management Department, and Paul Butts, wood utilization specialist with the department, is a discussion on the many advantages - as well as some disadvantages - of the use of modern equipment that reduces trees to chips at the harvest site.

The Georgia Chapter, Society of American Foresters, compiled material for a comprehensive report entitled Silvicultural Guidelines for Forest Owners in Georgia. The report was written and edited by a committee composed of E. V. Brender, chairman, W. H. McComb and Vaughn H. Hofeldt. Several other members of the Chapter contributed material.

Wood As A Household Energy Source In Georgia is another report recently off the press. It was prepared by James E. Morrow, research associate of Georgia State University, and deals with a survey to determine the extent of Georgians now using wood for fuel.

Wood Energy - Research and Development, a brochure dealing with wood burning systems, wood resources, harvesting and owner benefits, is also available. Included is a table providing cost comparisons of wood chips, natural gas, fuel oil, electricity and propane gas.

Persons interested in any of the publications should write the Research Division, Georgia Forestry Commission, Box 819, Macon, Georgia 31202, or telephone (912) 744-3353.



ONE GEORGIA HOUSEHOLD IN FOUR USING FIREWOOD



The Georgia Forestry Commission's promotion of wood as a fuel for residential heating has been highly successful, according to a survey of households throughout the state.

The report showed that approximately 375,000 Georgia homes this winter used wood as a primary or supplemental source of heat.

Ray Shirley, Commission Director, said the figure represents one in four households in the state and most of the homes use wood for heating purposes. He said less than five percent use wood for cooking, water heating and other purposes.

The Commission last year launched a statewide tour of two mobile display units which features modern wood stoves and furnaces and information pertaining to the installation and maintenance of the equipment. Thousands of Georgians visited the exhibit at county and regional fairs, in shopping centers, city parks and other locations. The tour is continuing this year.

Shirley said the findings are the result of a survey conducted by the Commission and the Contract Research Division, College of Business Administration, Georgia State University. He said the statistically valid sampling also showed that among wood using homes, the most widely used type of equipment is the fireplace, with the air tight efficient wood heater increasing annually.

The comprehensive survey shows that households using wood for heating burn 800,000 cords annually, or just over two cords per family.

John Mixon, chief of the Commission's Research Department, said the relatively low consumption per household is the result of modern, air tight heaters that are in use today. He said they consume far less wood and provide more heat than did

David Rogers, 14, of Cochran carries an armload of split oak firewood toward the back door at his home. David, grandson of the Commission's Bleckley County Forest Ranger Hall Jones, is used to the afternoon chore as his family has a fireplace and a wood stove.

the old style stoves familiar to past generations.

Mixon said the rising cost of fossil fuel is causing residents across the state to turn to a Georgia energy source--wood. Each cord of dry wood has the heating equivalency of 139 gallons or 3.3 barrels of oil.

Shirley said the dramatic increase in the use of wood by Georgia residents in recent years can significantly reduce the state's need for scarce fossil fuel. He said the trend is also providing woodland owners with an opportunity to sell timber that has formerly been considered forest waste.

Most homes use wood as a supplemental fuel for home heating. Among all households surveyed, including those that did not use wood, one million homes use gas as the major fuel for home heating.

The report showed that electricity ranks second, while five percent of all Georgia households, or 74,000 homes, use wood as the primary source of space heating.

Households reported that the firewood was obtained from numerous sources, but the majority of the families cut the wood from their own land.

"If all households planning to install new wood-burning equipment actually do so, current wood consumption would increase by 55 percent," according to Dr. Morrow. He said this would increase the annual consumption by 445,000 cords, of which almost 132,000 cords would not be cut on the wood users own land, but would be purchased from wood dealers at a total cost of more than \$6,250,000.

The author includes a detailed cost analysis and comparison study on wood, natural gas and electricity. He points out that firewood is not only a less expensive source of energy for Georgians, but is also in plentiful supply throughout the state.



Wood is also being used for heating purposes in many commercial and industrial buildings around the state. Shown here is Marc Boyd of Boyd's Industrial Woodwork of Byron getting ready to fire up the big furnace of the Rettew System that provides comfortable heat for the employees of his 9,000 square foot plant. Boyd and his brother, Bob, co-owners of the manufacturing plant, had the system installed last year and they said they are well pleased with its efficiency. They burn scrap wood that formerly went to the trash pile. On cold days, wood is fed into the furnace at 7:30 a.m. and again at about 1:00 p.m. and that provides constant heat throughout the working day. Many plants, stores, shops and offices have converted to wood as a heating source, with manufacturing residue and forest waste wood making it economically feasible.

FUNDS ANNOUNCED FOR NAVAL STORES

An allocation of \$300,000 has been earmarked for cost-share payment earned under the Naval Stores Conservation Program for 1980, according to a recent announcement by Senator Herman Talmadge.

The U. S. Senator from Georgia declared the new funds gum producers will be receiving this year are the highest cost-share payments ever approved.

The use of a new plastic cup will have a cost-share rate of 30 cents.

The initial installation (virgin faces) calls for payments of 25 cents per face on a nine inch practice; 31 cents per face on a ten inch practice; 35 cents per face on an 11 inch practice; and ten cents per face on an elevation of aprons and cups. The Georgia Agricultural Stabilization Conservation Service Office, Athens, will make the cost-share payments.

Gum naval stores producers may make their requests for NSCP participation through their county ASCS office or county forestry offices, effective immediately.

Jim L. Gillis, Jr., president, American Turpentine Farmers Association, Valdosta, made the request for the program's continuation on behalf of the Association's membership. Gillis stated that he was pleased that the Department of Agriculture had continued the program for the gum naval stores producers. He noted that naval stores is truly a conservation program because of the accumulation of timber inventory while working the trees.

Ray Shirley, director, Georgia Forestry Commission, said the field phase of the program is under the direction of the state foresters of Alabama, Georgia, Florida, and Mississippi. The Forestry Commission coordinates the field services in the four states, he added.

SCIENTISTS PLAN FALL CONFERENCE

The Southern and Southwestern Forest Experiment Stations and the Southern Group of the Association of State College and University Forestry Research Organizations have agreed to sponsor a Southern Silvicultural Research Conference in the fall of this year, according to officials of the organizations.

Purpose of the meeting, to be held November 6 and 7 at the Atlanta Airport Ramada Inn, is to serve as a forum for exchange of research information among silviculturists, research coordination, review of research in progress and new approaches or techniques of general interest.

Subject areas are to include stand establishment, stand improvement, harvesting systems and interactions. Papers of no more than 20 minutes in length and relating to the subject areas are requested. Inquiries should be addressed to Dr. James P. Barnett, Southern Forest Experiment Station, 2500 Shreveport Highway, Pineville, Louisiana 71360.

DEAN IS HONORED AT SOCIETY MEET

Dean Allyn M. Herrick of the School of Forest Resources at the University of Georgia was honored recently in Boston with the presentation of a plaque citing his many years of dedicated service to forestry education and the profession of forestry.

The award was made during the annual meeting of the Council of Forestry School Executives on the occasion of the national convention of the Society of American Foresters. Dr. Herrick is a Fellow in the Society.

Dr. Herrick, who is the sixth dean of the 73-year-old school, will be 68 years old in July. He said he will retire from the university faculty as well as from the deanship in June.

FOREST FARMERS SET MAY MEETING

With the theme "Forest Farming - Opportunities for the Eighties," the 1980 Southern Forestry Conference will be held May 21-23 at the Royal d'Iberville Hotel in Biloxi, Mississippi.

Over 400 timber growers and forestry leaders from over the country and particularly from the South will be attending this 39th annual meeting of Forest Farmers Association, a regional association of timberland owners, headquartered in Atlanta.

Conference keynoter will be Rexford A. Resler, executive vice president of American Forestry Association and a well known forestry leader. Other featured speakers will include U. S. Forest Service Chief R. Max Peterson.

Forest Farmers Association, headquartered in Atlanta, Georgia, is a grassroots organization of timberland owners, large and small, with active members in nearly every timbered county in the South. More than 85 percent of its timberland-owning members hold fewer than 500 acres.

Created in 1941, it now counts more than 2,260 members who collectively own and operate more than 40 million acres of timberland in 15 southern states.

ANNUAL WORKSHOP WEEK ANNOUNCED

The 19th annual Natural Resources Conservation Workshop will be held June 8-13 at Abraham Baldwin Agricultural College at Tifton.

The workshop is sponsored by the Georgia Chapter, Soil Conservation Society of America, and District Supervisors of the Georgia Association of Soil and Water Conservation Districts.

The Georgia Forestry Commission, as well as 17 other state, federal and industrial agencies and organizations, will provide instructors and counselors for the week-long workshop.

Enrollment this year is limited to 275 students and a brochure terms the workshop "a wonderful opportunity for you to join other high school boys and girls from around the state in rewarding summer study of the natural resources that surround us...you will gain a new insight into the proper use and care of our soil, water, forests, fish and wildlife."

Although the learning experience is emphasized, counselors said recreational and social activities are also planned for the students.

Georgia high school boys and girls interested in the workshop should contact the Education Department, Georgia Forestry Commission, Box 819, Macon, Georgia, or phone (912) 744-3355. Application forms and further information is also available through D. L. Pope, Soil Conservation Service, Agriculture Building, Lowe Road, Albany, Georgia 31701.

SAFETY MEET SET

The Georgia Forestry Commission will cooperate in a Safety Rama sponsored by the Girl Scouts of America at Camp Timber Ridge near Atlanta May 2-4. Forester Louie Deaton of the South Fulton-Douglas Unit will work with the youth organization.

COLUMBUS RECEIVES TWO HONORS FROM ARBOR DAY FOUNDATION

Columbus last year was the first municipality in Georgia to become officially recognized as TREE CITY USA by the National Arbor Day Foundation and now it has been certified again for 1980.

Columbus has also claimed another honor bestowed by the Foundation. Local Television Station WYEA has been judged the national winner in the 1979 Arbor Day Awards competition for the media-television category, according to Foundation officials.

TREE CITY USA is a program designed to recognize communities that are effectively managing their tree resources. Just as important, it is geared to encourage the implementation of local tree management programs based on TREE CITY standards through the professional leadership of participating state foresters and their organizations.

City leaders and officials of the Columbus TV station said they were encouraged by the Georgia Forestry Commission in planting and caring for trees. They especially praised Forester Floyd Cook of the Commission's Columbus District for his work in urban forestry in the area.

In a ceremony marking the certification, Commission Director Ray Shirley congratulated Mayor Harry Jackson and the citizens of Columbus for working together to meet the standards set by the foundation.

Shirley said other Georgia communities interested in following the example set by Columbus should stop by any Forestry Commission office in the state for application forms and a list of qualifications necessary for TREE CITY USA status.

A spokesman for the foundation, which has national headquarters in Nebraska City, Nebraska, said the Columbus TV station "should be commended for their pride in their own surroundings as shown by the landscaping and conservation efforts on their grounds."

The foundation said the judges were



TREE CITY USA

also impressed with the time allowed each week for the 30 minute program on

forestry subjects in order to better inform the public.

The nomination of the station was made by Forester Floyd Cook of the Columbus District, Georgia Forestry Commission.

The foundation has invited Mr. Don McGouirk, General Manager of WYEA-TV, to attend the award and banquet in Nebraska City in April. Others in the media category to be awarded include:

Magazines, Houston Home and Garden, Houston, Tex.; Motion Picture, Sierra Club, San Francisco, Calif.; Newspaper, The Breeze, Cape Coral, Fla.; and Radio, WTAG, Worcester, Ma.



Forester Larry W. Thompson, Improved Harvesting Specialist in the Commission's Forest Management Department, decided one day in August of 1978 that it would be interesting to have a collection of shoulder patches from state forestry agencies around the nation. He sent letters out to all 50 states and soon colorful patches came trickling in. Some states

had to be written again before they responded, but by September of 1979 the last patch came in from Alaska and the collection was complete. Thompson is shown here at his display of 48 patches neatly framed on a background of burlap (Wyoming and Kansas don't have patches).



Allen Green of Gray, left, Civil Defense Director of Jones County and a volunteer fireman, and Forest Ranger M. O. McMichael of the Jasper-Jones Unit, GFC, inspect one of

the fire trucks assigned to rural fire departments in Jones County. Frequent inspection of equipment is made to insure constant readiness.

Rural Firemen Set Impressive Record

A 10,000-gallon tanker caught fire while unloading at a service station in the middle of a small rural Georgia town.

Fortunately, five fire knockers that had been provided to volunteer fire departments in the area by the Georgia Forestry Commission, were soon on hand to cool down the fire and prevent an explosion that could have destroyed the entire community.

In another instance, a rural fire department held damage to a cotton gin to \$10,000 and prevented the loss of \$1,500,000 worth of seed. A field fire was extinguished just before it reached a \$10,000 mobile home and a \$40,000 rural home was saved after a fire caused by a broken electric fence had spread to the underside of a butane gas tank.

These are just four of the approximately 10,160 fires that occurred throughout the state last year. Admittedly, none of the others were as spectacular as the tanker fire, nor did any others result in savings equal to the value of the cotton seed.

The overall value of property saved in Georgia through the efforts of the rural firefighters during the past calendar year, however, was very significant. The figure amounted to \$95,658,166!

Rural fires in 1979 were fought by volunteer firemen operating units in 140 Georgia counties. A total of 680 pieces of



equipment are located in 501 stations. The equipment includes 343 fire knockers and 43 quick response vehicles supplied by the Georgia Forestry Commission under the Rural Fire Defense Program.

At the present time, there are nine requests pending for fire knockers and three requests for quick response vehicles.

At the end of 1979, 52 counties had Master Fire Plans in effect, with 11 having been completed during the year.

Because of the increased RFD program, along with increased training, 25 additional communities received an insurance reduction from a Class 10 to a Class 9. Training was supplied to 20 RFD departments by the Georgia Fire Academy through a Rural Community Fire

Protection grant of \$15,000.

The remainder of the Rural Community Fire Protection grant was allocated to 23 applicants (communities or county-wide organizations) for radio communications and alerting equipment. As it has been in the past, this is done on a 50 percent federal fund and 50 percent local matching fund basis.

Two rural fire defense specialists were hired during 1979. Both had extensive fire service experience as members of countywide fire departments. Their basic job function is to assist the RFD departments throughout the state in whatever problems arise. This includes everything from orienting personnel in subjects in which they are unfamiliar to solving an existing problem. Hands-on familiarization and demonstrations have been found to be the best training tools to over 7,000 volunteer firemen involved with the RFD program.

During 1979, the Commission began the design of a 1250 gallon water tanker which should be operational during 1980. Plans are to utilize the present low-profile fire knocker tank plan as the initial design. All RFD units can utilize a larger water supply in their battle against fire. The aim is to be able to supply a standardized unit which will be leased to the RFD departments, as are the fire knockers and quick response vehicles.

Forest Ranger George Lyon, Jr. said he "didn't know anything at all" about the silk-screen process when the Georgia Forestry Commission's sign shop was moved to his DeKalb County Unit at Stone Mountain three years ago.

He said he did know, however, that he had a lot of learning to do in a hurry.

The Commission uses a wide variety of signs and decals, ranging from the tiny notice on the dash of all vehicles proclaiming that they are the property of the State of Georgia to the large green and white signs that designate district offices and county units across the state.

When the sign shop was moved from Macon to the Quonset hut on the grounds of the DeKalb Unit, Ranger Lyon became responsible for the production of the thousands of signs that are used on vehicles, buildings, airplanes, weather stations, towers, gasoline and diesel pumps and other Commission properties.

The silk-screen process is a stencil method of printing a flat color design through a piece of silk or other fine cloth on which all parts of the design not to be printed are blocked out by an impermeable substance.

"I had never in my life seen any silk screen work done," said Lyon, "and I really didn't know what it was all about." When the equipment and supplies arrived from Macon, however, the ranger and his men were given some preliminary instructions and soon had production underway.

The late Henry (Hank) Slentz was in charge of the shop when it was located in Macon and he provided early training for the DeKalb personnel.

Silk screen is a process that requires considerable skill in order to produce quality work and commercial sign men have said the Commission personnel are doing remarkably well in turning out a superior product.

Ranger Lyon said he has "lost count" of the many signs and decals his small shop has produced to keep the central warehouse in Macon supplied with the wide variety of signs required by the Commission.

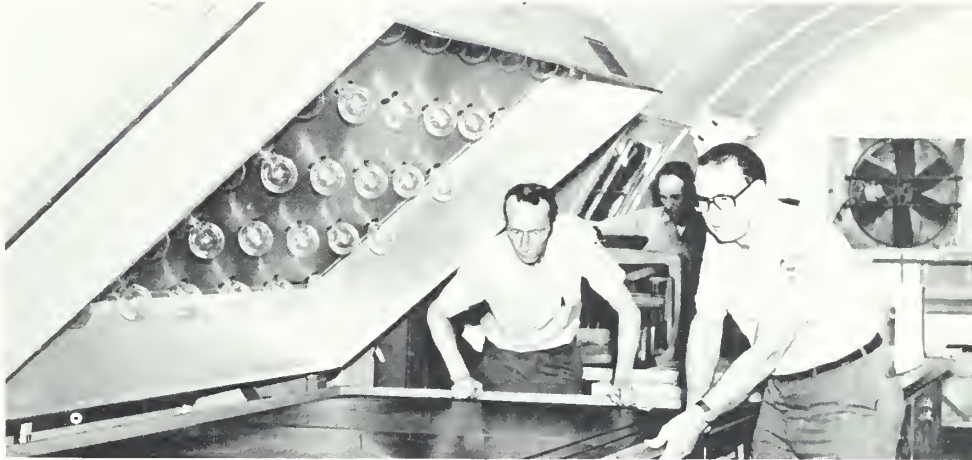
Besides the red and white shield that adorns every vehicle, the loan signs displayed on fire trucks in the RFD Program, the no smoking signs for restricted

areas, the wide range of safety notices and all the others, the DeKalb sign mak-

ers also produce the large signs that are mounted along Georgia's highways to inform motorists that the forest industry in the state is a 5.4 million dollar business.

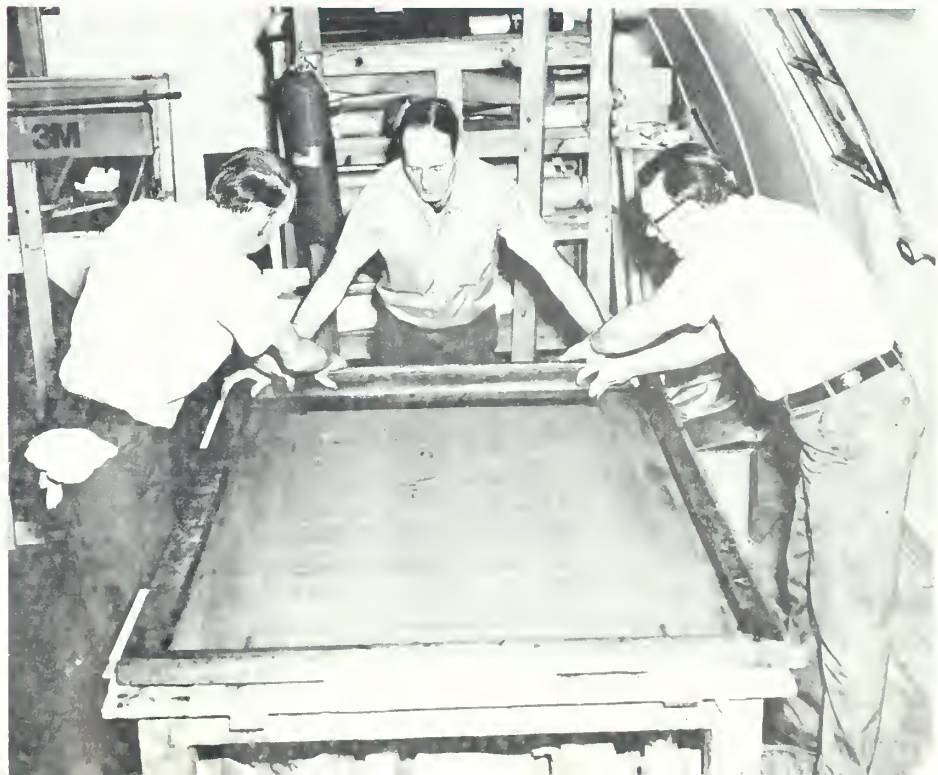
The DeKalb Unit, which is not much further than a stone's throw from the base of Stone Mountain, is assigned the normal duties that are carried out by other county units and the sign production is halted at times when firefighting and other services are required.

Although some of the signs will last for years, many must be repaired, changed or replaced and that keeps Ranger Lyon and crew in the sign business. There is never a shortage of orders.



FEATURE PAGE

GEORGIA FORESTRY



Top, Patrolman David Porterfield, left, and Ranger George Lyon operate the heat processing machine while Patrolman Randy Sockwell, background, is at the cutting machine. At bottom, paint is applied to a large sign.

LETTERS



logging the foresters

Our sincerest thanks for the well organized study tour in Macon and Georgia. We really enjoyed being there.

Enclosed Tapios, yearbook and a page of Metsalehti, including some of our notices concerning private forestry in the USA.

Many thanks for the clipping you sent us over Atlanta.

Tapani Honkanen
Helsinki, Finland

On behalf of the Quebec Government Delegation in Atlanta, I would like to take this opportunity to thank you for hosting our Forestry Mission during their study tour throughout Georgia.

I would also like to thank you for the Energy demonstration which was held at McRae, Georgia.

The group not only enjoyed their two days with the Georgia Forestry Commission but also found them to be interesting and informative and they will try to apply, with modifications, some of the practices they observed with you.

We would also like to reciprocate and extend to you an invitation to visit Quebec.

JEAN-MARC ROY, Delegate
Atlanta, Georgia

We want to thank Mr. Louie Deaton on behalf of our school for speaking to some 60 students on forestry. It is certainly a compliment to you and the department you represent for showing interest in supplying students with first-hand information in the areas they are studying.

Sylvia Baker
Career Resource Center
Lithia Springs Comprehensive
High School

Our school would like to express our gratitude for the services and activities that the Johnson County Forestry Unit staff so graciously rendered us this year. The faculty, staff and students certainly appreciate their efforts in broadening our educational experiences

Roland Thomas, Principal
Kite Elementary School

LARRY BREWER, who came with the Commission in 1972, has been promoted to General Trades Foreman and is in charge of the Macon Shop. Brewer is a native of Macon...FRED ALLEN, formerly of Lithonia, is now serving as Forester-Specialist in the Commission's Forest Research Department. He came with the Commission in 1972...Entomologist KERRY THOMAS, employed by the Commission in January, 1978, has been assigned to the Forest Management Department, with offices in Macon...RONALD W. ROLAND, employed as patrolman in January, 1973, has been promoted to Ranger in the Randolph-Terrell Unit...F. GRAHAM LILES, JR., Field Representative for the Georgia Soil and Water Conservation Committee since 1974, has assumed the position of Executive Director. A native of Fitzgerald, Liles is a graduate of the University of Georgia...ALLEN SMITH, who served as patrolman in the Lowndes County Unit for 18 months, has been promoted to ranger of the Turner County Unit. He replaces Ranger BILLY J. WILLIAMS, who recently retired...SAM BUCHANAN, a native of North Carolina, has been named Project Forester to serve Crawford, Houston, Peach and Twiggs County landowners. He came with the Commission in January...U.S. Forest Service Chief R. MAX PETERSON has announced the appointment of JOHN A. VANCE as Director of the Area Planning and Development Staff, State and Private Forestry, in the Washington office and the reassignment of ROBERT R. RAISCH to replace Vance as Director of the Southeastern

Area State and Private Forestry office in Atlanta. Vance is succeeding PHILIP L. ARCHIBALD, who recently retired after 30 years service.



BREWER



ALLEN



THOMAS



ROLAND



SMITH



BUCHANAN

PIONEER TREE FARM PROGRAM HAS RAPID GROWTH

The Pioneer Tree Farm Program, sponsored by the American Forest Institute and the Southern Forest Institute, has grown to include over 24,000 acres during the past year.

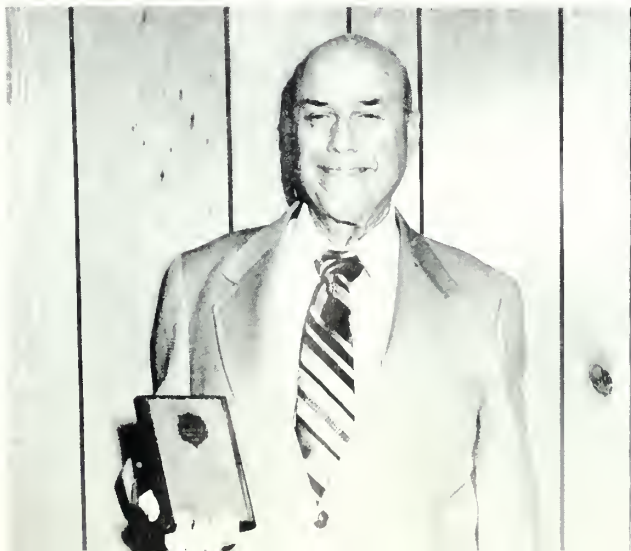
Approximately 140 landowners whose lands don't qualify for the parent American Tree Farm System have joined the program.

"The Pioneer Program is one way we have to involve landowners and get them started toward sound forest management," said SFI's Tree Farm Program manager, Bob Slocum. He said it is one of those tools a forester who deals with independent landowners "should have in his hip pocket...It is perfect for helping them turn land classified as green junk

into productive acres."

Georgia timberland owners interested in the Pioneer Tree Farm Program should contact their local forestry unit of the Georgia Forestry Commission, or write David K. Mitchell, Georgia Tree Farm Chairman, c/o St. Regis Paper Co., 3854 Northside Drive, Macon, Ga. 31204.

J. D. Proctor, member of the Camden County Forestry Board, third from left, is shown receiving an award for 35 years of distinguished service to the board during a recent ceremony in Woodbine. Others, left to right, are District Forester H. L. Neal, H. E. Williams, chairman, Georgia Forestry Board of Commissioners, and Ranger James Simpson, Camden County Forestry Unit.



At far left, Forester Charles B. (Chuck) Place, Jr., left, Education Department, is presented the Woodman of the World Conservation Award for 1979 by Silas Turner of the Maple Camp No. 10, Macon. Above, Ranger Bobby Holland is presented an award of appreciation by District Forester Rowe T. Wall, Columbus, for 28 years of faithful service. The event was a retirement ceremony for the ranger. At left, Forester William H. (Billy) McComb, retired Research and Training Analyst, GFC, shows award he received during recent meeting of the Southeastern Section, Society of American Foresters. The honor was made for his outstanding contribution to forestry

Georgia FORESTRY

MARCH, 1980

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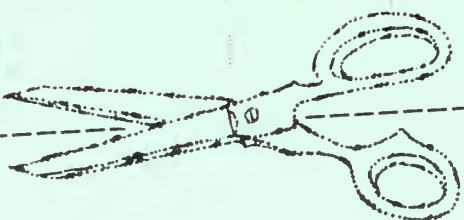
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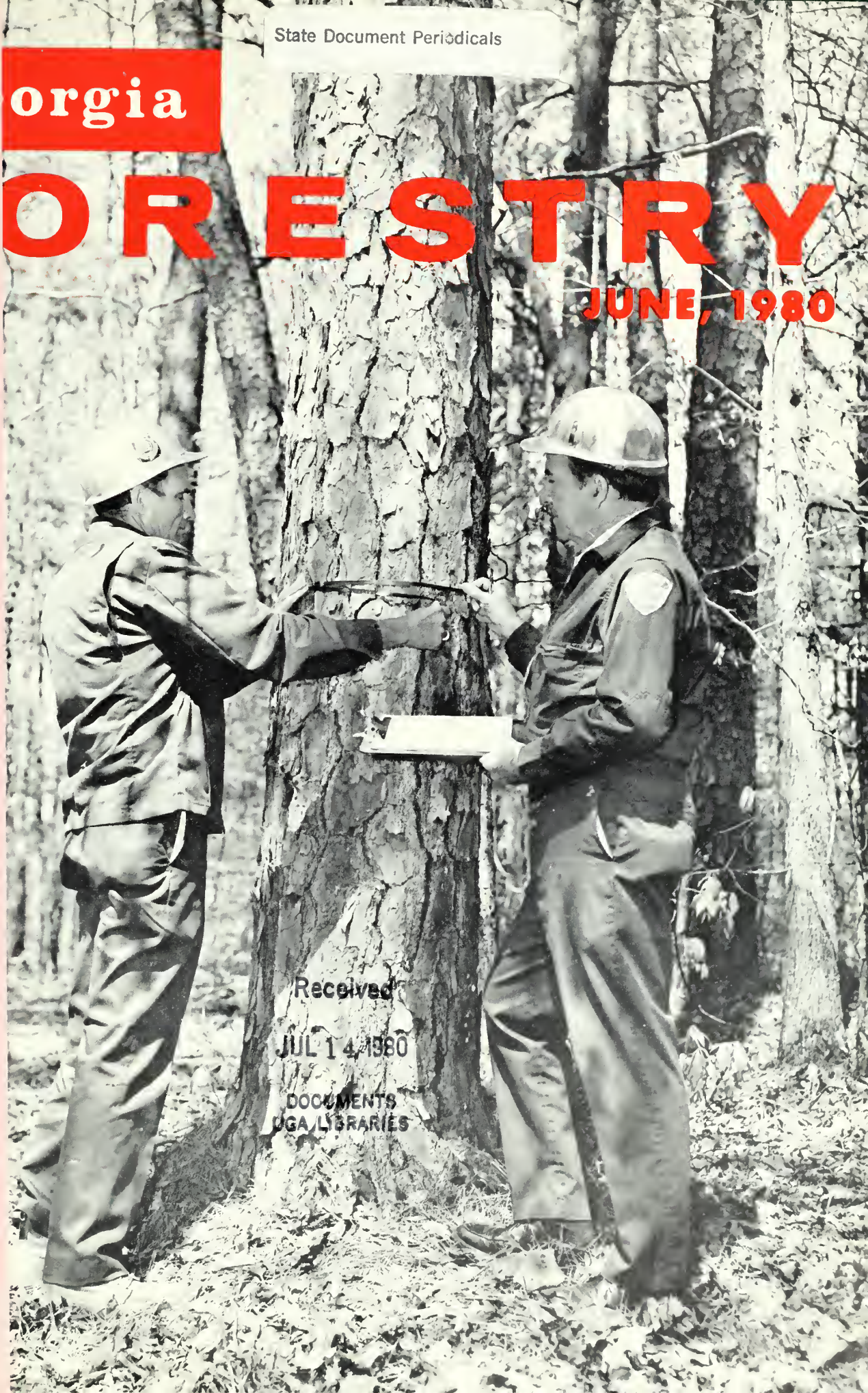
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Cruising The News

RURAL PROTECTION URGED

Several months ago after the Revis McDonalds lost their second rural home to fire, we described in this space the effective countywide fire protection afforded to residents of Pulaski County. As Ben Hill residents again protest the lack of such protection in the aftermath of the loss of the James Merritt home, let's look at one of our neighbors to the south - Colquitt County.

The citizens of Colquitt, under the leadership of L. C. Manning of the Northside community and others, worked with county and state officials in establishing a countywide system of fire protection...We called volunteer Northside Fire Chief Manning and asked him about the Colquitt set-up, which he explained thusly:

Colquitt commissioners contributed \$1,000 each to nine areas of the county, which each raised an additional \$2,500 to purchase from the Georgia Forestry Commission the pumps and tanks mounted on two-ton trucks provided by each area. Also raised was \$500 to purchase equipment for each of the nine "fire

knockers," and a building was erected in each area at a cost of from \$200 to \$500. Manning said his community bought a surplus military building for \$200.

Each station is manned by three to eight volunteer firemen equipped with pagers. At the heart of the communications system is the central dispatcher situated at the county farm.

"...I don't think anybody in Colquitt County would consider doing away with our system," Manning said. "At Northside we answer about three calls a month and save two or three houses each year.' In two recent calls we confined mobile home fires to the area where they started, which we consider real accomplishments... Colquitt Counties are for this thing one hundred percent," he added. "They see what it has done for them."

"...We hope this problem will be solved in Ben Hill County before we are motivated by the same type of tragedy which spurred them to action in Colquitt County.

(From the Fitzgerald Herald)

FIREFIGHTERS PRAISED

On three occasions recently we have had a chance to observe first hand the service the Georgia Forestry Commission performs in Peach County. Each of these three fires that Orvin Bergman and Eddie Steiber fought were small fires, but they could have been extremely destructive.

Two of the fires were in remote areas, close to the railroad tracks. It took a lot of careful driving to get the fire fighting equipment to the fires.

On these three occasions, and others in the

more distant past, the personnel at the fire tower were very quick to respond. There is never a suggestion that the call is interrupting a delicious supper or some other equally important occasion. The only concern transmitted from the forestry personnel is one of how to get the equipment in to a fire in the quickest manner possible.

We hope the fire fighters are able to get a sense of satisfaction out of the job they do, for they are certainly appreciated!

(From the Leader Tribune, Ft. Valley)

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ON THE COVER - Georgia Forestry Commission personnel aid the U. S. Forest Service as a comprehensive statewide forest survey gets underway. See story Page 9.

FELL AND LEAVE

GREENE

TALIAFERRO

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W.C.



Commission Entomologist Kerry Thomas examines the peeling bark on a pine that had just been sheared by a feller-buncher.

A "Fell and Leave" pilot project to help control the spread of the Southern Pine Beetle is being conducted in Greene and Taliaferro Counties by the Forest Management Department of the Georgia Forestry Commission.

Entomologists said the two-county program is concerned with small spots of beetle-killed timber, ranging from 10 to 50 trees.

They pointed out that it is not profitable for timber buyers to move expensive harvesting equipment from one spot to another when only a few trees are found in each spot.

For that reason, they said, the Forestry Commission has obtained feller bunchers and has trained crews to go into the counties and take down the trees killed by the insects, as well as a buffer zone of green trees around the infested spots.

They said Greene and Taliaferro Counties were selected because of the great number of small and scattered spots of dead and dying trees in those areas. Commission foresters contact landowners for permission to cut the brood trees. The trees to be felled are then marked by the Commission personnel and felled with the feller bunchers at no cost to the landowner. No shade trees or lawn trees are involved in the project.

The title of the project - Fell and Leave - refers to cutting the tree and leaving it on the forest floor.

STATEWIDE UPDATE

Recent aerial and ground surveys reveal that there is a general decline statewide in Southern Pine Beetle activity, according to Druid Preston, Chief of the Commission's Forest Management Department. He said fewer spots of infestation and less fading are being observed.

Preston pointed out, however, that there are strong indications that an increase in insect activity will be evident later this year in North and Northeast

Georgia. This prediction, he said, is based on findings by the Commission entomologists.

The results of a May survey show that there are now 14 counties with beetles in epidemic proportions and 90 counties are infested. More than 3,815 spots were observed and the total volume of timber killed since January, 1979, now stands at 1,148,091 cords. Total salvaged during the same period is 893,699 cords.





Most people in June consider Christmas too far down the road to even think about, but to the Christmas tree grower the holiday is just around the corner!

One grower took time out the other day from pruning four acres of pretty cone-shaped pines to tell how the trees have to be pampered throughout the year to get them ready for the marketplace.

That care, of course, covers several years as it takes from four to eight years to produce a tree of merchantable size.

Olin (Preacher) Witherington of Americus declared that "growing Christmas trees is hard work and I mean really hard work!" He pointed out quite emphatically that you can't set out a seedling, ignore it for several years and come back and expect to find a healthy, perfectly shaped tree ready to set up in somebody's den and decorate.

"If you're not willing to work, you're in the wrong business," Witherington said.

He ought to know. He grew his first Christmas trees 32 years ago.

"My first planting was Arizona cypress back on the Laurens County farm where I grew up," he said, "It was on an experimental basis." In the years that followed, Witherington grew and experimented with several other species and became expert in the growth of Christmas-type trees that are best suited to Georgia climate and soil.

It all started out as sort of a hobby, but upon his retirement as Americus District Forester, Georgia Forestry Commission, several years ago, the growing of Christmas trees became a full time business for Witherington.

He currently tends 18 acres of trees. One section is planted in white pine and a smaller section is in sand pine.

When asked why trees grown for the Christmas market require so much maintenance, the grower gave a step-by-step account.

First year - Plow land, harrow, bottom plow, smooth plow, lay off rows in checks, plant seedlings, plow with cultivator 12 times and hand hoe around seedlings seven times before year's end.

Second year - Apply chemical to retard weeds, apply chemical to kill briars, spray for insect control, shear lightly twice to begin shaping trees, hoe weeds.

Third year - Shear each tree three times to cut back unsightly growth, examine for insects and diseases, hoe weeds and hope for sufficient rain.

As the trees reach the fourth year, some become marketable. Most take longer. The frequent shearing must continue as long as the tree remains in the plot.

"See that tall one," Witherington asked. "It's growing too fast and when I get through with it, it will be about half that size."

Indeed, it was. The retired forester made about five slashes from top to bot-



Long Time Til Christmas?

IF YOU'RE A GEORGIA CHRISTMAS TREE GROWER, THE HOLIDAY SEASON IS JUST AROUND THE CORNER!



Olin Witherington examines a tree that will be ready for the Christmas market this year.

—THIRD FIRE SHOW HELD—



More than 1,000 volunteer firemen, fire chiefs, and others interested in the fire defense of rural Georgia attended the recent Georgia Fire Equipment Show at Macon Coliseum.

Commendation awards were presented to several firemen for outstanding services to the people of their communities and fire equipment dealers from several states provided a wide array of exhibits at the show, which was sponsored by the Georgia Forestry Commission.

One of the highlights of the program was the presentation of a national award - the Award for Outstanding Service in Fire Management - to James C. Turner, Jr., Chief of the Commission's Forest Protection Department.

The prestigious award, one of only five presented nationally each year, was presented to Turner by Thomas C. Nelson, Deputy Chief of the National Forests System, Washington, D.C.

Turner, who assumed his present position in 1957, was cited for playing a key role in the inauguration of air tankers and later bucket equipped helicopters in fighting forest fires. He was also praised for many other innovations that have helped make Georgia one of the leading states in



efficient fire prevention and control.

Turner also served as moderator for the program and special guests were introduced and awards to firemen were presented by Ray Shirley, Commission Director.

Pete Gunn, Chief of Whitfield County Fire Department, Dalton, outlined some of the operational procedures used by the eight departments within his county-wide protection system.

Carl Puckett, Field Rating Representative of the Insurance Services Office, Atlanta, spoke on the requirements for Class 9 insurance.

Tom Perdue, Executive Secretary to Governor George Busbee, warmly congratulated the firemen during a brief address and asked that they and the sponsoring Forestry Commission continue the momentum the program presently enjoys.

The Commission administers the Rural Fire Defense Program in Georgia and the volunteer firemen attending the show represented departments that are equipped and trained under the program. The firemen, numbering some 7,000 statewide and serving more than 500 fire stations, last year saved property valued at more than \$89,133,000.

The Georgia Fire Equipment Show was held to acquaint the rural firemen with the latest equipment and techniques in fire fighting and at the same time honor those who have made outstanding contributions in their home communities.

The Commission held similar shows in 1976 and 1978.



