ANNUAL REPORT
FARM FORESTRY EXTENSION

NORTH CAROLINA
1948

R. W. Graeber, In Charge, Forestry Extension
John L. Gray, Assistant Extension Forester

NORTH CAROLINA

AGRICULTURAL EXTENSION SERVICE

ANNUAL REPORT

FOR

1948

Period covered December 1, 1947 to November 30, 1948

Name of Project Farm Forestry Extension Work

Covering work done by R. W. Graeber, In Charge, Forestry Extension

John L. Gray, Assistant Extension Forester

Farm Foresters and Forestry Extension Specialists

(see pages 2 and 3 in report).

Percentage of time devoted to project 100.

Date Submitted: March 31, 1949. Signed: R. W. Graeber
Project Leader

Date Approved: _____, 194___. Signed: _____
State Director of Extension Work

Date Approved: _____, 194___. Signed: _____
Director of Extension Work, U. S. Department of Agriculture

ANNUAL REPORT

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NORTH CAROLINA

December 1, 1947 - November 30, 1948, Inclusive

R. W. Graeber, In Charge, Forestry Extension
John L. Gray, Assistant Extension Forester

I. O. Schaub, Director

N. C. Agricultural Extension Service
N. C. State College of Agriculture and Engineering
of the University of North Carolina
and
U. S. Department of Agriculture, Cooperating

State College Station
Raleigh, N. C.

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NORTH CAROLINA

R. W. Graeber, In Charge, Forestry Extension
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The North Carolina farm woodlands comprised of 9,199,085 acres are divided among 209,562 individual ownerships (1945 Census). The development, management, and use of the farm forest resources challenge the thinking and cooperation of these thousands of owners and the general public as well. The farm woodland is a part of the whole farm enterprise, and the management of same can be so integrated as to balance the use of farm labor and provide not only material for farm maintenance but supply an additional source of income. It is recognized that the income from farm timber has paid off many mortgages placed on land as a result of failure of other farm projects. The future support to be afforded by the timber crop will depend upon the management plans the farmers put into operation today.

In the promotion of forestry among farmers we approach the work through two channels:

1. Education and demonstration.
2. A combination of education and service.

The educational and demonstrational approach in the promotion of better forestry practices on the farm is a cooperative project by and between the

Agricultural Extension Service of the North Carolina State College of Agriculture and Engineering of the University of North Carolina and the Agricultural Extension Service of the United States Department of Agriculture. It is conducted under the provision of the Smith-Lever Act, the Clarke-McNary Act, Section V, and other supporting laws, both federal and state.

The combination of education and service becomes the second phase of forestry extension resulting in the Farm Woodland Management Project, initiated December 1, 1942, as a cooperative project by and between the North Carolina Agricultural Extension Service of North Carolina State College and the Forest Service of the United States Department of Agriculture. This phase of the program is conducted as part of the farm forestry work under provisions of the Norris-Doxey Act.

The Farm Forestry Extension work is under the general supervision of Dr. I. O. Schaub, Director of Agricultural Extension work, with the following forestry personnel employed:

State Level:
R. W. Graeber, In Charge, Forestry Extension, State College, Raleigh
John L. Gray, Assistant Extension Forester, State College, Raleigh

Farm Foresters: The Farm Woodland Management Project was discontinued as of June 30, 1948. However, seven months of the current extension year is covered by the work of the farm foresters as follows:

Area I	E. J. Sylvester,[1]	Windsor
	J. C. Jones,	Windsor
II	Ross S. Douglass,	Clinton
III	W. W. Barnes,	Whiteville
IV	V. G. Watkins,	Durham
V	W. H. Wheeler, Jr.,[2]	Wadesboro
VI	John E. Ford,	Wilkesboro
VII	James E. Hobbs,	Raleigh
VIII	A. H. Maxwell,	Morganton

1/ E. J. Sylvester resigned effective December 31, 1947, to return to the U. S. Forest Service. He was replaced by J. C. Jones, effective January 1, 1948.

