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FORESTRY PROGRESS IN GEORGIA

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1947-1948
BIENNIAL REPORT
GEORGIA DEPARTMENT OF FORESTRY





STATE DIVISION OF CONSERVATION

DEPARTMENT OF FORESTRY
STATE CAPITOL
ATLANTA

January 1, 1949

To Honorable Herman Talmadge, Governor
The General Assembly
And the People of Georgia

Pursuant to Section 9 of the Act approved March 5, 1947 (as amended), I have the honor to submit this report of the activities of the Georgia Department of Forestry for the calendar years 1947 and 1948.

The economic and financial value of the forests to the people and the state during this period is noteworthy. Harvested forest products, financial returns and employment reached the highest peak in the history of the state.

Much progress has been made, but activities in the fields of forest fire protection, reforestation and proper cutting practices must be further increased if our forest lands are to continue to yield the volume of products demanded and to keep forest employment at a high level.

Respectfully submitted,
A. R. Shirley, Director

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GENERAL

Forestry in Georgia is a big business, owned and operated primarily by small businessmen.

Georgia ranks first in the nation in privately-owned forest area and in the number of forest land owners.

Forestry is the process of putting timberlands and woodlots on a business-like basis in order to produce repeated timber crops, year after year, thus keeping thousands of industries in continuous operation and contributing greatly to the economic welfare of the entire state. Every man, woman and child in Georgia, therefore, has an interest in the state forestry program.

The forest lands of Georgia have meant more to the economy of the state during the period covered by this report than possibly any similar period in history. The following facts will better emphasize these values and the forests' importance.

(1) In 1947-48, 159 new wood-using industries began operation. The wood industry accounted for more new plants over this period than any other group.

(2) Returns received by forest owners for forest products sold in 1947 amounted to approximately 123 million dollars. The processed products were valued from \$275,000,000 to \$300,000,000, which represents the greatest return in dollars to landowners and industry ever before attained. The total for 1948 will equal or surpass 1947.

(3) One hundred and twenty thousand or more persons were employed in forest activities in 1947, and many thousands more were indirectly dependent on the forest for a livelihood. Employment in 1948 will be higher.

(4) At least twice as much timber by volume was harvested from Georgia's forest in 1947 as in 1937. Figures for 1948 are not available for this report. However, indications are that production will equal or pass 1947,

(5) Georgia was the second largest producer of sawtimber in 1947 in the South. Alabama produced slightly more.

(6) Approximately 72% of the nation's production of gum naval stores was produced in Georgia in 1947 and 1948.

(7) Georgia was one of the leading states in the volume of wood used for wood pulp.

Total forest growth as compared to forest drain is not in as favorable balance as necessary if our forest values are to be maintained and expanded.

Forest drain exceeded the growth during 1947 and 1948. The drain includes all trees harvested for products and used by people,

and also loss through forest fire, insects and disease. In parts of Districts 1 and 8, growth exceeded drain. In all other Districts in the state drain exceeded growth.

The sawtimber industry accounted for the largest drain with the pulpwood second. We had approximately 13% less sawtimber in 1946 as compared to 1936. The 1948 sawtimber supply was less than in 1946.

In areas that have been under fair to good forest fire protection for 15 or more years, more timber products are being grown and harvested and the best ratio of growth to drain exists. With adequate fire protection given to all forest areas and a continued stepped-up program of artificial reforestation and more care given to proper tree selection and cutting practices at time of harvest, the forestry situation can be reversed in a few years. These practices must be adopted if Georgia's forests are to continue to provide the employment and give the financial return of the present. With these better practices being followed, we can not only maintain the present values but also expand them twofold.

Progress has been made in past years but it must be speeded up at a much more rapid rate. We cannot afford to do otherwise. Leaving of sufficient seed trees or cutting selectively of trees that should be removed due to maturity, crowded stands or other factors in stand development, should replace the poor cutting and harvesting practices found on too many areas.

The determination of the Georgia Department of Forestry during the past two years has been to give every citizen the best possible value his tax dollar would buy. A great deal of progress has been made. The accomplishments are concrete, clear-cut.

Perhaps the greatest advancement along the trail to put Georgia's timberlands on a sustaining basis has been in the field of fire protection. The acreage under protection was shoved upward 2,255,526 acres. More important, the effectiveness of existing protection units has been increased by the addition of more and better equipment and the training of personnel. Also the possibility of fire protection for all of Georgia on a statewide basis moved closer to a reality.

In the field of reforestation, nursery production was doubled in 1947, almost redoubled in 1948. A new nursery, Georgia's third, is now producing seedlings to help restock the state's four and three-quarter million acres classified as either poorly stocked or as completely worthless as far as a commercial timber crop is concerned. New equipment and new techniques have added to the efficiency of nursery production.

The delivery of seedlings by state truck was instigated in order to

assure the landowner of fresher seedlings on arrival which contributes to a higher survival rate.

Management services of the Department also have kept step with other activities. Designed to help landowners get the most out of each timber crop, by "farming" instead of "mining" their woodlands, the management program has been expanded through the addition of more technical personnel and through training sessions and demonstrations.

Because the success of a forestry program, like any other activity, depends on an informed public, the Department has conducted a vigorous information and education program. The expansion of this activity proved successful because of unfailing cooperation of Georgia's press and radio.

To meet an ever-increasing demand from the public, the preparation and distribution of educational materials must be expanded.