Firemen presented Commendation Awards are shown with Eley Frazer, member of the Commission's Board, standing at left, and Commission Director Ray Shirley, front row, right. The firemen are, first row, left to right, L. C. Manning, Moultrie; Hoyt Lumpkin, Cuthbert; and Herbert Widener, Thomason. Back row are Cliff Crews, Dudley; C. O. Coggins, Hartwell; Jimmy Brown, Waycross; Trammell Carmichael, Canton;



Carl Bowen, member of the Dooly County Board of Commissioners, Vienna; and Julian Mingledorff, Hinesville. Joe Collins, Macon, was unavailable for the picture. In the other photo, James C. Turner, Jr. is accompanied by his wife, Jane, as he accepts the coveted national award from Thomas C. Nelson of the National Forests System while Director Shirley looks on. Other photos include meeting scene, display floor.

Two Georgia Counties - Emanuel and Ware - have long set aside a time each spring for the observances of forest festivals, gala celebrations featuring street parades, banquets and beauty pageants.

This year, the festivities in Swainsboro and Waycross were more elaborate than ever before.

The citizens of Swainsboro and Emanuel County celebrated the 35th annual Pine Tree Festival the first week in May and Ware Countians attended a series of events in Waycross May 5-10 in celebration of the 23rd annual Ware County Festival.

Both counties are in rich pineland regions of the state and the annual celebrations serve to spotlight the tremendous role the forests play in the economic life of Emanuel and Ware. Ranger Leon Ray of the Emanuel County Unit and Ranger R. T. Kirkland of the Ware County Unit, Georgia Forestry Commission, are active in the observances each year.

Tammy Martin, daughter of Mr. and Mrs. Jack Martin of Swainsboro, was named Miss Emanuel County Forestry during the festival at Swainsboro. Beside the pageant, a colorful parade was held under the direction of Edwin Canady. The theme this year was "Pine Tree Pride - the 35th Time."

The pageant queen selected during the Ware County celebration was Paula Simmons, daughter of Rev. and Mrs. David Simmons. The 4-H award went to Michael Green and the FFA award was won by Sammy Sweat.

Other awards and the winners were the Ware Master Tree Farmer Award, Joel Tanner; Woodman of the World Conservation Award, Robert Peagler; Forestry Promotional Award, William Denton and Cecil Tanner; School Posters Awards, Christopher Cooper and Randy Wiggins.



Above: Robert Peagler of Ware County, left, is presented the Woodman of the World Conservation Award by Donald Outlaw. Above, right, Tammy Martin, winner of Miss Emanuel County Forestry at the Swainsboro celebration. In photo at right, Joel Tanner, right, is presented the Ware Master Tree Farmer Award by Charles Walker. Far right, Paula Simmons is crowned Miss Ware County Forestry.

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The Georgia Forestry Commission joins industry and other forestry organizations in the state and throughout the nation in the promotion of the American Tree Farm System.

Last year, Mr. E. E. (Gene) Yawn of Eastman was named Georgia's Tree Farmer of the Year and the 1980 selection will be made in June at the annual convention of the Georgia Forestry Association.

Yawn, who owns 738 acres of land and makes multiple use of his forest acres, is one of 30,000 tree farmers in the American Tree Farm System. No two of them, however, are exactly alike.

There are tree farmers who are architects, doctors, truck drivers, school teachers, dentists and bankers. Several prominent entertainers own and manage tree farms.

The files also show that senators, boilermakers, corporations and even scout troops participate in tree farming. Several thousand women are certified tree farmers.

The Athens Trinity Church recently became the first church in Georgia to become a Tree Farmer and is believed to be the only church in the nation to earn that distinction. The church, located on the outskirts of Athens, owns a tract of pine timber adjacent to the church grounds. Through the assistance of forestry groups, the acreage is properly managed.

The nationwide system is sponsored by the wood using industries through the American Forest Institute, with assistance from forestry associations, government agencies, consulting foresters and others.

Its purpose is to encourage private forest landowners to protect and manage their forest resources for the production of forest products with all the attendant benefits.

Yawn met these qualifications in working with his forested lands in Dodge County and David K. (Dave) Mitchell of St. Regis Paper Company, chairman of the Tree Farm Committee in Georgia, said he was selected for the honor because of his excellent multiple use concept.

Mitchell and his committee pointed out that Yawn has been extremely versatile in utilizing his

forests and other lands. They said he worked 3,000 naval stores faces at one time and in recent years successfully grew and marketed Christmas trees. He has cross fenced his acreage with posts cut from his woodlands and has set out food plots for game.

The Tree Program, which was started back in 1941, now has some 2,000 members in Georgia. Private and public foresters conduct inspections for Tree Farm certification and there is no cost to the landowner.

Forester John Hammond, Assistant Chief of the Forest Manage-



ment Department, represents the Georgia Forestry Commission as Tree Farm coordinator and all foresters in the Commission are authorized to serve as inspectors.

The Tree Farm land must be privately owned and adequately protected from fire, insects, diseases and destructive grazing to qualify for certification. Hammond said most successful tree farmers go well beyond the basic requirements to practice timber stand improvements and to increase yield through silvicultural methods.

Georgia's current Tree Farmer of the Year lives in Eastman and drives out to his rural property in a pickup truck to manage his woodlands. He is not unlike many other

tree farmers throughout the nation, however, as the number of rural households decrease.

Foresters who participate in the Tree Farm System report that the number of absentee owners is growing. Night classes in urban centers are well attended by landowners who have purchased rural property and want to manage it wisely, and in accordance with their own ideas of environmental balance.

Working tree farms in the Amer-



ican Tree Farm System range from 20 acres to more than 1.5 million acres. There is even a one-acre demonstration tree farm in Washington, D.C. owned and operated by the Audubon Naturalist Society of the Central Atlantic States.

Most of the tree farms, however, are small woodlots and the American Forestry Association has reported that "The day is not far off when these small forests will be called upon to make greater contributions to the national economy... surveys indicate wood consumption by the year 2000 will be twice our current levels of production."

The turn of the century is not far away and the certified Tree Farmers of Georgia and the nation could make the difference in meeting the nation's needs in the future.



The tree nurseries of the Georgia Forestry Commission have been seeded for 85 million seedlings - an increase of 20 million over the production of last year - to meet the demands for the 1980-81 planting season.

James C. Wynens, Chief of the Reforestation Division, said the new crop of trees will reforest more than 100,000 acres of land and approximately 95 percent of the seedlings will be of genetically superior stock.

The forestry official said orders for seedlings are now being accepted and advance payment is not required but must be paid before shipment. He urged landowners to place orders as soon as possible to assure delivery in the fall.

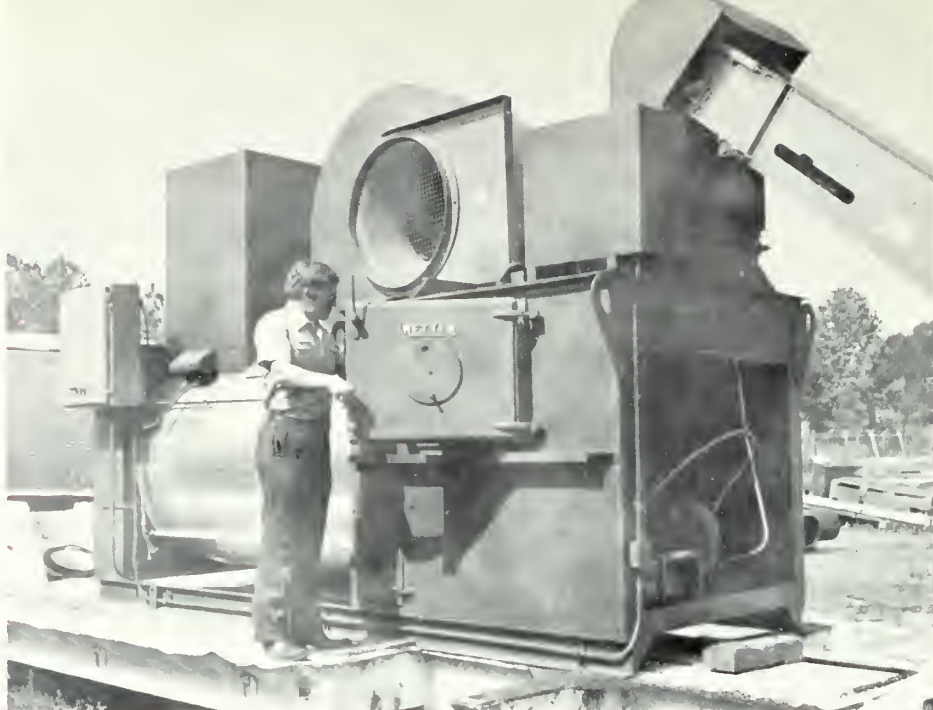
Wynens said the Commission is accepting orders several weeks earlier than in previous years in order to give the landowner a better chance to plan his reforestation.

Shipments will be made from Dec. 1 through March, 1981. The seedlings are carefully packaged with complete planting instructions included and are available in multiples of 50, 500 and 1,000.

Wynens said Georgia's prominent place as one of the leading state's in the production of forest products is reflected in the greatly increased demand for quality seedlings. He said the accelerated use of wood as an energy source has also contributed to the sharp increase in seedling demands.

Seedling application forms may be obtained from any Commission county unit or district office or by writing to the Commission state headquarters at P.O. Box 819, Macon, Georgia 31298. Forms are also available through the offices of county agents, Soil Conservation Service and the Agricultural Conservation Program. A form for your convenience is also reproduced at right.

SPECIES	1000	500	50
Improved Loblolly	\$12.50	\$ 6.25	\$3.00
Improved Slash	12.50	6.25	3.00
Slash-High Gum	12.50	6.25	3.00
Virginia Pine	12.50	6.25	3.00
Eastern White Pine	28.50	14.25	6.00
Catalpa	30.50	15.25	7.00
Dogwood	40.50	20.25	9.00
Lespedeza	20.50	10.25	5.00
Oak, Sawtooth	20.50	10.25	5.00
Oak, White	20.50	10.25	5.00
Red Cedar	30.50	15.25	7.00
Sweetgum	28.50	14.25	6.00
Sycamore	28.50	14.25	6.00
Yellow Poplar	38.50	19.25	8.00



This big Rettew forced air furnace will be used this summer and fall to dry various Georgia agricultural crops. The 3,000,000 BTU dryer, as well as a silage wagon and conveyor system to feed green chips into the furnace, is a mobile unit assembled by the Research Department, Georgia Forestry Commission, to be used experimentally in the field to test the use of wood chips versus other fuels in drying farm crops. The fully automatic system will be under the supervision of Commission personnel in the field tests.

COMMISSION NOW ACCEPTING ORDERS FOR TREE SEEDLINGS

ORDER NO. _____

APPLICATION FOR NURSERY STOCK
GEORGIA FORESTRY COMMISSION P.O. BOX 819 MACON, GEORGIA 31298

NAME OF APPLICANT _____ PHONE NO. _____

ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

SHIP TO ADDRESS ABOVE OR

NAME _____ PHONE NO. _____

ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

DELIVERY DESIRED AS SHOWN BELOW

DATE	SPECIES	NUMBER OF SEEDLINGS	COUNTY OF PLANTING	FOREST DISTRICT

TYPE OF OWNERSHIP (Check one)

- 1. Private persons, Clubs, Associations & Private Schools
- 2. Private Forest Industry - Lumber Mfg.
- 3. Private Forest Industry - Pulp & Paper
- 4. Private Forest Industry - Naval Stores, Plywood, etc.
- 5. Private other industry lands.
- 6. Town, County, and Public Schools
- 7. State and other Public Lands.
- 8. Federal Government
- 9. Other (specify) _____

METHOD OF SHIPMENT

(Check one)

- 1 STATE TRUCK TO COUNTY FORESTRY OFFICE
- 2 APPLICANT WILL PICK UP AT NURSERY

SEEDLINGS RECEIVED IN GOOD CONDITION

I HEREBY CERTIFY THAT I DESIRE TO PURCHASE THE ABOVE NURSERY STOCK UNDER CONDITIONS PRINTED ON THE BACK OF THIS FORM

PAYMENT \$ _____ DATE _____ SIGNATURE _____

DO NOT WRITE BELOW THIS LINE

WALKER MORGAN

MAJOR WOOD ENERGY SYSTEM PLANNED BY UNION CAMP

The Union Camp Corporation will construct a \$91 million power boiler and turbine facility that will make the huge Savannah, Georgia, complex totally self sufficient in electrical power, according to James M. Piette, senior vice president and resident manager.

The company official said the facility, to be completed in the last half of 1982, would also generate surplus electricity which could be made available to the Savannah Electric and Power Company.

The project would reduce fuel oil consumption by the equivalent of almost one million barrels a year.

The facility is to use coal as a primary fuel and also wood waste.

Approximately 600 tons a day of wood waste also will be used as fuel. In addition to residual wood waste generated as a by-product of Union Camp's own pulpwood and lumber operations, the company presently uses sawdust and bark supplied by nearby lumber mills and other sources as fuel.

Consumption per day is expected to be about 730 tons.

The Environmental Protection Division (EPD) of the Georgia Department of Natural Resources has reviewed the applications for construction and reached a preliminary determination to approve

them. Pending issuance of the permits, the company hopes to be able to begin with the initial stages of construction this summer. The project would provide up to 600 construction jobs.

"This project will involve the most advanced technology in power generation," Piette said. The installation, which will operate at 1800 pounds per square inch (psig), will be the first industrial

Armstrong Cork Company is also planning to turn to wood chips as a fuel source to displace a portion of its present natural gas usage. A. H. Guritz, manager of the company's Macon Plant, said a fuelized bed will be installed to burn chips to create heat to be blown into the plant's hot air drying system. He said only a small percentage of the drying will be done by the new method in this initial conversion.

boiler in the United States to produce steam at above 1500 psig. Pressures of 1800 and higher, with resultant fuel economies, are not uncommon in Europe.

The Union Camp installation is designed to generate up to 800,000 pounds of steam an hour. The matching generator will produce 65,000 kilowatts of electrical power.

NEW FOREST SURVEY UNDERWAY

The Georgia Forest Resources Survey, a major project to gain an accurate inventory of the state's standing timber and other vital forest information, is now underway.

The survey, which is carried out at approximately ten year intervals, is conducted by the U. S. Forest Service, with cooperation from the Georgia Forestry Commission.

A new feature this year is the inclusion of biomass in the survey. "This means," said Druid Preston, Chief of the Commission's Forest Management Department, "that every stem will be in the count to determine the total volume of material in our forests."

He said biomass was added this time because of the new demand on the forests to provide wood as an energy source.

The survey teams will also record the amount of growing stock, number of desirable trees by specie, ownership of forestlands and other data. The information will be of benefit to wood using industries, economists and others throughout the state and is expected to provide an incentive for companies considering plant locations in Georgia.

Preston said the state has been divided into five units for the exhaustive survey. He said the Commission will furnish some manpower and equipment and Georgia Forestry Commission personnel will be especially helpful in contacting landowners in their own counties to explain the purpose of the survey.

Completion of the survey is expected late in 1982 or early 1983.



ENGINEER JOINS RESEARCH STAFF

Branyon O. Jarrett, a mechanical engineer, has been added to the staff of the Forest Research Department, Georgia Forestry Commission, to work in the various energy projects of the department.

John Mixon, Chief of Research, said the professional engineer will supervise construction and start up of the projects and aid in the demonstration of equipment used in the studies.

He said he would monitor construction of energy systems to be installed in the Franklin County Comprehensive High School and Treutlen County Comprehensive High School and inspect the Union County Junior High School system which has just been completed.

Mixon said Jarrett will evaluate other schools and public facilities to determine the feasibility of installing wood energy systems to replace gas or oil fueled systems. His duties will also include making an evaluation of the wood gasification system now being installed at the Northwest Georgia Regional Hospital in Rome, working with the crop drying project and writing engineering specifications for future wood energy programs and projects.

Jarrett was Facilities Engineer with the Georgia Department of Education prior to his employment with the Commission. He holds a Bachelor of Mechanical Engineering degree from Georgia Tech and is a member of the American Society of Heating, Refrigerating and Air Conditioning Engineers.

He is author of 18 papers on energy conservation in Georgia public schools

Georgia FOREST RESEARCH



Visiting Canadian forestry officials are shown with Georgia Forestry Commission hosts. Left to right are W. Cash Harper, Macon, Assistant to the Director, Georgia Forestry Commission; Albert Brull, Atlanta Delegation Government of Quebec;

Laurent Marois, Jean-Claude Mercier, Jean-Louis Caron and Roger Dugas, all of Quebec City, Quebec; and Ray Shirley, Forestry Commission Director.

CANADIAN FORESTERS VISIT COMMISSION

A group of Canadian forestry officials recently toured facilities of the Georgia Forestry Commission to study genetics, reforestation and other programs.

The visitors were members of the Quebec Forestry Mission and were in Georgia to observe and study the management of public forests and large forests owned by companies in the Southeastern United States.

Commission Director Ray Shirley said the officials were especially interested in genetics and reforestation developments and were being shown several silvicultural operations by Commission personnel. Upon arrival, the mission visited the Forestry Commission's state headquarters in Macon where department chiefs led discussions on forest administration, research, education and reforestation. The visitors were also given a briefing on forest utilization and a field trip to the Georgia Particle Board Plant in Vienna. They later toured the Commission's Morgan Nursery at Byron, the Arrowhead Seed

Orchard near Cochran, and Dixon Memorial State Forest near Waycross.

They also saw a demonstration of the Commission's forest protection equipment and aircraft and toured facilities of Georgia Timberlands, Inc.

In greeting the visitors to the Commission, Shirley pointed out that the Commission has earned its place as a showcase of modern and progressive forestry and has been host to many out-of-state and foreign visitors.

SEED LABORATORY NAME CHANGED

The facility on the grounds of the Georgia Forestry Center in Macon formerly known as the Eastern Tree Seed Labor-

MANUAL AVAILABLE

The 1980 Forest Farmer Manual, a guidebook for forest farmers presented in laymen terms to make their investment in timberlands more profitable and rewarding, is now off the press.

Persons interested in the new edition of the comprehensive manual should write Forest Farmers Association, Box 95385, Atlanta, Georgia 30347. Cost of the book is \$12.50, including postage.

atory is now the National Tree Seed Laboratory.

The name change was announced recently by John A. Vance, Area Director, USDA, Forest Service, Atlanta, who explained that the action was taken as a result of the laboratory's increasing role in national and international tree seed activities.

Vance said the U. S. Forest Tree Seed Center is a part of the National Tree Seed Laboratory and currently has an inventory of about 1,000 known source lots of 66 species. He said the center has shipped to more than 80 different countries.



CRAVEN RECEIVES KIWANIS HONOR

Frank Craven, Chief of the Commission's Education Department and Immediate Past Governor of the Georgia District of Kiwanis International, has been named Distinguished Governor, an honor given to only 13 Kiwanians worldwide.

The title was bestowed on Craven by Hilmar L. Solberg of Appleton, Wisconsin, Past President of Kiwanis International.

He was cited for his leadership in exceeding goals set by the International organization involving increased membership, new clubs, participation in the Major Emphasis program and attendance at conventions.

Solberg said Craven and his 12 fellow Distinguished Governors will be honored at the Kiwanis International Convention to be held in June in Anaheim, California.

Craven will also receive a District Administrative Excellence Award for the Georgia District's performance under his leadership.

TWO DAY COURSE PLANNED IN JULY

The Committee for Continuing Education of Foresters, in cooperation with the University of Georgia Center for Continuing Education, will hold a Piedmont Woods Roads Short Course at the Georgia Center July 9-10.

Program faculty for the course includes Dr. Walter L. Cook and Dr. John Hewlett, both members of the faculty of the University of Georgia School of Forest Resources; W. C. Moody, Jr., District Manager of the Brunswick Pulp Land Company; Dick Stump of the U. S. Forest Service, and Harold S. Winger, Manager of Land Use Affairs, International Paper Company.

NEW LOW IN FIRES RECORDED

One of the best spring forest fire records in the history of the Georgia Forestry Commission was set in March of this year, with the number of fires down more 75 percent over March of the previous year!

Jim Turner, Chief of the Commission's Forest Protection Department, said the dramatic decrease in the number of fires throughout the state in March was attributed to excessive rains. "In fact," said Turner, "we had about 12 inches of rain, which was approximately seven inches above normal rainfall for March."

Records show that there were only 698 fires in March, compared to 3,012 for the same period last year. Number of acres burned dropped from 15,526 in March, 1979 to 2,473 this March.

A substantial decrease in fires was also noted in January of this year. A total of 344 fires burned 830 acres, compared to 625 fires and 1,834 acres in 1979. February, however, showed an increase with 1,811 fires burning 10,425 acres, compared to 1,265 fires and 6,074 acres the previous year.

Turner said "the fire occurrence in March of this year was the lowest in more than 20 years." He emphasized that "it was a very unusual month" and said "we can't, of course, expect the weather to come to our aid very often to this extent."

The Protection Chief stressed the need

for continued vigilance by Commission personnel and the general public to keep fire and the threat of fire to a minimum in the forests of Georgia.

SOUTHERN CHIEFS SET MACON MEET

The annual meeting of the Southern Information and Education Chiefs will be held in Macon July 9-11, with the Georgia Forestry Commission serving as host.

Frank Craven, the Commission's I&E Chief, said other states to be represented will be Florida, South Carolina, Alabama, Mississippi, Arkansas, Texas, Virginia, Tennessee, Louisiana, North Carolina, Maryland and Oklahoma.

Ray Shirley, Director of the Commission, will give the welcoming address for the visiting chiefs and Craven, who is chairman of the organization, will preside at the business session.

The forest education leaders from the various states will discuss a wide range of subjects dealing with promotional and motivational programs and projects.

The three-day meeting, to be held at Ramada Inn, West, will also include an "Around the States" session in which chiefs from each of the 13 states will discuss any novel or unique programs or techniques they are now using to reach the public.



The Urban Forestry Mobile Exhibit is about ready to roll. The vehicle is being outfitted by the Education Department, Georgia Forestry Commission, with informative exhibits of interest to urban dwellers and will soon tour the state. Shade tree planting and maintenance and control of insects and diseases are fully explained in the comprehensive exhibit.



MISS FORESTRY WINNERS

ON THE COUNTY LEVEL

Y

oung ladies in 32 counties have been judged winners in local forestry pageants and now they are eligible to compete for the Miss Georgia Forestry title at the annual convention of the Georgia Forestry Association on Jekyll Island in June. County pageant winners whose photos were available are shown on this page. Top row, left to right, Lean Woodward, Chattooga County; Sharon Hall, Glynn County; Candi Fitzgerald, Wilcox County; Lynn Lightsey, Oconee County; Linda Lamb, Candler County. Second row, Anne Tippens, Richmond County; Cher Chastain, Fannin County; Leanne Kirkland, Miller County; Cindy Lochte, Toombs County; Ann Talley, Muscogee County. Third row: Sandy Parker, Johnson-Washington Counties; Lisa Orr, Henry County; Brenda McDonnell, Harris County, Betty Lynn, Bulloch County. Fourth row: Kim Sutton, Sumter County. Fifth row: Garcia Reed, Lincoln County; Sheri Collins, Union County. Sixth row: Mary Alice Titshaw, Crisp County; Leann Strickland, Liberty County.

FEATURE PAGE GEORGIA FORESTRY



we had never done before."

Rhodes said many visitors stop by the unit for literature and other reasons and many linger to "look over the building and ask about some of the materials that we used." He said many have said that it is "the kind of mountain retreat" that they had always wanted to build for themselves.

By providing all the labor, the cost of the building was held to approximately \$4,500, Ranger Rhodes said. If built by a contractor, it would cost about \$15,000, he estimated.

There is nothing unusual about rangers and patrolmen of the Georgia Forestry Commission constructing their own county unit headquarters. Many are excellent carpenters, roofers, painters and electricians.

It is unusual, however, when a ranger designs his own unit office to blend with the local environment and to have talented personnel who can handle unique architectural treatment.

Forest Ranger Everett Rhodes, who came with the Commission in 1973 and was promoted to ranger of the Fannin-Towns-Union Unit in 1977, began drawing up plans when it was learned that Macon headquarters would approve construction of an office. At that time the office was located in one end of a Quonset Hut that also served as a shop.

The ranger envisioned a chalet or lodge type building in his planning and set about gathering native stones and timbers to be used in the structure on the mountainous site some three miles from Blairsville.

Work got underway in March of 1978 and by "working between forest fires" and other duties, Rhodes said the building was completed by September of that year.

Unusual features included exposed white and yellow pine ceiling beams, chandeliers fashioned from oxen yokes, a partition with lathed spindles and a stone hearth and wall.

Rhodes said personnel in the three counties that make up the unit participated in the project. In commenting on the stone work and other features, the ranger said "some of us had to learn to do things



Top photo: Ranger Everett Rhodes is shown in his recently constructed Fannin-Towns-Union County Forestry Unit office. Middle photo: Patrolman Gordon Payne, Patrolman Michael Payne and Ranger Rhodes pose at the office built on a scenic mountain slope near Blairsville. Bottom photo: Patrolman Michael Payne loads wood heater in the new office.

LETTERS

I wanted you to know how grateful I am to Mr. George Turk, Forester, Milledgeville District, in helping with my farm in Johnson County. I have found him most efficient. I have called him both at the office and home, and he is always courteous. I think you are fortunate to have this kind of representation in your organization.

Miss Doris Wheeler
Augusta, Georgia

Once again we are most grateful for the assistance provided us by GFC at the Louisville and Vidalia FFA Field Days March 18th and 19th. Billy Barber, Don Griner and Jerry Lanier were fully cooperative as usual. As a result the Field Days were highly successful. We are most appreciative.

E. A. Davenport, Jr.
Chief Conservation Forester
Union Camp Corporation
Savannah, Georgia

I want to express my appreciation for the assistance Ranger W. A. DeMore, Habersham-Rabun-White Forestry Unit, gave us during the ice storm. Please pass on to all the men who helped us cut trees off the power lines our sincere thanks.

It is most gratifying to know that there are still good neighbors such as your organization in our area.

William E. Canup
Habersham Electric
Membership Corporation
Clarkesville, Georgia

On behalf of Cub Scout Pack 76, let me thank you (Ranger J. L. Stanford, Clarke-Oconee Unit) for the lecture and Smokey Bear presentation which you and Mr. John Nelms provided for the boys last week. The entire program was a delight. Both the boys and their parents thoroughly enjoyed it. We are grateful to you and Mr. Nelms for this fine service you provided us.

Bernard P. Dauenhauer
Program Chairman
Cub Scout Pack 76
Athens, Georgia

The Tunnel Hill Junior Women's Club wishes to thank you (Ranger C. V. Bramlett, Whitefield County) for your assistance in obtaining 1,000 sycamore seedlings. On Arbor Day the seedlings were distributed to the students of Tunnel Hill Elementary and Westside Elementary schools which seemed to go well.

Sue Yarbrough
Tunnel Hill Junior Women's Club
Tunnel Hill, Georgia



This and other wood splitters were featured in fuel wood demonstrations.

NORTH GEORGIANS VIEW EQUIPMENT

A series of demonstrations were recently conducted in North Georgia by the Georgia Forestry Commission to acquaint landowners, business people and other interested persons with specialized equipment used in the harvest and production of firewood.

The field demonstrations, preceded by color slide presentations, were held in Rome, Dalton and Blairsville.

John Mixon, Chief of Forest Research for the Commission, told the gatherings that many families are saving from \$60 to \$100 per winter month by changing their heating source to wood. He pointed out, however, that the Commission is urging wood dealers and others to utilize only scrub or cull timber and waste materials for stove wood, as quality trees continue to be more valuable when used for lumber or other products.

It was pointed out at the sessions that North Georgia has an abundance of hardwood and cull species, limbs, logging residues and other wastes that could be converted to firewood.

Equipment demonstrated in forest areas near the three cities included several types of skidders used to bring logs out of the woods and a variety of automatic wood splitters. Most of the equipment was of advanced design and some of the splitters were shown in the areas for the first time.

The series was cosponsored by the Tennessee Valley Authority, Southern Solar, North Georgia Electric Membership Cooperative and Berry College.

GROUP PLANS NEW MILL IN GORDON

A chip mill to cost more than \$1,800,000 is being constructed in Gordon, Georgia, by The Continental Group, Inc.

The mill will have the capacity to process more than 50,000 cords of pine and hardwood pulpwood annually. Production from the facility will be delivered to Continental's pulp mills at Port Wentworth and Augusta.

CHIP SYSTEM NOW IN UNION SCHOOL

John Mixon, Chief of the Commission's Forest Research Department, said the installation of the system is nearing completion and will be operational for the new school term this fall. Mixon's department is in charge of the project in Blairsville, as well as similar projects at schools in Franklin and Treutlen Counties which are now getting underway.

The Union County school is presently using fuel oil and when the conversion is made to wood chips, it is estimated the fuel cost will be cut about 50 percent.

The system, which will heat a boiler to provide steam heat for the school, was designed by Dr. John Riley of the University of Maine. He is serving as consulting engineer on the installation of the system and his fee is provided by TVA.

A building to house the equipment was constructed by the Union County Board of Education.

Mixon said the system will serve as a demonstration project to show how wood can economically replace other fuels in schools and public buildings in Georgia.

The Union County Junior High School in Blairsville is the first school in the state to convert its heating system to wood chips as the primary fuel source.

The system was installed by the Georgia Forestry Commission, with cooperation from the Tennessee Valley Authority, State Board of Education and the Union County Board of Education.



AWARDS

Mr. Albert Brull, left, Economic Counsellor of the Quebec Delegation, Atlanta, presents a plaque to Ray Shirley, Director of the Georgia Forestry Commission, in appreciation of the Commission hosting a recent tour of Canadian forestry officials and providing them with technical forestry information on successful landowner programs. The unique plaque is shaped in the form of the Expo Fair in Canada and is made of wood (See story page 10).



Storekeeper Griffin Bond, a familiar face for many years at the central warehouse in Macon, was pleasantly surprised at a recent luncheon in his honor when Jeanette Moss, Warehouse Secretary presented him with a long string of two dollar bills on behalf of Georgia Forestry Commission employees, as Mrs. Bond looks on. The occasion was Bond's retirement after 27 years of faithful service.

The Patterson Chapter, Future Farmers of America, captured first place in the FFA Field Day finals for the second consecutive year. The Louisville Chapter claimed second place. The 21st annual field day was sponsored by the Trust Company of Georgia and its affiliate banks throughout the state. William Bowdoin of the Trust Company, praised the students for their participation in the character building organization. Chapter members are, left to right, front row, Richard James, Rusty Moody, Steve Boyett, Rodney Dirkin and Advisor Jimmy Mock. Second row includes Scott Yeomans, Freddy Crews, Timmy Newton, Keith Brown, Lanier Walker, Andy Ezell and Joseph Boyett.



Georgia FORESTRY

JUNE, 1980

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FORESTRY FOR EVERYONE

"Forestry Is For Everyone."

That's the slogan for the 23rd annual Ware Forest Festival.

The slogan is apropos. Forestry is the major industry here in Southeast Georgia and it has an impact on everyone.

Not only that but forestry, with all its many facets, is one of the world's crucial enterprises today.

Not many countries are as blessed as ours in having an abundance of forestland. Trees are scarce in all too many places around the world.

While there doubtless is still room for improvement, we have done a pretty good job in preserving our forest resources.

Good management, including reforestation, has paid off. Unlike oil, forests are a renewable resource and, if we are wise and prudent, our supplies will be adequate for future needs.

The Waycross area is located in the heart of what is sometimes called Southeast Georgia's "Pine Empire."

There are several major forestry industries in our community and area and a corps of forestry management specialists.

Let it also be noted that our community serves as an exhibition center for the industry. The Southern Forest World, located at the Okefenokee Heritage Center, will serve as a showcase for forestry programs.

This year's Forest Festival has been extended and enlarged to allow a wider range of programs and activities.

Waycross-Ware County is happy to be the host for this outstanding celebration.

(From the Waycross Journal-Herald)

COMMISSION TAKES LEAD

You can't say the Georgia Forestry Commission in Bibb County can't see the forest for the trees. The conservation-minded commission has taken the lead in the area in setting up a gas-saving program.

Half of the employees at the commission headquarters on Riggins Mill Road are taking advantage of a shuttle service using state-owned vans. Picked up at three church parking lots, the workers leave their cars and driving cares behind for a nominal monthly fee.

Other organizations should see the light, too, and join the conservation effort. Downtown office workers could save additional money on ramp fees or street parking situations.

There are other possibilities for park and ride arrangements, also. While many outlying areas may not need all-day bus service, van service at morning and evening rush hours could solve the commuting problem without large, costly equipment.

At other periods, the vans could become shopping specials. They would be particularly useful for the transport of the community's elderly from home to downtown and back. Or they could be timed to take senior citizens to an afternoon movie or social gathering.

(From the Macon Telegraph)

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ON THE COVER: Miss Yvonne Spinks of Columbus, a pretty high school senior who recently captured the "Miss Georgia Forestry" title, admires a picturesque gazebo at a riverside park in her home town. See story on Page 11.

Drought Brings Greater Threat of Wildfires

As autumn arrives on the heels of a long summer drought, the Forest Protection Department of the Forestry Commission is bracing for a potentially dangerous forest wildfire situation.

Jack Long, Analyst and Training Officer for the department, said forests are extremely dry and parched agricultural crops and other dried vegetation adjacent to woodlands have greatly increased the fire risk.

Long contrasted the long, humid summer to a winter and spring this year that brought excessive rainfall, resulting in one of the best March fire records in the history of the Commission. "However, due to the drought, we now have a real forest fire problem in the state," Long said.

The analyst said "it will take a tremendous amount of rain to give us moisture we now need in our forests." He also pointed out that fire fighting equipment has been used more extensively than in past summers.

He noted, however, that despite the interruptions, equipment statewide is in good shape for the fall and winter fire season.

In a recent report on the fire situation in Fiscal Year 1980, the department announced that debris burning remained the major cause of wildfire for the fourth consecutive year. The report showed that debris burning ignited 2,465 forest fires that destroyed 9,477 acres. These figures, however, were almost 50 percent less than those the previous year and Long attributed the drastic decrease to the extremely wet winter and spring.

The report showed that there were 7,422 fires during the year which burned 29,114 acres, contrasted to 14,455 fires and 59,026 acres the previous year.

Other causes and acreage burned were listed as lightning, 1,140; machine, 2,650; campfire, 187; smoking, 3,019; incendiary, 10,776; and miscellaneous, 1,892.

A Commission patrolman plows a fire-break between a parched corn field and a pine forest.





These men head the Information and Education Departments in state forestry agencies throughout the South. They are shown following the annual meeting of the Southern I&E Chiefs held recently in Macon, with the Georgia Forestry Commission as host. Front row, left to right, are Jim Culpepper, Louisiana; Ernest Haskins, Tennessee; Frank

Craven, Georgia, Chairman; Jim Beck, Alabama; and Paul Willis, Florida. Back row, l-r, are Townley Bergmann, Kentucky; J Green, North Carolina; Ed Rodg Peach, South Carolina.

NEW FORESTRY CALENDAR OF COURSES PUBLISHED

The University of Georgia's Committee for Continuing Education for Foresters has published a calendar of forestry courses scheduled through June 1981.

The calendar contains course descriptions and other information which will facilitate long range continuing education planning.

Persons interested in the calendar are asked to send their request to Dr. Leonard Hampton, Room 121, Georgia Center for Continuing Education, University of Georgia 30602.

HARGREAVES NAMED DEAN OF UGA FORESTRY SCHOOL

Dr. Leon A. Hargreaves, former Assistant Director of the Forestry Commission, was recently named Dean of the School of Forest Resources, University of Georgia

Dr. Hargreaves, who served with the Commission in the late fifties and early sixties, began his association with the school as a student, earning his bachelors degree in 1946 and a masters degree in 1947. He later received a masters degree in public administration and a doctorate in forest management from the University of Michigan.

Dr. Hargreaves succeeds Dr. Allyn M. Herrick as dean of the school.

TIMBERLAND TAX COURSE TO BE HELD AT CENTER

If you are a forest land manager or any other professional who works with private, nonindustrial forest landowners pertaining to tax planning, you need to know about Timberland Tax Treatment: A Workshop on Tax Planning and Its Impact Upon Private Forest Landowners.

The workshop, to be held October 9-10, at the Georgia Center for Continuing Education in Athens, is designed to provide participants with a working knowledge of tax planning so they can better advise landowners in matters pertaining

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Write or call Douglas R. Phillips, Forestry Sciences Lab, Carlton Street, Athens, Georgia 30602, or call (404) 546-2441 for further information.

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PATROLMAN'S IDEA WILL SAVE ENERGY

A Cook County forest patrolman's energy conservation suggestion that will save the state hundreds of dollars annually has been accepted for immediate implementation by the Georgia Forestry Commission.

Julian Reeves, Personnel Officer for the Commission and Department Chairman of the Employees Suggestion Program, said Patrolman Richard Gibson of the Cook County Unit, GFC, submitted a suggestion that calls for installation of a photo-electric switch to regulate security lighting.

Commission officials said the switch, which was recently installed at the Cook County Forestry Unit, will save approximately \$200 annually at that facility. The Commission maintains similar units in 102 other counties but a statewide savings could not be projected at this time, as electrical needs vary in the units.

Gibson, a patrolman with the Cook County Unit for the past 15 years, was presented a Certificate of Appreciation signed by Governor George Busbee and a check for \$20.00 from the Forestry Commission for his suggestion.

The patrolman, a native of Kentucky who first came to Georgia as an Airman assigned to Moody Air Force Base in Valdosta, said the idea came to him "in a flash" one day when he was considering ways to save electricity.

Commission officials explained that security lights in and around forestry unit equipment sheds are currently turned on at the end of the working day to guard against vandalism and theft of gasoline and are turned off when personnel return to work in the mornings.

Gibson reasoned that many hours of unneeded lighting will be eliminated by use of the tiny device, which automatically turns the lights on at nightfall and off at daybreak.

Reeves said the Forestry Commission has adopted the suggestion for "immediate implementation" and the change is now being made throughout the state.

CONSIDERABLE DECLINE SEEN IN BEETLE ACTIVITY



Although Southern Pine Beetle activity has decreased considerably since the peak of the destructive outbreak in 1979, Forestry Commission entomologists contend that counties now moderately infected could become epidemic this fall as a result of prolonged dry weather and extremely high temperatures.

The latest statewide aerial and ground survey by the Commission showed that 79 counties are experiencing infestation by the insect and ten of the counties are epidemic. A total of 3,883 spots of infestation were observed.

Counties in epidemic category were listed as Butts, Clarke, Elbert, Hart, Jasper, Monroe, Morgan, Pike, Putnam and Upson.

In February, 44 counties were epidemic and by May the list had decreased to 14.

Druid Preston, Chief of the Commission's Forest Management Department, said he cautiously predicts less statewide damage by the beetle this year than in 1979, but weather conditions could drastically change the outlook.

Preston urged landowners to join the Forestry Commission in being extremely alert to any activity by the insect. Although another aerial and ground survey will be conducted in September, he said landowners should make frequent checks of their timber and report any activity sighted.

He said a "Fell and Leave" pilot project in Greene and Taliaferro Counties - a project in which beetle-killed trees were cut and left on the forest floor - has been completed. Small spots of infestation ranging from 10 to 50 trees were cut to halt the spread of the insects in the two-county area.

Although the beetle has been controlled as a result of the project, entomologists said they are closely monitoring the two counties in the event new infestation occurs.

The department head said salvage of beetle-killed trees, as well as the clearing of 40-100 foot buffer strips of green trees around an infested spot, remains the best method of controlling the insect and he urged landowners to continue this practice.