2/ W. H. Wheeler, Jr., resigned effective March 15, 1948. Anticipating the discontinuance of this project, we did not fill this position.

District Level: As a result of the discontinuance of the Farm Woodland Management Project a reorganization of the Farm Forestry Extension work was made effective July 1, 1948, with a forestry extension specialist assigned to each of the five Agricultural Extension districts, as follows:

Northeastern District - J. C. Jones, Windsor
Southeastern District - Ross S. Douglass, Clinton
Northwestern District - James E. Hobbs, Raleigh
Southwestern District - George W. Smith, Charlotte
Western District - John E. Ford, Asheville

The forestry extension specialists are primarily responsible for the forestry extension program in the several counties of their respective districts in cooperation with the county agricultural agents, with help and guidance from the personnel at the state level. See Map III.

Purpose: Stating the purpose of the farm forestry extension work more specifically it is: To assist farmers in developing a systematic program of forest management, protection, and harvest of the timber crops and to aid in the marketing of forest products with the long-time goal of making the farm woods a permanent-producing part of a balanced, economic farming enterprise.

How Conducted:

1. From the educational approach: By teaching through the demonstration method farmers, timber owners, timber operators, 4-H Club members learn better practices by doing a given job. Instruction is given to 4-H Club members, farmers, and others through the cooperation of county agents, home agents, 4-H Club leaders, vocational teachers, neighborhood leaders, and others, at meetings and demonstrations, through literature, correspondence, press, radio, et cetera. In this we have excellent cooperation from county agents, teachers, and others.

2. Through education and service: Early in life every American child recognizes the value of money. Action talks louder than words. Action resulting in an increase of cash talks still louder. Many farmers grow timber at a profit, and then lose this profit - and often their shirt - when they make a sale, due to lack of training and experience in determining the volume and value of their timber before a sale is made. Recognizing the need of the

farmers for assistance in the marketing of timber, the Extension Service has conducted a program of education and service to:

1. Teach farmers how to select, mark, and scale their standing timber and encourage them to determine both the volume and value of their timber before a sale is made, as well as to cut selectively in a manner to maintain a permanent growing forest for future crops. This phase was a responsibility of all of the forestry personnel on a state-wide basis.

2. Render a service by helping the farmer in actually doing the job of selecting, marking, and scaling his marketable timber in a systematic manner, preparing volume reports, furnishing sample marketing contract forms, supplying a list of possible or prospective operators who would be interested in purchasing the timber. This work was primarily the responsibility of the farm foresters under the Farm Woodland Management Project. However, the farm foresters served only thirty counties. As a result the extension foresters - from the state level - handled many calls for this type of service in other counties throughout the state.

(See body of report for detailed results.)

COOPERATION:

North Carolina Division of Forestry: The Agricultural Extension Service has a working understanding with the state forester and the Forestry Division of the North Carolina Department of Conservation and Development through which four special projects have been featured during this year.

1. We cooperated in distributing the tree seedlings grown in two state nurseries operated by the state forester under provisions of the Clarke-McNary Act, Section IV.
2. Through cooperation of the Extension Service, the state forester, and Tennessee Valley Authority forest seedlings, grown in T. V. A. nurseries, were distributed free to farmers and other landowners

in the fifteen counties draining into the Tennessee River.

3. The forestry camp for farm boys was planned as a cooperative project between the Extension Service, the state forester, 4-H Club leader, F. F. A. director, and the Southern Pulpwood Conservation Association. But due to the polio epidemic the camp was called off.

4. The two agencies cooperated in the work of forest fire prevention by which the Extension Service:

   a. Aided in the distribution of literature to farmers and 4-H Club members in support of the 1948 Forest Fire Prevention Campaign. The literature was supplied by the U. S. Forest Service.

   b. The extension foresters and county agents created interest among farmers in having fire-lines plowed. The Division of Forestry did the plowing with heavy equipment owned and operated by its branch of Fire Control.