FIRE PROTECTION

Never before has so much Georgia forest land been so well protected against wild fire.

In January, 1947, the Department operated with 34 organized protection units, representing 6,335,720 acres. Today, those figures have advanced to 43 units, and 8,591,246 acres. The total state and privately-owned forest land without organized protection has been reduced to 14,981,587 acres, out of a total of 23,572,833 acres.

Fire protection units were established for Ware and Wilkinson Counties in 1947, and the Coastal and Consolidated Timber Protective Organizations were added on the same basis as the county units. The

Tower facilities have been expanded for early detection of forest fires in Georgia.





Two-way radio has proved to be the most valuable and efficient means of communication.

protection unit in Gwinnett County was discontinued in 1947.

Five new fire protection units were established in 1948. These were Emanuel, Wheeler, Decatur, Talbot and Chattooga Counties. Protection also was provided for the privately-owned forest land of Rabun County through a cooperative agreement with the U. S. Forest Service, the State and the County.

Only enough funds have been available to offer organized protection to those counties that would finance 60 per cent of the cost of the operation of a protection unit. An expression of interest in organized protection has been received from almost all counties, but local conditions, coupled with limited state funds, made greater expansion impossible. State and federal funds were used to cover 40 per cent of the protection units' budgets. The county unit basis of protection was adopted a number of years ago in order to give protection to as much land as possible and to give as much service as possible to the greatest number of landowners.

The paramount forestry need in Georgia is for a statewide system of protection that will give efficient protection at a lower cost per acre. Operated by state and federal funds, the program should be adequately financed to do the job.

Of the 43 organized protection units, only about half have the necessary equipment and personnel to give satisfactory protection. The strength of many units, however, has been raised during the past two years.

The key to measuring a successful fire control program is the number of acres damaged. A detection system must be in operation that will locate fires as soon as possible after they originate. When fires are located while they are small, and a good communication system is available, trucks and equipment may be directed to the fire, usually before too many acres are burned. Good detection facilities are necessary. At the end of 1948, 22 new towers were either in use or nearing completion.

The purchase and construction of the towers was financed with state and federal funds in the counties cooperating with the fire control program.

The value of lookouts in towers depends upon how quickly they get messages to rangers or members of a fire crew. Improvement of communication facilities, therefore, held a high priority in this period of fire control expansion.

Telephone line construction had proved expensive, and not flexible enough for fire fighting. But tests and the result of experience with two-way radio proved this to be the most valuable and efficient means of communication. During 1947, only 23 short wave sets were installed, but during 1948, the total sets either installed or on order amounted to 117, both fixed and mobile. Radio resulted in a shorter time elapsing between spotting and reaching fires, provided a means for getting additional men and equipment to fires without delay. Radio affords the opportunity for constant coordination between all activities of a fire control unit.

Radio also enables persons to carry on other work such as road and bridge repair, maintenance to buildings and other improvements, educational work at community meetings and schools, and preventive maintenance on equipment, and at the same time be immediately available for fire suppression work.

Altogether, 95 vehicles were put into use during 1947 and 1948 to replace worn out equipment, or to improve the effectiveness of the protection units. A study of what was needed preceded each purchase. The type of vehicle best suited to the need was ordered.

Suppression unit for quickly plowing around fires. Consists of tractor with plow and truck.



Wartime developments have been adapted to fire fighting in Georgia. Ruggedly constructed, lower-g geared vehicles with four-wheel drive, have been equipped with water tanks and pumps, hand tools and suppression plows.

These vehicles have greatly reduced acreage burned because of their maneuverability, carrying equipment and personnel quickly to the scene of the fire over terrain impossible for standard trucks.

Department personnel are always on the lookout for improvements in pumps, tanks, and nozzles and other equipment that will do the job better, thus adding to the efficiency of the entire organization.

The efficiency of many of the fire fighting organizations has been increased through the use of a suppression unit. This consists of a power vehicle, either a tractor or truck, and a plow. These units can be quickly transported to the fire either under their own power or by trailer truck. The purpose of this equipment is to quickly construct a fire line around the fire which can be accomplished in a very few minutes as compared to hand labor.

Even science is used to help hold down the size of the fires. A weather station, officially termed a Fire Danger Rating Station, has been placed in each District, another is located at the Baxley State Forest and several individual county protection units have placed orders for this equipment.

The weather station makes it possible for personnel to keep an



Wide, clear fireline plowed with power equipment for cutting off flames. Mechanization improves efficiency of protection units.



Many fire trucks have four-wheel drive, are low-g geared and are equipped with pump, tanks, hand tools, and two-way radio.

accurate measure of rainfall, wind velocity and the moisture content of inflammable material that makes forest fires burn. This data tells the probability of fires occurring and the rate of speed flames may be expected to travel.

On dangerous days, as indicated by these stations, personnel are alerted for emergencies.

Training schools have been conducted each summer for rangers on a state level. At these sessions, the protection unit leaders are briefed on the newest equipment developments and their use. They also have been instructed on how to better educate and inform people in their locality on the importance of forestry in their everyday life and from the statewide economic picture. Other sessions on a District level have been held to discuss pertinent problems that arise within the District. As a general rule, these District training sessions are held quarterly or more often if the occasion demands.

The result of more and better equipment and increased training is found in the statistics gathered from fire reports received from the field.