SUMMARY OF AERIAL SURVEY SOUTHERN PINE BEETLE

No. Epidemic Counties	10
Total No. Counties Infested	79
Total No. Spots	3,883
Volume Killed (Based on Aerial Estimates and Ground Checks) Red, Fading and Green Topped Trees	Cords 14,953
Total Volume Killed (Jan. 1979 - July 1980)	Cords 1,183,044
Total Volume Salvaged (Jan. 1979 - July 1980)	Cords 960,266

ECONOMIC ASSESSMENT

Green Value ^{1/} of Total Volume Killed (Jan. 1979 - July 1980)	\$27,730,543
Salvaged Timber (Jan. 1979 - July 1980)	
Green Value ^{1/}	\$22,508,616
Salvage Value ^{2/}	\$10,498,904
Net Loss	\$12,009,712
Unsalvaged Timber (Based on July 1980 Aerial Survey)	
Green Value ^{1/}	\$ 5,221,920
Salvage Value ^{2/}	\$ 2,435,704
Net Loss (Assuming 100 Percent Salvage)	\$ 2,786,216

^{1/} Assumption: Green Stumpage Prices \$17/Cd., \$120/MBF.
^{2/} Assumption: Salvage Stumpage Prices \$10/Cd., \$40/MBF.



FORESTERS END LONG CAREERS

Top left: Jim Turner, Chief, Forest Protection, presents a plaque to Lester Lundy. At right, Director Ray Shirley congratulates Ollie Knott. Bottom left: John Harrison, center, is awarded a plaque by George Collier, Field Supervisor, as District Forester Don Griner looks on. At right, Crawford Bramlett, left, received a plaque from Collier while District Forester Frank Eadie and Management Forester Jerry Merritt look on.

The end of long careers with the Forestry Commission came in July for three veteran foresters and a ranger as they retired from service.

All were honored at dinners, parties or receptions given by their co-workers and friends for the contributions they made to the Commission down through the years.

Forester Ollie Knott served in the Education Department as chief photographer for the Commission. Forester John Harrison provided timber management services to landowners in the Washington District for 25 years and Forester Lester Lundy was Assistant Chief of the Forest Protection Department. Forest Ranger Crawford Bramlett was well respected by the many landowners he served for 30 years in Whitfield County.

Knott, a native of Newnan, came with the Commission in 1949 as ranger in Coweta County. He became Assistant District Forester the following year and in 1951 was transferred to Atlanta (then state headquarters) to become affiliated with the Education Department. The

forester is a combat veteran of World War II.

Harrison, a native of Wrightsville, served in the Commission 29 years, with most of his career devoted to forest management responsibilities in the Washington District. He is also a combat veteran of World War II and received three battle stars.

Lundy, a native of Boston, Georgia, came with the Commission in 1949 as Assistant District Forester in Camilla and was awarded several rapid promotions. During most of his career, he served as Chief of General Services at Macon headquarters and Assistant Chief of Forest Protection. He served in the U.S. Marine Corps during World War II.

The three retired foresters are graduates of the School of Forest Resources, University of Georgia.

Bramlett, a native of Ringgold, came with the Commission in 1950 as Assistant Ranger of the Whitfield County Unit. He was named Ranger of the unit later that same year. He received two Outstanding Performance Awards.



NEW RESEARCH OUTLINED IN REPORTS

A research paper entitled Annual Contribution of Timber, Wildlife, Water and Outdoor Recreation to Georgia's Economy has been published by the Research Department of the Georgia Forestry Commission and four other reports are at the printers.

The new research paper is authored by Paul M. Butts, coordinator of the Forestry Commission's Wood Utilization Program, and William A. Campbell, U. S. Forest Service (retired).

The report points out that Georgia's population is expected to increase from its present five million to seven million by the year 2000 and wood production must more than double to meet the increased demand. The authors also stress the complex demands that forest and land managers will have in coping with the need for expanded forest related recreation.

The other new research papers soon to be distributed include:

- Treatment and Utilization of Wood Salvaged from Dutch Elm Diseased Trees, by C. W. Berisford, E. A. Brown, J. L. Hanula, K. Bailey and H. K. Cordell. The publication deals with past and present tests conducted in an effort to determine

safe methods of utilizing or disposing of wood infected by the stubborn disease. Authors Berisford, Brown and Hanula are members of the faculty of the University of Georgia, Bailey is Dutch Elm Disease Coordinator for the Forestry Commission and Cordell is Project Leader, Urban Forestry Research, U. S. Forest Service, Athens.

- Estimating Quantities of Windrowed Forest Residues - A Management Tool for Increased Biomass Utilization, by W. H. McNab, Silviculturist, U. S. Forest Service and J. R. Saucier, Forest Products Technologist, U. S. Forest Service. The

purpose of the report is to describe a simple process developed for the landowner to evaluate his windrowed biomass. Study procedures and results are explained and several tables are included in the publication.

- Forest Investment by Non-Industrial, Private Forest Landowners in Georgia, by Gary E. Mullaney, Forest Economist, Westvaco Timberlands, and Vernon L. Robinson, Forest Economist, U.S. Forest Service, Athens. The report describes the non-industrial private forest landowner and some of his motivation, reveals implicit rates on return of his investment based on actual costs and price expectations, and statistically tests for a relationship between the alternative rates of return and certain characteristics of the investors.

- Industrial Wood Combustion Systems, by William S. Bulpitt and Carol L. Aton, Georgia Tech Engineering Experiment Station, and J. Fred Allen, Wood Energy Specialist, Forestry Commission. Systems discussed include wood fired package boilers, suspension and cyclone burners, fluidized bed combustors, pyrolysis systems, gasification systems and field erected wood boilers. The publication is generously illustrated with drawings.



These Dalton area children enjoy a visit with old Smokey during a recent ceremony in which they were awarded certificates for participating in the Smokey Bear Reading Club. There were 44 children in the club this year and Laurie Ellis took top honors for reading 27 books. The club is sponsored by the Dalton Regional Library, Dalton Junior Womans Club and the Georgia Forestry Commission.



IT'S TIME TO SEASON WOOD FOR WINTER

Although it's getting late, there is still time to cut and dry firewood before the worst blasts of winter comes, according to Druid Preston, Chief of the Commission's Forest Management Department.

Preston advised newspaper readers that it usually takes about six months to properly cure wood, but some species of hardwood and pine will dry a little faster.

He recommended ricking the green wood so air can easily circulate through the stack.

Preston said pamphlets on cutting and storing firewood, a list of vendors who offer wood for sale and instructions on installing wood stoves are available at all offices of the Commission.

Conservationists Cite Georgia Cartoonist

Noted Atlanta cartoonist Ed Dodd, creator of the "Mark Trail" comic strip, has been named recipient of the 1980 Heath Cooper Rigdon Conservation Writer Award by the Soil Conservation Society of America.

Dodd was cited for his longtime personal commitment to natural resources conservation and for telling the conservation story to millions of people throughout the world through the "Mark Trail" comic strip.

DEATH CLAIMS

RETIRED RANGER

Forestry Commission personnel throughout the state were saddened to learn of the death of retired Forest Ranger Abraham E. Eason of Evans County on August 22.

Mr. Eason, who was 73, came with the Commission as ranger of the Evans County Unit in the summer of 1952 and retired in 1972. A native of Evans County, he had worked as a surveyor, farmer and tax commissioner prior to his affiliation with the Commission.

Funeral services for the former ranger, who lived near Claxton, were held at Eason Chapel, with burial in the family cemetery. Survivors include his wife, the former Miss Margaret Callaway, 12 children, 30 grandchildren and eight great grandchildren.



Superintendent Wayne Bellflower inspects trees at Arrowhead Seed Orchard, the source for planting superior seed in the nurseries.

An August progress report by the Reforestation Department showed a 38 percent increase in the number of tree seedling sales over orders received by this time last year.

Jim Wynens, Chief of the department, said he is "well pleased with the response we have received from landowners this early in the season." He warned, however, that landowners who have not ordered should do so as soon as possible to be assured of seedlings for the forthcoming planting season.

The department head announced that some 86,000 seedlings will be produced in the Commission nurseries this year. He said the crop is a substantial increase over the previous year, when many orders could not be filled due to the available supply.

Commis Experie Brisk Seedlin Sales



on ing



Young seedlings show good growth as the Commission prepares for one of its busiest shipping seasons.

Wynens said, however, that the expanded production is not necessarily an assurance that all demands can be met. He said all orders placed through September will be processed for shipment at the appropriate time, but those received after October 1, 1980, will be placed on a "first come, first served" basis.

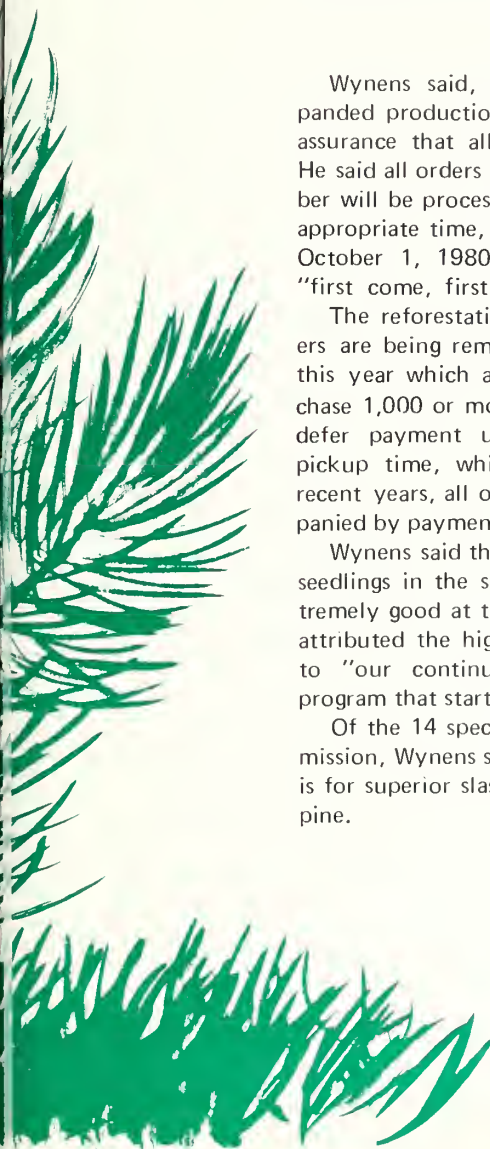
The reforestation chief said landowners are being reminded of a new policy this year which allows buyers who purchase 1,000 or more trees on an order to defer payment until November 1st or pickup time, whichever comes first. In recent years, all orders had to be accompanied by payment.

Wynens said the current crop of young seedlings in the state nurseries "look extremely good at this time of growth" and attributed the high quality of the plants to "our continuing tree improvement program that starts in the seed orchards."

Of the 14 species offered by the Commission, Wynens said the greatest demand is for superior slash and superior loblolly pine.

Seedling application forms may be obtained, he said, from any Commission county office or district office or by writing to the Commission state headquarters at P. O. Box 819, Macon, Georgia 31298. Forms are also available through the offices of county agents, Soil Conservation Service and the Agricultural Conservation Program.

<u>SPECIES</u>	<u>1000</u>	<u>500</u>	<u>50</u>
Superior Loblolly	\$12.50	\$ 6.25	\$3.00
Superior Slash	12.50	6.25	3.00
Slash-High Gum	12.50	6.25	3.00
Virginia Pine	12.50	6.25	3.00
Eastern White Pine	28.50	14.25	6.00
Catalpa	30.50	15.25	7.00
Dogwood	40.50	20.25	9.00
Lespedeza	20.50	10.25	5.00
Oak, Sawtooth	20.50	10.25	5.00
Oak, White	20.50	10.25	5.00
Red Cedar	30.50	15.25	7.00
Sweetgum	28.50	14.25	6.00
Sycamore	28.50	14.25	6.00
Yellow Poplar	38.50	19.25	8.00





Commission secretaries gather on the lawn at headquarters in Macon for a group photograph following the annual meeting. Department heads addressed the group and changes in policies and procedures, as well as other matters, were discussed.

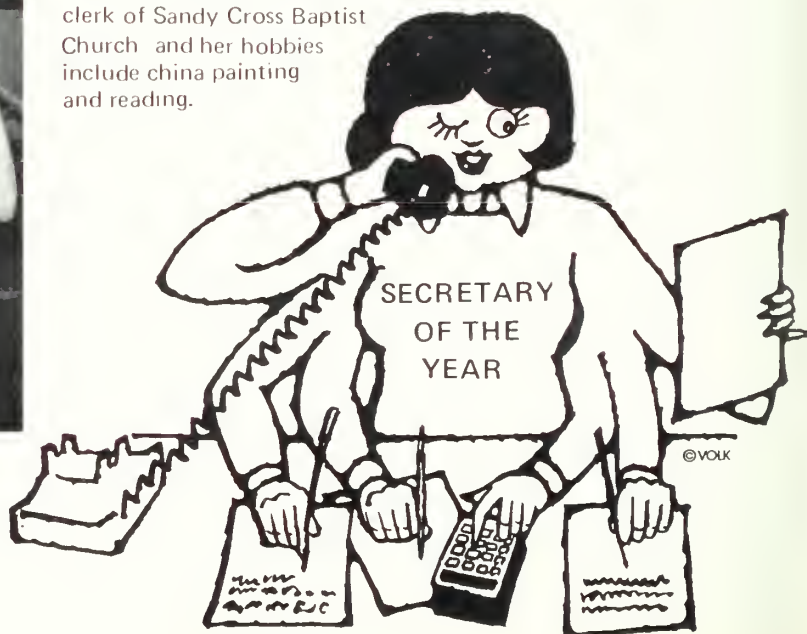
Below: William Cash Harper, Assistant to the Director, presents a plaque and certificate to Nancy Pierce, who was named Secretary of the Year.



Nancy Pierce of the Washington District was named the Forestry Commission's Secretary of the Year at the annual secretaries meeting held recently in Macon. Miss Pierce, a native of Crawfordville, has served as secretary of the Commission's 13th District in Washington for the past 10 years. One of 18 district secretaries across the state, she was selected for the honor by the various department heads within the Forestry Commission.

A spokesman for the department chiefs said Miss Pierce was selected for "the enthusiasm she brings to her job, the neatness and completeness of reports that are never late and her willingness to undertake new programs designed to provide better service to timberland owners and others in the Commission's Washington District which comprises 13 counties."

The Secretary of the Year is clerk of Sandy Cross Baptist Church and her hobbies include china painting and reading.



Two Win Crowns At Convention

A

pretty girl and mathematics is a rather uncommon combination, but that's what you will find when you have a conversation with the new Miss Georgia Forestry.

Yvonne Spinks, 16, of Columbus captured the title in competition with 31 other girls from around the state at the recent annual convention of the Georgia Forestry Association on Jekyll Island.

Yvonne is a senior this fall at the 900-student Columbus High School and plans to enter Columbus College next year and later transfer to Agnes Scott. An A student in math in high school, she plans to major in accounting or computer science.

The pageant winner had a tight schedule of activities during the summer and arrived on the island just minutes before the girls were to make their first public appearance. She was attending a Junior Civitan training session near Denver, but with three airline flights and a trip by car from the Savannah airport, she made it in time to change her clothes and join the other girls in the opening session of the pageant.

Yvonne models for one of the leading department stores in Columbus, attends Morningside Baptist Church, likes blue grass music and baseball, enjoys disco dancing, reads modern fiction and biography and cares little for cooking.

She is the daughter of Mr. and Mrs. Melvin Spinks and she has two sisters, Cheri and Malana, and a brother, Kevin.

In her role as Miss Georgia Forestry, Yvonne is representing the Georgia Forestry Association, forest-related industries and other forest interests by participating in parades, conventions and other special events.

Second place winner in the annual pageant was Miss Leanne Kirkland, 17, representing Miller County. She is the daughter of Mr. and Mrs. Gerald Kirkland of Colquitt.

The Miss Congeniality honor went to Miss Candi Fitzgerald, daughter of Mr. and Mrs. Allen Fitzgerald of Rochelle. The judges selected Miss Lisa Ann Oettmeier, 17, daughter of Mr. and Mrs. W. M. Oettmeier, Jr., of Fargo, to serve as Miss Gum Spirits of Turpentine.

(Continued Page 12)

Yvonne Spinks, Miss Georgia Forestry, top, and Lisa Ann Oettmeier, Miss Gum Spirits of Turpentine.

Georgia Forestry/September 1980



ENERGY NEEDS STRESSED

A record attendance was reported at the 73rd annual convention of the Georgia Forestry Association at which Senator Herman E. Talmadge was featured speaker.

The two-day convention on Jekyll Island also featured a pageant in which Miss Yvonne Spinks was named Miss Georgia Forestry and an awards ceremony in which seven persons with the Forestry Commission were honored for their achievements.

Senator Talmadge, who was introduced by Commission Director Ray Shirley, told his audience that "it is time to stop talking and to get moving on alternative energy production...and put wood energy out front where it belongs". He said his committee had developed data showing that wood biomass alone can produce 9.6 quadrillion BTUs of energy annually, or 10 percent of the country's current ener-



WILLIAM J. BARTON

gy consumption.

The senator drew his greatest applause when he pointed out that "wood can produce \$8 to \$10 billion annually in energy sales, or about \$20 billion in new economic activity...Instead of adding to the bloated riches of oil shieks, this money could provide new jobs, new timber markets, new manufacturing activity, and new energy to run America."

Other speakers included Leonard Ledbetter, Department of Natural Resources; Dr. Al Montgomery, Georgia State University; and H. S. Mersereau, Georgia Pacific Corporation.

Frank Craven, Chief of the Forestry Commission's Education Department, was master of ceremonies for the Miss Georgia Forestry Pageant. Bill Barton of Union Camp Corporation and president of the Georgia Forestry Association, presided at the convention.



SENATOR TALMADGE



LEA APPROVES PAY TO VICTIM'S FAMILY

The Forestry Commission has been notified that the Law Enforcement Assistance Administration has approved a payment of \$50,000 to the widow and three children of Forest Patrolman Richard Conyers Smith, who was killed December 31, 1979, while fighting a forest fire near Dawson in Terrell County.

Commission Director Ray Shirley was notified by William F. Powers, Director of the Public Safety Officers' Benefits Program, that payment has been approved. Powers also expressed appreciation to Commission personnel who assembled requisite information during the claim process.

In the letter to Mrs. Ethel Christian Smith, Powers said the Benefits Act recognizes the dedication and heroic services of state and local public safety officers and fire fighters. "It is a grateful memorial to brave public servants like your husband who gave his life in the service of his community," he said.

POSTER RULES TOLD

The National Council of State Garden Clubs has announced rules for the 1981 Smokey Bear and Woodsy Owl Poster Contest, in cooperation with the U.S. Forest Service and State Foresters.

The Forestry Commission is urging participation by Georgians in the contest that consists of five age groups.

Mrs. John H. Todd of Cobb, Georgia, State Chairman of the contest, said divisions range from kindergarten to senior citizens.

For further information, contact Mrs. Todd at Box 185, Cobb, Georgia 31735.

(Continued from Page 11)

Miss Oettmeier, whose color portrait will adorn the new calendar of the American Turpentine Farmers Association, is a member of a forestry family. Her father is a graduate forester, who was with St. Regis for some 15 years and now operates his own business.

Miss Gum Spirits will be a senior this fall at Clinch County High School. She is a member of the Beta Club, head majorette and also plays clarinet in the school band.

The pretty brunette is a member of the Fargo United Methodist Church. Her hobbies include sewing and reading.

Miss Oettmeier will enter the University of Georgia next year and plans to become a certified public accountant.

M

ilton (Buddy) Hopkins, Jr. has a fondness for trees. It can be traced back to his boyhood days in the Fitzgerald area when he dug young trees from the forests and transplanted them in his father's yard.

It showed up again in later years when Hopkins became a young farmer. "I heard that a large site had been planted and about 5,000 to 6,000 seedlings were left over," he explained, "and they were free to anyone who would take them."

Hopkins took them. He planted every one of the young trees by hand and he has been planting ever since.

This summer, inspectors toured the Hopkins farm and carefully noted the way he wisely manages his forestlands. It was agreed that he should be recognized for his outstanding work in promoting good forestry and conservation and upon their recommendation, Buddy Hopkins was declared "Georgia Tree Farmer of the Year 1980".

The award was presented at the annual convention of the Georgia Forestry Association by David Mitchell of St. Regis Paper Company, Tree Farm Committee Chairman.

Today, the popular Irwin County land-



FEATURE PAGE



at his small wood treatment plant on the farm. All fence posts and other timbers needed on the farm are treated in the plant.

In the prevention of fire, Hopkins considers prescribed burning one of the best measures he can take. Vegetation grows fast in his rich soil and he burns 200 to 300 acres of forestland each year to keep ahead of the underbrush.

The farm also contains more than 600 acres of row crops, which are managed by his son, Milton (Bubba) Hopkins, III, who lives nearby. The champion tree farmer and his wife, Mary, also have a daughter, Carol.

three grandchildren - as well as a frequent visitor who would happen by - his fascination in the unique farm home. The Hopkins' have occupied in recent years. It's the old Osierfield Depot, a building built around the turn of the century.

The building was moved from the rail yard more than a mile away and with the help of his son, Hopkins made some interesting and attractive innovations on the former depot.

Hopkins served on a destroyer in the navy during World War II and learned a great deal after returning to civilian life. He occasionally flies over his property to check the woodlands for beetle infestation. He once observed from the air that a timber had been cut from his land in the area and was able to financially recoup the loss with the crew that had gone over the property line.

Tree Farmer of the Year is a graduate of the University of Georgia, where he received a degree in zoology. He also studied at Emory University under a one-year scholarship.

SECOND REQUEST

Dear Reader,

House Bill 919, passed by the 1980 Georgia Legislature, has mandated that all state agencies update their mailing lists. If you failed to return the card in the June issue and you wish to continue receiving GEORGIA FORESTRY, you must return this card by December 1, 1980.

Thank you,
Georgia Forestry Commission

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roads. Approximately 500 black walnut trees have been planted as an experimental project.

In thinning, Hopkins is careful to separate sawlogs from tree length timber that he sends to a chipping mill in Fitzgerald. Some of the material ends up

Top: Tree Farmer Milton Hopkins admires a giant oak on his farm. At left, Grandson Donnie stands beside a young pine to show the rapid growth the tree has made in just 3½ years.



logging the foresters

Although I spoke to you (Jim Gryco, McDuffie-Warren Forestry Unit) on the telephone a couple of days ago, I also wanted to thank you in writing for your splendid help with the fire at our home on Wrens Road a few weeks ago.

Your prompt response, your knowledge of what to do, and your willingness to be helpful prevented what could have been extremely serious. Thank you for your special efforts and for returning to check the fire later.

Monroe Kimbrel
Atlanta, Georgia

I would like to take this opportunity to express my thanks to your two agents, Robert Jones and Sandra Taylor, Floyd County Forestry Unit, for the service they provided when I had a fire on my property. It is seldom one has the opportunity to deal with people that were as courteous and efficient as your two agents were. My purpose in writing is to express my appreciation for the service you provide and to commend you for the people you have in your organization.

Steve Stutts
Rome, Georgia

In this belated note I wanted to write and express my appreciation to you (Forester John Clarke) for taking time out of your busy schedule to come out to my house to check my trees.

Suffice it to say, your remarks were most interesting and I still marvel at how much I learned from you about the variety of trees I have in my yard.

The Middle Georgia area is very fortunate to have someone of your calibre to serve in this capacity, for it is evident you have been a fine asset to the Forestry Commission.

Charles A. Jay
Macon, Georgia

The students and faculty of M.D. Collins High School appreciated your participation in our Career Awareness Day. We felt that it was a stimulating and rewarding experience, and we thank you (Forester Louie Deaton, South Fulton Unit) for your part in making it so.

Career education is an important part of our curriculum, and we feel that students need to understand the relationship between school subjects and their future occupations. This helps make education more meaningful for our students.

Thank you again for sharing your knowledge and information and for helping us educate our students about the world of work.

Jan Lynch and John Vaughn
Collins High Counselors
College Park, Georgia

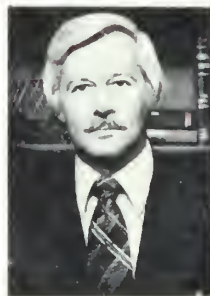
THOMAS "MIKE" McMULLAN, a native of Monroe County and graduate of Mary Persons High School in Forsyth, has been named Forest Ranger of the Bibb-Monroe County Unit. The two counties combined operations August 1. McMULLAN began his career with the Commission in 1971 and was named Ranger of the Monroe County Unit in 1978...ORVIN BERGMAN, a native of Cogswell, North Dakota, who has worked with the Commission for the past six years as Patrolman in Peach County, has been named Ranger of the recently combined Crawford-Peach County Unit. He is a retired Air Force sergeant...FORESTER FRANK ROBERTSON, who served as Assistant Director of the Georgia Forest Research Council for eight years, was recently named Chairman-Elect of the Southeastern Section of the Forest Products Research Society. He has been with the Osmose Wood Preserving Company in Griffin since 1973 and is Director of Advertising and Marketing Services for his company... RICHARD R. SCOTT of Augusta, a senior majoring in timber management at the School of Forest Resources, University of Georgia, recently received the Outstanding Senior Award. He was also a recipient of a scholarship from Brunswick Pulp and Paper Company and served as president of the UGA Forestry Club...WILLIAM WOODYARD, ranger of Coweta County since 1978, has been transferred to the Whitfield County Unit and promoted to Senior Ranger. He joined the Commission in 1970 as a patrolman in the Troup County Unit...ROBERT RHODES, a native of Laurens County and a U.S. Army veteran who saw combat action in Viet Nam, has been named Forest Ranger of the Laurens County Unit. He has served the unit as patrolman for the past six years...LYNN McELROY, a lifetime resident of Newnan and a patrolman in the Coweta County Unit for the past six years, has been named Ranger of that Unit...HARRY GRAHAM, who came with the Commission as Ranger of the



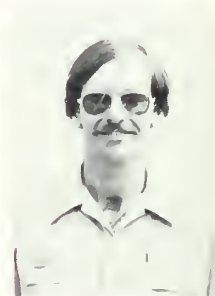
McMULLAN



BERGMAN



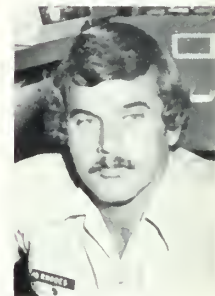
ROBERTSON



McELROY



WOODYARD



RHODES



GRAHAM



Laurens County Unit in 1974, has been named Assistant District Forester of the McRae District.

Forestry Commission personnel presented Performance of Excellence Awards at the annual Georgia Forestry Association convention on Jekyll Island are, left to right, Forester Michael Young, Baldwin Seed Orchard; Accountant Joe Cowart, Macon office; Aircraft Pilot John Atchley, 16th District; Forester Winston West, 14th District; and Ranger Newell D. Lastinger, Colquitt County Unit. The awards were presented by the Georgia Forestry Association at the convention banquet.




SOCIETY OF AMERICAN FORESTERS



Two Georgia foresters were inducted - one posthumously - into the Georgia Foresters Hall of Fame by The Georgia Chapter, Society of American Foresters, at the recent annual meeting at Unicoi State Park. Inducted were James F. Spiers of Statesboro, second from left, and Robert W. Cooper, whose widow, Ray, accepted the plaque. Young Rainer, right, chairman of the Hall of Fame Committee, made the presentation. Also participating in the ceremony was Vaughn Hofeldt, left, Chapter chairman. This brings to 26 Foresters so honored since the inception of the program in 1968.

Georgia FORESTRY

SEPTEMBER, 1980

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WHY LEAVES CHANGE COLOR

Most people suppose that Jack Frost is responsible for the color change, but he is not. Some of the leaves begin to turn before we have any frosts. In reality, however, change in coloring is the result of chemical processes which take place in the tree as the season changes from summer to winter.

All during the spring and summer the leaves have served as factories where most of the foods necessary for the trees' growth are manufactured. This food-making process takes place in the leaf in numerous cells containing chlorophyll, which gives the leaf its green color. This magic chemical absorbs from sunlight the energy that is used in transforming carbon dioxide and water to carbohydrates, such as sugars and starch. Along with the green pigment are yellow pigments -- the carotenoids -- which, for example, give the yellow color to a carrot. Most of the year these colors are masked by the great amount of green coloring. But in the fall, because of changes in the period of daylight and changes in temperature, the leaves stop their food-making process. The chlorophyll breaks down, the green color disappears, and the yellowish colors become visible and give the leaves part of their fall splendor.

At the same time other chemical changes may occur and cause the formation of additional pigments that vary from yellow to red to blue. These are the flavonoids. Some of them give rise to the reddish and purplish fall colors of leaves of trees such as dogwoods and sumacs. Others give the sugar maple its brilliant orange. The autumn foliage of some trees shows only yellow colors, however, and some, like many oaks, are mostly brownish. All these colors are due to the mixing of varying amounts of the chlorophyll residue and other pigments in the leaf during the fall season.

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North Georgia
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Cruising The News

ALTERNATE ENERGY SOURCE DEVELOPED

Georgia is doing something about the need to develop alternate sources of energy and reduce dependence on foreign supplies of traditional sources such as oil.

The state recently placed into operation at the Northwest Regional Hospital in Rome what Gov. George Busbee called the "largest operational wood gasification system in the United States and the first ever to be installed at a major state institution."

The system produces low-cost fuel gas from green wood chips. The gas in turn provides fuel for a modified boiler that generates steam for heating, air conditioning and laundry services at the 650-bed facility.

Gov. Busbee was understandably excited about the facility at Rome and the potential of wood gasification as an energy source.

"We are here today for the beginning of what may be the end of energy dependence in our country and particularly in our state," Busbee said in helping to dedicate the facility. "The State of Georgia, by using the primary source of fuel for most of man's history, is tak-

ing a step not into the past but into the future."

The governor indicated that up to 10 percent of the state's annual energy needs could be provided by wide application of the type system being used in Rome.

Moreover, the alternative energy source could prove much less expensive than imported oil. The Rome project cost less than \$400,000 to develop, and it is expected to save \$250,000 a year in energy costs at the hospital.

Several groups helped develop the Rome project, and they and others can be expected to expand the approach in the future. The pioneer project was a joint effort of the Georgia Forestry Commission, Georgia Tech's engineering station, Applied Engineering Co. of South Carolina and the Weyerhaeuser Corp.

In addition to providing an alternate energy source and saving fuel costs, the development of wood energy could provide an important new industry in the state.

Georgia's continued progress in this field should be encouraged.

—From the Athens Banner-Herald

FIREWOOD OPENS NEW OPPORTUNITIES

There has been a limited market in North Georgia for low grade and scrub hardwood timber. However, with the new fuel woodyard in Blairsville, a landowner has an opportunity to dispose of this product. This yard will also reduce the number of miles that many wood producers will have to drive to market. The woodyard will take all hardwood, down to a minimum diameter of four inches and up to a maximum of twenty inches. The wood processor is set up to operate with an eight foot log and the firewood will be cut into sixteen inch sticks. They are buying wood by weight, using a set weight per cord and paying prices comparable with pulpwood. Gold Kist farmers mutual exchange is operating the yard. Because

Gold Kist is a co-op, any landowner selling to them will be eligible for a dividend just as they are when buying or selling anything else.

Having this market for this product will afford a landowner a monetary return. This in turn will help pay for the cost of putting unproductive land into productive timber land again. There is a cost sharing program through the county Agricultural Stabilization and Conservation service office. Any landowner can apply for cost sharing assistance in carrying out forest improvement practices.

The Georgia Forestry Commission is available to provide technical forestry assistance to any private landowner upon request.

—From the Clayton Tribune

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URBAN RESIDENTS VIEW EXHIBIT

The Commission's Urban Forestry Mobile Exhibit is now touring the cities and towns of Georgia.

The vehicle was outfitted in the summer by the Education Department with a wide range of interesting and informative exhibits to acquaint the urban dweller with the proper maintenance of shade and ornamental trees and to aid in the control of forestry diseases and insects that sometime plague city homeowners.

The first showing was at the Georgia Mountain Fair at Hiawassee, where a large number of viewers passed through the bus.

Since that initial showing, the exhibit has been seen by thousands of people attending regional and county fairs across the state. The events have included the Georgia State Fair in Macon, the North Georgia State Fair in Cobb County, Tift County Fair, Spalding County Fair, Jones County Fair, Houston County Fair, Richmond County Fair and Henry County Fair. It was also shown at Phipps Plaza in Atlanta.

The exhibit will be featured December 19-21 at the Energy Exposition at the World Congress Center in Atlanta and it is being booked for several other events in the new year.

Commission personnel are on hand at the exhibit to answer questions and help viewers choose literature pertaining to their problems.

Before the exhibit is transferred from one site to another, Commission personnel relinquishing the exhibit, as well as the one receiving it, must sign a check list certifying that the bus is clean inside and out and that all equipment is in good working order.

BEETLE ACTIVITY SHOWS DECLINE

The latest statewide survey conducted by Commission entomologists revealed that only two Georgia counties - Franklin and Hart - are now classified as epidemic in Southern pine beetle infestation.

In February, 44 counties were on the list, but by July only ten remained. The latest survey also showed that 69 counties continued to have some degree of beetle activity, with a total of 2,063 spots of infestation. About 85 percent of the spots, however, averaged less than 25 trees each.

The report showed that since January, 1979, Commission personnel contacted more than 8,400 landowners concerning beetle activity on their property. A total of 1,189,842 cords of wood have been killed since the outbreak began in the spring of last year. Of that volume, 1,018,973 cords have been salvaged.

The Commission in 1981 will be actively involved in several applied research projects aimed at preventing southern pine beetle outbreaks in the state. Silvicultural practices and population manipulation with insect pheromones will be involved.

Although the entomologists are encouraged with the decrease in southern pine beetle activity as the year ended, they said there is some increase in the Ips and turpentine beetle infestation in some sections of the state. That activity is being closely monitored, they said.



GILLIS IS NAMED BOARD CHAIRMAN

Jim L. Gillis, Jr., prominent Treutlen County forestland owner and well known conservation advocate, has been named chairman of the Board of Commissioners of the Georgia Forestry Commission.

A. Ray Shirley, Commission Director, said Gillis was named to the chairmanship by the four other members of the board, which serves as a governing body for the state agency.

Gillis, who resides in Soperton, is president of the American Turpentine Farmers Association, a director and past president of the Georgia Forestry Association, and has served as chairman of the State Soil and Water Conservation Committee for more than 27 years.

Gillis succeeds H.E. Williams of Woodbine as chairman of the board. He graduated from the University of Georgia in 1937 with a degree in forestry. The other members also are educated in forestry or have business interests in forestry.

Other members include Felton Denney, Carrollton; Eley C. Frazer, III, Albany; and Robert Simpson, III, Lakeland.

Gillis is also a farmer and banker and has held prominent positions in several organizations concerned with Georgia banking and agriculture.

He is a former state senator, county commissioner and mayor. He is married to the former Miss Katherine Hudman of Screven County and they have four children and nine grandchildren.



PROJECT PROMOTES FIREWOOD

Top left: Commission Forester David McLain, right, and Forester Bill Nussbaumer, TVA, center, discuss woodyard operations with Ray Madden, a Dalton vendor. At right, wood is fed into an automatic splitter at a Dalton woodyard. Bottom left: Forester Crawford Cooper and an operator inspect a new type splitter at a Blairsville woodlot. At right: woodmen begin production in Whitfield County to meet the coming winter demand.



As cold weather approaches, more and more people are purchasing heating systems which use wood as a fuel. Thanks to the efforts of four organizations — the Georgia Forestry Commission, Southern Solar Energy Center of Atlanta, the Tennessee Valley Authority and the North Georgia Electric Membership Corporation — residents of Northwest Georgia have an excellent opportunity to use wood as a source of heat.

A firewood project has been initiated in Catoosa, Chattooga, Floyd, Gordon, Murray, Walker and Whitfield Counties. A survey was conducted through the Georgia State University which found that in a nine county area, including the seven above listed counties, there is a current demand for 98,520 cords of wood for fuel. There are 39,730 homes in the area, according to the survey, which use 2.5 cords per year and 18,400 homeowners plan to install some type of



wood burning stove or furnace in the future which will dramatically increase the demand for firewood.

David McLain, Commission forester, points out that in the seven-county project area there are 1,009,000 acres of forest land, much of which is in hardwoods. He said he thinks there is enough hardwood on these acres to support the firewood demand. Trees to be used would primarily include those which have no other commercial value and were formerly waste material.

McLain also said that clearing land of these inferior trees serves to enhance the forest, as it eliminates competition for quality trees and provides more sunlight for their growth.

McLain emphasized that species such as oak and hickory make the best firewood, but they require more drying time than softer species. Ideally, he said, wood should be dried for six months to lower its moisture content.

McLain said local firewood businesses are opening up in the Dalton area to meet the demands of firewood for customers.

One such business is the A&A Lawn and Tree Service Company, operated by William Metcalf and Aubry Harrell. Located at 300 East Hawthorne Street, the company utilizes trees cut during their normal city services and they also buy logs and rounds from landowners.

Newcomers to the firewood business are Ray Madden and Monroe Blackwell, co-owners of B&M Wood Company. The company, located on East Waugh Street just off US 76 between Dalton and Chatsworth, is open six days a week. The company does have a telephone answering service for times when the office is closed. They have a retail outlet on the corner of Easterling and East Waugh Streets.

The Beavertale Woodyard, operated by Max Guess and Hubert Langley, is located on Highway 2 near Prater's Mill. Their yard contains oak, hickory and maple. At the present time, the company does not split their logs into firewood. They sell random length logs, purchased from producers.

Milton Greeson, supervisor, Conservation Department, North Georgia Electric Membership Corporation, Dalton, said the corporation has financed without interest a total of 1,014 wood heaters for homeowners in the seven-county service area.

For additional firewood information, Forester McLain suggests interested persons contact their local county Forestry Commission office.



Above, corn is dried on a Mitchell County farm. Below, the dryer is set up at another location and a forester is shown explaining its operation to a group of observers, including Gov. George Busbee (seventh from right).

ON MITCHELL FARM WOOD-FIRED CROP DRYER SHOWN



A crop drying demonstration featuring the Commission's new mobile chip-fired equipment was held recently on the Mack Hayes farm near Camilla in Mitchell County.

Fred Allen, Wood Energy Specialist in the Commission's Forest Research Department, said it was the first of several demonstrations planned to show farmers of Georgia how they can save considerable costs by converting from propane gas to green wood chips in drying grains and other crops.

Allen said the Commission's Rettew furnace, mounted on a trailer and equipped with chip conveyers, an electronic control panel and several safety features, was used to provide heat for an existing crop drying system on the Hayes farm. He said certain modifications had to be made to convert the system from propane to green wood chips.

The specialist said the furnace generates up to three million BTU/hr and is mounted on the trailer for convenient moves from one farm site to another. A conventional John Deere forage trailer is used for storing the wood chips. A Patz agricultural conveyer moves the chips from the trailer to the furnace.

Allen explained that the chips pass through a rotary air lock and slide down a sloping wall to the pinhole grate, where the fuel is burned. Underfire air is blown through the pinhole grate to keep the wood chips burning. From the area above the grates, the hot gases pass over a six-inch firewall into a secondary combustion chamber and then into the firetubes of the heat exchanger.

The agricultural crop dryer produces hot air up to 200°F. The hot air is moved from the furnace at 16,000 CFM.

County officials, the county agent, local farmers and representatives from the Georgia Farm Bureau Federation attended the initial demonstration in Mitchell County.

Allen said the Commission is also studying the possibility of using the equipment to heat poultry houses and serve Georgia agriculture and industry in other ways.



Commission makes water drop to demonstrate aerial assault on forest fires in rugged or remote terrain. At left, Georgia Fire Academy presents a spectacular liquid fire suppression exercise. (Photos courtesy The Jefferson Herald.)

COMMISSION JOINS JEFFERSON IN SALUTE TO FIREFIGHTERS



A water drop by a Commission helicopter was one of the highlights of the recent Firemen's Appreciation Day held in Jefferson to honor all volunteer firemen and emergency service volunteers of Jackson County.