U. S. Forest Service: The U. S. Forest Service in addition to cooperating in the Farm Woodland Management Project has rendered material assistance to the general farm forestry extension program by:

1. Furnishing large quantities of literature - Farmers' Bulletins, charts, leaflets, fire prevention posters, etc.

2. Furnishing radio platters of "Ranger Bill Scott" for use by local radio stations cooperating with the farm foresters.

Soil Conservation Service: The Soil Conservation Service through its field men has cooperated with the county agents in promoting forest demonstration meetings and in encouraging farmers to plant trees on eroding land. It has aided the extension foresters and farm foresters in promoting better practices in harvesting and marketing timber products.

Farm Home Administration: The Extension Service has cooperated with the F. H. A. by visiting farms operated by F. H. A. clients under the tenant-purchase program, for the purpose of making timber estimates and appraisals as a basis for timber sales, and in developing cutting plans to maintain a growing forest.

American Forest Products Industries, Inc.: This organization has given the Extension Service cooperation by:

1. Furnishing six prints of the motion picture "Trees for Tomorrow," which has been assigned for use by the five forestry extension specialists, with one print for the state office.
2. Supplying literature for distribution to 4-H Club and other school children.

North Carolina Pulp Company: By furnishing 363,500 loblolly pine seedlings this company enabled 49 4-H Club members, 98 F. F. A. boys, 8 veterans, and 11 other farmers to start a reforestation program on their home farms.

McManus Cork Project furnished 697 pounds of cork oak acorns for distribution to 4-H Club members and others in 20 counties.

Southeastern Forest Experiment Station - Bent Creek Branch Station cooperated in conducting field meetings and demonstrations for veterans and other farmers from Buncombe, Haywood, and Henderson Counties. These were all-day meetings and covered the research and demonstration projects in farm forestry at the experimental forest.

Champion Paper and Fibre Company furnished field dinners for the groups of veterans and other farmers at the meetings held at Bent Creek Experimental Forest.

Blister Rust Control Office - Bureau of Entomology and Plant Quarantine cooperated with the Extension Service in holding a series of 27 meetings and

motion picture showings featuring forestry and blister rust control in six northwest mountain counties, attended by 2,478 people.

Wilkes Chamber of Commerce added their cooperation by:

1. Sponsoring a forestry field day for sawmill men, with barbecue.
2. Sponsoring a forestry field day for a selected group of 50 farm boys.
3. Sponsoring a 4-H timber thinning contest and providing $175 in prizes.
4. Sponsoring reforestation and purchasing 13,000 pine seedlings for planting by 13 4-H Club boys.

Kiwanis Clubs of Elkin and Mt. Airy sponsored the Surry County 4-H timber thinning contest and provided prizes to the amount of $200.

Lenoir Chamber of Commerce and local wood-using industries sponsored a forestry field day for 4-H Club members in cooperation with the county agents and extension foresters.

Vocational teachers cooperated in the distribution of tree seedlings to F. F. A. boys and in promoting the reforestation program. The extension foresters and farm foresters cooperated with the teachers in conducting meetings and field demonstrations for vocational students and gave special attention to forestry meetings and demonstrations for veteran farm trainees under the training and supervision of the vocational teachers.

Equipment manufacturers and dealers have rendered exceptional cooperation in conducting demonstrations at field meetings showing the use of power chain saws, crosscut saws, and bow saws, and how to fit and maintain such equipment.

Tennessee Valley Authority - Department of Forestry Relations, has given cooperation in two projects:

1. Furnished forest seedlings for free distribution to farmers and

other landowners in the counties draining into the Tennessee River. See body of report for details under Planting.

2. Forestry personnel from the T. V. A. district office, Asheville, have assisted the extension foresters and county agents in making woodland management plans on Unit Test Demonstration farms.

GENERAL MEETINGS:

The extension foresters participated in the following general meetings in which several phases of forestry were given consideration:

Appalachian Section, Society of American Foresters, Raleigh, N. C., January 30-31, 1948.

Southern Pulpwood Conservation Association, Durham, N. C., June 22-23, 1948.