FIRE CONTROL PERFORMANCE CHART

	44	45	1946	1947	1948
Budget			\$427,694	\$439,910	\$676,047
Organized Units			34	37	43
Area Protected			6,335,720	7,490,854	8,591,246
Area Burned			103,625	91,902	58,522*
Average Size of Fire			38	38	25*
Number of Fires	2,100	2,300	2,688	2,390	2,296*

EQUIPMENT

Trucks	95	103	124
Tractors	18	19	24
Pre-Suppression Construction Plows	7	9	10
Suppression Plows	1	4	12
Towers	92	92	112†
Telephone Lines	1,669	1,655	1,653
Radios (fixed and mobile)	20	43	117‡
Weather Stations	0	2	11
Pre-Suppression Maintenance Plows	14	14	15
Transport Trailers	3	3	7

PERSONNEL (YEAR ROUND)

Technical Foresters	12	16	21
Trained Personnel	136	150	169
Training Schools	9	15	22

* Period ending November 30, 1948.

† Erected or under construction.

‡ Installed or on order.

The accompanying chart clearly points out the relationship between increase of funds for the purchase of additional and better equipment, and the decrease in the number of fires and the acreage burned during the three year period. This holds true in spite of the fact that 2,255,526 acres were added to the protection organization in 1947 and 1948.

The Forestry Board members, County Commissioners and individual landowners in the 43 units were to a large extent responsible for this progress since it has been through their interest and cooperation with the Department that this progress was made possible.

THE FIRE PROTECTION SITUATION



The laws of Georgia allow a person to burn his own land, but it is unlawful for such fire, due to neglect and carelessness, to damage timberlands belonging to others.

Three wardens enforce the provisions of the fire laws of the State. Each warden serves three districts, and work in cooperation with district foresters, county rangers, and local authorities. The accompanying table shows the results of law enforcement activities:

LAW ENFORCEMENT

	1947	1948
Number of Investigations	376	472
Number of Prosecutions	143	127
Number of Convictions	88	97
Cases Pending	50	61

For two months during the summer of 1948, district foresters conducted a survey of the entire state and the needs for forest fire protection in every county. Data gathered included the number and height of towers needed, with location recommendations, and the number and type of all kinds of vehicles that would be required. Recommendations were also made on the number of permanent and mobile radio stations that would be necessary. The survey also brought out the number of miles of telephone line that would be needed in localities where telephone was found to be a more economical and practical means of communication than radio. Even the amount of hand tools needed to equip the vehicles was determined.

From consolidation of these field reports the following facts were obtained for protecting the 23,572,833 acres of state and privately-owned forest land in Georgia:

1. *Initial investment*—6.22 cents per acre or \$1,466,230. This amount is a non-recurring expense and covers the cost of purchasing the necessary towers and equipment for statewide fire protection.
2. *Annual operation*—7.1 cents per acre or \$1,673,671. The annual operation cost covers personnel, depreciation, operation and maintenance of all equipment and all other miscellaneous expenses to carry out the program.

According to the present allotment procedure, one-third or more of the above amounts can be financed by federal funds.

It was found that two years will be required to put the entire statewide plan into complete operation.

The plan for statewide fire control is being sponsored by the Georgia Forestry Association. It has received the support of the

Georgia Farm Bureau, Georgia Bankers Association, and Federation of Women's Clubs. In addition, many business and civic agencies, public officials and individual citizens have urged such a program.

Forest fire control is something that must be in continuous operation to be of greatest value. Past experiences have shown that too often changes in county administrations and local financial conditions have left the forestry program jeopardized, inefficient, or completely disbanded. The present county-state system of fire control will never meet the needs.

Neither will landowners ever be able to afford to give their forest land adequate protection themselves. Only on a statewide basis can fire control be made effective and efficient at a low cost per acre. The larger landowners may find it practical to guard their holdings, but 70 per cent of Georgia's woodland is in small tracts.

REFORESTATION AND NURSERIES

Survey figures show that four and three quarter million acres of forest type land in Georgia is either idle or poorly stocked in timber—poorly stocked to the extent they are practically worthless as far as another crop of timber in the near future is concerned. Adequate fire protection will take care of approximately one-half of these acres; however, the remainder of the area will need to be made productive through artificial reforestation.

In early 1947, the Department was operating two forest tree seedling nurseries. One of these nurseries is located in Hall County near Flowery Branch and the other in Dougherty County just south of Albany. The combined potential output of both of these nurseries is approximately 25 million seedlings annually, far short of the demand.

In 1947, orders for over 34 million seedlings flooded the Department. A policy was adopted to fill all orders for 5,000 seedlings and less 100 per cent. This action was designed to take care of the small landowner who only needed to plant a few acres. All other orders were cut approximately 50 per cent so that the majority of persons ordering could at least partially obtain their planting needs.

This demand from the public resulted in a special appropriation for the development of a third nursery for the state.

A crop of forest tree seedlings growing at Georgia's third and newest nursery near Davisboro in Washington County.



Consultations were held to plan just what was needed to fit in with the existing nursery program. Advice and suggestions for locating a suitable area were sought from nursery experts and others with years of experience in forest tree nursery work in the south.

The most important single factor was identified as soil type. Since forest seedlings cannot be fertilized directly, it is necessary to give them the necessary plant food through rotation with cover crops. All lifting work has to be done in the winter or rainy season. This makes a strong clay subsoil necessary so that equipment will not bog down. This subsoil also holds moisture and fertility near the surface where it is available to the roots of the seedlings. Deep, sandy soils would not qualify.