The Commission also displayed a tractor unit from the Jackson-Barrow office, with personnel on hand to explain the features of the equipment. Several fire knockers and quick response vehicles that are provided communities in the county by the Commission through the Rural Fire Defense program were also on display.

The special day was sponsored by the Jackson County Chamber of Commerce. The Board of Commissioners in the coun-

ty publicly expressed appreciation and gratitude for the work carried out by the volunteers. The board also praised the chamber for inaugurating the recognition day.

Visitors attending the event at Jefferson Memorial Stadium were welcomed by Henry Robinson, chairman of the county commissioners and opening remarks were by Ron Bond, chamber president. Guest speaker was Johnny Caldwell, State Insurance Commissioner. Guests were introduced by local Fire Chief Lauren (Bubba) McDonald.

Presentations were made by Mayor Byrd Bruce of Jefferson. Memorials to James Ginn and Smith Bridges were made by Larry Edwards, President, Jackson County Firemen's Association.

A certified pure air compressor truck was displayed by the Georgia Fire Academy and a 56-foot ladder truck was shown by Georgia Industrial of Alto.

Communities participating in the observance and displaying fire equipment included West Jefferson, Harrisburg, Fairview, Nicholson, South Jefferson, Maysville, Plainview and Arcade.

Jim Turner, Chief of the Commission's Forest Protection Department, which also administers the Rural Fire Defense program, said the event was "very impressive" and praised the sponsors for their recognition of the area's firefighters.



SEEDLING SHIPPING SEASON UNDERWAY

Work is now underway at the Commission nurseries to lift, pack and ship more than 86 million tree seedlings.

Jim Wynens, Chief of the Commission's Reforestation Department, said the shipping season got underway gradually in October and by late November it was in full swing. He said the season usually extends into March of the following year.

The department head said the crop this year is a substantial increase over production last season and was planned when a rising demand could not be met in 1979.

The Commission earlier this year carried out a concerted drive to inform landowners statewide that an expanded supply of seedlings would be available for the 1980-81 planting season. As a result of the campaign, many orders came in early and were processed by the department before the fall rush began.

H. G. Ellenburg, Nurseryman of Morgan Memorial Nursery at Byron, said the seedlings this season "look extremely good." He said the growing season was one of the driest and hottest on record, but extensive use of the irrigation system pulled the young trees through the summer.

Below: Mrs. Joyce Smith processes seedling orders for shipment at Morgan Nursery. At right: Jim Wynens, reforestation chief, inspects some of the healthy young trees.



Sharon Bennett, Waycross District Secretary, punches in biomass cruise information on a computer terminal in her office.

BIOMASS NOW RAPIDLY COMPUTED

The Commission's 21 computer terminals around the state have been formerly used exclusively for rapid weather data, but now they are taking on an additional function.

Druid Preston, Chief of the Forest Management Department, said the terminals will now be used to determine biomass on any given forested area in the state.

He explained that conventional timber cruise data, including the number of trees, diameter of trees and merchantable height of trees, is fed into the terminal and an especially programmed computer in Athens will almost immediately respond with a readout providing the total biomass in that particular plot.

Preston said the Commission has been working closely with the U.S. Forest Service in perfecting the procedure. He said the computer can provide the total biomass in either green weight or board feet and will be invaluable to landowners who need to know the immediate value of their forest holdings.

The computer terminals, which are located in most district offices, three county units and in the Macon headquarters, were first introduced in the Commission's Forest Protection Department about two years ago and have served well in providing up-to-date weather information.



T

he nation's largest wood gasification system — a major project of the Georgia Forestry Commission — is now operational at Northwest Georgia Regional Hospital in Rome, where it is providing the energy necessary to both heat and cool the sprawling 665-bed facility.

Landowners, industrialists, legislators and a large press corps were on hand at recent dedication ceremonies in which Governor George Busbee said the state has taken a primary source of fuel used for most of the nation's history to make a broad step into the future. He said the new gasification system is one of the first cost-effective techniques developed in the nation's quest for alternative energy sources.

The gas produced will be burned in the hospital's boiler room to generate 19,000 pounds of steam per hour, which is expected to provide most of the energy needs for the facility's heating and cooling equipment.

The gasification program was developed as a joint project by the Georgia Forestry Commission, the Georgia Tech Engineering Experiment Station, the Weyerhaeuser Corporation and Applied Engineering Company of Orangeburg, S.C., which designed and built the gasifier.

Experts estimate the gasification system will save the hospital about \$250,000 in fuel costs yearly. They say the boiler could pay for itself within two years.

Gov. Busbee praised the Forestry Commission, along with Georgia Tech's Engineering Experiment Station and the Weyerhaeuser Corporation, which provided engineering and technical assistance and offered special thanks to Applied Engineering Company for producing the system.

Ray Shirley, director, Georgia Forestry Commission, said that the more than 24 million forest acres in the state could meet 10 percent of the state's commercial energy needs in the future by utilizing cull timber that presently does not have a market. Shirley further stated that wood chips for the Rome hospital will be provided from North Georgia forests by loggers who not only will chip limbs, logging debris and cull trees from both hardwoods and softwoods, but in the process will also be clearing land and site preparing it for replanting.

During the dedication, demonstration chippers and logging equipment were shown. Fallers and log skidders cut the trees which were skidded by log hogs to the chipper. The resulting chips were blown into a trailer for transportation to the hospital where they

WOOD GASIFICATION SYSTEM DEDICATED THE NATION'S LARGEST



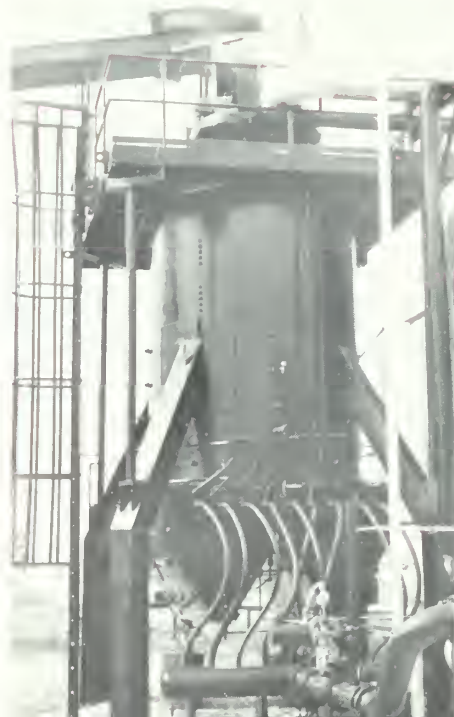
were unloaded onto a conveyer belt system for storage in a silo.

A commercial harvest plot showed the conventional method of harvesting, while an adjacent control plot was left in its natural state. A clearcut plot demonstrated the total removal of the timber stand for the purpose of regenerating a more valuable acre of timber. After removal of the sawtimber, the undesirable trees, limbs and the remaining biomass were chipped. It was designed to show landowners how this method of harvest can save the cost of site preparation. At the same time the landowner would realize additional income from the sale of chips

produced from biomass.

A selective thinning plot was demonstrated, which left desirable trees for a future timber crop. The object of the plot was to show landowners how they can improve their timber stand and at the same time realize revenue from low grade and cull materials when converted to chips. A control plot was located adjacent to this plot.

A firewood plot was set aside to show the type of tree that can be profitably harvested for this purpose. It also emphasized that by taking out poor quality trees for fuel purposes, the entire stand is vastly improved.





The Georgia Forestry Commission has been actively promoting the technique of whole tree chipping as an important forest management tool. Director Shirley told the dedication audience that the whole tree approach is basic to the economic success of wood gasifiers and other wood-fueled equipment. He pointed out that a logging operation leaves almost 22 tons of biomass per acre which can be chipped for modern wood heating systems, thereby providing a new source of revenue for landowners and bring about site clearance for reforestation purposes.

G. A. Thompson, senior vice president and general manager of Applied Engineer-

ing Company, explained that the system at the hospital "is not an experimental or prototype installation...it is a fully operational first-generation system that offers real advantages over conventional fuels such as oil and natural gas."

Thompson praised the foresight and cooperation of the Forestry Commission during the development of the new process and said the project was an outstanding example of how the public and private sectors can work closely together in achieving vital energy goals.

Governor George Busbee in the above photo is shown conducting a news conference at Rome in which he termed the gasification system a "broad step into the future." Reporters representing the state's major newspapers and radio and television stations, as well as representatives of the wire services, were in attendance. Below are scenes of the gasifier just outside the boiler room at the big hospital and a group observing one of the forest demonstration plots set up near the city to show various types of management practices and wood usage.





The Georgia Council of Entomology recently held its 25th annual meeting in the Commission auditorium in Macon. Members attending the session were: front row, left to right, Terry Price, Georgia Forestry Commission, 1980 Chairman; Ralph Gentry, Southeastern Fruit and Nut Tree Research Station; R. H. Prestage, USDA, APHIS, PPQ; Bruce Ezell, Georgia Southern College; and Harry Yates, USDA, Forest Service, 1981 Chairman. Back row, l-r, Oscar Fultz, Chatham

County Mosquito Control Commission; Herb Womack, University of Georgia Extension Service; Carl Scott, Georgia Department of Agriculture; Harry Gross, USDA, Southern Grain Insects Research Lab; Roy Bry, USDA, Stored Product Insects Research Lab; Kerry Thomas, GFC; Bill Tietjen, Georgia Southwestern College; and Preston Hunter, University of Georgia.



Several foresters from the Republic of China recently toured sections of the United States under the sponsorship of the USDA, Forest Service. Part of the tour included the Georgia Forestry Center and the Commission's nurseries and seed orchards. The Chinese are shown here (front row) with Director Ray Shirley and other Commission officials. Left to right

are Wang Hansheng, Huang Yuyian, Li Changjian, Du Menggang, Wu Chung lun, Wang Zhenru, Yong Wentao, Shirley and Huang Shu. Back row, left to right, Druid Preston, George Collier, David Westmoreland, Stanley Krugman, Cash Harper, Bill Hess, Jim Wynens and Jim Turner.



Commission Engineer B. O. Jarrett, right, explains chip-fired system to viewers. At bottom, John Mixon, research chief,

WOOD CHIPS HEAT UNION SCHOOL

Ceremonies were held recently at Union County Junior High School in Blairsville to dedicate a new heating system which utilizes green wood chips.

The unique system, which was engineered and installed under the direction of the Georgia Forestry Commission, became operational this fall. The junior high facility is believed to be the only public school in the Southeast in modern times to be heated by wood.

The chips are transported to the school from a nearby sawmill in a New Holland forage trailer, and then moved onto a live bottom hopper in the boiler room by means of a conveyer.

From the hopper, the chips travel by a screw conveyer to a firebox which was constructed on the boiler room floor. Steam from the wood fired boiler heats a portion of the school building. Because of the extremely high combustion temperatures, the stack emissions are very low.

According to Clyde Collins, Union County School Superintendent, the system will not only save energy and school funds allotted for heating, but will also provide an additional source of income for forest landowners.

During the dedication, John Mixon, Chief, Forest Research for the Commission, pointed out that the venture was a cooperative effort between the Commission, TVA, State Department of Education and the Union County School Board. TVA funded \$25,000 toward the system, Mixon said, while the Commission supervised the installation of the system.

Mixon said the system will use 700 pounds of green wood chips during a 24-hour period, as compared to 17-18 gallons of fuel oil that would be required if that fuel were used.

B. O. Jarrett, Commission Engineer, said the cost of chips would run about one-third the cost of fuel oil.



DEATH CLAIMS RANGER RAY

Commission personnel across the state deeply regret the loss of Forest Ranger Leon Ray of Emanuel County and extend sympathy to his family.

The ranger, a native of Douglas, died October 28 in the Veterans Administration Hospital in Dublin. He had suffered a stroke in August.

Ranger Ray, who had studied at a ranger school in Florida, came with the Commission in the fall of 1951. He was named ranger of the Emanuel County Unit at that time and served in that capacity during his 29-year career.

District Forester Don Griner said Ray, a war veteran and a Baptist, always kept his county unit, which is located about a half mile from Swainsboro on U.S. Highway 1, in good condition and performed his duties well.

The ranger was presented a commendation award at the recent statewide training session at Norman Park for leading all counties in assisting landowners in prescribed and control burning and maintaining 252 miles of firebreaks. Ray was unable to attend and the award was accepted on his behalf by Griner.

Ranger Ray was married to the former Miss Virginia Reese and they had four children.

Funeral services were held at the First Baptist Church of Swainsboro.





A veteran District Forester and a Senior Forest Ranger with 30 years of service were among the personnel who recently retired from the Commission.

Honored at retirement dinners were District Forester Jim Henson of Waycross and Ranger Marvin (Red) McMichael of Monticello.

Commission personnel from the District, the Macon office and others honored Henson with a retirement dinner at the Holiday Inn in Waycross. He received several gifts and many compliments from his associates and friends.

A graduate of the School of Forest Resources, University of Georgia, Henson began his career with the Commission as ranger of the Emanuel County Unit in

Henson clears desk as long career ends. McMichael, right, receives plaque from District Forester Lynn Hooven.

RETIREMENT

1950. He was named Assistant District Forester in the Statesboro District in 1951 and later served in the Newnan District. He came to Waycross in 1958.

Henson and his wife, Colleen, have two sons and they are members of the Church of Christ in Waycross.

Fellow employees and other friends of McMichael of the Jasper-Jones County Unit, gathered at the Jaycees Building in late August to pay tribute to the retiring veteran of 30 years service.

District Forester Lynn B. Hooven of Macon was master of ceremonies at the informal party and praised McMichael for three decades of dedicated service to landowners and others in the area.

McMichael, a native of Monticello, is a graduate of Monticello High School. He served in the infantry of the U.S. Army during World War II and was awarded the purple heart, battle star and other medals.

McMichael came with the Commission in the fall of 1950 as Assistant Ranger and was named Ranger the following year.

The ranger is married to the former Miss Mable Womack and they have one son, Terry. They are members of the Monticello United Methodist Church,

Tree Farm Honors Announced

W. L. "Buddy" Crown, Jr., Owens-Illinois Company, Valdosta, has been chosen as Georgia's 1980 Outstanding Tree Farm District Chairman. Selected by the State Tree Farm Committee, Crown was presented a shotgun during the recent Tree Farm Committee meeting at St. Regis Lodge.

Commission employees recognized for distinguished service in the Tree Farm program were Thomas H. Joyner, Rome; John D. Nicholson, Griffin; Charles G. Hill, Griffin; Hubert A. Strickland, Blakely; Jerry D. Marsh, Statesboro; Coke E. Rogers, Statesboro; Armand J. Cote, Athens.

Dale Turner, Continental Can Company, Wrens, was also presented a shotgun in recognition of his selection as Tree Farm Inspector of the Year.

W. L. Crown, left, is presented a gun by Dave Mitchell, St. Regis Paper Co.



TOTAL TREE CONCEPT ELEVATES BARK

**FEATURE
PAGE**
GEORGIA FORESTRY



ONCE LOWLY BARK NOW A DESIRABLE LANDSCAPE PRODUCT!

Mill operators just a little while ago considered it a real nuisance.

Some was used to fire the boilers, but most of the material ended up with the sawdust in a huge, smoldering waste pile out on the edge of the mill yard.

Now, however, the revolution that brought about the whole tree utilization concept has made the once lowly bark a salable product!

Pioneer processors, Inc., which claims it is the "largest manufacturer of quality landscape bark products on the East Coast," opened a plant in Adel in 1977 and now processes about 1½ million bags of bark each year.

John Vick, manager of the plant in Cook County, said he is now in his busiest season of the year. The bark is now being processed for spring sales.

Vick said the company, which has home offices in Virginia, employs 14 people in the local operation and increases the work force to 20 during peak periods when two shifts are necessary.

Vick explained that the finished product falls into four categories. Nuggets and mini-nuggets are bark particles that are sized to be placed around shrubs and other landscaping plants for decorative

purposes. A smaller size is packaged for use as a mulch for bedding plants, while a fourth size is refined for use as a soil conditioner.

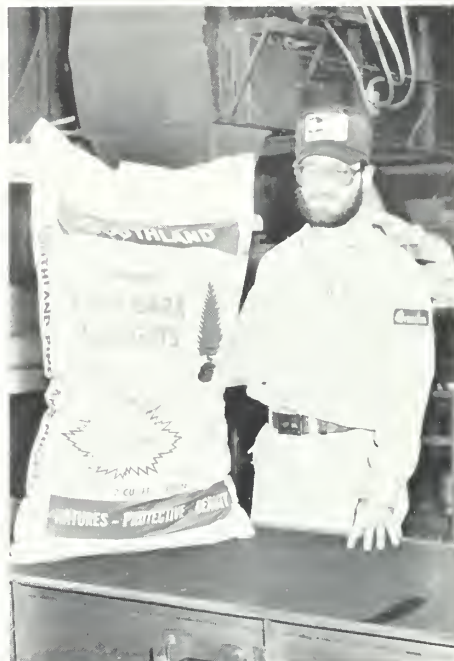
The bark is packaged in polyethylene bags of three cubic feet capacity. The individual bags weigh from 40 to 80 pounds, depending on the coarseness of the bark.

The plant manager said the bark is purchased from sawmills in the area and after processing it is sold to distributors who provide the plant with bags bearing their own label. Some, he said, is sold in bulk form.

From 12 to 14 large highway vans loaded with the bagged bark leave the plant each day to deliver the product to

distributors in many sections of the nation.

Bark — yesterday's waste, but today's residue — has now joined other forest materials in making a significant contribution to the economy.



In top photo, Plant Manager John Vick shows bag of bark nuggets coming down conveyer line. Above, Cook County Ranger John Mainor examines processed bark and scene at left shows grading and separating machines.



Featured guests shown with Director Ray Shirley, right, at the recent Commission training conference held at Norman Park were, l-r, Bobby Taylor, Georgia Forestry Association; Robert Raisch, U.S. Forest Service; Gary Tyre, SCS; J.D. "Red" Strange, Consultant Forester and Jim L. Gillis, Jr., Commission Board member. Adron Harden, Farm Bureau, was not present for the picture.

Photo 6: John H. Radcliffe, left, Lee County Forest Ranger, was awarded for his contributions to the Commission's building program. David Westinoreland, Field Supervisor, Macon, presented the awards. Robert A. Rhodes, Laurens County, right, received an award for his expertise in constructing Fire Knockers.

Photo 7: Mrs. Virginia B. Tyndall, Secretary, Research Division, Macon, is awarded for her role in promoting forest research, particularly wood energy. It was presented by John W. Mixon, Chief, Forest Research Department, Macon. Everett U. Rhodes, Forest Ranger, Blairsville, was presented a commendation award for his outstanding assistance in promoting wood for energy in the Fannin, Towns and Union area.

Photo 8: Shirley F. Ford, Secretary, Atlanta Office, is awarded for her ability to



AWARDS

Photo 1: John W. Johnson, left, Seed Orchard Superintendent, Glenwood, was awarded for his expertise in carrying out a designed genetics program. It was presented by James C. Wynens, Chief, Reforestation, Macon Center. Howard W. Stanley, Nursery Superintendent, Reidsville, was awarded for his role in producing and propagating over 40 species and varieties of plants.

Photo 2: Spencer McGraw, left, Ranger, Haralson-Polk Forestry Unit, was awarded for his leadership in planning and developing a comprehensive Rural Fire Defense Program in Haralson County. Joel W. Hall, Jr., second from right, District Forester, Americus, was awarded for developing Master Fire Plans for the eight counties in his District. Don Griner, right, District Forester, Washington, accepted a commendation award on behalf of Leon Ray, Ranger, Emanuel County, who was unable to attend the meeting. Ray was recognized for leading all counties in assistance to landowners with prescribed and control burning. Presenting the awards is James C. Turner, Jr., Chief, Forest Protection, Macon.

Photo 3: George C. Sanders, left, Procurement Officer for the Commission, Macon, was awarded for his knowledge of equipment specifications and the fast delivery of necessary items to fit the Commission's needs. Charles Jeff Bridges,

HERE ARE RECIPIENTS OF AWARDS PRESENTED AT THE COMMISSION'S TRAINING SESSION AT NORMAN PARK.

Storekeeper with the Commission, right, was also presented an award for his efficiency in conducting the operation of the warehouse. The awards were presented by Floyd A. Smith, Chief, Forest Administration, Macon Center.

Photo 4: Henry Grady Williams, center, Naval Stores Specialist, McRae, was honored for his outstanding supervision of the State's naval stores program. Presenting Williams with an award was Robert Raisch, U.S. Forest Service, while Jim L. Gillis, Jr., President, American Turpentine Farmers of America, looks on.

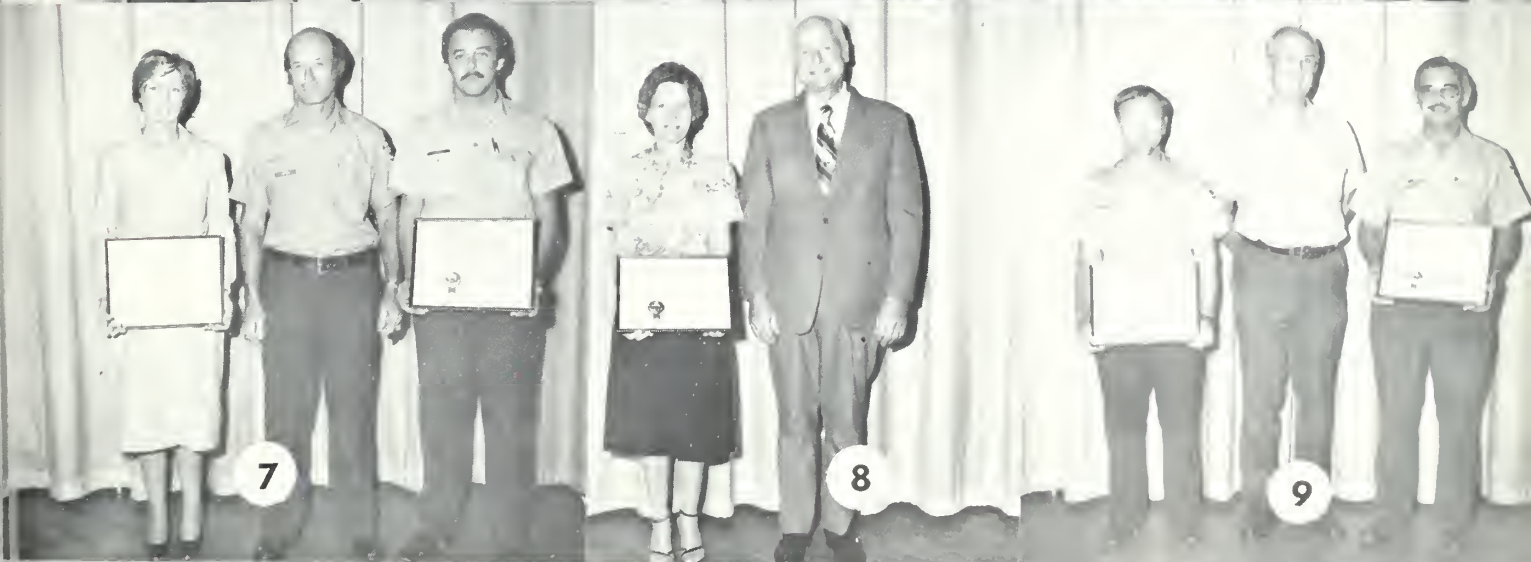
Photo 5: Mrs. Glynda W. Thornton, Secretary, Management Division, Macon, was awarded for her high production and knowledge of all management programs. Druid Preston, Chief, Forest Management, Macon, presented the award. William D. Millians, right, District Forester, Milledgeville, was awarded for his leadership, guidance and personal involvement in the forest management program.

work well under pressure, coupled with her sincere friendliness. It was presented by Julian Reeves, Coordinator of Forestry Programs, Atlanta.

Photo 9: J.L. Stanford, left, Clarke-Oconee County Forest Ranger, Athens, is awarded for his expertise in teaching Red Cross courses and driver's training and his role in securing assistance to take down and re-erect radio towers. It was presented by H. G. Collier, Jr., Field Supervisor, Macon. John A. Osbolt, Jr., right, County Forest Ranger, Griffin, was awarded for his rebuilding state equipment, repairing fire extinguishers and serving as an evaluator for new Forest Patrolmen.

Photo 10: Charles B. Place, Jr., left, Forest Education Assistant, Macon, was awarded for developing the Commission's Environmental Education program. The award was presented by Frank E. Craven, Chief, Forest Education Department, Macon. Floyd M. Cook, right, Forester, Columbus, was awarded for his imaginative educational programs in the Chattahoochee Valley.

Photo 11: Robert Raisch, right, Area Director, U.S. Forest Service, Atlanta, presents James C. Turner, Jr., Chief, Forest Protection Department, Macon, with a plaque in appreciation of the fire crews sent West to combat fires.



Georgia FORESTRY

DECEMBER, 1980

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PAID AT ROME, GEORGIA

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A JOYOUS

CHRISTMAS

AND A HAPPY
NEW YEAR



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DISTRICT OFFICES

Coosa Valley
P. O. Box Z, Mt. Berry 30149

North Georgia
Rt. 7, Box 83, Canton 30114

Atlanta - 7 Martin Luther King, Jr. Dr.
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Rt. 1, Box 46, Helena 31037

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Rt. 8, Columbus Rd., Macon 31206

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Hwy. 49, Milledgeville 31061

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Cruising The News

ARBOR DAY APPROPRIATE

It is very appropriate that Georgia observe Arbor Day on Feb. 20. This observation should cause every American to pause, reflect upon the past, evaluate the present and plan so that the future will hold promise.

The early settlers paid little attention if any to the total value of the forest.

The cold steel of the axe laid waste to the forest. Habitat for game was destroyed, erosion took place and the streams became polluted. Wildlife, including fish, was destroyed or their kind decreased in large numbers. Part of the food supply and the timber potential were destroyed or decreased. The lost beauty of the forest and the unclear streams were another result of the early settlers not thinking of the future.

Today, we are blessed with a beautiful countryside, with new stocks of wildlife and streams that have been cleared and restocked with fish.

For this reason we should remember the importance of conservation. However, the economic factor should weigh heavily in our thinking and action. The products of the forest provide many jobs directly and indirectly for our people. The products and by-products bring comfort and happiness to Americans everywhere.

If you hunt, travel the trails through the forest, work in the forest or from the forest receive economic gains, then think of the importance of conservation. Remember the great cost caused by the forest being destroyed by fire.

Help prevent forest fires and help save the forest for all. It is your future that you are protecting.

(From the Columbia County News)

AGENCY TEAMWORK PRAISED

We often give the bureaucrats a whack on the backside because we believe they deserve it. We would be most unfair if we didn't pin roses on them when they do something right.

Roses are due. This week, four state agencies joined forces to try to do something extremely worthwhile — saving lives.

The state Department of Transportation, the Georgia Forestry Commission, the State Patrol and the State Agricultural Experiment Station at Tifton teamed up to try to keep any more lives from being lost along a particularly hazardous stretch of Interstate 75 in Cook County. If you have read your paper lately, you know that smoke from a smoldering peat bog has reduced visibility to zero at times and four people have died in two separate traffic accidents.

The Forestry Commission is flooding the bog and the DOT is supplying manpower and coordinating the effort. The experiment station provided irrigation pipe for the effort and the state patrol is making sure traffic either slows down or avoids the area altogether.

In addition, the DOT is studying the feasibility of buying the bog to keep any more fires from getting into it.

That's nice but it's a long way off. We're happy to see the efforts by these state agencies now to prevent any more loss of life and serious injury.

It would be great if all public agencies would steal a page from this episode and move as quickly when the need arises.

(From Valdosta Daily Times)

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ON THE COVER - Arbor Day was reinstated at Fort Benning this year under the leadership of Major General David E. Grange, Jr., Commanding General. Taking part in the Arbor Day celebration were, left to right, Floyd Cook, forester, Georgia Forestry Commission; Julie McLeod, a 5th grade student at E. N. White School located on the Base; and Mrs. David Grange.

Thomas Alexander's 300 acres of scenic mountain forestland has towering Brasstown Bald - Georgia's highest mountain peak - as a dramatic backdrop and at first sight, you would probably consider it a crime to cut even one tree from such a picturesque setting!

On closer examination, however, it becomes obvious that the Union County landowner's forest is not unlike all others in that nature does not allow every tree to be a perfect specimen.

For many years, Alexander had to watch crooked, stunted and otherwise undesirable trees grow on the mountain slopes alongside straight and healthy timber. There was no market for such species and cost of removal for the sake of stand improvement would have been prohibitive.

Last summer, however, the waste material became an asset. Thanks to a revival of wood as a source of home heating, Alexander's defective poplars, oaks, and other hardwoods were destined to heat many of the homes of nearby Blairsville and the countryside. Some would end up on the Atlanta market.

Alexander is not directly in the fuel wood business, but sells cull logs to an organization some eight miles from his property that cuts and splits the material into firewood. The processing plant is owned by Gold Kist, a farmer cooperative which markets the product.

Crawford Cooper, a graduate forester with the Georgia Forestry Commission, works in cooperation with the Southern Solar Energy Center and the Tennessee Valley Authority in dealing with Alexander and other landowners in the area in developing an incentive for providing wood for the processors who are now cutting wood from log lengths, splitting and in some instances, bundling the wood with steel straps.

Forester Cooper, coordinator of the pilot fuel wood program which is sponsored by the Southern Solar Center, said the project has many advantages. He said Alexander and others who own hardwood can now sell logs that were formerly considered non-merchantable and at the same time improve their stands by the thinning process.

He pointed out that the harvest of fuel wood also increases employment in the area and provides the consumer with a convenient supply.

Alexander said cutting and removing logs from the steep mountain slopes of his property "is no problem" as he is used to working on that type terrain. He said he has been farming and logging all his adult life, except for several war years



MOUNTAIN FORESTLAND OWNER DISCOVERS READY MARKET FOR UNDESIRABLE TREES

when he served with an armored division of the U. S. Army in Europe.

He recalled driving three different tanks a total of 5,500 miles during his service time in Europe and most of the mileage was in combat zones. The Union County native said on at least two occasions his tank was the only one to survive in some of the most fierce battles.

Alexander returned home and worked as a hay farmer and logger after the war and later began to turn some of his property into a camping area. It didn't take long for word of his mountain retreat to

spread and now he maintains four cottages and 77 scenic camp sites. Some are tucked in a valley, while several are on slopes. He flattened the peak of a mountain to provide several sites with a spectacular view of a distant mountain range.

In clearing the campsites and trails for his tourist business, Alexander uses some of the wood to split and sell to the campers. The quality oak logs on his property usually go for cross-tie production.

Alexander, who was the first resident of Union County to have a butane gas system installed on his place, has now switched back to wood for his home heating.

Alexander, and his wife, Martha, each winter load up their camper and head for Florida for a few weeks. They visit many of the camping friends who have found accommodations at their mountain campgrounds through the years.

Upon his return, the hard working logger will again take his chain saw up the mountainside and begin felling trees for the rapidly growing firewood industry. He estimates it will take about ten years to cut out all the timber on his property that should be utilized for firewood.

Top photo: Landowner Thomas Alexander, left, and Forester Crawford Cooper pause on a mountain slope to discuss Christmas tree planting on cleared area. At left, they survey timber to be cut for firewood.





Workmen install heating equipment for Franklin County school. A building was later constructed around the installation.

SCHOOL TO HEAT WITH WOOD

Equipment has been installed at the big Franklin County Comprehensive High School at Carnesville to convert means of heating from electricity to green wood chips.

Work on the Georgia Forestry Commission project was recently completed and the system will be operational at the beginning of the fall heating season, according to John Mixon, Chief of the Commission's Research Department.

Mixon explained that the wood fired system, which was built by Energy Resources Systems of Minneapolis, Minn., will replace an electrical system that formerly heated water, which in turn heated the classrooms and other areas of the school complex. He said the electrical system, however, would be kept intact for use as a back-up system.

The research chief said the Franklin County Board of Education cooperated in the project and financial assistance came from the Georgia Office of Energy Resources. He said the 100 hp direct fired wood system would be closely monitored to determine its efficiency and savings over other fuels.

Mixon said it is believed the system will save the school from 1/3 to 1/2 of the cost previously spent for the electrical system.

The Franklin County system is one of several school heating projects being planned by the Commission. A system was completed last year at Union County Junior High School in Blairsville to replace a fuel oil system.

NEWSPAPERS PUBLISH FORESTRY EDITIONS

Two newspapers last month published special "Keep Georgia Green" editions in a salute to forestry and its impact on the economy and well being of their communities.

In its special edition, The Adel News used the theme: "Our Forests - The Lifeline of Cook County." The paper featured various activities of the Commission's Cook County Forestry Unit and a survey of wood using industries in the area.

The Columbia News in Martinez published a special Arbor Day section to coincide with the annual observance. Columbia County Forestry Unit personnel worked closely with the newspaper and public schools in providing trees for planting ceremonies throughout the county.

The Commission's Education Department aided both papers in compiling material for the special editions.

At two o'clock on the afternoon of January 19, Patrolman James Abbot glanced across the flat South Georgia landscape from his vantage point in the fire tower at the Cook County Forestry Unit in Adel and saw white smoke rising just beyond a tract of tall pines.

The seasoned observer and firefighter immediately knew the location of the fire and the type fuel that was feeding it, but he didn't know that it was the beginning of a stubborn battle that would take four lives and attract national attention before its smoldering embers were dead out.

The tower operator reported to Ranger John Mainer that the fire was in Heart Pine Bay, a 110-acre peak bog just 750 yards off Interstate Highway 75. Normally, fire in the dry swamp would burn across the top of the bog and was easily controlled, the ranger said, but when the report came this time, he knew that the prolonged drought in the area could mean real trouble.

Men and equipment were immediately dispatched to the scene and as firebreaks were being plowed around the big swamp, Mainer was on the phone alerting Sheriff

A peat bog is characterized by partially carbonized vegetable tissue formed by partial decomposition in water of certain plants. The remains of sphagnum mosses, the grayish plants found in such swamps or bogs, become impacted with other plant debris to form peat. In some areas of the world, dried blocks of peat are used as fuel. Peat moss is often used for packing plants for shipment.

Charles Bryant of the fire near the highway. The Cook County sheriff in turn notified the State Patrol and the Department of Transportation. The ranger's action was in keeping with the Commission's policy of notification when fire or smoke threatens to impair visibility on a highway.

The ranger said his men spent five hours at the fire scene during their initial visit. He explained that the dry peat moss smoldered beneath the surface, but by nightfall the fire was under control and very little smoke was visible.

Meantime, the State Patrol closed a section of the Interstate adjacent to the bog and heavy traffic was detoured onto several state and county roads. The Georgia Department of Transportation moved in to help with traffic warnings and some of the DOT bulldozers were pressed into service to aid Mainer and his men in plowing in the swamp. The local sheriff and

other law enforcement people in the area also helped direct traffic.

Mainor said his unit continued to monitor the scene and when smoke intensified, the trouble spots were plowed. He said thick smoke drifted onto the nearby highway several times and the busy traffic artery had to be closed.

"Although we plowed firebreaks around the bog three times, walked it many times and called in our air patrol to make sure the fire was contained," the ranger said, "we couldn't entirely suppress the smoke...the peat moss was burning three feet underground in some places and only water, and lots of it, would ever put it out."

A Commission helicopter dropped thousands of gallons of water on the bog, but it continued to smoke. The Commission arranged with a landowner to tap into two of his irrigation wells and pipelines were laid to the swamp. They were soon pumping 2,500 gallons of water per minute into the area.

The worst day of the long ordeal came on Sunday, January 25, when three people were killed on the highway during the early morning hours when it was said that a combination of smoke from the bog and heavy fog brought about poor visibility. Eleven people were injured in the series of accidents that occurred that morning, according to law enforcement officers.

At this point, Georgia and Florida newspaper and television reporters and camera crews began to converge on Mainor's office. The story was televised on the CBS Evening News through a network affiliate in Jacksonville. The fire that the towerman had spotted seven days before had become a national news story.

Some rainfall came on the seventh day of the fire, Mainor said, but it was not enough to extinguish the burning peat moss. The around-the-clock flow from



(Photo by Anne O'Connor, Adel News)

THE GREAT BOG FIRE

IRRIGATION PUMPS WORKING AROUND THE CLOCK FLOODED THE AREA WITH MORE THAN 20,000 GALLONS OF WATER

the irrigation lines, however, gradually turned the bog area into a flooded pond. Pockets of smoke continued to rise in some of the higher spots and a helicopter was again called in to make water drops.

It was well into February and after considerable rainfall in the area before Ranger Mainor declared that the big bog fire was finally extinguished.



Above, a Commission helicopter drops water on the big swamp. Below left, Ranger Mainor checks underground fire and photo at right shows bog after irrigation pumps had begun to flood it.



VETERAN FORESTER, RANGER END CAREERS

John Clarke, urban forester of the Macon metropolitan area for the past eight years, has retired from the Georgia Forestry Commission after 27 years of service.

A native of Florence, South Carolina, the forester began his career with the Commission in 1954 as forester for Georgia's state parks and later served in the Management Department in the Macon office.

Clarke attended Clemson University and later entered the University of Georgia, where he graduated with a degree in forestry in 1939. Following graduation, he worked with the South Carolina State Commission of Forestry until he entered the U.S. Army in 1941.

He served in combat zones in Africa and Italy during World War II and following discharge, he again worked with the state agency in South Carolina. He resigned to become forester for a lumber com-

Forester John Clarke, shown at left, attends to some last minute details in his office in Macon as he prepares to retire from the Commission. At right, Ranger Ed Richardson wraps up his business at the unit office in Mt. Vernon prior to his retirement.

pany in his native city for six years prior to his association with the Georgia Forestry Commission.

The forester and his wife, the former Miss Ophelia Hardy of Washington, have

RETIREMENT

a daughter, Dottie, who now lives in Carrollton.

Clarke and his wife are members of Ingleside Baptist Church. They plan to remain in Macon.

A dinner in honor of the retiring forester was held in Macon by Commission friends.

Forest Ranger Ed Richardson of the Montgomery-Treutlen-Wheeler Unit retired from service with the Commission March 1.

Richardson came with the Commission in January of 1953 as a patrolman and was named assistant ranger the following year.

A native of Lumber City, he graduated from Montgomery County High School and attended Brewton Parker College for two years. He served four years in the U.S. Army.

The retired ranger and his wife, Clara, have three children, Mary, Eddie Sue and Milton. They are members of the Baptist Church in Mt. Vernon.

Fellow workers and other friends of Richardson honored him at a dinner Feb. 26 in Dublin.

DEBRIS BURNING AGAIN TOP CAUSE OF FOREST FIRES

A fire summary for calendar year 1980 revealed that debris burning was again the Number One cause of forest wildfires.

Jim Turner, Chief of the Commission's Forest Protection Department, said debris burning accounted for 3,425 fires during the year and burned 13,082 acres.

Turner said fires from all causes burned 44,718 acres, and the average fire was held to 4.37 acres.

The annual statewide summary showed incendiary fires ranked second last year with 2,496 fires destroying 14,078 acres. Other causes were smoking, with 959 fires burning 4,293 acres; miscellaneous, 775 fires burning 1,832 acres; equipment, 511 fires burning 1,756 acres; lightning, 471 fires burning 4,763 acres; and campfires, 77 fires burning 408 acres.

The Georgia summary also included a

five year fire occurrence record which revealed a total of 65,113 fires for the period, with an annual average of 13,022.