North Carolina Resource-Use Educational Conference, Chapel Hill, N. C., September 3, 1948. R. W. Graeber presented a paper on "Forest Resources and Use in Piedmont North Carolina."

Resource-Use Educational Conference, Jonesboro, N. C., April 6, 1948, for teachers of Lee County. John L. Gray led discussion and conducted a field trip and demonstration on forest thinning, planting, protection, and pruning.

Northern Nut Growers Association, Norris, Tennessee, September 13-15, 1948. John L. Gray attended to gather information on planting and growth of black walnut.

Wilkes County Farmers' Field Day, North Wilkesboro, September 18, 1948. R. W. Graeber participated in presentation of awards in the 4-H Club timber thinning contest.

American Forestry Association, Chattanooga, Tennessee, October 8-10, 1948. R. W. Graeber presented a paper on "Getting the Small Timber Owner to Practice Forestry Through Demonstrations."

North Carolina Forestry Association annual meeting, Raleigh, N. C., November 16-17, 1948.

International Paper Company's "Pulpwood Thinning and Field Day," Wake County, November 17, 1948.

Preparation of Material

Demonstration Outlines: The Program Planning Division requested all subject-matter groups to prepare a series of demonstration outlines covering their respective fields. These outlines were to be compiled into a "County Agents' Guide for Conducting Result Demonstrations, Method Demonstrations, and Educational Meetings." These outlines listed the purpose of the demonstration, the need for the practice demonstrated, time of year to conduct, materials needed, step-by-step procedure, points to bring out in discussion, and references available. The extension foresters prepared the following outlines:

1. Outlines for Field Demonstrations - Method and Result:

   a. Forest Planting
   b. Timber Thinning
   c. Timber Stand Improvement
   d. Forest Pruning
   e. Timber Scaling
   f. Timber Scaling Practice
   g. Selective Cutting

2. Outlines for Indoor Demonstrations for 4-H Clubs:

   a. Tree Identification by Leaf Characteristics
   b. Planting Forest Tree Seedlings
   c. Timber Thinning and Stand Improvement
   d. How to Prepare and Mount a Leaf Collection
   e. How to Prepare and Mount Samples for a Wood Collection

The Division of Program Planning assembled, mimeographed, indexed, and bound these outlines into two looseleaf binders and made them available to all extension personnel. Much favorable comment has been received on these outlines. New personnel, county agents, assistant county agents, and forestry extension specialists have found these outlines very helpful in establishing procedure for conducting meetings and demonstrations.

Contest Cards: The expanded educational and demonstrational program in forestry extension has resulted in the holding of more field meetings and demonstrations than ever before. In conducting field demonstrations we have found that a contest held among those attending serves to drive home the practice demonstrated and stimulate interest and discussion.

To provide for holding contests at demonstrations we developed an all-purpose scoring card for contests in thinning, stand improvement, selective cutting, scaling, or any combination of these practices. Ten thousand copies of this card were printed and made available to county agents and forestry extension specialists. A reprint will be needed shortly to meet the interest created.

Aids in Tree Study for 4-H Clubs: This 14-page mimeographed circular giving a few simple instructions for identifying the more common trees was slightly revised and 20,000 copies printed and assembled. This has proved one of our most popular pieces of extension literature. There is a constant demand for copies in quantity from both county agents and home agents.

Volume Tables: We prepared three volume tables showing the cubic-foot content of loblolly pine, shortleaf pine, and miscellaneous hardwoods. These tables were helpful to county agents and forestry extension personnel in determining the volume of wood left standing after a timber thinning or stand improvement demonstration.

Forest Resources and Industries, Piedmont North Carolina: A tabulation of the forest resources and industries of Piedmont North Carolina covering the 35 counties listed in Area III of the Forest Survey was prepared for the Resource-Use Educational Conference held at Chapel Hill. In addition to the copies furnished for this conference copies were supplied to all county agents and assistant agents of the Piedmont area.

Plan of Work

We prepared a detailed plan of work at the beginning of the Extension year as a basis for promoting greater interest in forestry among timber owners, operators, and users. This plan included a compilation of practices and goals from the various county plans of work. See Plan of Work on file in Raleigh and Washington offices.