In addition, the area found could not have over a two per cent slope or excessive erosion would soon wash away all the top soil, rendering the site entirely useless from a nursery or crop standpoint.

Accessibility to transportation and communication also had to be considered. The proximity of labor that could be obtained readily at reasonable cost was, of course, an important factor.

Adequate water supply is imperative for the propagation of seedlings. Irrigation equipment was needed in quantity. Tractors, trucks, seeders, cultivators and other farm equipment had to be obtained quickly.

Soils experts at the University of Georgia were consulted to determine what areas in the state would most likely have sites of 100 acres in a red series soil. Orangeburg or Red Bay type soils were the most desirable from the fertility and physical property standpoints. The deep sands and the rolling hills were quickly eliminated.

By the middle of December, 1947, over 45 sites were looked at in some 12 counties. One by one they were eliminated for one reason or another. Some had too much slope, some the wrong type soil, some not sufficient size, some too costly.

The site selected is about four miles north of Davisboro in Washington County. The tract is 100 acres in size and the soil type is of Orangeburg and Red Bay. Other factors necessary were favorable.

Since selection of the site, much progress has been made. Trucks, tractors, and other necessary equipment were secured at a time when such items were difficult to obtain. A well, with a year-round capacity of over 500 gallons per minute, was drilled and put into use. A packing shed, equipment shed, pump house, and residence have been completed and are now in use. Most important of all, this nursery has produced an estimated 15 million seedlings which have been obligated and are now being distributed to the landowners of Georgia.

It is felt that when this new nursery has been fully developed, it will have a capacity of 30 to 35 million seedlings per year.

Besides the ever-increasing knowledge of the average citizen in reforestation needs, the new tree planting machines have added greatly to the demand for seedlings.

The Department purchased one of these machines for experimental purposes. In the winter of 1947, 20 demonstrations were held in 11 different counties. It was tried on as many different types of terrain and topography as possible. Figures resulting from this experiment showed that the cost of planting by machine averaged \$3.00 per thousand cheaper than the old "by hand" method. It was found that the machine was not practical in red mud, mucky land or in areas where excessive stumps prevail. This information was immediately made available to the landowners in Georgia.

Many millions of seedlings have been planted throughout the south prior to the years covered by this report. However, checks on the survival rate of these seedlings have been alarmingly low. The average rate of survival in Georgia in 1939, the latest date reliable figures were obtainable, was approximately 68 per cent. One reason for this low survival is attributed to the condition of the seedlings when they arrived at the place of planting. For this reason, a system of truck delivery was tried in 1947 and further perfected in 1948. When desired, seedlings are lifted from the nursery and transported to the county where they are to be planted, often within 24 hours. This insures the landowner of getting fresh seedlings and contributes greatly to the survival of those seedlings when they are planted.

Another reason for low survival is the lack of care given seedlings after they have been received. Efforts were redoubled on the part of the Department personnel to get informational literature into the hands of interested persons. Demonstrations were conducted in cooperation with other state and federal related agencies on the care,



Power sprayers for weed control have helped hold down cost of producing seedlings.



Fast, labor-saving mechanical tree planters are aiding reforestation in Georgia.

handling and planting of forest tree seedlings and planting instructions accompanied each order.

Seedlings have always been sold at, or below, cost. Production rose from 19½ million in 1947 to an estimated 32½ million in 1948. Prices for equipment, seed, and supplies also increased, but the cost of production has been held down. Probably the greatest single factor in holding down the cost per thousand is the use of chemical weeding. During the summer of 1948, tractor-drawn power sprayers sprayed a selective herbicide on seedlings in all three nurseries. This solution withers grass and most weeds without harming the seedlings. This alone has reduced the necessary hand labor cost. In 1948, a mechanical straw spreader was purchased on an experimental basis at the Herty Nursery at Albany. Already results show this new machine will pay for itself twice over in one planting season. Similar machines are on order for the other two nurseries. Every effort is being put forth to reduce the cost of producing seedlings and at the same time increase production.

The purchase of two tying machines eliminated the hand labor of six persons. Use of such a machine makes it possible for one person to tie the seedlings in bundles. This job formerly required four men per nursery.

The species being produced are principally pine. Slash (*P. caribaea*) was first with 79 per cent, loblolly (*P. taeda*) was next with 17 per cent, longleaf (*P. palustris*) next, with approximately three per cent, and black locust (*Robinia pseudoacacia*) last, with one

per cent. These percentages for production were based on the demand for seedlings from past seasons.

Shortleaf was not produced, due to the littleleaf disease. This disease, about which very little is known at this time, has caused alarmingly high mortality throughout the shortleaf belt in the south. In the past few years, Arizona cypress (*Cupressus Arizonica*) has been tried for the Christmas tree trade with discouraging results. However, it is not native to this section, and while it grows fairly well in plantations, it is very difficult to propagate on a mass scale in the nurseries.

The reforestation and nursery situation in Georgia can best be summed up as follows :

Even with all the planting of forest tree seedlings during the past 15 years, there are still an estimated two and one-half million acres of land that will have to be planted to become productive.

The increasing interest in planting and the planting machines have and will continue to push up the demand for seedlings. In an effort to meet this demand, the Department has in the past two years added a new nursery, new machinery, and more and better trained personnel.