COMMISSION REPORT REVEALS PROGRESS IN ENERGY PROJECTS

The utilization of forest wastes as a source of economical energy continued to be the major goal of the Georgia Forestry Commission in fiscal year 1980, according to the Commission's annual report.

The report emphasized that a concentrated campaign to alert Georgians to the great wealth of forest material available for heating and other energy purposes was begun two years ago and encouraging results are now being seen.

The Commission, during the year, spearheaded several research, engineering and conservation projects aimed at providing efficient heating systems.

A 25 million BTU gasification system using green wood chips as fuel has been installed at the Northwest Regional Hospital in Rome. The system will replace natural gas and fuel oil presently being used.

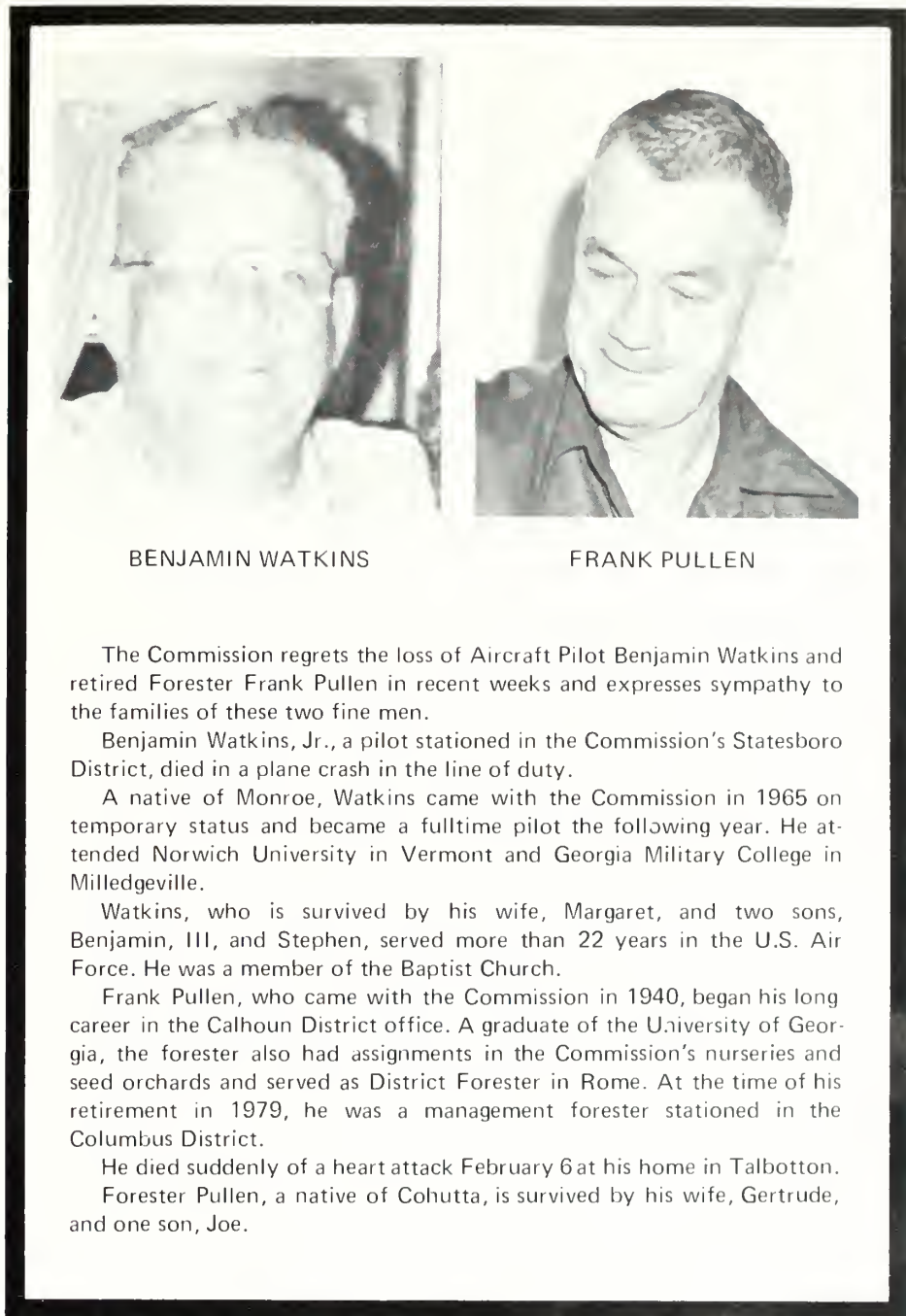
In other wood energy developments, a three million BTU hot air crop dryer has been developed. The chip furnace, mounted on a trailer, will be used to dry various types of grains and soybeans.

A pilot wood chip heating system has been installed at the Union County Junior High School and a 3.3 million BTU wood chip system has just been installed at the Franklin County High School. Other wood chip heating systems will be installed at correctional facilities in Dodge and Walker Counties and at the Treutlen County High School. In addition, the report pointed out that most Georgia forest industry now uses wood for part or all of their energy needs.

The annual report revealed that the Commission achieved the best fire suppression record in its history when the average size fire was held to only 3.92 acres. There were 7,422 forest fires in the State compared to 14,455 the previous year. Debris burning was the number one cause of forest fires for the fourth consecutive year.

The Commission-sponsored Rural Fire Defense program, involving volunteer fire departments, saved property valued at \$73,000,000. A total of 10,464 fire responses were made to facilitate the planned expansion of fire fighting efforts countywide. Commission foresters completed master fire plans in 32 counties.

Forest management assistance was given to more than 58,000 Georgia landowners and aid was provided 1,424 forest processors and manufacturers. Some 4,500 forest management plans were prepared to help landowners better manage their timberlands. Commission foresters serviced 1,621 requests from landowners under the Forest Incentives Program (FIP).



BENJAMIN WATKINS

FRANK PULLEN

The Commission regrets the loss of Aircraft Pilot Benjamin Watkins and retired Forester Frank Pullen in recent weeks and expresses sympathy to the families of these two fine men.

Benjamin Watkins, Jr., a pilot stationed in the Commission's Statesboro District, died in a plane crash in the line of duty.

A native of Monroe, Watkins came with the Commission in 1965 on temporary status and became a fulltime pilot the following year. He attended Norwich University in Vermont and Georgia Military College in Milledgeville.

Watkins, who is survived by his wife, Margaret, and two sons, Benjamin, III, and Stephen, served more than 22 years in the U.S. Air Force. He was a member of the Baptist Church.

Frank Pullen, who came with the Commission in 1940, began his long career in the Calhoun District office. A graduate of the University of Georgia, the forester also had assignments in the Commission's nurseries and seed orchards and served as District Forester in Rome. At the time of his retirement in 1979, he was a management forester stationed in the Columbus District.

He died suddenly of a heart attack February 6 at his home in Talbotton.

Forester Pullen, a native of Cohutta, is survived by his wife, Gertrude, and one son, Joe.

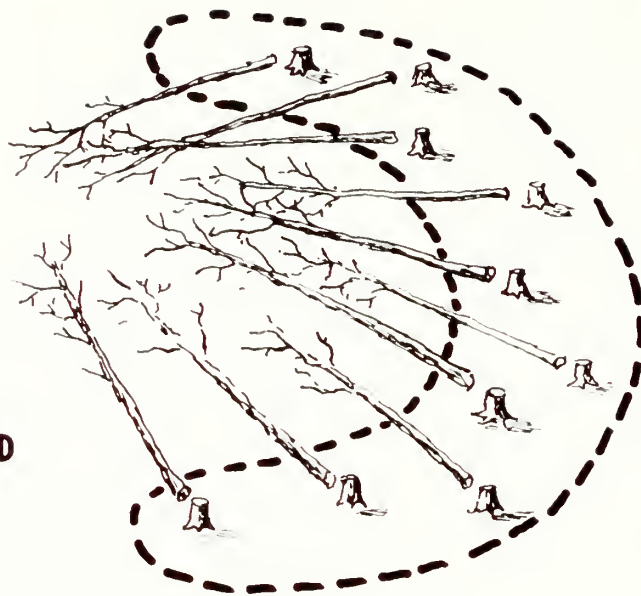
Commission entomologists cooperated in several research projects to develop new control techniques for the southern pine beetle. Beetle-killed trees totaled 878,891 cords of wood and the insect was found active in 89 counties during the year. Approximately 421,867 cords were harvested and marketed through salvage operations encouraged by the

Commission. This epidemic of the southern pine beetle was brought under control. More than 77 percent of the seedling crop of 61,785,000 seedlings were of the genetically improved type which will produce about 20 percent more fiber per acre. About 77 million seedlings were planted for the 1980-81 planting season to meet the anticipated demand by Georgia landowners.

Ray Shirley, Commission Director, said the comprehensive report reflects a year of considerable progress in the many forestry programs administered by the agency. Georgia is one of the nation's leaders and several projects undertaken in 1981 should further enhance its standing.

Georgia Forestry Commission/March 1981

**FOR FELL AND
LEAVE TO
BE EFFECTIVE,
ALL INFESTED
TREES AND
BUFFER STRIP
TREES SHOULD
BE FELLED WITH
THE TOPS TOWARD
THE CENTER
OF THE SPOT.**



STUDY TERMED SUCCESSFUL

ENTOMOLOGISTS COMPLETE TWO COUNTY CUT AND LEAVE PROJECT TO CONTROL BEETLES

A project to determine the effectiveness of cut and leave as a technique for controlling southern pine beetle infestations has been completed in a two-county area of Georgia and Commission entomologists said they are well pleased with results of the study.

The overall objectives of the demonstration, which was held in Greene and Taliaferro Counties, were to determine the effects of cut and leave on beetle populations and whether or not the method could be justified economically and operationally over a multi-county area.

The two counties chosen for the demonstration were among the 44 that were experiencing epidemic infestations in February of 1980. The majority of spots in the two counties ranged in the 26 to 50 tree size - a size spot said to be ideal to work with in a cut and leave operation.

Entomologists Terry Price and Kerry Thomas said the program was initiated as an opportunity to evaluate within-tree population reduction induced by the cut and leave method. An evaluation procedure was designed to investigate brood reduction based on comparisons of felled and standing trees in single spots.

They explained that for each replicate, six trees containing larvae as the predominant southern pine beetle life stage were selected for study.

These were randomly designated as treatment trees and three control trees. All trees in the infestation except the three control trees were then felled according to standard cut and leave procedures. Disc shaped bark samples were removed from four sample heights (6, 12, 18 and 24 feet) on all study trees. The bark samples were then taken to the laboratory where x-rays were made to determine total adult gallery length of each sample.

Five days after the cut and leave procedure, 18-inch bolt sections at nine and 21 feet on each infested tree were cut. These were placed individually in rearing containers and held in sheltered outdoor insectaries to evaluate brood emergence.

Treatment affects were evaluated for ten replicates established in eight infestations. Nine of the ten showed a mean net reduction in brood production.

The entomologists pointed out that cut and leave is more effective during summer months when temperatures and day length are at their maxima and that site and stand factors relating to aspect, stand density, area cleared and bark thickness of treated trees also modify treatment effects.

In addition to mortality induced, the cut and leave tactic serves to disrupt beetle dispersal patterns. The investigators referred to an earlier study which concluded that surviving beetles apparently have a difficult time focusing new attacks and re-establishing spots after such treatments.



Project personnel pointed out that none of the spots treated in the program showed evidence of proliferation following treatment, but beetle populations were clearly on the decline during the period and no valid impact could be realized. It was noted, however, that no active Southern pine beetle spots were detected in Greene and Taliaferro Counties in September of 1980.

This evidence, they said, was based on aerial surveys conducted in September and the two counties were the only ones in a nine-county area that did not have active spots.

A report on the study concluded that every spot that was cut in Greene County was picked up for salvage within one month - work that was not anticipated, but well appreciated.

The demonstration stimulated a lot of interest and created incentives for the landowners to provide assistance to a worthwhile endeavor, according to the report, and wood producers and forest industry personnel were cooperative in working with the Commission.

The Commission investigators in the project were joined by personnel from the Department of Entomology, University of Georgia. Other participants included the U. S. Forest Service and some forest industries.

THE SOUTHERN PINE BEETLE

BIOLOGICAL BACKGROUND



The Southern Pine Beetle was first described by Zimmermann in the "1868 Transactions of the American Entomological Society." The general biology of the beetle has been documented by several other scientists.

The Southern Pine Beetle is short-legged, stout, and about 1/8-inch long. Mature beetles are dark reddish-brown. Female beetles initiate the attack and after initial gallery construction are joined by the males.

When populations are large, thousands of beetle pairs may invade a single tree. Each pair constructs a winding S-shaped gallery between the bark and the wood. The pearly white eggs, just visible to the naked eye, are

deposited singly in individual niches cut into the sides of each gallery.

Eggs hatch into whitish, legless larvae, which are about 1/8-inch long when fully developed. Newly hatched larvae mine in the soft inner bark; older larvae mine outward into the drier corky bark. When fully grown, the larvae change to the resting stage or pupa.

Following pupation, the young adults chew exit holes through the bark, emerge, and disperse in search of suitable host material. The duration of the life cycle may vary from 26 days in the summer to three and a half months in the winter.

The beetle typically kills pines in groups ranging in size from a few trees to stands of several acres in size. In the spring and summer, pine needles turn yellow or straw-colored over the entire crown within two to three weeks after the tree has been attacked, and finally turn a reddish-brown. Attacked trees may remain green for longer periods during the winter.

The insect over-winters in the egg, larval, pupal, or adult stage beneath or within the bark. Some adults may become active when daytime temperatures exceed 58°F. In some cases, they infest nearby healthy trees.

Over-wintering broods reach maturity, emerge, and usually begin to attack uninfested trees during early spring. In Georgia, there may be as many as seven generations per year.

The mechanisms and factors influencing Southern Pine Beetle flight and attack behavior during dispersal are not fully understood. It is known, however, that during this period the beetles are directly affected by natural enemies and adverse weather conditions. Flight and new attack usually begins in the early spring and ceases by mid-November in Georgia.





Al Smith, Commission Administration Chief, right, responds to presentation made by Governor George Busbee, while Mrs. Smith looks on.

SMITH MANAGER OF THE YEAR

Al Smith, Chief of the Commission's Forest Administration Department, has been named Manager of the Year for 1981 by the Georgia Society of Certified Managers, Inc.

Smith, a graduate forester who began his career as forest ranger in Cook County in 1951, was presented the award by Governor George Busbee in ceremonies at the capitol.

George C. Askew, president of the Society, which was founded in 1977, said the first annual award last year went to Secretary of State David Poythress. Askew said Smith was one of many nominees submitted by the various state agencies this year and he was selected for the honor because of his "very outstanding achievements."

Ray Shirley, Commission director, nominated Smith and told the gathering that the administrator has a "creative talent for new ideas and improved ways of doing things...He has the ingenuity to solve problems regardless of difficulty and the judgement to make sound, practical decisions."

The Governor praised Smith for initiating several projects that conserve energy and for his ability to work effectively with other state agencies.

Smith, a native of Bluffton, South

Carolina, and a Navy veteran, earned several rapid promotions after his initial position as county ranger. He served on the district level in several sections of the state and was transferred to the central office in Macon in 1970 to become assistant to the administrative chief. He was named head of Forest Administration in 1976.

Askew, who is with the Department of Transportation, said Smith and others in the society are certified managers in public agencies and all have met rigid standards to qualify for membership.

Smith's wife, June, accompanied her husband to the capitol for the presentation ceremony.

SITE AND PLANTING DEMONSTRATION SET

Loggers, contractors, foresters, site preparation vendors, and heavy equipment dealers are invited to a demonstration of site preparation and tree planting.

The one-day demonstration will be held May 2 at a site just south of Madison. The site will be prepared with heavy equipment, demonstrating proper methods of preparing land to plant seedlings.

In addition, a wood chipping operation will be shown.

The purpose of the demonstration will be to show methods and actual cost figures involved in site preparation and planting. Owners of heavy equipment, with some equipment modifications, will be encouraged to get into the site preparation business.

Other topics to be discussed include the 208 provision and best management practices, financial benefits to the landowner, and the potential for equipment dealers and others who may be thinking about getting into the site preparation business.

For further information contact Dr. Leonard A. Hampton, Chairman, Committee for Continuing Education for Foresters, Room 121, University of Georgia Center for Continuing Education, Athens, GA 30602 or call 404-542-3063.

BURKE IS PULPWOOD PRODUCTION LEADER

Burke County has been listed as the top county in Georgia in pulpwood production for 1979, the most recent year in which the statistics are available.

The report shows that Burke County produced 161,752 cords of pulpwood during the year and Laurens County was second with 158,764 cords.

Other counties that produced more than 100,000 cords were Stewart, Crawford, Clinch, Brantley, Wayne, Decatur, Ware and Meriwether.

The other ten counties rounding out the top twenty, with production ranging from 80,000 to 99,500 cords, were Bacon, Liberty, Coffee, Ben Hill, Troup, Dodge, Appling, Pierce, Glynn and Camden.

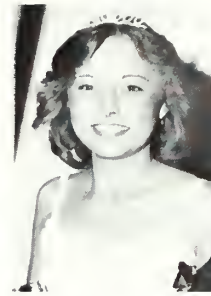
PROTECTION DIRECTOR RETIRES FROM SERVICE

Willard A. Tikkala, Director of Cooperative Fire Protection in the Forest Service, USDA, headquarters in Washington, D.C., has announced his retirement after more than 33 years of service. Effective date for his retirement was December 26, 1980.

As Director of Cooperative Fire Protection, Tikkala was responsible for the leadership, planning and technical direction of the National Cooperative Fire Protection Program which involved contributing to the welfare of people in rural areas through more effective prevention, presuppression, and suppression measures on State and private lands.



Ed Dodd, right, cartoonist and creator of the "Mark Trail" comic strip, has been awarded the Heath Cooper Rigdon Award by the Soil Conservation Society of America. The award, given for being the Conservation Writer of the Year, was presented by Robert W. Oertel, shown at left, a member of the SCSA Awards Committee. The award was presented to Dodd for his long-time personal commitment to natural resources conservation and for telling the conservation story to millions of people throughout the world through the "Mark Trail" comic strip, which today appears in more than 250 newspapers daily. About 35 foreign newspapers also carry the strip. Dodd's personal commitment to conservation comes to life through the strip "Mark Trail", and through his episodes, explores a wide range of natural resource topics, including soil, water, air and wildlife resources and land development issues.



McLendon



Bunn



Dyke and Sharp

THREE MISS FORESTRY CONTESTANTS NAMED

Three counties have already selected young ladies to represent their areas in a statewide pageant this summer in which the Miss Georgia Forestry of 1981 will be chosen.

Judges at the Treutlen County Pageant selected Miss Michelle McLendon of Soperton to compete for the state crown at Jekyll Island in June and Henry County will be represented by Nan Bunn. Dee Dyke, recently crowned Miss Chattooga County Forestry, will represent her county. Denise Fisher was runnerup. Many other counties will select local winners to participate in the state pageant sponsored annually by the Georgia Forestry Association.

Miss Lisa Clark was first runnerup in the Treutlen County Contest and Miss Dawn Hardy was second place winner in the Henry County Pageant.

Miss McLendon, 16, is the daughter of Mr. and Mrs. Bobby Gene McLendon of Soperton. Following graduation from Treutlen County High School, she plans to attend college and pursue a career in business administration.

Miss Bunn, a junior at Stockbridge High School, is the daughter of Mr. and Mrs. O. P. Bunn of Stockbridge.

Miss Dyke of Summerville is a junior college freshman. She is the daughter of Mr. and Mrs. Marty Dyke.

Guy Sharp, a popular Atlanta TV personality, was master of ceremonies for the Chattooga Pageant.

TWO DISTRICTS COMBINED

Forestry Commission personnel re-assignments in recent months include the transfer of District Forester Joel W. Hall, Jr., from the Americus District to the Waycross District. Hall assumed the post in Waycross following the recent retirement of District Forester James A. Henson.

Meantime, District Forester Rowe Wall of the Columbus District was transferred to Americus. The Columbus and Americus districts were combined and Wall now heads the larger district, which comprises 16 counties.

Counties in the consolidated district include Harris, Muscogee, Quitman, Randolph, Stewart, Talbot, Terrell, Webster, Chattahoochee, Crisp, Dooly, Macon, Marion, Schley, Sumter and Taylor.

The combined area has been designated District No. 7.





May I take this means to thank you on behalf of the citizens of Nelson, Georgia for furnishing a truck from the Forestry Commission for several weeks to transport water for their depleted water system.

If it had not been for your agency I don't know what this community would have done. As a State Representative, I feel good to know that there are state officials who are sensitive enough to go the extra mile for citizens who are in need.

William G. Hasty, Sr.
Canton, Georgia

Thanks for inviting us to one of the most successful forestry demonstrations that I have ever attended. Your "Wood Gasification and Energy Wood Harvesting Demonstration" not only showed how the utilization of wood for energy can help to alleviate energy supply problems and improve forest production, but also the dedication and abilities of your employees to plan, organize and achieve results.

It has been only about two years since you began to make plans for a wood energy program in Georgia. Today, it is obvious, by such achievements as the gasifier at Northwest Regional Hospital, that your plans are being fulfilled and that Georgia has one of the best wood energy programs in the Nation.

Robert D. Raisch, Area Director
USDA, Forest Service
Atlanta, Georgia

I can't thank you enough for your recent public service spots on WPLO Radio on how to buy firewood. As President of one of the South's largest firewood selling operations, I have been trying for years to educate the consumer. Your efforts are much appreciated. A well informed customer will be able to better see through the wall of claims and assertions that many unscrupulous wood dealers erect. This will be better for them and best of all for us legitimate dealers.

Keep up the good work.

George S. Hart
Firewood Company
Atlanta, Georgia

I want to thank you for the fine job that you did in containing the fire near Gum Creek. We have only owned the property a few months so we would have been heartbroken if the fire had swept over the property to the South.

We have planted the seedlings that we purchased through your office so it will be looking better again soon.

Donald Stealy
Route 1
Roopville, Georgia

Today we used the information folder you furnished about the Georgia Wood Energy Program. I anticipate using the folder more this year.

Thank you for your interest and help with obtaining good reference materials. The students enjoy working with materials other than their textbooks.

Karen Stanfield
Red Bud Junior High School
Calhoun, Georgia

On behalf of the entire tour group, I want to express our thanks for the excellent program you presented. We were impressed with the attention we received from Tommy Mauldin and the rest of his crew. Please pass along our thanks to him and to Olney at Berry College.

Our impressions of forestry in the state of Georgia are certainly positive. We all gained a great deal from our visit.

Michael A. Barnes
Western Forestry Center
Portland, Oregon

We would like to express our appreciation to the Glynn County Forestry Unit personnel who assisted in controlling the fire in the Marsh Oaks Subdivision of the Marshes of MacKay. The professional manner in which the two young men handled the situation was exemplary.

This fire, which destroyed much land and marsh area, blazed out of control for several hours. The only thing that kept the fire from coming onto our property, and the property of others, were the fire breaks your staff cut. They worked long and hard, and their enduring patience under stress for such a long period was commendable.

We appreciate the Forestry Department and ask that you please express our sincere gratitude to those who were involved in fighting the fire in our subdivision.

Mr. and Mrs. Jimmy Kemp, Jr.
Brunswick, Georgia

We wish to thank the Forestry Unit of DeKalb County for their prompt attention to and expert handling of a fire on our property... We are deeply grateful that one man, whose name we failed to get, was able with his tractor to put out the fire and limit our loss. The DeKalb County Fire Department at Wesley Chapel, whose response was immediate, called in the Forestry Commission, and we want everyone to know how grateful we are.

Robert D. Wagner
Lithonia, Georgia



LOGGING THE FORESTERS

DONNIE PRICE, who served as patrolman in the Emanuel County Unit since coming with the Commission in 1973, has been named ranger of that unit. PRICE, a native of Kite and a graduate of Johnson County High School, succeeds the late RANGER LEON RAY in the post. The new ranger and his wife, Gail,



PRICE

WILLIAMS

and their two children make their home in Swainsboro...RANGER GENE WILLIAMS now heads the Jasper-Jones Unit. He was named ranger following the retirement of RANGER MARVIN McMICHAEL. He came with the Commission in 1976 as a patrolman in Irwin County and was transferred to Jasper County in the same year. RANGER WILLIAMS and his wife, Deborah, and their two sons make their home in Monticello.

GEORGIA TREE FARMER WINS SOUTHERN TITLE

Milton N. (Buddy) Hopkins of Fitzgerald, who was earlier selected Georgia's Tree Farmer of the Year for 1980, was judged Southern Tree Farmer at the annual meeting of the Southern Forest Institute in New Orleans.

Jay Pryor of the institute said Hopkins will now compete with tree farmers from other sections of the nation for the national title which will be announced in August.





For many years, Commission people and other friends have simply called him J.B., but now more and more are beginning to refer to him as Mr. T.V.

Veteran Forest Ranger J.B. White of Chattooga County, who has always had a knack for telling the public in his area of the importance of trees to the economy, now operates a television camera as an off duty hobby and he manages to work in the Georgia forestry story at every opportunity.

The closed circuit television presentations filmed by White are seen by viewers in Summerville and other communities throughout the county. Most of the programs originate at the studios of the Clear-View Cable TV Company, but some are remote telecasts, such as those featur-

FEATURE PAGE GEORGIA FORESTRY

ing the Commission's float in the annual Christmas parade and the Miss Chattooga County forestry pageant.

White's programs have ranged from interviews with Director Ray Shirley and department chiefs on informative forestry matters of concern to area landowners to Smokey the Bear and a group of

puppets appealing to children to have respect for the forests.

People currently working with the ranger in producing the shows include Forester Floyd Hubbard of the Rome District office, who comes to Summerville to appear on camera and provide technical information to landowners; Patrolman Fred Hall of the Chattooga Unit, who gets into the Smokey suit for the children's programs; and Darrell Willingham, teacher in the local high school who works with puppets.

White came with the Commission in 1947, back when the county unit office was in a room on the second floor of the Chattooga County Courthouse.

"I was Assistant Ranger under Ranger George Bishop," White said, "and we had two jeeps with 80-gallon water tanks to use in fighting forest fires...and we really had some big fires."

White helped assemble the first fire lookout tower in the county in 1949 and a couple of years later he helped build one of the first county unit offices in the state.

After becoming ranger, White began a weekly radio show on radio station WGTA in Summerville.

Although Ranger J.B. White is now producer, director, cameraman, sound engineer, set designer and handyman for a half dozen other chores to get his forestry TV programs before the viewers, he still works closely with the local radio station and The Summerville News, the county's newspaper, in keeping the public informed on the many services offered by his unit.

Top: Ranger White films while Forester Hubbard, bottom left, lectures. In other scene: Willingham and friends on childrens show.





Jim L. Gillis, Jr., left, chairman, Georgia Forestry Commission Board of Commissioners, is honored for his leadership in forestry matters in the Southeastern United States by the U. S. Forest Service. He is shown here receiving the leadership certificate from Tom Ellis, assistant director, Southeastern Forest Experiment Station, U. S. Forest Service. The presentation was made during special ceremonies in Atlanta.

Georgia Forestry Commission board members pose with Governor George Busbee and Director Ray Shirley following the governor's appointment of Felton Denney, third from left, to a second term on the board. Shown left to right are Robert Simpson, Jim L. Gillis, Jr., board chairman; Denney, Governor Busbee, Henry E. Williams, Eley C. Frazer, III, and Shirley.



30 YEAR SERVICE AWARDS

Turner F. Barber, Associate Chief Forester, Macon
 Curtis S. Barnes, Associate Chief Forester, Macon
 Horace G. Collier, Jr., Field Supervisor, Macon
 Floyd M. Cook, Forester, Columbus
 James Cromer, Jr., Patrolman, Oglethorpe
 Frank H. Eadie, District Forester, Canton
 Troy E. Floyd, Ranger, Rome
 Chesley Gilmore, Ranger, Oglethorpe
 Homer L. Grizzle, Patrolman, Cartersville
 Austin Guinn, Jr., Ranger, Butler
 Floyd W. Hubbard, Forester, Rome
 James K. Jones, Ranger, Albany
 Ernest C. Rahn, Ranger, Rincon
 Henry Lee Whelchel, Patrolman, Gainesville
 J. B. White, Ranger, Summerville
 Robert C. Womack, Ranger, Davisboro



25 YEAR SERVICE AWARDS

Charles A. Amerson, General Trades Foreman, Macon
 Maurice Barnhill, Ranger, Cairo
 George E. Bower, Ranger, Gainesville
 Joseph L. Charles, Ranger, Ellijay
 George T. Davis, Ranger, Jefferson
 Jack A. Finch, Ranger, Sylvania
 Millard F. Futch, Jr., Ranger, Ludowici
 John R. Harcrow, Ranger, Franklin
 Grady F. Hulett, Patrolman, Jacksonville
 Milford H. Jones, Ranger, Cochran
 Richard T. Kirkland, Ranger, Waycross
 James I. Lane, Ranger, Lumpkin
 Newell D. Lastinger, Ranger, Moultrie
 Shelton O. McWhorter, Ranger, Pitts
 Karen V. Mulkey, Secretary, Newnan
 Druid N. Preston, Chief Forester, Macon
 Julian D. Reeves, Programs Coordinator, Atlanta
 Charles W. Robinson, Assistant Ranger, Tennille
 James E. Rousey, Towerman, Tignall
 Thelma I. Shubert, Towerperson, Pine Lake
 Lewis M. Ware, Clerk, Macon



Terry Price, Commission entomologist, is presented a Certificate of Appreciation by Director Ray Shirley on behalf of the U. S. Forest Service for his work with the Expanded Southern Pine Beetle Research and Applications Program - a study dealing with behavioral chemical research. Price was also cited by the USFS for his leadership in transferring the new and improved technology to a wide range of state, industrial and private users.



Wendell R. Becton, left, retired U. S. Army Forester, was presented the Golden Membership Award of the Society of American Foresters at the organization's Southeastern Section meeting in Albany. The presentation was made by G. Walter Myers, newly elected council member. Also awarded the recognition were William H. Fischer, Stone Mountain, who could not be present at the meeting and Theodore A. Liefield, deceased.

Patrolmen Jack Wagner and Van Edwards of the Bibb-Monroe Unit display the Chairman Trophy presented to the unit for entering the prize-winning float shown here in the Macon Christmas Parade. The float, which is used in several districts, was renovated by unit personnel and the local forestry queen rode on the display when it competed in the annual parade.



Allen M. Smith, Turner County Forest Ranger, left, receives a Certificate of Appreciation from the State Employees Suggestion Program. The certificate is presented by James M. Tidwell, Jr., Ashburn District Forester. The ranger's suggestion involved a device that will provide a quicker means of filling water tanks on ranger pickups. It is estimated that filling time will be cut from 15 to only three minutes.



Georgia FORESTRY

MARCH, 1981

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A. Ray Shirley - Director

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Cruising The News

NEW FORESTRY SHOWCASE PRAISED

Southern Forest World might be called a companion project of Waycross' excellent and imaginative Okefenokee Heritage Center.

It is a program supported by forestry industry leaders of the Southeast. Its objective is to serve as a historical and educational center for the forestry movement and, at the same time, provide a showcase for exhibits.

Officials who have previewed the exhibit center say it features, among other things, what is believed to be the world's largest slash pine, a model of an old sawmill operation, a turpentine still and various exhibits dealing with the economics of forestry.

Waycross is, of course, an ideal place for such a facility. We are located in or near the heart of Southeast Georgia's vast "Pine Empire"

region.

Ware and surrounding counties are leaders in the area and nation in pulpwood production. Many of the state's pulp and paper plants are located in this area.

The district headquarters of the Georgia Forestry Commission is located in Ware County south of Waycross and the Okefenokee Swamp is itself a laboratory for those who would study forestry and the flora and fauna of flatlands Georgia.

It is good that the forestry exhibit facility is located adjacent to the Okefenokee Heritage Center, a splendid program reflecting the history and the potential of Southeast Georgia.

(From the Waycross Journal-Herald)

READERS URGED TO PROTECT WOODLANDS

During a recent seven days period, the Georgia Forestry Commission was called to suppress 1600 wildfires throughout the state. The fires burned an estimated 9,300 acres of forest and open land in that single week! As a result of this unusual fire occurrence, and its direct threat to our valuable forests, Commission Director Ray Shirley is appealing to all citizens of this area to refrain from outdoor burning until ample rain has occurred.

Shirley emphasized that the Notification to Burn Law is in Appling County. The law requires citizens to notify their local Forestry Unit of their intention to burn prior to starting an outdoor fire.

Our green forests generate about five billion dollars industry in our state annually.

Let's all do our part to protect it.

(From the Baxley News Banner)

EDITOR SALUTES FOREST FIREFIGHTERS

If you think that you had a long hard day Monday, just be glad you weren't a ranger with the Georgia Forestry Commission. If you'll notice on the front page of the Echo this week, they had their hands full. Winds came roaring through and caused a lot of problems with power lines and fire. The volunteer fire departments and the Forestry Commission trucks were scurrying all over the county trying to keep things under control. We'd like to tip our hat to them for their efforts.

To really appreciate their work, I guess you need to be standing there while they pour water on your house to keep it from lighting up, like Mr. Sam Brewer of Pleasant Hill was. We got close enough to know that we didn't envy them down in the Vesta community.

We would like to salute the Forestry Commission and the Volunteer Fire Departments for their efforts Monday for their dedication to saving other people's property.

(From the Ludowici News)

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ON THE COVER - When major forest fires strike, Commission aircraft pilots are called in to check the course of the fire and help direct suppression crews on the ground.



SOUTHERN FOREST WORLD OPENS

Southern Forest World, a unique showcase of past and present forestry skills and wood utilization, with a heavy emphasis on vast potentials in the future, was unveiled in Waycross recently before an audience of some of the state's top forestry and industrial figures.

Ray Housley, Deputy Chief of the U.S. Forest Service and principal speaker at the dedication, commended those who worked to achieve the center and said "Georgia has been a leader in forest education and conservation programs..."

William Barton of Union Camp Corporation, Savannah, president of the board of directors for the facility, paid tribute to Mrs. S. William Clark, Jr., "for this was her idea." He also praised Ray Shirley, Director of Georgia Forestry Commission, for his leadership in helping establish Southern Forest World and announced that his photograph and biography had been placed in the honor cabinet as the first individual to receive the honor.

Shirley also cited Mrs. Clark as "the ramrod of this project" and recalled that she had first discussed such a center with him back in 1964.

Mrs. Clark said plans for the center began to formulate 17 years ago when a group of interested persons met to discuss such a project. A federal Economic Development grant of \$185,000 was received in the early seventies and the center began to materialize.

Rising construction costs in an inflated economy sharply increased the price of the project, but gifts from forest industries, corporations, individuals and organizations met the challenge and the center is debt free.

The Southern Forest World consists of an attractive octagonal building which

houses interesting exhibits on two floors. The structure is constructed primarily of forest products, including longleaf heart pine siding, wooden roof shingles, red oak flooring, cypress timbers and various hardwoods.

Features in the center include a large, fabricated hollow tree with circular stairway, a "talking" tree, an old fashioned turpentine still, simulated rainfall, a forestry quiz board and historical displays.

The building was designed by Architect Albert T. Suttles, Douglas, and the exhibit design plan was prepared by Barry Nehr and Joseph Hurt Studios, Stone Mountain. Most of the exhibits were completed by Robert Duchan, who joined the staff in 1980.



William Barton of Union Camp Corporation cuts the ribbon to formally open Southern Forest World, while Mrs. S. William Clark, Jr., founder of the facility, and Ray Shirley, Director of Georgia Forestry Commission, look on.

William Bazemore is treasurer of Southern Forest World and E. Kontz Bennett, who presided at the dedication ceremonies, is legal counsel. Senator Frank Eldridge was cited for his role in obtaining state aid for the project.

Joe Shenck is director of the facility and Mrs. Doris Bennett is receptionist.

The dedication of Southern Forest World was one of the features of the annual Ware County Forest Festival. (See story page 8.)

FOREST WORLD HONORS DIRECTOR OF COMMISSION

Director Ray Shirley of the Georgia Forestry Commission has been honored by friends, associates and the forest industry for his leadership in the development of Southern Forest World.

William Barton, President of Southern Forest World and the Georgia Forestry Association, said Shirley's photograph and a biographical sketch will be displayed in the center. He is the first individual so honored. Other honors go to corporations and organizations which contributed funds and materials toward completion of the facility.

Barton said to date some 150 contributors have donated in excess of \$10,000 to Southern Forest World in honor of Mr. Shirley.

Shirley worked closely with Mrs. S. William Clark of Waycross in planning the center and was later named chairman of the exhibit committee. He worked with many companies and individuals in helping create many intriguing exhibits.

The funds raised in his honor will enable the exhibit committee to continue to develop the remaining exhibits necessary to complete this amazing story of the South's forests.

There remains a need for additional donations for the facility to complete the planned exhibits. The center, however, is open and Shirley said he is urging professional foresters, school children, industrialists, businessmen and other groups and interested individuals to visit Southern Forest World.

PARADES, CONTESTS, AWARDS HIGHLIGHT WARE FOREST EVENT

A long and glittering parade, a banquet honoring several outstanding conservationists, a queen contest featuring 22 pretty girls and a rugged truck rodeo were some of the major events of the 24th annual Ware Forest Festival.

The Waycross celebration - always a drawing card for thousands of Ware Countians and residents of neighboring counties - was held this year in conjunction with the dedication of Southern Forest World. (See Story Page 3)

Dr. William Flatt of the University of Georgia's School of Agriculture and featured banquet speaker, told a capacity audience that Georgia leads the south in timber production and is "Number one in private ownership of timber." He told of the increasing demand that will be made on Georgia and the South by the turn of the century.

Rev. Melvin Pittman was presented the Master Tree Farmer Award, Roy Moore received the Woodmen of the World Conservation Award and B.S. Booth received the Forest Promotional Award. Tim Cornelius and Allen Tanner received the annual Youth Awards for 4H and FFA achievements.

Miss Amy Sirmans, daughter of Mr. and Mrs. Hamp Sirmans and a senior at Southwood School in Waycross, was named queen of the festival and will compete for the Miss Georgia Forestry title at the annual GFA convention on Jekyll Island in June.

More than 650 posters were created by school students for the festival and first place honors went to Eugene Moore of Alice Street School.

In the parade, a float entered by the Pilot Club captured first place.

WOOD RECORD SET

A recent report by Union Camp Corporation showed that the company's Savannah Woodlands Region broke the world record in wood utilization in 1980 by using 1,509,223.36 cords in the pulp mill.

William Barton, manager of the region, said, "this was the most wood ever used at a single location in the history of the world...we actually delivered a little more than 1,516,000 cords which was also a record."



The Commission's tree nurseries have been seeded for 105 million seedlings - a 20 million increase over the planting last year.

James Wynens, Chief of the Reforestation Department, emphasized that environmental factors will somewhat reduce the volume, but approximately 95 million trees are expected to survive and be ready for lifting this fall and winter.

Wynens said the demand for seedlings continues to grow and he is advising landowners to place orders as soon as possible to be assured of the species and volume of trees they need. He said 74 percent of the young trees this season will be of genetically superior stock.

The reforestation chief said orders are now being accepted throughout the state and advance payment is not required. He pointed out, however, that payment would have to be made before seedlings are shipped.

Shipments will be made from December 1 of this year through March, 1982. The plants are carefully packaged and are sold in multiples of 50, 500 and 1,000.

A free brochure detailing the correct way to transport, store and plant the seedlings is available at all Commission offices. Wynens said the way in which

the young plants are handled after they leave the nurseries often determines the survival rate.