In the county plans the agents made an effort to include such work and practices as they thought they could carry out and induce farmers to adopt. Some modification was necessary as the work progressed during the year. However, in spite of necessary changes in both agents and plans the county agents' reports show a substantial portion of their 1948 plans carried out, especially in the major phases of: timber thinning and stand improvement, forest planting, timber estimating and scaling, and marketing. For details see body of report under Projects and Results.

The body of this report is being prepared under two main heads:

I Statistical Data

II Projects and Results

I

STATISTICAL DATA

A summary giving statistical data covering the year's activities will visualize the scope of work undertaken and accomplishments achieved.

A. Data from the Office Records of the Extension Foresters at the State Level

		Graeber	Gray	Total
1.	Days spent in field	119.5	165.5	285.0
2.	Days spent in office	183.5	131.5	297.0
3.	Days annual leave	7.0	11.0	18.0
4.	Holidays taken	5.0	10.0	15.0
5.	Days sick leave	—	1.0	1.0
6.	Visits to - County agents	136	233	369
	Demonstrations	171	73	244
	Timber operators	40	27	67
	Others	53	237	290
7.	Meetings held or participated in at demonstrations and/or in otherwise promoting the program of forestry extension	67	120	187
	Attendance	5,257	6,110	11,367
8.	Counties visited by extension foresters - Total, eliminating duplication	56	66	88
9.	Miles traveled by extension foresters			
	Automobile	16,125	17,596	33,721
	Railroad	—	880	880
	Total all travel	16,125	18,476	34,601
10.	Interviews in office and field	1,362	462	1,824
11.	Official individual letters written	1,717	160	1,877
12.	Circular letters prepared	55	1	56
	Copies sent out	5,326	5	5,331
13.	Subject matter mimeographs written	21	12	33
	Copies sent out	11,240	4,800	16,040
14.	Literature distributed through mail, at meetings, demonstrations, through county agents, 4-H Clubs, etc. - Pieces:			
	a. Bulletins			10,972
	b. Leaflets			4,621
	c. Posters			556
	d. Folders			1,155
	e. Charts			275
15.	Articles written for press - News and subject matter			9
16.	Radio talks made			6
17.	Tree and log sticks placed			131
18.	Civic clubs addressed			10
19.	Woodland examinations made with advice on management, harvest, sale, etc.			207

		Total
20.	Demonstrations conducted in:	
	Selection, marking, and scaling	22
	Timber thinning	43
	Forest planting	3
	Forest pruning	8
	Tree identification	4
	General forest management	12
21.	Woodland management plans on:	
	Unit test demonstration farms	9
	Other farms	3
22.	Timber selected, marked and scaled by Extension foresters - for sale	
	a. Projects	16
	b. Volume - Board feet	1,529,974
	Cords	245
23.	Timber cruised or estimated by extension foresters - for sale	
	a. Projects	7
	b. Volume - Board feet	2,709,957
	Cords	360
24.	Timber marked by extension foresters for home use	
	a. Projects	1
	b. Volume - Board feet	22,000
25.	Reported sales on which extension foresters gave assistance	
	a. Number	10
	b. Volume - Board feet	2,141,423
	c. Value - Dollars	56,875
26.	Forest plantings inspected	36
27.	Farmers, 4-H Club members and F. F. A. boys planting forest trees:	
	a. Counties in which plantings were made	79
	b. Individuals planting trees	705
	c. Tree seedlings planted	2,141,305
28.	Cork oak plantings	
	a. Counties	20
	b. Pounds of acorns planted	697
29.	Christmas tree plantings	
	a. Individuals planting trees	3
	b. Trees planted (red cedar)	1,500
30.	4-H Club camps given forestry instruction	2
	Counties participating	2
31.	Veterans farm training groups	
	a. Indoor meetings	15
	Attendance	933
	b. Field meetings and demonstrations	37
	Attendance	2,070
32.	Motion picture showings: Number	66
	Attendance	5,061