The accompanying table outlines the progress made in nursery work in the past two years :

NURSERY REPORT

	1947	1948
Number Nurseries	2	3
Number Seedlings	19,593,025	32,500,000†
Total Cost Per Thousand	\$3.32	\$3.14‡

EQUIPMENT ON HAND

Tractors	2	5
Spray Machines	0	3
Wagon Trailers	3	6
Straw Spreaders	0	1
Tying Machines	2	2
Grading Tables	2	3

NURSERY PERSONNEL

Technical Foresters	0	2
Trained Personnel	7	11

† Estimated production.

‡ Cost based on estimated production.

MANAGEMENT

Forest management is the goal of any well-rounded forestry program. It is true that adequate fire protection and reforestation must come first so that a crop of timber is available for management and harvest.

The average forest acre in Georgia is only one-third stocked. It is growing approximately one-half of its capacity. With the necessary fire control and reforestation, this area can, in time, become fully stocked. However, good cutting and harvesting practices are necessary to increase the production to a maximum.

Forest products are not quite as simple to sell as other crops produced by landowners. They cannot be sold by weight or by the dozen as can practically every other farm commodity. The average landowner in the past seldom got to make more than two or three timber sales in his lifetime. He didn't get an opportunity to learn by experience.

For several years the Department has felt the need for assistance to landowners in the management and sale of their timber products. This service has been greatly hampered by lack of funds. Due to the method of receiving reimbursement of federal funds, which accounts for approximately one-third of the Department's budget, personnel could spend very little time on any activities other than fire protection. However, an effort has been made and all allowable time is spent in answering the hundreds of requests received for this service.

During 1947 and 1948, a total of 1,032 landowners received aid in their timber management and sale problems. This assistance consisted of technical foresters going right in the woods with the landowners and marking trees for cutting. The trees that should come out to benefit the remainder of the stand were usually the ones chosen. These trees were estimated for board foot or cubic foot volume.

When the estimate and marking are complete, the landowner is given a sample "Timber Sale Agreement" for his information. Also he is sent a written report stating the estimated volume. This information on volume is available also to anyone who wants to purchase the timber. In this way, it is believed that the landowner, knowing what he has for sale, is in a better position to trade with the purchaser. In addition to the volume estimated, the written report contains suggestions and recommendations as to how the landowner can best manage his woodlot for maximum production of forest products.

Operating with limited personnel, the Department was forced to adopt a policy limiting management assistance to a complete job on 150 acres or less, and up to four days on larger tracts. This enabled personnel to efficiently assist as many landowners as possible.



Wise cutting practices are encouraged through management service for landowners.

On 150 acres or less, the entire area is marked for harvest if a cutting is warranted. On larger tracts, the owner or his agent is trained in recognizing trees that should be cut and how to best measure the timber that is to be sold. Follow-up trips are made when possible and additional assistance is given upon request.

In addition to this assistance to landowners, other services are available for the purchasers of these timber products. Scale sticks, painting guns for marking trees, volume tables and a great deal of literature has been sent to sawmills, and other wood-using industries.

Several of the larger wood-using industries in the state own sizeable tracts of forest lands. A great many have hired their own foresters. Department personnel has spent as much time as possible with these foresters in helping them to keep up-to-date on the latest developments and techniques in estimating, use of aerial photography in mapping, and silviculture. In the past two years, foresters representing 11 of these larger wood-using industries, who control some 610,000 acres, have been visited.

The use of aerial photography has been developed to the extent that thousands of dollars can be saved by these companies in survey and map work alone. The latest methods and equipment for using these photographs was shown to these landowners. Many compliments and thanks have been received by the Department for this service.

In July, 1947, the U. S. Forest Service offered the services of a technically trained forester to the Department. This forester was to be known as a Cooperative Management Specialist and was to work

entirely with private landowners, aiding them with their forest management problems. This forester was paid both salary and travel expenses by the U. S. Forest Service. However, he worked under the same administrative policies as other Department personnel. In July, 1948, the Forest Service requested, and the Department agreed, to pay this forester's travel and subsistence. This man has been a very valuable asset. While this man was intended to work principally in the naval stores belt, his services have been used all over the state.

For many years federal funds have been available in cooperation with states for employing Farm Foresters. These funds were available under the Norris-Doxey Act which required states to match these funds on a 50-50 basis.

Early in 1947, a request was forwarded to the U. S. Forest Service for cooperation on farm forestry projects in Georgia. At that time, all federal funds were obligated to other states and none could be made available. It was felt that a service similar to this was needed and two technical foresters were employed as Assistant District Foresters in the first and seventh districts. These men were set up on a basis where they could spend 75 per cent of their time giving

Tree Farm System started to recognize outstanding forestry practices by landowners. Certificates are awarded those selected.



forest management assistance on some two million and three and one-half million forest acres respectively.

In March, 1948, federal funds became available and these two assistant district foresters were put on a cooperative basis and their titles changed to Farm Foresters, making it possible for all of their time to be spent on forest management. After carefully considering all aspects involved, the Department decided to confine farm forestry activities to those counties that had organized fire protection units in districts one and seven. These counties had already expressed a willingness to cooperate with the Department on a forestry program by organizing for fire protection. This, and the fact that fire protection is necessary for good forest management, were the reasons for this decision. The area they cover is still too large to meet all requests for detailed individual assistance. More than 35 requests are pending in these two areas.

In 1947, a management training conference was held for Department personnel. Federal Forest Service management specialists cooperated in the discussions and many new techniques were considered. Another of these conferences was held in the fall of 1948. Besides Department personnel, foresters from other public agencies and industry are invited and attend these management meetings. Much is done to establish good relations between the Department and industry.