Seedling application forms may be obtained from any Commission county unit or district office or by writing to the Commission state headquarters at P.O. Box 819, Macon, Georgia 31298. Forms are also available through the offices of county agents, Soil Conservation Service and the Agricultural Conservation Program. A form for your convenience is also reproduced on this page.

	Per 1000	500	50
Eastern White	\$28.50	\$14.75	\$6.75
Improved Loblolly	14.00	7.75	3.75
Regular Loblolly	13.00	6.75	2.75
Improved Slash	14.00	7.75	3.75
Slash-High Gum	14.00	7.75	3.75
Virginia Pine	14.00	7.75	3.75
Longleaf	14.00	7.75	3.75
Catalpa	30.50	16.00	7.50
Dogwood	40.50	21.00	9.50
Lespedeza	20.50	11.00	5.50
Oak, Sawtooth	20.50	11.00	5.50
Oak, White	20.50	11.00	5.50
Redcedar	30.50	16.00	7.50
Red Maple	38.50	20.00	8.50
Sweetgum	28.50	15.00	6.50
Sycamore	28.50	15.00	6.50
Yellow Poplar	38.50	20.00	8.50

APPLICATION FOR NURSERY STOCK GEORGIA FORESTRY COMMISSION P.O. BOX 819 MACON, GEORGIA 31298

NAME OF APPLICANT _____ PHONE NO. _____
 ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____
 SHIP TO ADDRESS ABOVE OR
 NAME _____ PHONE NO. _____
 ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

DELIVERY DESIRED AS SHOWN BELOW

DATE	SPECIES	NUMBER OF SEEDLINGS	COUNTY OF PLANTING	FOREST DISTRICT

TYPE OF OWNERSHIP (Check one)
 1. Private persons, Clubs, Associations & Private Schools
 2. Private Forest Industry - Lumber Mfg.
 3. Private Forest Industry - Pulp & Paper
 4. Private Forest Industry - Naval Stores, Plywood, etc.
 5. Private other industry lands
 6. Town, County and Public Schools
 7. State and other Public Lands
 8. Federal Government
 9. Other (specify) _____

METHOD OF SHIPMENT (Check one)
 1. STATE TRUCK TO COUNTY FORESTRY OFFICE
 2. APPLICANT WILL PICK UP AT NURSERY

SEEDLINGS RECEIVED IN GOOD CONDITION _____

I HEREBY CERTIFY THAT I DESIRE TO PURCHASE THE ABOVE NURSERY STOCK UNDER CONDITIONS PRINTED ON THE BACK OF THIS FORM

PAYMENT \$ _____ DATE _____ SIGNATURE _____

DO NOT WRITE BELOW THIS LINE
 WALKER MORGAN



URBAN FORESTERS IN DEMAND IN TOWN AND SUBURBIA



day in the life of an urban forester can be pretty hectic when his territory includes a metropolitan county, flanked by a rural county with sprawling new residential areas.

Such is the situation for Forester Jim Blount of the Commission's Washington District. He attends to the many calls from residents in Richmond County who are concerned with the maintenance and protection of their lawn trees and at the same time answers the needs of the newly established homeowners of adjoining Columbia County, which has become a rapidly expanding "bedroom community" for thousands who work in Augusta.

Blount, a native of Savannah, Tennessee, who earned his degree in forestry from the University of Tennessee, also has the responsibility of working with rural landowners in the two counties and spends considerable time in cruising timber, marking trees for thinning and advising owners of measures to take in the prevention or eradication of certain diseases and insects.

The forester conducts a television program in Augusta entitled "Ecology Today" and often has representatives of industry, business and government as guests on the show. Much of the content of the program is directed to Augusta area homeowners and concerns information on caring for shade and ornamental trees. He also speaks on the urban forestry topic before civic and other organizations and is active in public school career day programs.

The response to one recent call in the heart of Augusta is depicted at left. Blount is shown discussing tree problems with Mrs. Mary Elizabeth Gardener of the Maxwell Alumni House on the campus of Augusta College.

In the top photo, Blount examines a water oak estimated to be from 80 to 100 years old. The tree is near the street and has apparently been hit numerous times by automobiles parking along the curb. The forester advised Mrs. Gardner that heart rot had entered through the wound and decomposed the heart wood of the tree. Although he indicated the old tree is not in danger, he said filling the cavity with concrete would be advisable.

In the middle photo, another oak at the front of the property is found to bear lichens on the bark. Blount assured Mrs. Gardener that the growth - a combination of fungus and algae - is no threat to the tree. The tree is, however, an example of problems that exist when trees are planted too close to a street, Blount said. He pointed out that the portion of the tree that is draping over the curb is susceptible to injury by traffic. He said the proximity of power lines, driveways and streets, as well as overhead and underground utility lines, should be carefully considered before trees are planted.

In the bottom photo, the discussion concerns the pruning and fertilization of ornamental trees.

The urban forester said he receives a wide range of requests, but the ones that are currently the most frequent concern Ips beetles in pines and hypoxylon canker in oaks.





SECRETARY OF YEAR HONORED

Clarice Manry of the Seventh District (Americus) was selected the Georgia Forestry Commission's "Secretary of the Year" at the recent annual meeting of secretaries held in Macon.

SURVEY ON SCHEDULE

The collection of data in the Georgia Forest Resource Survey which got underway last May has been completed in the southwest portion of the state and is nearing completion in the southeast area.

The survey, which is made at approximately ten year intervals, is conducted by the U.S. Forest Service in cooperation with the Forestry Commission.

Druid Preston, chief of the Management Department, said Forester James Green of the McRae District is on detached service with the survey teams and other personnel in the Commission are aiding the project by contacting landowners in their counties to explain the purpose of the survey.

Preston explained that there are 12 cruise teams working in the survey, which is expected to be completed late in 1982 or early 1983. He said the state is divided into five units for the project.

The data collected by the field personnel is relayed to the research center of the U.S. Forest Service in Asheville, N.C., where it is processed, Preston said.

Preston pointed out that the survey will reveal the timber growth, volume, grain, projection, reforestation status and many other factors.

A plaque to be displayed in the district office in Americus and a plaque for the secretary to keep were presented to her by W. Cash Harper, Assistant to the Director, during brief ceremonies at the conclusion of the two-day meeting.

Bob Burns, the Commission's Training and Safety Officer, was in charge of the meeting, which included discussions on new and changed policies and procedures, a question and answer session in which problems were aired and other internal office matters were discussed.

Director Ray Shirley spoke briefly to the group and praised the secretaries for their dedication and efficiency. Burns arranged a field trip for the secretaries to visit historic Jarrell Plantation near Macon, where they saw a steam powered sawmill and viewed early forestry practices.

The Secretary of the Year, a native of Randolph County and a graduate of Randolph County High School, was attending business school in Americus when she was employed by the Commission in April, 1947. She recalled that she was allowed to finish her schooling during the first months with the Commission.

"We were planning sites for fire look-out towers in those days," she said, "and it required some long, hard hours of work." Commission officials said she proved to be an excellent secretary and was honored this year for her long and faithful service.

Clarice and her husband, William, and their 17-year old daughter, Claire, live in Americus and are members of the First



United Methodist Church in that city. Clarice said she plans to retire from her position in August but has "no definite plans" for her retirement years.

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GUM HITS NEW HIGH

Members of the American Turpentine Farmers Association were told in the annual meeting of the organization in Soperton recently that high grade gum prices are at an all time high and were urged to continue to upgrade equipment to insure a superior product.

Jim L. Gillis, Jr., association president, said a federal cooperative program for gum operators is in effect again this year.

Grady Williams, Naval Stores Specialist with the Forestry Commission, said producers this year are receiving 25 cents per face on 9-inch practice with spiral gutter or Varn apron and double-headed nails under the cost-share 1981 Naval Stores Conservation Program. He said 10-inch practice provides 31 cents; 11-inch practice, 35 cents; and restricted cupping with spiral gutters or Varn aprons, 33 cents per face.

A late figure on the average price being paid producers for gum is from \$105 to \$110 per standard barrel. An official emphasized that the price is average for all grades, but quality gum is bringing an even better price.

FIREFIGHTERS RECEIVE THANKS FROM DIRECTOR

The first quarter of this year represented one of the worst fire seasons in several years and Director Ray Shirley issued a statewide news release in which he thanked Commission personnel for work in suppressing the many fires.

Director Shirley issued the special message of thanks to the organization's many rangers, aircraft pilots, patrolmen, lookout tower operators and other personnel who worked long, hard hours in recent weeks to suppress thousands of forest wildfires across the state.

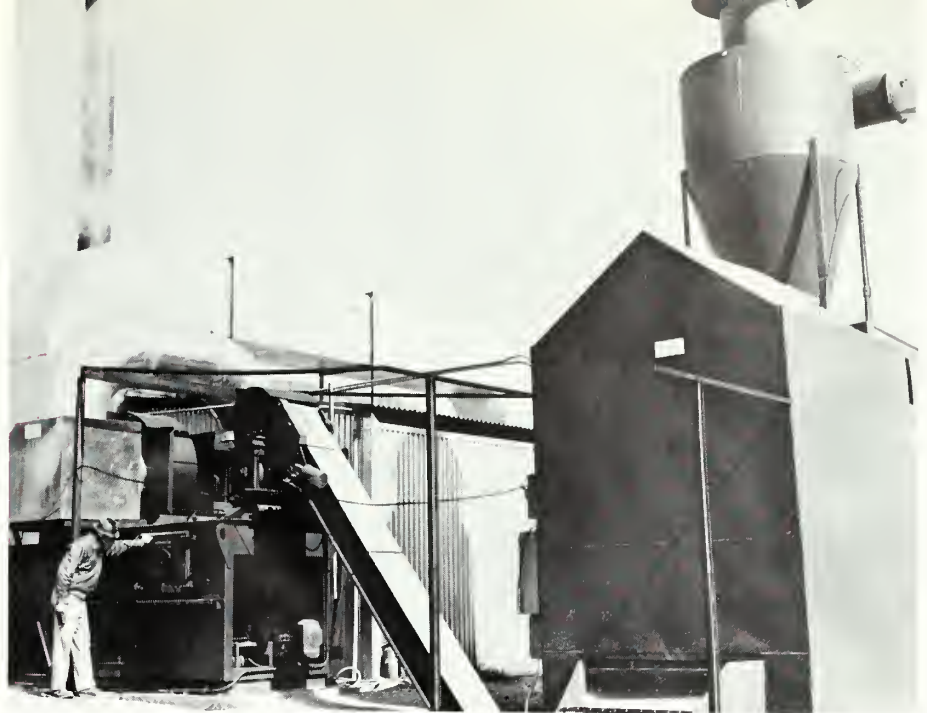
The directive complimented all who played a role in battling fires during the first quarter of the year - a quarter in which approximately 10,000 fires burned more than 58,000 acres.

"It was one of the worst fire seasons we have had in recent years," Shirley said, "but as a result of the dedication and hard work of our firefighters and support people, we were able to save untold thousands of acres of valuable forestland."

In comparison, the GFC director pointed out that there were 10,882 fires that burned 44,717 acres during the entire year of 1980. "In other words," he said, "the number of fires that usually occur in a full year were concentrated in a three-month period this year and men and equipment had to be spread thinner and in service longer hours to meet the challenge."

Commission officials contributed the high fire rate to a lingering drought that began last summer and the tremendous buildup of dry vegetation during the fall and winter. They said high winds were also a factor in the unusually high number of fires.

Although safety is constantly stressed in the Commission, Shirley said firefighting continues to be a hazardous occupation. He said there are certain risks involved in protecting Georgia's 24 million acres of forestlands and "I certainly commend those in the Commission who stand in the front line of defense in guarding our natural resource."



Bernard Storey checks the firebox on equipment recently installed at his mill to utilize shavings as fuel for heating the dry kilns.

UTILIZATION OF MILL SHAVINGS DRASTICALLY CUTS ENERGY BILL

Brothers Bernard and Harold Storey of Floyd County have gone their separate ways on occasion.

During World War II, for instance, Bernard served with the U.S. Army Engineers in the Pacific, while his brother, Harold, was with the Army Infantry in Europe. Bernard graduated from Georgia Tech and Harold earned his diploma from the University of Georgia.

They are together, however, in one respect. They are both experienced lumbermen.

The brothers own and operate the S.I. Storey Lumber Company at Crystal Springs, a peaceful community in the Texas Valley section of the county. The company was founded by their father, the late Sikes Storey, back in 1920 and began learning the business in their early teens by working on the yards and in the mill. Except for the war years and time spent away at college, they have devoted their adult years to keeping the company up-to-date and productive.

A lot of changes have come about, of course, in the 60-year span in which mule power and steam have given way to electricity and natural gas, but one of the more recent developments at the Storey plant has been the utilization of material that heretofore was essentially considered

a waste product.

The company has installed an automatic Rettew furnace that burns shavings from the planing mill to provide heat for the dry kiln. The system is presently accounting for a 40 to 50 percent savings over natural gas, the fuel previously used.

The S.I. Storey Lumber Company no longer operates a sawmill, but buys lumber from a mill located on adjacent grounds. It is then planed to fill orders for a variety of specialty dimensions.

The shavings from the planing mill are blown to a steel holding bin of 1,500 cubic foot capacity through a 21-inch overhead pipe some 350 feet long. The system is completely automatic and the brothers contend that very little maintenance is required.

Before installation of the system, some of the shavings were sold to the poultry industry for use as chicken litter at a very nominal fee. The company owners said the smooth performance of the new kiln heating system and the impressive savings that are being realized in energy costs prove that the mill is now utilizing the full potential of the shavings.

The operation has been observed by the Research Department of the Commission and the Storey Brothers have been cooperative in providing valuable data.



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Young ladies from many counties throughout the state will compete June 14-15 for the Miss Georgia Forestry title at the annual convention of the Georgia Forestry Association on Jekyll Island. Shown here are winners in county contests held prior to publishing deadline for this magazine. Many additional local contests were held in early June. The girls are: 1. Donna Hooks, Emanuel County; 2. Scarlet McGarr, Muscogee; 3. Stacy Hames, Macon; 4. Kathy McCutchen, Crisp-Dooly; 5. Lisa Usry, Richmond; 6. Sherry Studstill, Sumter; 7. Dee Dycke, Chattooga; 8. Paige Vickery, Bulloch; 9. Michelle McLendon, Treutlen; 10. Fran Saggus, Lincoln; 11. Amy Sirmans, Ware; 12. Lori Sutton, Wilcox; 13. Melanie Harrison, Bibb; 14. Jennifer Bowie, Harris; 15. Melinda Taylor, Charlton; 16. Kay Avant, Washington-Johnson; 17. Pat Pauley, Union; 18. Amanda Greer, Fannin; 19. Kelly Fredrickson, Oconee; 20. Rebecca Edwards, Liberty; 21. Karen Darnell, Haralson-Polk; 22. Sharon Cook, Candler; 23. Teresa Kown, Pickens; 24. Patricia Kennedy, Evans; 25. Robin Palmer, Bacon; 26. Jane Davis, Pierce; 27. Carla Chambers, Miller; 28. Beverly Sando, Long.



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RURAL FIRE DEPARTMENTS DISPLAY SKILLS

Ten volunteer fire departments - units aided by the Georgia Forestry Commission under the Rural Fire Defense Program - participated in a recent Firemen's Muster in Moultrie to test firefighting skills.

The muster, sponsored by the Commission and the Colquitt County Firefighters Association, began with a parade of fire trucks through the downtown section of Moultrie and the competitive games were held at the county fairgrounds.

The competition consisted of a ladder and hose exercise in which firemen were timed in setting up an extension ladder and sending a fireman to the top with a hose.

Another measured the time required to draft water from a portable holding tank and then pump it through the truck to the extent that a high pressure hose would be able to knock down a target.

A third competition required firemen to lie on the ground as if

they were asleep in a firehouse. When a signal was given, they put on coats, buckled helmets and boarded their firetruck for a short run across a field where a target was knocked down with the truck's hose.

Water basketball, a game in which a ball is used as a target to test skill in directing the water stream, concluded the afternoon program.

Departments participating in the muster included Autryville, Bay, Berlin, County Farm, Culberton, Ellenton, Funston, Northside and Thomson. The Commission also entered a unit in the competition.

Don Freyer, RFD Program Coordinator for the Commission, said he was well pleased with the participating volunteer departments and pointed out that the large crowd of spectators attending the event was the result of good planning and promotion by the local association.





This turkey oak on a Pierce County farm is the largest in the country. Left to right are Jimmy Mock, nominator of the champion tree; Allen Harris, Jr., son of the owner of the farm; and Terry Herrin, assistant ranger, Pierce County Unit, GFC.

PIERCE TREE IS NATION'S LARGEST

Jimmy Mock, dedicated vo-ag teacher at Patterson High School in Pierce County, always believed that the big Turkey Oak standing behind a farm house near the community of Owen had to be the largest of its species in Georgia.

He was right!

When the official measurements were made, it turned out that the big tree on the property of Allen Harris deserves the title: State Champion Turkey Oak (*Quercus laevis*).

But further checking revealed that the tree nominated by Mock for the state title is also a national champion. The American Forestry Association has verified that the turkey oak is the largest in the United States!

The circumference of the tree at 4½ feet from the ground is 8.7 feet and the vertical height is 67 feet. The average diameter spread of the crown is 70 feet.

COMPUTER DETERMINES VOLUME OF BIOMASS

Good progress has been made in the computerized measurement of biomass in three of the Commission's districts and Druid Preston, chief of the Forest Management Department, said there are plans to expand the program statewide this year.

The project to accurately measure biomass - the total volume of a tree, including the trunk, limbs, needles, etc. - was

initiated two years ago with a series of field tests around the state.

In recent months, the computer terminals in the Athens, McRae and Canton Districts, as well as the Macon office, have been used to transmit data from a conventional cruise to the Computer Center, University of Georgia. A printout is then returned to the districts, showing total biomass in the cruise.

Preston said the center in Athens can also send back total sawlog volume, pulpwood volume, amount of firewood derived from the top portion of trees, as well as the total tons of biomass in the remaining material in the cruised area.

"Although there is not a wide market for forest biomass today," Preston pointed out, "we anticipate a demand for this material in the future and we want to be prepared to serve the Georgia landowner when the time comes." He predicted that acreage that is "not worth a cruise today" will become merchantable in the future.

PAPER FEATURES GFC

A newspaper supplement entitled "Buckeye and Georgia Forestry" was published by the Citizen and Georgian of Montezuma to coincide with the formal dedication of the new Flint River Plant of the Buckeye Cellulose Corporation.

The paper included photos and stories concerning activities of Forest Ranger Chesley Gilmore and his staff at the Commission's Macon County Unit.

MERGERS TO BRING DISTRICT CHANGES

Effective July 1, 1981, two of the Commission's 17 districts will be eliminated and counties in those areas will be assigned to other districts, according to Commission Director Ray Shirley.

District offices to be closed in the move to bring about greater overall efficiency and to reduce costs includes the Atlanta and Midway Districts, the director said.

In terminating the Atlanta office, Shirley said Cobb County will be attached to the Canton District and Gwinnett County will be assigned to the Athens District, with DeKalb, Fayette and Clayton Counties joining the Griffin District. He said South Fulton and Douglas will be assigned to the Griffin District.

The Director said Forester Ed Banks of the Atlanta office will move to the DeKalb County office at Stone Mountain to direct a four-county Metro Forestry Program and the Commission's personnel department will remain in downtown Atlanta.

In phasing out the Midway District, Shirley said Glynn and Camden Counties will be assigned to the Waycross District, with the remaining counties going into the Statesboro District. In other boundary changes, Wayne, Appling and Jeff Davis Counties will be assigned to the Waycross District and Toombs County to the McRae District. Statesboro District will add Emanuel, Jenkins and Screven Counties.

Shirley said District Forester Billy Barber of Helena will transfer to Dixon State Forest in Waycross to replace Superintendent Zack Seymour, who plans to retire. Midway District Forester H. L. Neal will replace Barber at McRae.

GFC FILM AVAILABLE

A 22-minute color film on wood energy was recently completed by the Georgia Forestry Commission and is now being offered to other agencies, wood-using industries, organizations and other interested groups.

The movie identifies energy wood and residues and demonstrates equipment for felling, skidding, chipping and transporting the material in a total tree harvesting operation. Scenes showing a new wood gasification system is a highlight of the presentation.

Prints are available at \$200 each and order forms are available through the Commission's headquarters. The mailing address is: Georgia Forestry Commission, P. O. Box 819, Macon, Georgia 31298.

GEORGIA TAKES WOOD ENERGY LEAD

"Georgia does not have an energy shortage, just a shortage of gas and oil," according to a statement made in 1974 by Director Ray Shirley, Georgia Forestry Commission. His statement is becoming truer each month as state facilities and industries change to wood energy, replacing natural gas, oil and electricity.

Through efforts of the Governor and members of the General Assembly, Georgia is leading the nation in converting public facilities to wood energy. Systems installed or being installed are as follows:

Northwest Georgia Regional Hospital, Rome: A 25 million BTU/hr. gasifier.
Franklin County High School, Carnesville: A 3.3 million BTU, 100 h.p. wood unit.

Treutlen County High School, Soper-ton: A 3.3 million BTU, 100 h.p. wood unit.

Mountain View School, Walker County: A 1.6 million BTU, 50 h.p. unit.

Union County Junior High School, Blairsville: A 500,000 BTU wood unit.

Middle Georgia Correctional Institution, Chester: A 6.6 million BTU, 200 h.p. wood unit.

Walker County Correctional Institution, LaFayette: A 4.9 million BTU, 150 h.p. wood unit.

Georgia Industrial Institute, Alto: A 60,000 pound per hour steam system. This system will replace 23 separate boilers for a central system using wood.

Several other state facilities are being studied for the possibility of installing wood energy systems.

Agricultural uses of energy is big in Georgia. The Commission has developed or purchased several demonstrational wood systems to save the farmer money on his energy needs.

A 3.3 million BTU or 100 h.p. unit is available to dry corn, soybeans and other grains. It was used for a short time last year and will be demonstrated for drying corn and soybeans this season.

The above unit, a 3.3 million BTU hot air system, was installed in a large poultry house in North Georgia this past winter. The system proved wood chips could be used to heat a poultry house successfully while saving approximately 25 percent on the cost of energy. More work is to be done using an automatic wood chip or sawdust system this winter. The poultry experts were excited over the fresher,

drier heat than they could obtain with propane gas.

An automatic sawdust burner is being installed to heat four tobacco barns in Southeast Georgia. This unit heats water to go through coils to heat the tobacco barns. The propane burner will remain in place to serve as a backup for the experimental wood system. Detailed data will be obtained to determine the savings to the farmer.

Another 1.6 million BTU or 50 h.p. unit is being developed to dry agricultural crops. This unit will use wood chips or sawdust and will be tested on several agricultural applications.

Private industries in Georgia are replacing large volumes of oil and gas with wood energy systems. Forest industries, including pulp and paper, sawmills, plywood, veneer, timber treating and others have made great progress in converting their energy needs to wood.

There are several industries not related to wood which have replaced gas and/or oil with wood. Some of them are:

Burlington Industries at Rabun Gap uses 400 tons of wood residue per day. This replaces their daily consumption of 18,000 gallons of oil.

Proctor and Gamble in Albany has installed a new wood residue boiler that saves 220,000 barrels of fuel each year. This is enough energy to heat 35,000 Georgia homes.

Integrated Products in Aragon has recently installed a 400 h.p. wood system. When their old boiler was on oil, it required 120 gallons of oil per hour. Fairbanks Company in Rome is using a new 300 h.p. wood energy system. When operating on oil, their old boiler used 90 gallons of oil per hour.

Residential heating with wood in Georgia has increased greatly during the past few years. Thirty percent of all households are using wood to some extent. Approximately 1,166,000 cords of wood were used this past winter for home heating.

The Wood Energy Program is doing more for forest management than any other activity at present. It is permitting residue normally left in the forest, as well as cull trees, to be used for energy. The removing of these products is aiding the landowner in the reforestation of the land with more desirable species and at a reduced cost.



BEETLE SURVEY

Although Commission Entomologist Terry Price said beetle populations are expected to remain static throughout 1981, he emphasized that severe dry weather during the summer months could influence the insects to increase to moderate levels by fall of this year.

Price said Southern Pine beetle activity is concentrated in Northeast Georgia and "ground checks made in those counties revealed a close association between littleleaf disease and incidence of Southern pine beetle." He said most of the spots had one to five red-topped trees and no actively green infested trees were discovered.

He said Ips and turpentine beetle activity is "very low" statewide. "Increased activity, however, is expected to occur due to rainfall deficiencies throughout the state," according to the entomologist, "and landowners need to stay alert to suspect beetle damage." He urged landowners to contact their local Forestry Commission unit if such activity is found.

The Southern Pine beetle detection data showed that some infestation was found in Hall, Habersham and Lumpkin Counties, as well as several other counties in the area.

The Ips and black turpentine beetle aerial detection data showed counties with total infestation ranging from four to twelve spots. The counties included Dodge, Jefferson, Laurens, Monroe, Montgomery, Telfair, Wheeler and Wilcox.

The next scheduled aerial survey is set for July and August, but if an increase is noted in current populations, earlier flights will be carried out by the Commission.





A brief word of acknowledgement for your very timely and appreciated efforts on behalf of the Commission in fighting the recent fire that threatened our property.

Though the efforts of those agencies whom we expect to respond in such emergencies are often overlooked, we want you to know of our sincere gratitude for your part in averting what could have developed into a disaster.

Leo Vital, Administrator
Wildwood Sanitarium Hospital
Wildwood, Georgia

I am most appreciative of your generosity in providing fine, intelligent, and enthusiastic judges for our two FFA Forestry Field Days at Louisville and Vidalia. It would be difficult to stage these events without your support.

E.A. Davenport, Jr.
Chief Conservation Forester
Union Camp Corporation
Savannah, Georgia

Please allow me space in your publication to thank the many persons who risked their own lives to control a recent forest fire and save several homes.

Power lines snapped together by the strong winds set the forest across Highway 22 East from our home on fire. The very strong winds fanned the fire, which became out of control in only a matter of a few minutes. We would like to express our appreciation to all the persons, including the person who saw the fire and reported it, the fire departments that responded, the Georgia Forestry Commission, the State Patrol, the Department of Transportation, the Baldwin County Sheriff's Office and even the Georgia Department of Natural Resources.

Had it not been for the efforts of this entire group, when the winds blew the fire across the road and into the yard of our home, all would have been lost. Please again, let my family say: "Thank you for a job well done, and may God bless each of you"

Mr. and Mrs. Raymond Niblett
Mr. Neal Niblett
Milledgeville, Georgia

Mrs. Peggy Ryder, our PTA President, and I would like to express our appreciation for the part you played in our Arbor Day ceremonies.

The fact that each classroom has a tree to care for and watch grow excited our students, and they enjoyed the program very much.

Students and teachers are still mentioning the interesting information that was given as each tree was planted. We know it was hard work planting all of those trees. Thank you for giving so generously of your time and energies.

Maxine B. Hammond
Principal
Glenn Hills Elementary School
Augusta, Georgia

An extremely hazardous forest fire broke out recently on the Naval Submarine Support Base, Kings Bay. Fanned by 35 knot winds through dry woods, the fire quickly spread from a construction site into the surrounding woods, and quickly exceeded the capacity of the on base fire fighting force. Had it not been for your help, and that of others, many more acres would have been lost. With the quick response by the Georgia Forestry Commission, this fire was quickly controlled and only a few acres were burned over.

I want to express my thanks and deepest appreciation, both personally and for the Navy, for the expert assistance your personnel provided.

R.A. Currier
Captain, U.S. Navy
Commanding Officer
Kings Bay, Georgia

In behalf of the Clean Community Advisory Council, I wish to thank you for generously allowing us space on the forestry float in the St. Patrick's Day Parade.

Both the CCAC and its ad hoc Committee, Green Survival, received excellent visibility on the float. In addition, the "Clean Team, Gene and Dean", were introduced for the first time "in person".

It is such fine cooperation from organizations like yours that is helping the CCAC in its efforts to keep Savannah's environment clean and beautiful.

William A. Hagins, President
CCA Council
Savannah, Georgia

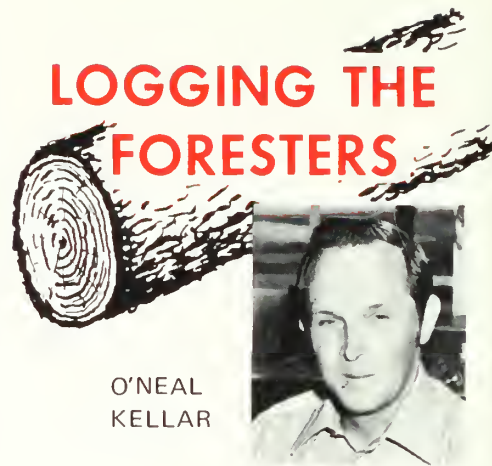


BURN LAW NOW STATEWIDE

Governor George Busbee recently signed into law a statewide Notification to Burn Law. Previously it was a county option law and was in effect only in counties where two successive grand juries had recommended it.

Basically, the law states that before any person, firm, corporation or association shall burn any woods, lands, marshes or other combustible material, notice of the time and place must first be given. This notice may be made to the county forest ranger or any other employee of the unit.

Information that is needed to report any intention to set an outside fire includes: (a) Person making the request, (b) Telephone number, (c) Property owner's name, (d) Telephone number or address, (e) Date and time of planned burning, (f) Location of the burn, (g) Is the burn in a field, in the woods or other, (h) What is the approximate size of the area to be burned.



O'NEAL
KELLAR

O'NEAL KELLAR, a 17-year veteran with the Commission, has been promoted to Forest Ranger for Franklin, Hart and Stephens Counties. A native of Toccoa and a graduate of Stephens County High School, the ranger came with the Commission as a patrolman in 1964 and was promoted to Assistant Ranger of Stephens County in 1975. He is married to the former Miss Peggy Elrod of Toccoa and they have a daughter, Laura...WENDELL R. BECTON, retired Third U.S. Army forester, was awarded the Society of American Foresters Membership Award at a recent meeting of the Society's Southeastern Section. Also awarded the recognition were WILLIAM H. FISCHER, Stone Mountain, who could not be present at the Albany meeting, and THEODORE A. LIEFIELD, Thomasville, deceased.

Failure to give such a notice is a misdemeanor and the person or persons who failed to notify the county forestry unit will be punished as provided by law. The main purpose of the law is to enable the county forestry unit to give advice about weather and fire hazard conditions. Landowners and others can be warned against setting fire if the potential fire danger is high or proper precautions have not been taken.

HERBICIDE MEET SET

Foresters and landowners are invited to attend a herbicide conference July 29 at Georgia Southern College in Statesboro.

The conference, to explore alternate costs of site preparation, is sponsored by the Georgia Extension Service. The conference, to begin at 9:00 a.m., will be held in the Continuing Education Building.

Georgia Forestry Commission/June 1981

PERSONNEL RECENTLY AWARDED FOR 20 YEARS OF SERVICE:

Charles M. Aldridge, Patrolman, Baxley
Sharon Bennett, Secretary, Waycross
Paul L. Bledsoe, District Forester, Camilla
George W. Braddy, Patrolman, Soperton
Bobby K. Bridges, Patrolman, Harrison
Terrell Brooks, Associate Chief Forester, Macon
James L. Castleman, Forester, Vidalia
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Evelyn B. Vause, Secretary, Statesboro
Roy S. Wagner, Patrolman, Gray
Rowe T. Wall, District Forester, Americus
Arthur W. West, Forester, Gainesville
Neil Whitmire, Patrolman, Gainesville



AWARDS

B.S. Booth, left, receives the Forest Promotional Award from G.C. Ganas of Southern Bank, Waycross, sponsor of the award. The presentation was made at Southern Forest World during the recent Ware Forest Festival. Booth is the retired District Ranger of the Commission's Waycross District.



The Patterson Chapter, Future Farmers of America, again captured first place in the annual FFA statewide Forestry Field Day finals. The chapter, led by Advisor Jimmy Mock, won the top spot for the third consecutive year. The Blackshear Chapter claimed second place. The 22nd annual event was again sponsored by the Trust Company of Georgia and its affiliates. Front row, left to right, includes Mock, Suzanne Walker, Brenda Foster, Arnold Tuten, Wade Johnson, and Perry Johnson. Back row, Dwight Yeomans, Dan Strickland, Alan Harris, Sammy Chancey, Stevie Davis and Keith Brown.

Georgia FORESTRY

JUNE, 1981



When Deron Towler and his mother, Mrs. Joelyn Towler of Waycross, visited Southern Forest World during the recent formal opening of the facility, the lad was intrigued with this talking tree at the entrance. He asked a question and sure enough, the tree talked back! It is one of many unique features of the amazing Southern Forest World, a center apparently destined to become one of Georgia's most popular historical and educational attractions in the years to come. (See Story Page 3.)

SECOND CLASS POSTAGE
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DISTRICT OFFICES

Coosa Valley
P. O. Box Z, Mt. Berry 30149

North Georgia
Rt. 7, Box 83, Canton 30114

Chattahoochee Flint
P. O. Box 1080, Newnan 30263

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Rt. 8, Columbus Rd., Macon 31206

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Hwy. 49, Milledgeville 31061

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Cruising The News

WOOD ENERGY BENEFITS STATE

Georgia's forests and woodlands are playing an increasingly important part in substituting locally grown energy for oil.

Although the United States is not out of the woods, (no pun intended) when it comes to energy independence, there are many signs of improvement in some areas.

Georgia's forest industry activities in this area are examples.

Energy-rich Canada, which has plenty of oil, water, coal and wood, only recently began to look on its wood piles as renewable energy resources. Officials there figured, however, that for every 100 feet of solid wood used in actual finished products, 200 square feet of wood is being wasted in the harvesting process.

This isn't so in Georgia.

On a state-wide scale, the Georgia Forestry Commission has been active in research and development of wood-energy-saving measures.

Researchers at Georgia Tech are undertaking investigations in a number of areas to add new spark to the wood-for-energy program. They are putting "state of the art" technology on line in Georgia's industries even as they continue research into newer areas. (There will be more about Tech's wood energy research programs in coming weeks.)

Most forest industry plants in the state already have converted their boilers to burn wood or wood by-products to supply the greatest part of their energy needs.

These plants, in fact, use wood to produce most of the energy needed to transform logs into their finished product, whether the product is paperboard or newsprint or another kind of paper.

Where many cull trees and tree trimmings once were left in the woods and on the forest floor when the prime timber was removed,

even these culls and scraps are now gathered in many areas.

According to Forestry Commission officials, there are 28 wood chippers within the state that are taken into forests to clean up otherwise "leftover" wood in the fields.

This wood is cut and fed into the chipper where it is prepared for use as fuel.

Hog farmers brag their slaughtering methods use "everything but the ink."

Foresters are working to use everything but the wind in the willows. And they claim this sort of harvesting helps promote better forests for a few years down the road, too.

"You can't grow the best quality lumber in forests with a lot of old, cull trees left standing from the last harvest," one forester explained.

Forestry in Georgia is giant — with 540,000 acres of woodland harvested each year, and eight million tons of pulp produced along with 2.5 billion board feet of lumber.

As almost every Georgia school child knows, forestry is a \$5.5 billion a-year program in Georgia, and forests are growing on 24 million acres of land within the state.

Georgia, in fact, grows more wood on privately owned land than any other state in the Union.

It's comforting to know that much of the energy needed to process the logs on the trucks one sees on the roads and highways will come from the logs themselves, or logs processed only a few days before.

This kind of energy saving and this kind of innovation are the sorts of things that will keep our country working in spite of what the Arab nations may do.

-From the Augusta Chronicle

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ON THE COVER - Amy Sirmans, the recently crowned Miss Georgia Forestry, poses for the photographer on the lawn of her home in Waycross. (See Story Page 5).

NEW FOREST RESEARCH REPORTS PUBLISHED

Three new Georgia Forest Research Reports have been published since January and an additional three are at the printers, according to John Mixon, the Commission's research chief.

Mixon said the comprehensive reports are available to landowners, wood using industries and other forestry interests.

Reports now being distributed include:

Research Paper No. 14 - Cruising Procedures for Estimating Total Stand Biomass, by Douglas R. Phillips and Joseph R. Saucier, January 1981;

Research Paper No. 15 - Control of the Black Turpentine Beetle, by Edward P. Merkel, January 1981;

Research Paper No. 19 - Green Weight, Volume, Board Foot and Cord Tables for the Major Southern Pine Species, by Joseph R. Saucier and Douglas R. Phillips, January 1981.

Reports now being printed include:

Research Paper No. 16 - The Firewood Industry in Georgia - A Study of Its Characteristics and Needs, by Dr. James E. Morrow, Georgia State University, May 1981;

Research Paper No. 17 - Energy Wood Harvesting - A Study of Promises and Pitfalls, by James W. McMinn and Wade L. Nutter, May 1981;

Research Paper No. 18 - Weight Loss of Summer-Stored Sweetgum, Yellow-Poplar, Red Oak, and Loblolly Pine Saw Logs, by Joseph R. Saucier and Douglas R. Phillips, June 1981.



Assistant Secretary James Crowell of the U.S. Department of Agriculture recently toured the Forestry Center in Macon and observed naval stores operations and forest regeneration near Soperton. In the top photo, Commission Director Ray Shirley, left, shows fire fighting equipment to Secretary Crowell, second from left, and others in the tour group, including Jim Turner, Chief of Forest Protection, GFC; Bob Raisch, U.S. Forest Service, Atlanta; and Eley C. Frazer, III of Albany, member of the GFC Board of Commissioners. At right, Raisch and the secretary hear Turner explain some of the practices used by the Commission in the suppression of forest wildfires. Others on the tour were Stan Adams and John Ohman, U.S. Forest Service. The group saw the Commission's new motion picture on wood energy and toured the tree seed and fire laboratories during the visit to the center.



GEORGIA COMPANY ACQUIRES INTERSTATE PAPER INTERESTS

Interstate Paper Corp., operator of a kraft linerboard mill in Riceboro, Georgia, and Interstate Container Corp. of New York City, which operates four corrugated box plants and a corrugating medium mill in the Northeast, have been acquired by Agri-Timber, Inc., a privately owned Georgia company.

Agri-Timber, Inc. is wholly-owned by William F. Belote of Dublin, Ga. The acquisition includes all stock of Interstate Paper, Interstate Container, and a third related company, Newport Timber Corp., also of Riceboro. The three corporations will continue as operating subsidiaries of Agri-Timber, Inc.

Belote and his family have been long-time forest products producers and own or control more than 200,000 acres of timberland in the Georgia, Florida, and

South Carolina areas, as well as sawmills and plywood mills in those states. In addition, Belote owns approximately 700,000 acres of timber and farm land in

Central America and operates mahogany and hardwood mills, a gum naval stores operation, and a wood treating plant there.

ORLANDO SITE OF SOCIETY CONVENTION

Orlando, Florida will be the site of the 1981 National Convention of the Society of American Foresters. Some 2000 foresters and other professionals are expected to gather for the meeting to be held at the Sheraton Twin Towers, in Orlando, September 27-30.

The Convention theme, "Increasing Forest Productivity," will focus on the potential of our nation and the forestry profession to meet the projected demands for wood and other forest resources in the coming years. Key topics of discus-

sion will center on national and world forest productivity, future demand, and management alternatives.

Dr. Emery N. Castle, president of Resources for the Future, will be the featured banquet luncheon speaker and five tours to view forestry in Florida will be available.

For further details on registration, contact SAF Convention, 5400 Grosvenor Lane, Washington, D.C. 20014 or phone 301/897-8720

LOBLOLLY ORCHARD ESTABLISHED, OTHER EXPANSION PLANNED

A ten-acre plot has been planted to second generation loblolly seedlings at Baldwin Seed Orchard near Milledgeville and plans are underway to establish a longleaf pine seed orchard at the facility.