Distribution of Work

County Agents: County agents (white) in all 100 counties and 34 Negro agents out of a total of 43 included one or more phases of forestry extension in their 1948 plans of work. In these plans they indicated that they would devote time to forestry as follows: White agents - 3,036 days; Negro agents - 225.5 days. The combined reports for the year show: White agents in 100 counties devoted 2,634.3 days to forestry and Negro agents in 40 counties devoted 207.9 days to this work. The white agents fell short of their goal by 401.7 days or slightly more than 13 per cent. The Negro agents were short by 17.6 days or 7.8 per cent. The results in the various counties were in keeping with the interest of the agents and farmers, and with the forest conditions, as well as with the time each agent devoted to the forestry phase of his program.

Extension Foresters: During the year the extension foresters made one or more personal visits to a total of 88 counties. Graeber visited 56 counties; Gray, 66. Thirty-four counties were visited by both Graeber and Gray. See Map I attached. The visits to the various counties were for the purpose of contacting county agents, farmers, timber operators, and others in the interest of farm forestry problems. The extension foresters spent a total of 285 days in the field, making 369 visits to county agents, 244 visits to demonstrations, 67 visits to timber operators, and 290 visits to other farmers and interested persons. One hundred eighty-seven meetings were held or participated in, with a total attendance of 11,367. See statistical section for more details.

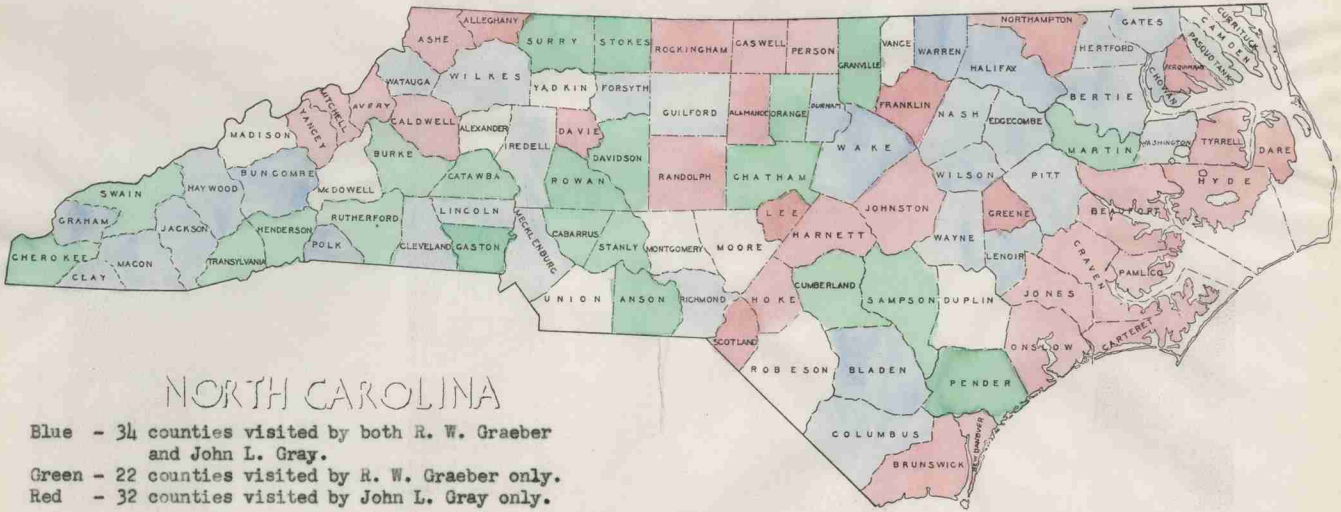
Farm Foresters: The farm foresters served 30 counties, see Map II, under the Farm Woodland Management Project. This project as such was discontinued effective June 30, 1948.

Map I

COUNTIES IN WHICH FIELD CONTACTS WERE MADE - 1948

By R. W. Graeber, In Charge, Forestry Extension
John L. Gray, Assistant Extension Forester

All Phases of Forestry Extension Work



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Blue - 34 counties visited by both R. W. Graeber and John L. Gray.
Green - 22 counties visited by R. W. Graeber only.
Red - 32 counties visited by John L. Gray only.