The Georgia Tree Farms System was launched in October, 1948, in cooperation with the Southern Pine Association. This system, co-sponsored by the Georgia Forestry Association, is designed to recognize those landowners who manage their woodlands in a business-like manner.

The purpose of this System is to encourage good practices by many landowners and reward and recognize their efforts. It is hoped that other people in the vicinity of designated "Tree Farms" will profit by the example set by their neighbors.

Upon request for a "Tree Farm" certificate, the area in question is given a rigid inspection by a technical forester. Sometimes in doubtful cases, two separate inspections are made to be sure that the woodland comes up to specifications. The certificate is awarded on what has been done in the past and on present practices, and not on future plans or what a landowner intends to do.

The award is made to an individual for work on a particular woodland, either large or small. In case the land changes hands, the award is automatically cancelled until the new owner has proven his interest in good forest management practices.

To date, 12 certificates have been awarded to landowners. These certificates represent approximately 318,805 acres that are under good forest management practices through the individual efforts of Georgia

landowners. The Tree Farm System work is definitely hampered by the shortage of personnel. At this time, there are dozens of requests on hand for inspections, but these requests will have to be delayed because of other and more pressing work.

The following table shows the management work that was done during 1947-48:

	Request Completed	Number Pending	Bd. Ft. Marked	Number Cords	Number Acres
1947	479	57	16,885,822	3,450	17,805
1948	468	34	13,294,432	2,011	13,161

From the accompanying table it would appear that the requests for this type of assistance are decreasing. The reason for this is that more pressing work in fire control and other activities of the Department is keeping the personnel busy on other jobs. Management assistance is usually requested by someone wanting to make a timber sale immediately. A delay of two or three weeks might cause the landowner to lose a possible sale.

This is very strongly indicated in the first and seventh districts, where the farm foresters are stationed. At first they had very little to do. The people did not know that such services were available. Much time was spent in explaining, not selling, their program to County Agents, teachers of vocational agriculture, Soil Conservation Service technicians, and representatives of other similarly interested agencies. When it became generally known that this service was available, the demand for assistance increased as shown by the fact that the number of requests not acted on jumped from eight in March, 1948, to 37 in November, 1948.

The accompanying table shows the status of the farm forestry project in November, 1948:

Number of requests not acted on	37
Owners who have been helped to date	79
Number acres receiving treatment	20,750
Average size of woodlot (acres)	260
Estimated gross return to landowners as a result of this work	\$24,110

The figure of \$24,110 does not seem too large in this day of astronomical sums but when the size farm given aid is taken into consideration, it is felt that the assistance was applied where it would do the most good. Then, too, all areas treated have not been sold. The sum \$24,110 represents approximately one-third of the total acreage shown treated.

The Department operates two state forests. One of these, consist-

ing of 1,000 acres, is located on U. S. Highway No. 1, approximately four miles south of Baxley in Appling County. Several experiments in thinning, control burning, and planting are now under way on this forest.

The other forest, consisting of approximately 38,000 acres, is located about 10 miles south of Waycross and joins the Okefenokee Swamp on the east. This forest consists principally of young, below merchantable size timber and a program of fire protection has been actively carried on for the past 16 years. Some improvement cuttings and thinnings have been made in 1947 and 1948. The products from these cuttings have been largely utilized by the Department for such uses as bridge and building maintenance and steps for towers.

In 1947, the trees large enough for naval stores operations were being worked by the Department. However, in 1948 these trees were leased to local, private operators on a bid basis.

INFORMATION AND EDUCATION

In order to keep all Georgians reminded of the importance of our forest resources, and of the benefits to be derived through wiser use, the Department has conducted a full-scale information and education program. This has been carried on through publications, news articles, radio programs, motion pictures and color slides, exhibits, demonstrations, and talks.

Publication of a monthly magazine, "Georgia Forestry", began in April, 1948, succeeding a mimeographed bulletin. Purchase of a press-type camera made photographs available for "Georgia Forestry" as well as for filling requests received from time to time from other publications.

"Georgia Forestry" is designed to keep the public posted on current forestry activities in the state. It is distributed to interested forest landowners, wood-using industries, members of public and civic agencies, and to any person who desires to be put on the mailing list. Reception of the improved publication has been enthusiastic and the requests for copies continues to swell its circulation. Distribution has increased from 3,000 to 6,000 within the past six months.

Georgia's newspaper editors are alert to the importance of forestry in their areas, and they have generously donated space for informative articles, editorials and illustrations. Several hundred items were published in behalf of forestry in 1947, and in 1948 the total reached more than 3,000.

In counties where organized fire protection units operate, the rangers are now preparing weekly reports on their activities for publication in local newspapers. These columns urge readers to report woods fires promptly, and tell how and where fires should be reported. Another advantage of this activity is that volunteers are urged to help control fires, and credit is given to those who do voluntarily assist the protection units. The rangers also are enabled to keep the public reminded of the services available through the unit.

Training in the preparation of such newspaper reports was given rangers at schools during the summer of 1948. Through the use of a recording machine, rangers also received training in speaking for broadcasts.

Rangers and district foresters are now participating in an average of two dozen regular radio programs each week. This activity began in April, 1948, and 35 scripts have been written.