Personnel of the Commission's Reforestation Department said the loblolly planting consists of seedlings carefully chosen from the "best families" that have been cross pollinated to provide high quality seed.

Almost 300 tree selections have been made throughout the upper and lower Coastal Plain counties as a source for seed for the proposed longleaf orchard. Field personnel have aided in locating the quality trees and cone collection will begin in October. Plans call for establishing the orchard in 1982.

BEETLE UPDATE



Bark beetle activity statewide has increased since the Commission's June aerial survey and several "hot spots" have been detected in Hall County and the surrounding area.

Entomologist Terry Price pointed out, however, that Southern pine beetle populations are considered to be light at the present time, but he warned that a steady increase is expected to occur until late October or early November.

Price said current infestations are scattered, with most of the activity in North-east Georgia. He urged landowners to be alert to potential infestations on their property and said they should contact their county forestry unit upon sighting any signs of the insects. He said literature dealing with detection and control of

beetles is provided by the Commission.

The latest survey showed that Ips and black turpentine beetles are scattered throughout the state, with the Waycross District reporting the highest level of activity.

Price said the Ips and turpentine beetle activity is attributed primarily to lightning strikes and wildfires. He explained that trees damaged by lightning and fires are very susceptible to the insects and such trees should be monitored for beetle activity until cooler weather arrives.

The next statewide aerial survey is scheduled for early fall, but Price said immediate flights would be made if a significant increase in beetle population is noted anywhere in the state.

LANDOWNERS URGED TO ORDER SEEDLINGS EARLY

Georgia landowners planning to plant forest trees this winter should place their orders now with the Forestry Commission to be assured of the volume of seedlings they will need, according to Jim Wynens, Chief of the Reforestation Department.

Although seedling production at the state nurseries has been greatly expanded over last year, Wynens said the demand for trees remains high and there is no assurance that all landowner needs can be met.

Wynens said orders are now coming into Commission offices throughout the state and advance payment is not required. He pointed out, however, that pay-

ment would have to be made before seedlings are shipped.

Shipments of the carefully packaged trees will begin December 1 of this year and continue through March, 1982.

Seedling application forms may be obtained from any Commission county unit or district office or by writing to the

Commission state headquarters at P. O. Box 819, Macon, Georgia 31298-4599. Forms are also available through the offices of county agents, Soil Conservation Service and the Agricultural Conservation Program. A form for your convenience is also reproduced on this page.

APPLICATION FOR NURSERY STOCK

GEORGIA FORESTRY COMMISSION P.O. BOX 819 MACON, GEORGIA 31298

NAME OF APPLICANT _____ PHONE NO. _____
 ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

SHIP TO ADDRESS ABOVE OR
 NAME _____ PHONE NO. _____
 ADDRESS _____ CITY _____ COUNTY _____ ZIP CODE _____

DELIVERY DESIRED AS SHOWN BELOW				
DATE	SPECIES	NUMBER OF SEEDLINGS	COUNTY OF PLANTING	FOREST DISTRICT

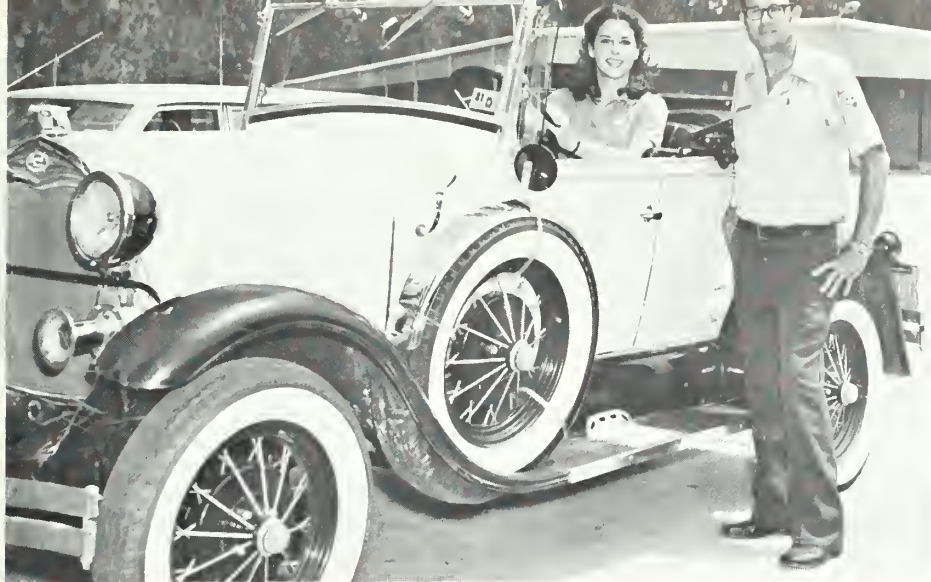
TYPE OF OWNERSHIP (Check one)
 1 Private persons, clubs, associations and private schools
 2 Private forest industry, lumber manufacturers
 3 Private forest industry, pulp and paper
 4 Private forest industry, naval stores, plywood, etc.
 5 Private other industry lands
 6 Town, county and public schools
 7 State and other public lands
 8 Federal government
 9 Other (Specify) _____

METHOD OF SHIPMENT: (Check one)
 1 STATE TRUCK TO COUNTY FORESTRY OFFICE
 2 APPLICANT WILL PICK UP AT NURSERY

I HEREBY CERTIFY THAT I DESIRE TO PURCHASE THE ABOVE NURSERY STOCK UNDER CONDITIONS PRINTED ON THE BACK OF THIS FORM
 PAYMENT \$ _____ DATE _____ SIGNATURE _____

	Per 1000	500	50
Eastern White	\$31.00	\$16.25	\$8.00
Improved Loblolly	14.00	7.75	3.75
Regular Loblolly	13.00	6.75	2.75
Improved Slash	14.00	7.75	3.75
Slash-High Gum	14.00	7.75	3.75
Virginia Pine	14.00	7.75	3.75
Longleaf	14.00	7.75	3.75
Catalpa	30.50	16.00	7.50
Dogwood	40.50	21.00	9.50
Lespedeza	20.50	11.00	5.50
Oak, Sawtooth	20.50	11.00	5.50
Oak, White	20.50	11.00	5.50
Baldcypress	30.50	16.00	7.50
Red Maple	38.50	20.00	8.50
Shortleaf Pine	28.50	15.00	6.50
Longleaf Pine	28.50	15.00	6.50
White Pine	38.50	20.00	8.50

WALKER NURSERY REIDSVILLE, GA MORGAN NURSERY BYRON, GA



Miss Georgia Forestry has many interests, including tennis and an occasional drive around her hometown of Waycross in her father's antique automobile. Shown here admiring the car and its pretty driver is Forest Ranger R.T. Kirkland of the Commission's Ware County Unit.

WAYCROSS CONTESTANT WINS MISS GEORGIA FORESTRY TITLE AT JEKYLL

Pretty Miss Amy Marie Sirmans of Waycross, an honor graduate of Southwood School and now bound this fall for Berry College in Rome, is one of the most talented young ladies ever selected to wear the crown of Miss Georgia Forestry.



Chosen from a field of 31 attractive county winners in the state competition this summer on Jekyll Island, the new Miss Georgia Forestry was named Exchange Club Student of the Year in her home town. She is a Lion's Club Honor Student, an active member of a drama club, a model, former Sunday School teacher at Trinity United Methodist Church and an excellent tennis and basketball player.

Miss Sirmans, the daughter of Mr. and Mrs. Hamp Sirmans of Waycross, will represent the Georgia Forestry Association, sponsor of the annual pageant, forest-related industries and organizations by participating in parades, fairs, conventions and other events in the promotion of forestry in Georgia.

First runnerup was Donna Hooks of Swainsboro, representing Emanuel County. She is the daughter of Mr. and Mrs. Donald Hooks. The judges also selected Miss Hooks to reign as the 1981 Miss Gum Spirits of Turpentine. She will represent Georgia's important naval stores industry and will be featured on the new calendar of the American Turpentine Farmers Association.

Second runnerup honors went to Miss Carla Chambers, representative of Miller County and daughter of Mr. and Mrs. Carlton Chambers of Colquitt. Miss Robin Palmer, Bacon County's entry and daughter of Mr. and Mrs. Bruce Palmer of Alma, was third runnerup.

Miss Scarlett McGarr, a 17-year-old Georgia Forestry/September 1981



Miss Donna Hooks of Swainsboro is Georgia's new Miss Gum Spirits of Turpentine. She is shown here with Jim L. Gillis, Jr., of Soperton, president of the American Turpentine Farmers Association, shortly after she was selected for the honor at the GFA Convention on Jekyll Island.

She competed with young ladies from other gum producing counties for the title and succeeds Miss Lisa Ann Oettmeier of Fargo.

A dance student for the past ten years, Miss Hooks received the Governor's Honor Nominee in Dance and won the best of overall title in song and tap dance in the Six-County Fiesta Talent Contest.

She plans to attend Georgia Southern College for two years and then complete her education at the University of Georgia for a major in education and a minor in music.

Columbus High School senior and daughter of Mr. and Mrs. Franklin McGarr of Columbus, was named Miss Congeniality.

Judges for the Pageant were Mrs. George Kelly, Dry Branch; Mrs. Don Livingston, St. Simons, and Dr. Bill Golden, Statesboro.

Miss Sirmans, who was crowned by the retiring queen, Miss Yvonne Spinks of Columbus, said she enjoys reading, jogging, the movies and country music. She has three older brothers and her mother said, "Amy feels that they are a little overly protective of their sister at times."

Although she has not settled on a chosen career, Miss Sirmans said she is leaning toward a degree in merchandising.

GFA ANNUAL CONVENTION TERMED "VERY SUCCESSFUL"



DUVALL



WEIR



HAEUSSLER



BRIGHTWELL



CRAVEN



BARTON



HARGREAVES

Officials of the Georgia Forestry Association have declared that the organization's 74th Anniversary Convention held this summer on Jekyll Island was the most successful and best attended annual meeting in the long history of the GFA.

Tal C. DuVall, Director of Extension Services, University of Georgia, was featured speaker at the business session and a panel of experts on forest genetics and related fields presented a discussion entitled "Reforestation - Georgia's Opportunity."

A popular feature of the convention, which was attended by some 850 people, was the selection and crowning of a new Miss Georgia Forestry from a field of 31 pretty girls who had been chosen on the county level to compete for the state title. Judges chose Miss Amy Sirmans of Waycross to serve as Miss Georgia Forestry for 1981. (See story page 5).

DuVall told his audience that the Extension Service has many services and resources to offer foresters and urged forestry organizations and industries to take greater advantage of these opportunities. In the panel discussion on reforestation, speakers included Robert J. Weir of North Carolina State University, Fred Haeussler of Union Camp Corporation, Savannah, and Nelson Brightwell, Cooperative Extension Service, Athens. They cited Georgia's opportunity to increase forest tree production in the nurseries to meet the growing need for quality trees.

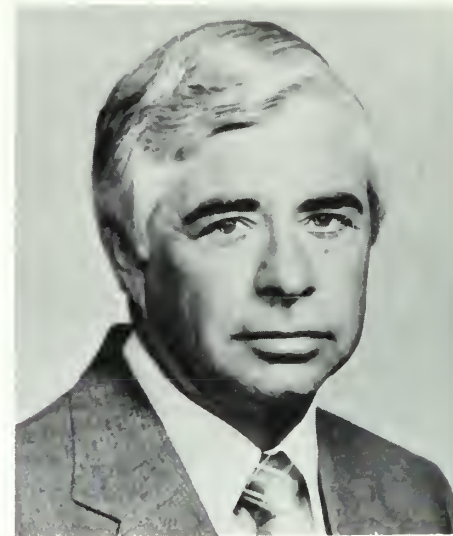
Dean Leon Hargreaves of the School of Forest Resources, University of Georgia, gave the audience an update of the school's activities and a progress report on current developments.

William Barton, Union Camp, Savannah, outgoing president of the Association, presided at the convention and presented new officers for the coming year. They included Bobby Taylor of Fitzgerald, president, Eley Frazer, III, Albany, vice president; and Fred W. Greer, Jr., Atlanta, treasurer.

Buddy Crown of Owens-Illinois Company, Valdosta, was presented the President's Award and Judge John Sibley, Atlanta, was cited for his successful legal battle to help gain fair tax on forests. W. C. Hodges, Statesboro, Georgia's Tree Farmer of the Year, was introduced.

Forestry Commission personnel presented Performance of Excellence Awards at the convention banquet included District Ranger Hollis Winn, Washington, Assistant Ranger Earl Cook, Pulaski, Seedling Clerk Marvy Woods, Macon, and Patrolman James Abbott, Adel. A special award was presented to Catherine Kelly, Dry Branch. (See photos, details, Page 15). A special award was presented to Commission firefighters and support people across the state for their excellent performance during a very difficult fire season. Ranger Bill Durrence of the Tattnall County Unit accepted the award on behalf of all GFC personnel involved in fire suppression.

Frank Craven, Chief of the Commission's Education Department, was master of ceremonies for the Miss Georgia Forestry Pageant.



BOBBY TAYLOR BEGINS TERM AS PRESIDENT

Bobby J. Taylor, the new president of the Georgia Forestry Association, is president of Empire Forest Products of Fitzgerald and was previously vice president and general manager of Allied Timber Company.

William Barton, the outgoing president of the Association, said the presidency has passed to "extremely good hands." He praised Taylor as a "dedicated man, a good business man and a forester with great ability...He believes in the Association and will work to keep it moving."

Taylor, who received his degree in forestry from the School of Forest Resources, University of Georgia, is a member of the Association's Long Range Planning Committee.

A native of Homerville, the new GFA president is married to the former Miss Norma Tipton of Glenwood. They have three sons.



Forestry lost a dedicated friend and worker with the recent death of William Dexter Gatehouse, Jr., Associate Director of the Georgia Forestry Association and Editor of TOPS, the organization's magazine.

Gatehouse, who came with the Association in January of 1976, was formerly executive director of the Georgia Retail Food Dealers Association and editor of the association's prize winning magazine. During the past four years, he had added many new features to TOPS.

The Georgia Forestry Commission extends sympathy to his widow, Mrs. Margaret Gatehouse; his daughter, Linda; and son, William Dexter Gatehouse, III, all of Atlanta, and other survivors.

TIMBER RESOURCES SURVEY



According to an intensive timber resources survey recently completed in Southwest Georgia, one of the five areas in which the state has been divided for the study, timber volume is up over the past decade, but commercial forest acreage has substantially declined.

The statewide survey is carried out at approximately 10-year intervals and is conducted by the U.S. Forest Service, in cooperation with the Georgia Forestry Commission.

Commission Director Ray Shirley said findings of the first survey unit completed showed that the area of commercial forest land in the tier of 22 counties in the Southwest section is down by some 248,000 acres, or nine percent, since 1971. He pointed out that the area showed a six percent decline, or 180,000 acres, when the previous survey was made for the decade of the sixties.

Shirley emphasized that the survey revealed that the volume of softwood growing stock is up 15 percent, and hardwood showed a 20 percent increase. There was a net annual growth of 86 cubic feet per acre or 1.2 cords per acre during the 10-year period.

Net annual growth of pine sawtimber is 687 million board feet, with an annual removal of 507 million board feet. Net annual growth of hardwood sawtimber is 190 million board feet, with an annual removal of 86 million board feet.

Net annual growth is 2,018,164 cords of pine and 866,197 cords of hardwood. Annual removals are 1,792,500 cords of pine and 467,947 cords of hardwood.

The new survey indicated that there is a 16 percent drop in acreage of pine forest types, the Commission Director said, and annual timber removals of growing stock totaled 160 million cubic feet, or 71 percent of growth.

The survey is expected to be completed statewide late in 1982 or early 1983. Twelve cruise teams are conducting the survey and a Commission forester is on detached service with the teams. Other Commission personnel are cooperating with the study.

Georgia Forestry/September 1981



Poster chairman looks over some of the many posters submitted.

NEW POSTER CONTEST UNDERWAY

Thanks to Mrs. John Todd of Cobb, Smokey Bear and Woodsy Owl will be working harder this year to promote forest protection and continue the battle against pollution around the state.

Mrs. Todd has been named for the second year to serve as chairman of the statewide Smokey Bear-Woodsy Owl Poster Contest, a project sponsored by the Garden Club of Georgia, in cooperation with the U.S. Forest Service and the Georgia Forestry Commission.

Although she worked in the program last year, she said she is more familiar with the contest this year and is speaking to garden clubs in seven district meetings across the state to familiarize all members with the contest which will be an annual project of the club.

"The contest is open to children from kindergarten age to high school," Mrs. Todd said, "and we also work with senior citizens." She said she will go into some of the schools, as well as senior citizen organizations and retire-

ment and nursing homes to promote the competition. Garden club members across the state are expected to aid locally in giving the program full publicity.

"I enjoy this work," Mrs. Todd said, "and I am amazed at the creativity of the children in making the posters." She said she is equally pleased with the many senior citizens who show considerable enthusiasm in competing in their category.

Mrs. Todd pointed out that she is a forestland owner and realizes the publicity value of Smokey Bear and Woodsy Owl in alerting the public to the need for better conservation.

Deadline for the contest, which is divided into five competitive divisions according to age, is January 5, 1982. Size of posters cannot be larger than 12 by 18 inches and any type art medium is acceptable.

To enter posters or for further information, contact: Mrs. John Todd, Poster Chairman, Box 365, Cobb, Georgia 31735.

FOREST TAX SYMPOSIUM SCHEDULED

A National Forest Taxation Symposium has been scheduled for February 9-12 in Williamsburg, Virginia.

The meeting, to be held at the Colonial Williamsburg Hotel Complex, will be co-sponsored by the Society of American Foresters, Southern Forest Experiment Station, U.S. Forest Service; and the School of Forestry and Wildlife Resources, Virginia Polytechnic Institute

and State University.

For further information contact co-chairman William C. Siegel, U.S. Forest Service, 701 Loyola Avenue, New Orleans, Louisiana 70113 (phone 504-589-6652) or Harry L. Haney, Jr., School of Forestry and Wildlife Resources, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061 (phone 703-961-5212).



NEW HARVEST EQUIPMENT DEMONSTRATED

Advanced wood harvesting equipment never before seen in Georgia was featured in a series of field demonstrations held by the Commission in four locations during August and September. Although feller bunchers, grapple skidders and chippers have been demonstrated before for Georgia landowners, industrialists and other interested groups, John Mixon, Chief of the Commission's Research Department, said the equipment shown in the Blairsville, Gainesville, Jonesboro and Lafayette areas this summer had engineering features that gave the machines increased versatility and productivity advantages.

Each field demonstration was preceded by a showing of a recently produced Commission film dealing with various aspects of wood energy.

Ray Shirley, Commission Director, said the utilization of wood as an economical source of energy has been one of the Commission's top priorities for several years and the series of demonstrations was part of a continuing program to inform the public of this great and abundant wealth.

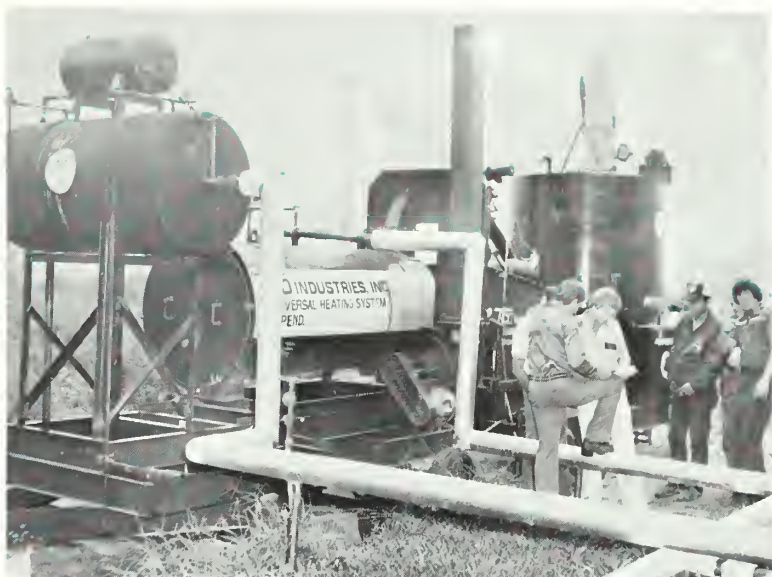
The big machines - all operated by professional foresters of the Commission - were demonstrated separately and then shown working together to reduce standing trees to wood chips in a matter of minutes.

Mixon said the four sites were chosen because of the abundance of low grade hardwood in those locations that could not be sold for product manufacture, but ideal for conversion to chips for energy purposes. He said the modern harvesting method left the acreage ready for replanting, thus saving high site preparation costs.

The demonstration at Jonesboro was held by the Commission in cooperation with the Clayton County Water Authority and the University of Georgia. The others were sponsored solely by the Commission, with demonstration plots provided by timber companies.

These scenes at the various demonstration sites show the big machines in action and the foresters explaining the features of the equipment and showing the type of timber that should be chipped.





This big mobile unit was set up adjacent to some Treutlen County tobacco barns to show how an inexpensive fuel can possibly replace propane gas in the curing process.

SAWDUST CURES THE GOLDEN LEAF

Georgia tobacco growers gathered on the Manning Mimbs farm near Soperton last month to see the demonstration of a new system which uses sawdust as fuel for drying the leaf.

The demonstration was sponsored by the Research Department of the Forestry Commission and featured equipment designed and constructed by T-Co, a Moultrie company pioneering in wood-fired systems.

At the Mimbs farm drying operation, sawdust was automatically fed into a large firebox which heated a boiler. The hot water produced was piped into four tobacco curing barns and circulated through radiators. The barns were previously heated with propane gas and the tanks are being retained as a backup system.

Commission Director Ray Shirley pointed out to those attending the demonstration that it was "the Commission's first attempt to investigate the feasibility of using sawdust to cure tobacco," although the Commission had previously demonstrated the use of green wood chips in drying corn.

John Mixon, Chief of the Research Department, said figures are being compiled to determine the savings a tobacco grower would realize in substituting sawdust for propane in his curing operations. He said preliminary figures are "very impressive."

Forester Fred Allen explained the technical side of the demonstration and Mimbs said the system on his farm had been "running on wood for several weeks" and is "looking very good." He admitted that there were some problems in the experimental system, but praised the Commission and T-Co personnel for successfully correcting the trouble.

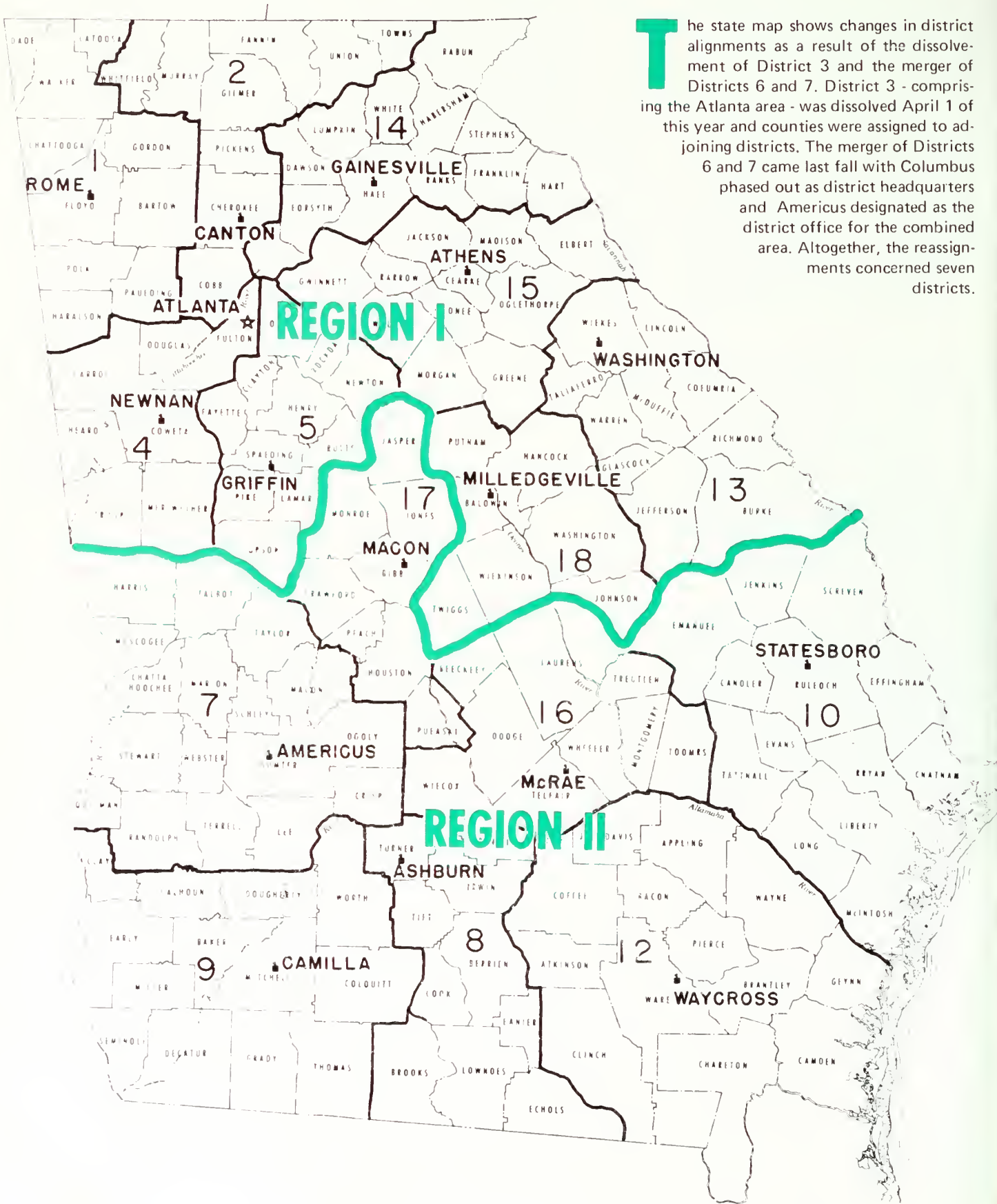
Following the demonstration, the crowd moved into an equipment shed to view a film on wood energy which was recently produced by the Commission.

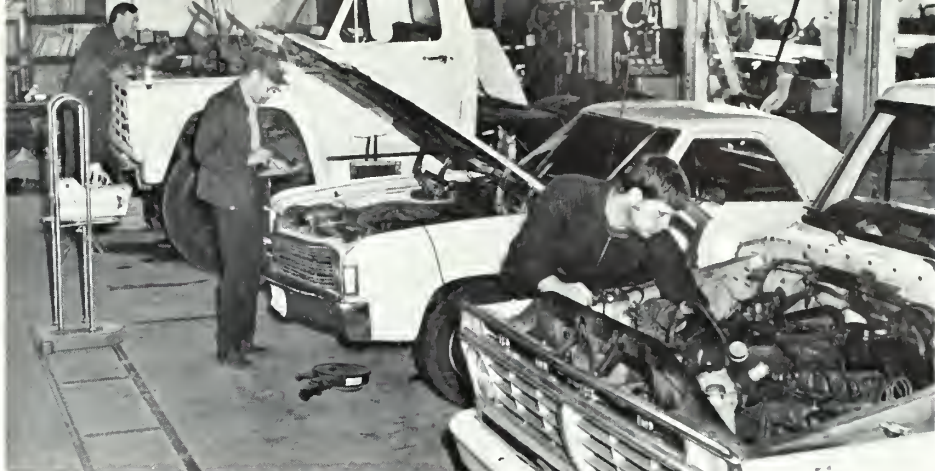
Shirley and Mixon expressed appreciation to Mr. and Mrs. Mimbs for making their farm available for the demonstration and the Director invited several state legislators from the tobacco growing belt and some of the farmers to comment on their impression of the demonstration.

Their reaction was favorable and they called for continued research and development in wood energy.

MERGERS BRING CHANGES IN DISTRICT BOUNDARIES

The state map shows changes in district alignments as a result of the dissolution of District 3 and the merger of Districts 6 and 7. District 3 - comprising the Atlanta area - was dissolved April 1 of this year and counties were assigned to adjoining districts. The merger of Districts 6 and 7 came last fall with Columbus phased out as district headquarters and Americus designated as the district office for the combined area. Altogether, the reassignments concerned seven districts.





COMMISSION MECHANICS CUT REPAIR COSTS

It's hard to come up with an exact dollar figure, but Joe Young, who supervises the automotive shop at the Commission's state headquarters in Macon, vows that the savings in repairs are "considerable."

Young is referring to the cost of parts and labor at the Macon shop compared to the high charges that would prevail if the Commission's fleet of vehicles, ranging from pickup trucks to big tractor-trailer rigs, had to be repaired at commercial garages across the state.

Although minor repairs are carried out in the small shops maintained by the Commission district headquarters and county units, most of the major repairs are made by the mechanics in the Macon shop.

Young pointed out that the shop's wreckers - both conventional and heavy duty - are on call around the clock to bring in disabled vehicles anywhere in the state. Night and weekend calls are handled by security people at the center, who forward messages to assigned shop personnel at their homes.

Although the shop handles all general repairs concerning the mechanical functions of the Commission's rolling stock, the facility also does glass work and maintains a complete paint department. One important phase of the workload is the repair of surplus military vehicles that are to be used in the Rural Fire Defense Program.

Every now and then, Young, who has been with the Commission for 29 years, checks with an outside shop for reassurance that his shop is saving dollars for the taxpayers. He is pleased to learn that his mechanics can usually turn out a job from 35 to 65 percent less than the commercial garage!



Mechanic Foreman Joe Young, top left, checks parts invoices. Day begins with plenty of work to be done, top photo. At left, Steve Miller pulls a truck motor and Dewey English, right, completes a paint job. Below, Sam Andrews repairs a fork lift.





HODGES NAMED TREE FARMER OF THE YEAR

Back in the 1700's, a 2,000-acre land grant in a section of Georgia now known as Bulloch County was made to Nathaniel Hodges by the King of England.

Today, W.C. Hodges, a descendant of Nathaniel Hodges, farms and grows trees on a portion of that original grant. He lives in a spacious plantation-type house built by his father in 1912 and every time a tree is cut on the old home place, he makes sure it is replaced by one or two seedlings.

As a result of his wise management of his forestland, Hodges has been selected Georgia's 1981 Tree Farmer of the Year.

He has 500 acres in trees, some acreage in row crops and part of the farm in pasture for his beef cattle. He readily admits that cattle won't produce the profit he can derive from trees, but he just likes to have a few cows on the place.

The new tree farmer award recipient grew up with eight brothers and sisters, but he is the only one who chose to stick to farming as his life's work. In 1941, he planted 35 acres in slash pine by hand and since that time, hundreds of thousands of young trees have been set out on his property. He said he abides by the "good advice" given by Jerry Lanier, Statesboro District Forester, and Forester Jerry Marsh, GFC, in timber thinning, fire protection and disease and insect control.

Hodges makes multiple use of his forestland. He has provided a plot for a high school agricultural class to plant a forest and has built a club house and fishing lake for 4-H youth, Boy Scouts and other groups to enjoy.

The tree farmer is married to the former Irene Groover and they have three sons and a daughter.



Gnann addressed district chairmen at review session.

GEORGIA TREE FARM GOALS SET

More than 2,240 Georgia landowners are registered Tree Farmers and a campaign is now underway to interest others in this national program that seeks wise management of land and timber.

In a recent meeting in Macon to review the program and set goals for the future, J. G. Gnann of Union Camp Corporation, Savannah, newly elected chairman of the Georgia Tree Farm Committee, asked 18 district chairmen from around the state to intensify their efforts to acquaint landowners with the functions of the American Tree Farm System.

The program, which is administered in the South by the Southern Forest Institute, is supported by the wood using industries. Foresters inspect the lands of prospective new members and if the landowner meets certain standards, he is certified as a Tree Farmer.

Gnann pointed out that wood using industries depend on the private landowners for 75 percent of their raw mater-

ial and stressed the importance of the program in promoting sound forest management.

Early County leads the state with 63 registered Tree Farmers and there is only one county in the state that does not have at least one Tree Farmer, it was revealed at the meeting.

Each year, a Georgia Tree Farmer of the Year is chosen and the current recipient of the award is W. C. Hodges of Statesboro. The award last year was made to Milton (Buddy) Hopkins of Fitzgerald, who went on to win the Southern District award and is now competing on the national level.

Forester John Hammond, Assistant Chief of Forest Management and coordinator of the program for the Commission, said members receive the familiar green and white Tree Farm metal sign to post on their property, as well as a magazine and other helpful literature aimed at the improvement of the forests and lands.



Tim Moore of Swainsboro, state winner of the Home Forest Award, is shown with his father, Walton J. Moore, left, and Vo-Ag Instructor Randall Tanner. The Moore farm is one of Georgia's many registered Tree Farms.



Sawmiller Josh Powell confers with Forester Ed Banks at his tiny sawmill. Below, Druid Preston, head of the Commission's Forest Management Department, is shown some of the ancient machinery in the mill.

CITY LAWYER TURNED SAWYER FINDS PEACE IN RURAL SETTING

Josh Powell, a big husky Kentuckian, studied engineering at Georgia Tech and earned a law degree at Emory University, but he chose not to pursue careers in either of those fields.

He decided, instead, to become owner and operator of a peckerwood sawmill!

You've no doubt read of successful professional people who abandon lucrative careers to begin a new and simple life far from the rat race of the big city. Well, Josh Powell is of that breed.

Powell said he practiced law from his office in the heart of Atlanta for almost a year before he decided he "just couldn't take it anymore". He wanted out.

His escape to the rural life came when he located a 24-acre tract of rolling hills in Cherokee County. He said he had no trouble convincing his wife, Ann, that they should forsake the glamour of the city for the serenity of the countryside. After all, he reasoned, they had had experience in operating a youth athletic program and the rustic setting of the property they were considering would be ideal for a summer youth camp.

Shortly after they bought the property, Powell began looking for a used sawmill to set down on the wooded acreage. He found an abandoned mill near Griffin and after a heavy growth of vines was pulled away from the rusting machinery, the owner gladly accepted \$400 for the entire mill.

"I had no idea of how to set down a sawmill," Powell confessed, "but an old retired sawmiller showed me step-by-step how it was done." After considerable tinkering, the ancient mill finally coughed a couple of times and came to life.

"The most important thing I learned," Powell said, "was never to set down a mill

facing west...you get sawdust in your eyes!" He remembered that when he erected his second mill.

The second mill, which replaced the first little mill, is now buzzing away to turn out specialized lumber, with much of it going to landscaping companies.

The second mill was also an abandoned plant and had to be dug out of an old mill site near Pine Mountain that was overgrown with briars. "Got that one for \$600," Powell said. "It was a complete mill, with two saws, two edgers and two

FEATURE PAGE



power units." He said he later sold some of the equipment.

Powell used some of his lumber to build a two story home for his family and vows that "every sawmill owner should build a house with his own lumber." He said that "it teaches you to turn out better lumber."

Powell's country home, a rustic design copied from a paint brochure, features big exposed beams and wide siding. Powell said he took the green, rough lumber directly from his mill yard and constructed the spacious home. Luckily, the lumber did not warp.

"I'm certainly not a carpenter," he said, "and I had an elderly man, a former builder, to keep me level and keep me plumb in building the house."

Powell explained that the barter system was used in completing one section of his home. "A Mennonite family in Tennessee needed a barn and I needed a fireplace and we traded." He said the family came over and built the fireplace and chimney and he cut all the lumber they needed for a new barn.

When Powell came to the land in the early seventies, he cleared some of the acreage, built a dam and a small lake and established roads and trails in preparation for a youth camp.

Powell frequently consults the Forestry Commission in making the best use of his timberland. Forester Ed Banks, who heads the Urban Forestry Program for the Georgia Forestry Commission, has advised him on several occasions.

This month marks the ninth season of Josh Powell's Summer Day Camp and by the middle of August, more than 240 Atlanta area children will have enjoyed the facilities. With that many kids around, daughter Julie, 7, has little time for loneliness.

If you were an Atlanta Flames fan before the team moved to Canada, you heard Powell at the beginning of every home game. He sang the national anthem. "Last full time employment I had," he quipped. The baritone also sings at Presbyterian Church services and at an occasional funeral or wedding.

Powell's main interest, however, is his sawmill. He said he "never heard of a rich sawmill man" and it's quite obvious he will never give serious competition to Weyerhaeuser or Georgia Pacific. But he said he will continue to produce custom lumber and learn more about the lumbering business along the way.

Josh Powell, known to many of his acquaintances as the "Lawyer turned Sawyer," said he has had no regrets in changing his lifestyle. He is happy with his escape.



We would like to express our appreciation to the Commission's RFD staff for the excellent program presented to the firemen of our county recently.

We are especially grateful for the excellent cooperation between the RFD program people and our local forestry unit.

Your work has benefited the Jackson County program and we will reap the benefits from this training for years to come.

Jim Cody
Jackson County Firemens Association
Jefferson, Georgia

We want to thank you very much for your efficient control of the fire on our property on the Woodland Road just out of Waverly Hall. We did not know of the fire until we happened to go out there.

Caroline Owen Johnson
Columbus, Georgia

Once again the Commission did a great job with the field trip for my class at Georgia State. As you know, the class is Methods and Materials of Teaching Science to Young Children and the students and I are delighted with the way your workshop gives them not only excellent materials to take with them but also some wonderful ideas for getting children involved with their environment.

Thank you for doing such a good job.

Laurene Smith
Department of Early Childhood Education
Georgia State University
Atlanta, Georgia



logging the foresters



BELFLOWER

JACOBS

WAYNE BELFLOWER, who came with the Commission in 1969 as patrolman in Bleckley County and later served as Assistant Superintendent and more recently Superintendent of Arrowhead Seed Orchard, has been promoted to Superintendent of Morgan Nursery. Belflower holds an associate degree from Middle Georgia College. The superintendent and his wife, Mattie, have four children. ALBERT (BERT) JACOBS, mechanical

engineer, recently came with the Commission to head the Macon Shop. A native of Decatur and a graduate of Georgia Tech, Jacobs was a plant engineer for 15 years and served as sales representative for an engineering firm for 13 years. The engineer and his wife, Libbie, and their four children make their home on Ridge Avenue in Macon.

AIR SUPPORT READY FOR FIRE SEASON

The Commission's Air Operations will begin the fall fire season with an improved fleet of 31 planes and four helicopters.

Several of the older planes and one helicopter were phased out in recent months and eight new Cessna aircraft have been acquired. Two additional planes are on order.

The fixed wing planes fly 26 designated air patrol areas across the state in the detection of fire and in many instances direct firefighting ground crews.

The helicopters have special water drop equipment and are used to combat fire in mountainous and other rugged terrain.

Phil Parrish, Air Operations Specialist, said the Commission employs six permanent pilots, 20 seasonal pilots and four mechanics. The part time pilots, many of whom are crop dusters during the spring and summer, fly for the Commission during the critical fire season each year.

Parrish said a 4,000 square foot extension has been made to the Commission's hanger at Herbert Smart Airport in Macon and a second hanger is under construction at the GFC facility at Waycross Airport. Although the bulk of the planes are stationed at these two points, Parrish pointed out that planes and air strips are maintained in other strategic locations around the state.

During the past fiscal year, the planes flew 8,480 hours on fire missions and reported a total of 26,818 fires, wild-fires and other type smokes. They assisted in the suppression of 2,323 fires.



These children received certificates for actively participating in the Smokey Bear Reading Club sponsored by the Dalton Junior Womens Club and the Dalton Regional Library, in cooperation with the Forestry Commission. Melissa Cook, daughter of Mr. and Mrs. Randell Cook of Cohutta, took top honors by reading 82 books during the summer program.




AWARDS

In Photo 1, Bill Barton, outgoing president of the Georgia Forestry Association, presents an award of appreciation to Catherine Kelly, secretary, Education Department, GFC, on behalf of the association for her faithful service. The award was made at the annual GFA convention on Jekyll Island. In Photo 2, Harbyn Cook, secretary, Reforestation Department, GFC, receives an award from Director Ray Shirley during recent ceremonies at the Macon office. She was commended for her extra effort in maintaining a good image of the Commission and her helpful assistance to companies and landowners. Photo 3 depicts Forester Charles B. Place, Jr., Education Department, GFC, left, receiving the Environmental Educator of the Year Award from Robert Oertel, Chairman, Awards Committee, Georgia Chapter, Soil Conservation Society of America. Place was selected for the honor for his outstanding contribution to environmental education. Oertel also presented a plaque to the Commission on behalf of the Soil Conservation Society for the close cooperation exhibited by the forestry agency. Director Shirley (Photo 4) accepts the plaque. In Photo 5, personnel of the Commission are shown receiving Performance of Excellence Awards from the GFA at the Jekyll Island convention. Left to right are District Ranger Hollis Winn, Washington; Assistant Ranger Earl Cook, Candler-Evans-Tattnall Unit; Seedling Clerk Marvye Woods, Reforestation Department, Macon office; and Patrolman James Abbott, Cook County Unit. The four were honored for "outstanding performance of their forestry services to the citizens of Georgia." Photo 6 shows Director Shirley presenting an award to John Joiner of the Macon Plant, Toms Foods, in appreciation of the company's cooperation with the Commission's state headquarters in maintaining security and working with GFC in other mutual interests. The company plant is adjacent to the Commission's property in Macon.



Georgia FORESTRY

SEPTEMBER, 1981



There is a unique tree at the corner of Finley and Dearing Streets in Athens. Residents of the neighborhood pay little attention to the tree, but visitors to the Georgia city stop for a closer examination when they spot the marble stone beneath its branches. The inscription reads: "The tree that owns itself" and further declares that "For and in consideration of the great love I bear this tree and the great desire I have for its protection for all time, I convey entire possession of itself and all land within eight feet of the tree on all sides.. William H. Jackson." The tree, deeded in the early 1800's, is now in its second generation. The original white oak died in 1942 and the tree that now towers over the little plot is from an acorn of the old tree. It is said to be the only tree in the world that has inherited the land on which its forbear stood.

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Cruising The News

REGION IS NATION'S TIMBER BASKET

"Timber basket." To us, it was an unfamiliar phrase being hung on the Southeast in a publicity release from the Georgia Forestry Commission. Unfamiliar, but true.

The Southeast is the best place in the world, we've heard, for growing trees. We grow them faster because of the solid sunshine conditions, because of the abundant water supply, and because, in the last few years, of the management techniques that researchers have given the area.

There are "super trees" these days which zoom up far faster than their neighbor trees. Why? Because the geneticists have determined that the characteristics of these trees are those

they want all trees to have. So they isolate the seeds from these trees, plant them, and get unparalleled growth.

Trees in Canada, we're told, take up to 150 years to grow to maturity. These are a similar type of tree used in making wood pulp, something akin to pine trees, usually from the spruce family.

But the Southeastern pine reaches full maturity within 30 years—as few as 20 years in many places. Some experts have put 22 years as the average age for maturity of trees in Southeast Georgia. That's growing 'em mighty fast.

(From the Gwinnett Daily News)

GEORGIA TREE FARMER PRAISED

Forestry, as every Georgia school child should know, is big business in this state. Each year 540,000 acres of trees are turned into 8 million tons of pulp and 2.5 billion board feet of lumber.

With this in mind, it is obvious that few Georgians are as valuable as our tree farmers.

W. C. Hodges is the model of a modern Georgia tree farmer. His family has owned land

in Bulloch County since the 1700s. And, in addition to growing trees, he keeps a plot for the high school agriculture class and has built on another part of his acreage a club house and fishing lake for Boy Scouts, 4H and other groups to enjoy.

So, we congratulate Mr. Hodges, named Georgia's Tree Farmer of the Year.

(From the Augusta Chronicle)

RURAL FIRE DEFENSE APPRECIATED

About three years have elapsed since Crawford County initiated its rural fire protection program. In that time, seven district volunteer fire departments have been established.

In Jones County the volunteer rural fire protection program has grown by leaps and bounds.

Washington County's 15-year-old volunteer program has brought coverage to virtually the entire county.

Laurens County and Pulaski County have excellent volunteer units, to name just a few of Georgia's 159 counties fortunate enough to have volunteer rural fire protection.

The key word is volunteer. The only pay the volunteer fireman receives is the satisfaction of knowing he is providing protection and saving property loss in areas where such protection would not exist without him.

During National Fire Prevention Week, we'd like to say thanks to these volunteers, and also to the Georgia Forestry Commission which has provided 398 Fire Knocker trucks to volunteer departments throughout the state. The services they provide are valuable beyond measure.

(From the Macon Telegraph)

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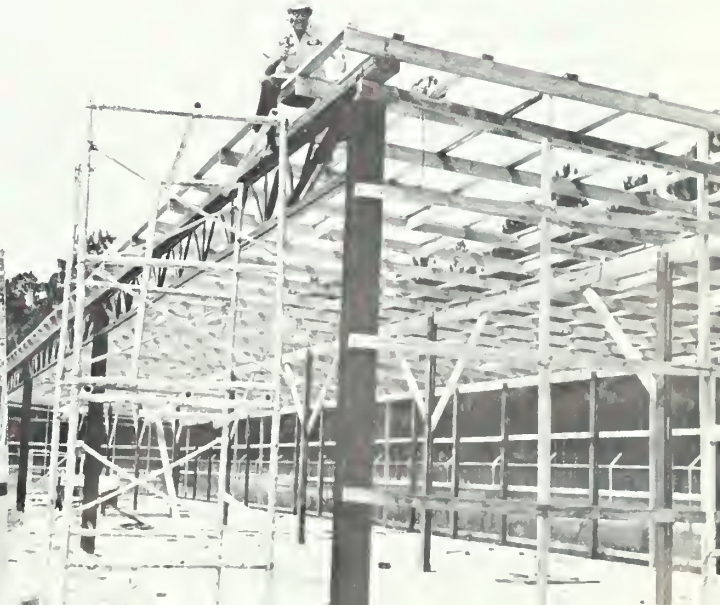
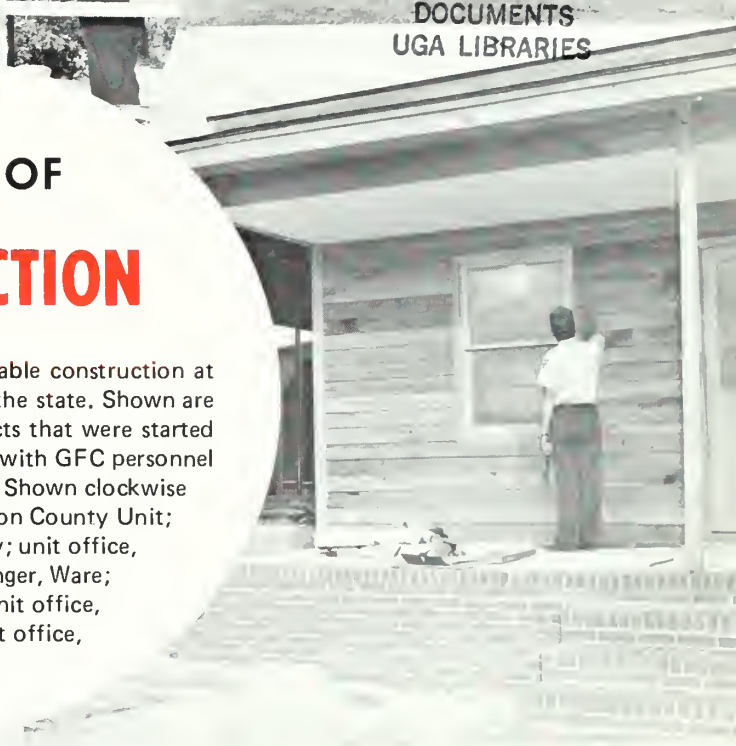
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DOCUMENTS
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A YEAR OF CONSTRUCTION

It has been a year of considerable construction at Commission facilities around the state. Shown are just seven of the many projects that were started or completed during the year, with GFC personnel providing most of the labor. Shown clockwise are a truck shed, Washington County Unit; unit office, Crisp-Dooly; unit office, Houston; aircraft hanger, Ware; unit office, Cook; unit office, Whitfield; and unit office, Pulaski.





A marble stone commemorating the achievements of Milton Hopkins is placed on his farm near Fitzgerald. Left to right are Bobby Taylor, president of the Georgia Forestry Association,

Hopkins and Jack Gnann, Chairman of the Georgia Tree Farm Committee.

GEORGIAN WINS NATIONAL TREE FARMER HONORS

Milton (Buddy) Hopkins, Jr., of Irwin County, who started planting trees as a young boy, has been honored as the National Outstanding Tree Farmer of 1981.

He was named Georgia Tree Farmer of the Year in 1980 and later won the title for the Southeastern Region. In competing with other regional winners across the country, judges in the national competition were impressed with Hopkins' multiple use of his 995 acres of forestland.

Prominent foresters, industrialists and others - including the area press - were on hand recently for the unveiling of a marble marker on the Hopkins farm near Osierfield to proclaim the farmer the national winner. A tour of the farm was also held.

During his boyhood days, he dug young trees from the forest and planted them in his father's yard. When he became a young farmer, he heard that a large landowner had 5,000 trees left over from a reforestation operation and the seedlings "were free to anyone who would take them."

Hopkins took the trees and planted them by hand. He has been planting trees ever since.

Tree Farm inspectors at the outset were impressed with the way the farmer

wisely managed his land. The state award was presented at the annual convention of the Georgia Forestry Association on Jekyll Island in the summer of 1980. The award was made by David Mitchell, Tree Farm Chairman.

Jack Gnann, the current Chairman of the Georgia Tree Farm Committee, and Bobby Taylor, president of the Georgia Forestry Association, presided at the recent unveiling ceremony.

About 200 acres of Hopkins land is planted in 20 to 25 year old pine, while 545 acres are of natural stands. He has planted Arizona Cypress for Christmas tree purposes and food strips for dove,

quail and other game. Several rows of trees were planted years ago as wind breaks along farm roads and around fish ponds. About 500 black walnut trees have been planted as an experimental project.

Hopkins views prescribed burning as an excellent management tool. He said he burns 200 to 300 acres of forestland each year to keep ahead of the underbrush.

The National Tree Farmer of 1981 is a graduate of the University of Georgia, where he received a degree in zoology and ecology. He also studied at Emory University.

The Commission extends sympathy to the family of retired Ranger M. O. (Red) McMichael of Monticello, who died recently following a brief illness. He served faithfully for 34 years in the Jasper-Jones County Forestry Unit.

A native of Jasper County, the ranger served in the U.S. Army during World War II.

The retired ranger is survived by his wife, Mabel, a son, two daughters, a sister, four brothers and six grandchildren.



NEW DIRECTORY NOW AVAILABLE

A 1981 Directory of Wood Using Industries In Georgia has been compiled by the Commission and is now being distributed.

The directory, an update of a similar publication produced by the Commission in 1978, lists primary manufacturers, such as sawmills, as well as secondary enterprises, such as furniture plants and other industries that use wood.

All companies listed were in the wood manufacturing or wood processing business in early 1981.

The directory, containing 1,396 listings, is prepared as a marketing guide and aid in bringing buyer and seller together where Georgia grown or manufactured forest products are involved.

The utilization report shows that in 1980, Georgia's wood using industries, excluding pulp and paper, processed 2,414 billion board feet of round timber.

Sawmills utilized 2,019 billion board feet an 80 percent increase over 1970. Another 3,081 million board feet were used by the veneer and plywood industry. Treating plants processed 55 million board feet equivalent, mostly pine, and other round timber processors accounted for 33 million board feet.

In photos below, Director Shirley presents Commission Commendations Awards to, left to right, Glenn Anthony, Executive Director of the Georgia Forestry Association; Doris Martin of WMAZ-TV, Macon; State Representative L. L. (Pete) Phillips, Chairman of the House Natural Resources Committee. The three were honored for their contribution to the promotion of better forestry in Georgia.



Cecil Summerville, left, and Mike Williams, right, both of Haralson County, each receive a check for \$500 from Glenn Anthony, Executive Director of the Georgia Forestry Association.

CONVICTION OF FOREST FIRE SETTERS BRINGS \$1,000 AWARD FOR SPOTTERS

Two Haralson County Volunteer Firemen are the recipients of the first cash award given by the Georgia Forestry Association for the apprehension and conviction of persons setting a forest fire.

Cecil Summerville and Mike Williams were each presented a check in the amount of \$500.00 by Glenn Anthony, Executive Director, Georgia Forestry Association, Atlanta.

According to the two volunteers, they responded to a fire call in the Mountain View Community located on the Haralson-Polk County line last January 19. Upon arriving at the scene, they found a series of fires were being set, some 27 in all. Summerville and Williams, along with two fire fighting units belonging to Georgia Kraft Com-

pany and three Georgia Forestry Commission units, immediately began extinguishing the blazes.

They came upon a truck with three people, a 60-year old man and a teenage boy and girl, in the cab. The girl was setting old newspaper on fire and the man and boy were throwing the lighted papers out in the forest. The two men immediately began pursuing the fire setters and radioed the Haralson County Sheriff's Department, which set up a roadblock and apprehended the fire setters. The officers found newspaper ashes in the pickup and the two teenagers later admitted setting the fires.

All three were convicted during the April term of Court in Haralson County for setting fire in the forest.



ANNUAL REPORT REFLECTS PROGRESS



Governor George Busbee congratulates new board members following oath taking ceremony. Left to right are Cecil Hodges, Mrs. Martha Shingler, Governor, Miss Patricia Robinson, and Ray Shirley, Director of the Georgia Forestry Commission.

NEW BOARD MEMBERS APPOINTED

One new member has been appointed to the Georgia Forestry Commission Board and two new members have been named to the Commission's Forest Research Board by Governor George Busbee.

Patricia B. Robinson of Atlanta is the new Commission Board appointee and Cecil H. Hodges, Jr. of Sandersville and Mrs. Martha Shingler of Ashburn have joined the Research Board.

Miss Robinson, a native of Elizabeth City, N. C., is General Manager, Strategy and New Ventures, Mead Corporation, Atlanta.

The new board member graduated with a B.A. degree in Economics from Duke University and a M.B.A. degree from the Colgate Darden School, University of Virginia.

Miss Robinson replaces Henry E. Williams of Woodbine, whose term expired. As a member of the board, she will help set policy and procedure for the Georgia Forestry Commission.

Other board members include Jim L. Gillis, Jr., Soperton, chairman; Felton Denney, Carrollton; Eley C. Frazer, III, Albany; and Robert Simpson, Lakeland. A. Ray Shirley, Macon, is director of the

Georgia Forestry Commission.

Miss Robinson is a member of the Episcopal Cathedral of Saint Philip in Atlanta and works with the cathedral's community projects. She enjoys white water canoeing and horseback riding and as hobbies she works in her garden and is a photography buff.

Other activities include her association with a group which restores old homes and she is a member of the Atlanta Ballet Association.

Hodges is president of Hodges Lumber Company in Sandersville. He is a native of Oconee, a graduate of Georgia Tech and an Air Force veteran. He is active in business, religious and civic affairs in his city.

The new board member and his wife, Shirley, have four children.

Mrs. Shingler is co-owner of Pete-Mar Company, a firm that bales hardwood chips. She is a certified public accountant, a farmer and the wife of Dr. Clark Shingler, Ashburn veterinarian. They have a daughter, Louise.

Hodges and Mrs. Shingler replace Board Members Pratt Secrest, Thomasville, and James Fendig, formerly of St. Marys but now a resident of Florida.

The annual report of the Georgia Forestry Commission for Fiscal Year 1982 records a year in which a major breakthrough was realized in computerized biomass cruise.

It was also a year in which the Commission was confronted with the greatest number of forest fires in its history. Fire fighters were called out to extinguish 18,818 wildfires during the period, but they were able to hold the average fire to only 5.50 acres.

The report pointed out that the prolonged drought was responsible for the unusually large number of occurrences.

Georgia continued to lead the nation in the harvest of wood as an energy source, according to the report, and the account was given on the biomass cruise development:

A major breakthrough has been realized in forest inventory data needed in estimating biomass volume. A method has been developed that will estimate total tree volume and weight. A computerized program has been designed that will quickly give measurements in board feet, cords, and tons for hardwood and pine. Biomass contained in tops, limbs, cull trees, and small diameter trees can be estimated in tons. Georgia is the first state to have this system. The Southeastern Forest Experiment Station, U. S. Forest Service, cooperated in the study.

In other areas of Commission service the report pointed out that:

Commission foresters have given more forestry assistance to landowners in reforestation, utilization, management plans, insect and disease control, urban tree problems, and other services than ever before.

Tree nursery production was increased from 62 to 78 million, an increase of 16 million trees. Nursery production for the 1981-82 shipping season has been increased to 90 million trees.

During the past year, a record number of research results were printed and made available to landowners and industry.

The 28-page report, which details major activities of the Commission's six departments, was distributed in early December. Copies are available at the Commission's Education Department in the state headquarters on Riggins Mill Road in Macon. Mailing address is P. O. Box 819, Macon, Georgia 31298-4599. Phone (912) 744-3355.



Industrial and consultant foresters gather around a computer during a recent seminar in Macon to see a readout on a total biomass cruise after raw data had been fed into the machine.

DEMONSTRATIONS, SEMINAR FOCUS

ATTENTION ON VALUE OF BIOMASS

Field demonstrations, a seminar, publications and a convention exhibit are some of the communication tools employed by the Commission in recent weeks to promote the utilization of the great volume of biomass produced in the forests of Georgia.

Demonstrations were held in Treutlen, Upson and Ware Counties to show landowners, industrialists and others how modern wood harvesting equipment can

effectively and economically reduce low grade timber, limbs and forest residue into valuable wood chips.

Although the field demonstrations - which featured feller bunchers, grapple skidders and chippers - proved how previously unmerchantable wood is now of value for energy and other purposes, they also revealed the value of total biomass - the entire tree, plus all other vegetation found in the woods.

— BARK BEETLE UPDATE —

Bark beetle activity intensified statewide during the early fall months of this year, but most of the increase concerned Ips and black turpentine beetles rather than the Southern pine beetle which has plagued much of the state in recent years.

Although Northeast Georgia surveys reveal some light activity, Commission Entomologist Kerry Thomas said Southern pine beetles are "at an endemic level at the present time."

Thomas said cooler weather will

cause a decline in beetle activity, but the insects can remain alive beneath the bark of trees and then emerge on warmer winter days.

During mild days of winter, landowners should keep an eye on their pine forests and if signs of insects are spotted, the nearest forestry unit should be contacted, Thomas said.

The entomologist said literature dealing with the identification and control of forest insects is available at Commission offices throughout the state.

A seminar on the Total Biomass Cruise System was held in the Commission auditorium in Macon to acquaint the state's industrial and consultant foresters with the program which was developed by the Commission and the U.S. Forest Service.

Director Ray Shirley welcomed the foresters and outlined the purpose of the system. Druid Preston, Chief of the Commission's Forest Management Department; and Alexander Clark, III, Research Scientist, U. S. Forest Service, presented details of the unique program and its benefits to landowners and industry.

John Mixon, Chief of the Research Department, summed up the program for the visitors and the seminar was concluded with a demonstration of a computer used to inventory data required in estimating biomass volume. (See annual report story Page 6.)

A Commission exhibit was designed and constructed for display at the recent annual convention of the Georgia Farm Bureau Federation on Jekyll Island to show landowners how forest wastes are now computed as profitable material through the biomass program. Similar exhibits are being planned for display in major shopping malls across the state.

The latest findings concerning the Total Biomass Cruise System have been published by the Commission and the reports are available through the Research Department.

AMERICAN FB FILMS

GEORGIA FORESTRY

Georgia will be "very well represented" in a film on forestry in the United States which is being produced by the American Farm Bureau, according to Stewart Truelsen, director of Broadcasting for the organization.

Truelsen said forests and forestry activity scenes are being shot in three locations in the nation to represent American forestry. The locales include Middle Georgia, Michigan's Upper Peninsula and the Sacramento area of California.

Filming completed in Georgia includes scenes at a recent wood energy demonstration near Soperton, the farm of Milton Hopkins, National Tree Farmer of the Year, near Fitzgerald, and an interview with Director Ray Shirley.

Truelsen said the purpose of the film, to be distributed to state farm bureaus around the country upon release sometime next year, is to encourage better management of forests by general farmers.



RETIREMENT LIFE BEGINS FOR EIGHT

The fall of 1981 spelled retirement for several Commission personnel.

In the Jefferson-Glascock County Unit, Ranger George Barfield stepped down after 29 years of service. "Time for a younger man to take over and have a chance at it," said Barfield, who established the unit back in the days of Jeep drawn plows.

Friends and forestry colleagues recently honored Forester Sam Martin of the Gainesville District Office and Ranger W. W. Grizzle of the Lumpkin County Unit at a retirement party.

Martin came with the Commission in 1951 and served in Morgan and Washington Counties prior to his assignment to the Gainesville office in 1954. Grizzle began as a patrolman in 1953 and was named acting ranger in 1954 and ranger the following year.

A retirement dinner was also held recently for Ranger J. B. White of the Chattooga County Unit. White came with the unit in 1947, back when it was housed on part of the second floor of the courthouse in Summerville.

William Partridge, who retired this year as Maintenance Shop Manager, came with the Commission as ranger of Lincoln County in 1955. He was transferred to the Administration Department as Property Control Manager in 1964.

Anderson Brown, Utility Worker at the Macon Headquarters, came with the Commission in the spring of 1964. He had previously worked with the Georgia Department of Revenue. A retirement party for Partridge and Brown was held

Continued Page 12

Top row, Mr. and Mrs. J. B. White and District Forester A. T. Mauldin; William Partridge and Al Smith, Chief of Administration. Second row, District Forester William Lazenby and Mr. and Mrs. Sam Martin; W. W. Grizzle with Lazenby. Bottom row, Mr. and Mrs. Anderson Brown and George Sanders, Procurement Officer; George Barfield and Ranger Richard Phillips.





Georgia Forestry Commission and the Georgia Forestry Association were joint sponsors of a recent two-day legislative tour of forestry and forest products activities in coastal Georgia. The state legislators were members of the Natural Resources Committee and at one stop they were shown first hand how pine trees are converted into paper at the modern linerboard mill of Interstate Paper Corporation in Liberty County (above photos). Left to right are Commission Director Ray Shirley

with Charles Belote of Agri-Timber, Inc., Dublin. In the other photo, State Representative L. L. (Pete) Phillips of Soperton, chairman of the House Natural Resources Committee, leads fellow Representatives John G. Crawford of Lyerly and Bobby Long of Cairo from a machine where wet pulp is converted into kraft linerboard used in the manufacture of corrugated paper.

GEORGIA CONTINUES PULPWOOD LEAD

Georgia is the nation's leading pulpwood producer for the 15th consecutive year.

All 159 counties in the state report some pulpwood production and nine counties cut 100,000 or more cords during the year. The five top producing counties were Burke with 161,752 cords; Laurens with 158,764; Stewart with

128,263; Crawford with 124,316, and Clinch with 116,619.

Georgia produced 9.3 million cords in 1979, a production record. A previous

high came in 1978 when 8.9 million cords were harvested statewide.

Roundwood accounted for about 67 percent of Georgia's total pulpwood output. Residues - chips and sawdust - made up the remainder.

CLEMSON UNIVERSITY SETS FORESTRY MEET

Cost-Effective Regeneration Practices, a one-day Forestry Forum, will be held on March 16, 1982, at Clemson University.

Cost-effectiveness in artificial and natural regeneration of pines, hardwoods, and mixed stands; chemicals, taxes, and management decision-making in regenerating forest stands will be discussed. The Forum, sponsored by Clemson University Extension Forestry, will provide information to professional foresters working in industry, state and federal government, or as private consultants.

For further information, contact Jacqueline Haymond, Extension Forester, Clemson University, Clemson, SC 19631, telephone: 803-656-2478.



Three foresters and a couple of rangers, representing the Commission from the mountains to the seacoast, team up to form a band. The five made their debut at the recent training session at Norman Park and were well received by an audience of Commission personnel and special guests. Left to right are Forester Terry Price, Macon; Forester Jim Wynens, Macon, head of the Reforestation Department; Ranger Everett Rhodes, Blairsville; Ranger Andrew Brantley, Vidalia; and Forester James Cook, Pooler.



Cordele Lions participating in a tree planting ceremony at the City's Community Center are, left to right, Al Mills, club president; Ranger Lawrence Tondee, past president of the club; and George Good, club director.

LIONS PLANTING TREES WORLD WIDE

Forest Ranger Lawrence Tondee of the Commission's Crisp-Dooly Forestry Unit and fellow members of his Lions Club in Cordele are among Georgians participating in a worldwide tree planting program.

They have joined the 1,320,000 club members around the world in a program to plant trees in local communities.

Kaoru Murakami of Japan, President of the International Association of Lions Clubs, said he is asking "every Lion, Lions Club and District to plant the seeds of peace by planting a tree." He pointed out the need for reforestation in many sections of the world and declared that "a tree personifies the peace and tranquility that is a part of the natural order..."

Ranger Tondee said the Cordele (Day)

Lions Club has also cooperated with the Commission on several projects and the local Lioness Club sponsors the annual Miss Crisp County Forestry pageant.

ANNUAL FOREST FESTIVAL SCHEDULED

The 25th annual Waycross-Ware County Forest Festival has been scheduled for May 1-9, 1982, according to planners for the popular Southeast Georgia event.

Events will include forestry contests, the Swamp Run, a beauty pageant, parade, an arts and crafts show, a flower show, rodeo, a forestry equipment ex-

hibition, barbecue, banquet and a display of school children's forestry posters.

For further information concerning the festival, contact Martha M. Davis, Publicity Chairman, Waycross Journal Herald, P.O. Box 219, Waycross, GA 31501, phone 912-283-2244.

LAWS CONCERNING TIMBER, WILDLIFE TO BE DISCUSSED

A conference on Timber and Wildlife Management and the Law will be held at the University of Georgia Center for Continuing Education January 20-21.

The conference, sponsored by the Council on Continuing Education for Foresters, is designed for forest land managers and others who are concerned about environmental laws and regulations which affect decision making about the management of private, corporate, and public lands.

Major topics include the impact of water quality laws on forest and wildlife management practices, Endangered Species Act, use of chemicals, property laws and a demonstration on how to perform in the courtroom as a professional witness.

Michael Osborne, attorney and Director, Southern Wetlands Project, National Wildlife Federation; Thomas L. Bass, attorney with Anderson, Walker, and Reichert, Macon; and Owens Smith, professional forester and attorney, Marine Extension Service, Institute of Natural Resources, University of Georgia, are the principal instructors.

For additional information, contact Dr. Leonard A. Hampton, Center for Continuing Education, University of Georgia, Athens, GA 30602, phone 404-542-3063.

COMPUTER COURSE SET AT UNIVERSITY

A short course on the Use of Microcomputers In Forestry will be held at the University of Georgia Center for Continuing Education February 24-25.

The one and one-half day course is designed to introduce fundamental concepts of microcomputers and to discuss their use and potential use in a variety of forestry and resource management applications.

The course will be of benefit to prac-

ticing foresters from the private and public sector.

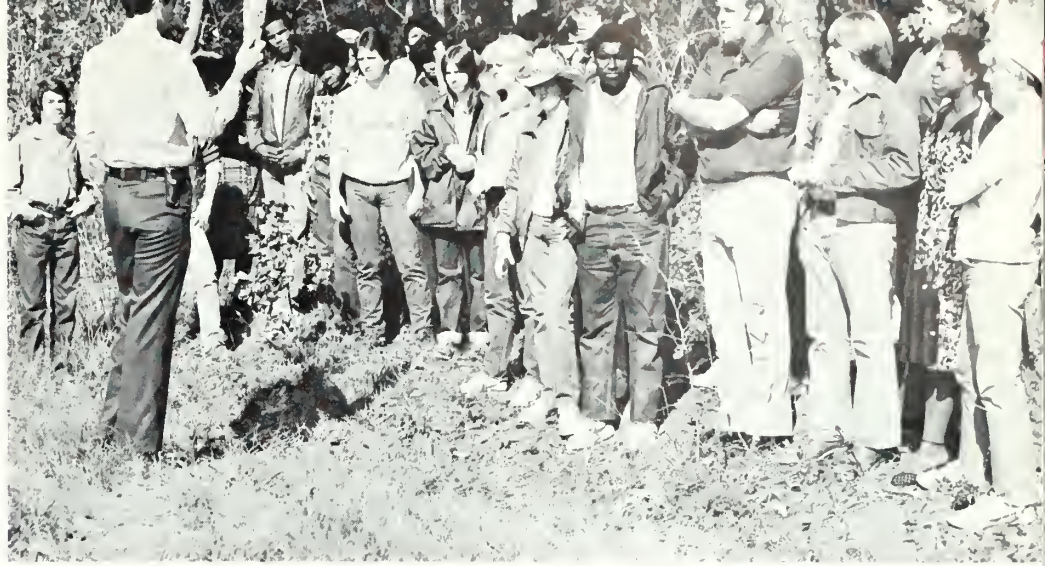
Continued from Page 10

recently at the Commission headquarters.

Others who recently retired included Ranger Jerry Ridley of the Baldwin-Hancock-Putnam Unit and J. K. Jones, Dougherty County Ranger.

Colleagues and other friends of Ridley honored the ranger with a dinner in Eatonton. He came with the GFC as assistant ranger in Putnam County in 1953 and was soon named ranger. He retired as a senior ranger of the tri-county unit.

Jones started as assistant ranger of the Dougherty Unit and became nurseryman of Herty Nursery in 1950 and superintendent of that facility in 1953. When the nursery was closed, Jones was named ranger of the Dougherty Unit.



NATURE TRAIL IN COWETA TELLS FORESTRY STORY

Tom Moore's career awareness class of Central High School in Newnan got a pretty good dose of forestry on a recent autumn afternoon as they strolled along the winding nature trail adjacent to the Commission's Coweta County Unit.

Ranger Darrell (Lynn) McElroy guided the boys and girls along the scenic route, with frequent stops to identify a specie, point out an unusual characteristic, show

Ranger McElroy stops often along the wooded path to point out interesting forest facts for the high school students and their teacher.

nature's way of healing wounds, describe various diseases and insects and ask students to guess the ages of certain trees.

At the beginning of the trail in the wooded plot, the ranger took an increment borer from his pocket and showed the students how the age of a tree could be determined without felling the tree.

That demonstration immediately

est in entering the field. They were also shown a weather station and some of the basic techniques of fire prevention and suppression were explained.

The group from Central High was not the first group to visit the nature trail, nor will it be the last.

Since the trail was established about six years ago, school students from kindergarten to senior high school, as well as Cub and Boy Scouts, garden club members and others, have visited the trail. Some who see it dressed in flaming colors of autumn come back in the spring to view it in delicate greenery.

The heavily forested trail contains white ash, water oak, hickory, sourwood, poplar, post oak, several species of pine, dogwood, beech and many other trees, as well as a wide variety of bushes, ferns and moss.

grabbed the attention of the class and they were well disciplined and attentive as they crossed wooden foot bridges and walked up and down ridges to complete the picturesque trail.

McElroy explained many of the functions of rangers, foresters and others involved in professional forestry for the benefit of students who expressed inter-

**FEATURE
PAGE
GEORGIA FORESTRY**





Thank you so much for sharing your expertise and free materials with the Columbia County career education resource teachers on November 5. I commend you on your generosity and enthusiasm. Our teachers sincerely enjoyed the relaxed atmosphere and were able to obtain pertinent information throughout the presentation as a result.

I also want to commend the Forestry Commission for devoting assistance and materials for the education of our youth. As our society becomes more and more complex, the schools will need more and more assistance from community-minded industry to meet the educational demands of our students. Columbia County commends the Commission for providing such attractive, interesting, and valuable resources for use in the classroom.

Connie L. Davis
Columbia County School System
Appling, Georgia

We have received your film, Georgia's Wood Energy. It is a nice and informative film, and useful in our work with wood energy.

I am taking the liberty of showing this film to interested people in the State Forestry Office as well as those in the State Division of Natural Resources, Research & Development. I shall return the film to you in the next few days.

Elvin T. Choong
Professor of Forestry
Louisiana State University
Baton Rouge, Louisiana

We want to thank all of you for your prompt response and efficient work in containing the woods fire on our property (Babbs Mill Road, Hampton) in October.

The fire was reported by our neighbor, Mr. Sanders Floyd, who lost his own home to a house fire two months ago. Thanks to your firefighters, our house is still here, and you may be sure it was with a deep feeling of gratitude, relief, and thankfulness that we returned home on Saturday evening to find the house still standing. Though smoke still drifted heavily through the woods, we knew immediately from the sight of your carefully plowed fire-break that the problem was already taken care of and the danger passed.

Willard, Ople, and Sheila Popwell
Route 2, Box 1150
Hampton, GA 30225

The entire staff and children of Crippled Childrens Clinic want to thank you for your time in helping us find a Christmas tree. Your help has given so much happiness to so many people. We all thank you, and wish you much happiness and a very Merry Christmas.

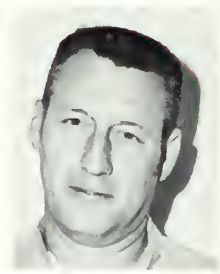
Carol Aycock
Crippled Childrens Clinic
Atlanta, Georgia



logging the foresters



PHILLIPS



HALL



HESTER



MARTIN

FRED S. HALL has been named ranger of the Chattooga County Unit following the retirement of J. B. WHITE. A native of Walker County, RANGER HALL came with the unit as a towerman in 1971 and became a patrolman two years later. The ranger and his wife, Elsie, have three children...RICHARD PHILLIPS, a native of Soperton who came with the Commission

in 1968 as patrolman in the Columbia County Unit, has been named ranger of the Jefferson-Glascock Unit to succeed GEORGE BARFIELD, who recently retired. RANGER PHILLIPS and his wife have two children and make their home in Louisville...MARVIN MARTIN, a native of Dahlonega who came with the Commission as a patrolman in 1973, has been named ranger of the Lumpkin County Unit. RANGER MARTIN replaces W. W. GRIZZLE, who recently retired. The new ranger and his wife, Jo Anne, have two children...ALTON HESTER, who came with the Commission as a patrolman in the Putnam County Unit in 1968, has been named ranger of the Baldwin-Hancock-Putnam County Unit. RANGER HESTER succeeds JERRY RIDLEY, who recently retired from the post. The new ranger and his wife, Sandra, and their two children make their home in Eatonton. They are members of Central United Methodist Church...Senior Forest Ranger LOTT TURNER, Charlton County Unit, was named Outstanding Supervisor for the 1981 Summer Youth Employment Program for the eight-county area served by the Slash Pine Community Action Agency. He received a plaque of recognition from the Georgia Department of Labor.



Professional foresters from Finland and Sweden were recent guests of the Commission. They are shown here on a tour of the seed orchard at Baldwin State Forest. They later attended a forest demonstration arranged by the Commission personnel.



AWARDS



Georgia Forestry Commission personnel, shown above with Director Ray Shirley, received commendation awards for their outstanding performance in serving the Commission and the public. Ceremonies were held at the annual training session at Norman Park. In the front row, left to right, are Patrolman George D. Smith, Albany; Ranger Waymond (Sonny) Huggins, LaFayette; and Patrolman Jerry Griffin, Fitzgerald. Back row, left to right, Ranger Charlie Meadows, Harlem; Director Shirley, and Accountant Joe Cowart, Macon.

These men are shown with commendation awards presented by the Commission for contributions made in the interest of better forestry. Seated, left to right, are George Strother of Athens, Chairman of the Forestry Committee, Conservation District Supervisors; Cloyce Pittman of Macon, an executive of Tom's Foods, Ltd.; William J. Barton, Savannah, an official of Union Camp and past president of the Georgia Forestry Association; and Bobby Taylor, Fitzgerald, newly elected president of the Association, who accepted an award from Glenn Anthony, Executive Secretary of the Association. Standing, left to right, are Ray Shirley, Commission Director, who presented the awards; Eley C. Frazer, III, Albany, member of the GFC Board; and Jim L. Gillis, Soperton, prominent landowner and chairman of the Board. The presentations were made at Norman Park.



Two foresters receive awards for outstanding service to the Georgia Tree Farm program from Jack W. Gnann, right, Chairman of the state's Tree Farm Committee. In the top photo, George B. Turk of the Forestry Commission, Sandersville, who was named Tree Inspector of the Year, is presented a deer rifle. In the bottom photo, Walter L. (Bud) Crown of Owens-Illinois Co., Valdosta, named Outstanding District Tree Farm Chairman, is presented a shotgun and a plaque.



Georgia FORESTRY

DECEMBER, 1981

Christmas Bells

by Henry Wadsworth Longfellow

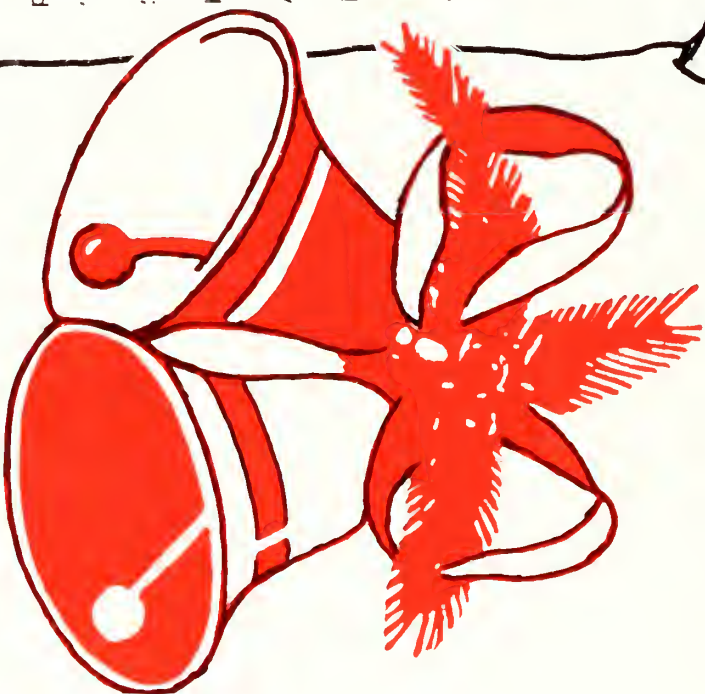
I heard the bells on Christmas Day
 Their old, familiar carols play,
 And wild and sweet
 The words repeat
 Of peace on earth, good-will to men!

And thought how, as the day had come
 The bellfries of all Christendom
 Had rolled along
 The unbroken song
 Of peace on earth, good-will to men!

Till, ringing, swinging on its way,
 The world revolved from night to day
 A voice, a chime
 A chant sublime
 Of peace on earth, good-will to men!

And in despair I bowed my head;
 "There is no peace on earth," I said;
 "For hate is strong
 And mocks the song
 Of peace on earth, good-will to men!"

Then pealed the bells more loud and deep:
 "God is not dead; nor doth He sleep!
 The Wrong shall fail,
 The Right prevail,
 With peace on earth, good-will to men!"



WISHING YOU
 A JOYOUS

CHRISTMAS

Director Ray Shirley and the Staff, Georgia Forestry Commission

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