Georgia's radio stations do not hesitate to make broadcast time available for public service programs devoted to practical forestry. Expansion of the radio work is limited only by the non-availability of

Mass Meeting Called Here To Study Forest Fire Unit

People Asked To Attend Meet To Decide Question

A mass meeting of landowners in Laurens County has been called for Saturday afternoon, July 24th

FIRE PROTECTION NEWS

By GEORGE BISHOP

We went six days without fighting a fire this past week which is something of a record for careful spring burning the part of everyone, as the smokes were popping up everywhere. The record was broken Friday afternoon, April 30, when we had a hot fire near Teloga on land owned by Mr. S. O. Sitton, W. Baker and Mr. N. J. John. Only eight acres of land was burned, was almost completely destroyed.

We were talking with Powell, of Route 3, Sunday while investigating the fire. He remarked that he had a right example of fire on his farm. He told us that when he had the farm some 20-odd years ago, he had two fields laying out. One was where he could burn it without getting fire in his woods, so he burned it every year for about 10 years to burn it off. The

Forests Yield Annual Income Of \$275 Million

A \$275,000,000 business is well worth safeguarding. And that is one reason so much emphasis is being placed on protecting Georgia's forest land from its No. 1 enemy—FIRE.

Relating the story of forestry in the state, Georgia Progress, official publication of the State Agricultural and Industrial Development Board, in its current issue tells how Georgia leads the South in total forest acreage and ranks second in the nation in commercial

provide the funds through additional taxes.

All interested parties owners and landowners Saturday morning county of DeKalb

Two DeKalb Boys To Attend Forest Camp Next Week

Herbert E. Martin, of Rt. 1, Tucker, and D. W. Porter, of Rt. 3, Decatur, will attend the DeKalb county at the Training Camp of the Labor Council.

Advance Notice Given On Pine Seedling Shipment

Advance notice of at least five days will be given landowners of Decatur County before pine tree seedlings ordered from state nurseries will be shipped, L. C. Hart, Jr., assistant director of the Georgia Department of Forestry, announced.

Forestry Notes

By J. W. ROBERTS
Bulloch County Protective Unit

Since the construction of fire-breaks is, by far, the best means of controlling wild fires, all landowners who have breaks constructed are urged to keep them maintained. The Bulloch Protection Unit will be on October 15 maintainers were constructed last year at a cost of maintenance which is per mile.

Due to the fact that we had a good many summer fires, L. B. Akins was re-elected our unit October 1. The unit will work out of the lower as towerman at man until regular fire employed.

Another truck has been chased and equipped by the unit. The new truck, a four-wheel-drive set-up

More Protection For Forests Favored

ATLANTA—[AP]—The State Development Board has described fire control in Georgia forests as "inadequate." Only 8,249,543 of the total 24,714,613 acres are under organized fire protection.

Between two and three million acres need replanting totally or partially through artificial reforestation. Most of the area will be restocked by seed trees if forest fires can be controlled, the board said.

Fire Danger To Forests Is Stressed

Georgia leads the South in forest acreage and ranks second in the nation in commercial forest acreage, according to Georgia Progress, official publication of the State Agricultural and Industrial Development Board.

The publication stresses the danger to Georgia's forests and emphasizes the need for fire protection. No.

RANGER WARNS OF DRYNESS IN WOODS CONDITIONS MAKE FIRE PRECAUTIONS ESPECIALLY NECESSARY

A warning that the woods are dry with no water in the streams sounded today by Ernest Edwards, Chatham county ranger. Reporting on October 13, he said there were 108 acres of fire in the ham, burning 108 acres of open land. The fires this month, he stressed, are very careful. He stressed that the fire are fires that the headquarter to his headquarter phone 2631, his crew can truck to the

Forestry Age Announce 'Tree Farm' System

The outstanding "tree farmers" of Georgia are going to receive official and public recognition.

A Georgia Tree Farm System will be launched jointly by the State Forestry Department and the Georgia Forestry Association at the Southern Forest Festival in Valdosta, October 6-7. "Tree Farm" certificates will be presented to several landowners—large and small—who are carrying out good forestry practices on their woodlands.

Georgia editors cooperate with information and education program.

Department personnel in the areas where other radio stations are located.

A majority of the radio scripts have been devoted to how-to-do-it subjects. Typical of the topics presented are "Treating Fence Posts" and "Sales Opportunities for Timber".

Even the educational possibilities of television have not been overlooked. A forestry program was telecast by WSB-TV, Atlanta, shortly after that station went on the air.

Visual education has been expanded. The Department has established a film library with 28 motion pictures devoted to forestry. Equipment has been purchased for checking, cleaning and repairing films between showings.

Production of three new films for the Southern Pulpwood Conservation Association has been sponsored by the Department. Personnel of the Department have assisted in the filming of these movies. One of the new films, "Lonnie's New Crop," has been released. This deals with planting pines. The other two films, pertaining to the natural reforestation and forest fires, are nearing completion.

Each district now has a slide projector for giving illustrated lectures. Ten sets of color slides were made during 1948 for showing to groups. The scenes pertain to the general forestry situation in Georgia and lecture notes explain each slide.

Boys receive practical forestry training at summer camps.



During the summer of 1948, representatives of the Department participated in five "workshop" training sessions with the state's approximately 950 teachers of vocational agriculture. Both regular teachers and instructors for veterans' training groups attended. Detailed accounts of the activities of the Department were given to the teachers to be passed along to members of their classes.

The Department conducted a forestry camp for boys in August, 1948, which was financed by four of Georgia's pulp and paper mills, the Brunswick Pulp and Paper Company, Macon Kraft Company, Union Bag and Paper Corporation, and the Southern Paperboard Corporation. Approximately 75 youths attended and all of their expenses were paid except for their transportation to and from the camp.

Training at the camp consisted of practical field demonstrations as well as lectures. The boys learned to plant trees, fight fire and measure standing timber.

Representatives of the Department also assisted the Georgia Extension Service with forestry camps for 4-H Club boys in 1947 and 1948. Instructors were furnished and equipment was made available for demonstrations. Department representatives also discussed forestry at various county 4-H camps over the state.

Distribution of booklets, folders, posters, blotters and other items of informational and educational material total 69,630 pieces in 1947, and 79,295 pieces in 1948. Much of this material consisted of literature prepared by the U. S. Forest Service for the national Cooperative Forest Fire Prevention campaign.

A majority of the publications distributed was prepared by other agencies, and the need is for more booklets dealing specifically with



Radio programs remind citizens of importance of forestry resources.

Georgia forest conditions and problems. A start in the right direction has been made with the re-issue of the book, "Native Trees of Georgia", and the reprinting of a folder, "How to Care For and Plant Seedlings".

Every request for programs from civic clubs and farm groups has been filled. Exhibits were prepared for numerous fairs, and cooperation lent to communities in conducting special events, such as forest festivals and forestry field days.

The Keep Georgia Green movement, a project of the Georgia Forestry Association, has received close cooperation from all representatives of the Department. The Keep Green program was launched in November, 1947, at a meeting in Atlanta and many of the details for this gathering of more than 700 prominent Georgians were handled by the Department.

Evidence of the ever-increasing demand by Georgians for more knowledge about forestry is found in the fact that requests received through the mail become more numerous each week.

INFORMATION AND EDUCATION

	<i>1947</i>	<i>1948</i>
Showings of Movies and slides	312	457
Audience estimate	20,667	22,903
Talks (Civic Clubs, etc.)	325	332
Audience estimate	24,952	29,407
Radio programs	61	287
News articles prepared	286	471
Exhibits	29	23
Field Demonstrations	217	275
Literature, pieces distributed	69,630	79,295

FINANCIAL REPORT

(Extracted from Public Report of Department of Audits)

YEARS ENDING JUNE 30TH

<i>INCOME RECEIPTS</i>	<i>1947</i>	<i>1948</i>
State Appropriation Funds	\$174,950.00	\$247,776.00†
Federal Grants	205,191.32	217,721.64
County Protective Units	142,606.48	185,772.88
Earnings	41,164.48	84,420.47
	\$563,912.28	\$735,690.99
TOTAL INCOME RECEIPTS		
Less: Transfer Herty Foundation.	10,000.00	10,000.00
	\$553,912.28	\$725,690.99
NET INCOME RECEIPTS		
<i>EXPENDITURES</i>		
Heat, Lights, Power, Water	\$ 924.17	\$ 1,218.21
Travel Expenses	22,086.61	24,493.34
Personal Services	337,359.18	387,344.12
Supplies and Materials	73,389.37	87,593.49
Communication Services	7,726.51	8,936.32
Printing, Publicity	2,468.87	1,876.37
Repairs, Alterations	16,464.48	15,566.07
Rents	2,272.00	1,847.99
Insurance and Bonding	1,013.32	1,342.66
Equipment	25,727.47	34,159.35
Miscellaneous	728.04	339.56
Grants to Timber Protection Organizations‡	12,780.26	
	\$502,940.28	\$564,717.48
TOTAL EXPENSE PAYMENTS		
Outlay:		
Equipment	53,360.61	81,430.86
	\$556,300.89	\$646,148.34
TOTAL COST PAYMENTS		
Number of Employees	166	190

† Includes special allotment of \$72,826 for new forest nursery.

‡ Discontinued—October, 1946.

CURRENT BALANCE

ASSETS — JUNE 30, 1947

CASH ASSETS

Available Cash \$ 34,623.09

ACCOUNTS RECEIVABLE

Due from U. S. Government of Reimbursements 39,869.97

WAREHOUSE INVENTORY

Supplies and equipment for sale 19,541.23

\$ 94,034.29

LIABILITIES, RESERVE, SURPLUS

CASH LIABILITIES

Accounts Payable

Administration \$ 1,954.83

County Units 6,698.56

C. F. L. U. A. 307.76 \$ 8,961.15

RESERVES

County Unit Deposits \$ 20,219.65

Air Patrol Deposits 50.00 \$ 20,269.65

SURPLUS

Available for Budget Approval \$ 45,262.26

Inventory—Warehouse 19,541.23 \$ 64,803.49

\$ 94,034.29

ASSETS — JUNE 30, 1948

CASH ASSETS

Available Cash \$114,415.74

ACCOUNTS RECEIVABLE

Due from U. S. Government on Reimbursements 52,426.62

WAREHOUSE INVENTORY

Supplies and Equipment for Sale 23,690.23

\$190,532.59



LIABILITIES, RESERVE, SURPLUS

CASH LIABILITIES

Purchase Orders Outstanding \$ 31,545.56

RESERVES

County Protective Units Deposits . . \$ 4,897.89
Performance Bond Deposits 300.00
For Nursery House 26,000.00 \$ 31,197.89

SURPLUS

Available for Budget Approval . . . \$104,098.91
Inventory Warehouse 23,690.23 \$127,789.14

\$190,532.59



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