Total counties visited by Graeber - 56
Total counties visited by Gray - 66

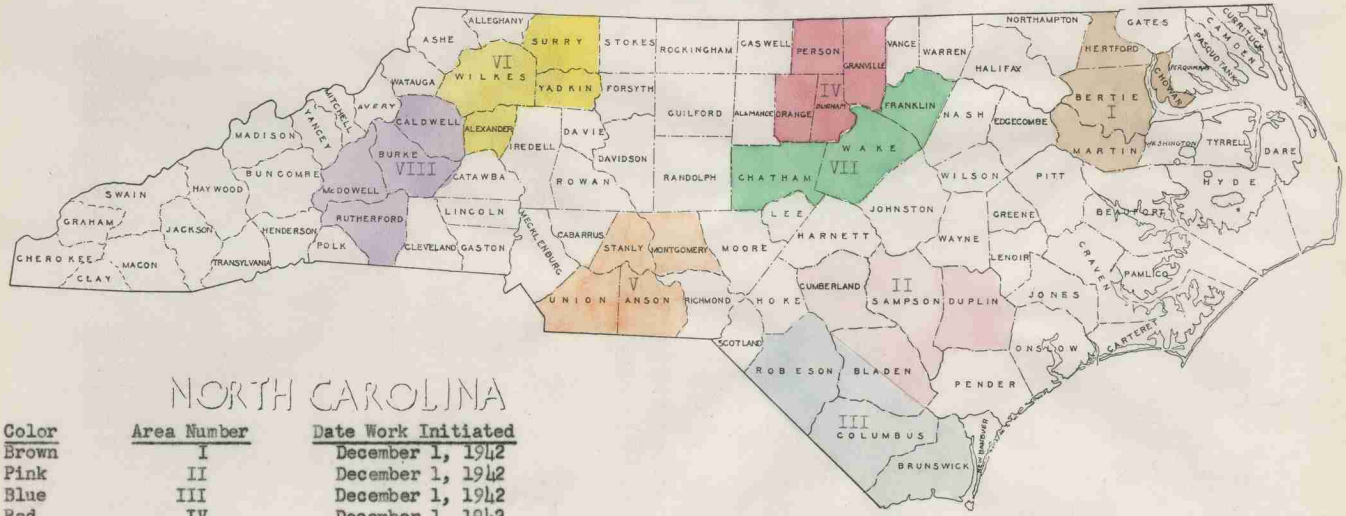
Grand total counties visited by extension foresters from the state office - 88

Map II

FARM WOODLAND MANAGEMENT PROJECT - 1948

North Carolina Agricultural Extension Service
U. S. Forest Service, Cooperating

Showing Areas and Counties



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Color	Area Number	Date Work Initiated
Brown	I	December 1, 1942
Pink	II	December 1, 1942
Blue	III	December 1, 1942
Red	IV	December 1, 1942
Orange	V	December 1, 1942
Yellow	VI	December 1, 1942
Green	VII	October 1, 1943
Purple	VIII	November 1, 1943

All of these projects were discontinued as of June 30, 1948.

Forestry Extension Specialists: With the reorganization of the forestry extension work, effective July 1, 1948, forestry extension specialists were assigned to the various Extension Service districts. See Map III. See further reference in opening section of this report.

II

PROJECTS AND RESULTS

Practical education in which the approach is made through educational demonstrations, learning by doing, encourages farmers, 4-H Club members, and others to learn and apply new or improved methods of doing a definite job. Using this basis we developed and aided in carrying out a program of forestry built around eight major activities: A. Timber Management, B. Forest Planting, C. Forest Protection, D. Erosion Control, E. Timber Scaling, F. Marketing, G. 4-H Clubs, H. Special Meetings.

With this outline, we will, through the use of maps, tables, etc., present a picture of the work in operation throughout the state and give some of the methods used and results accomplished.

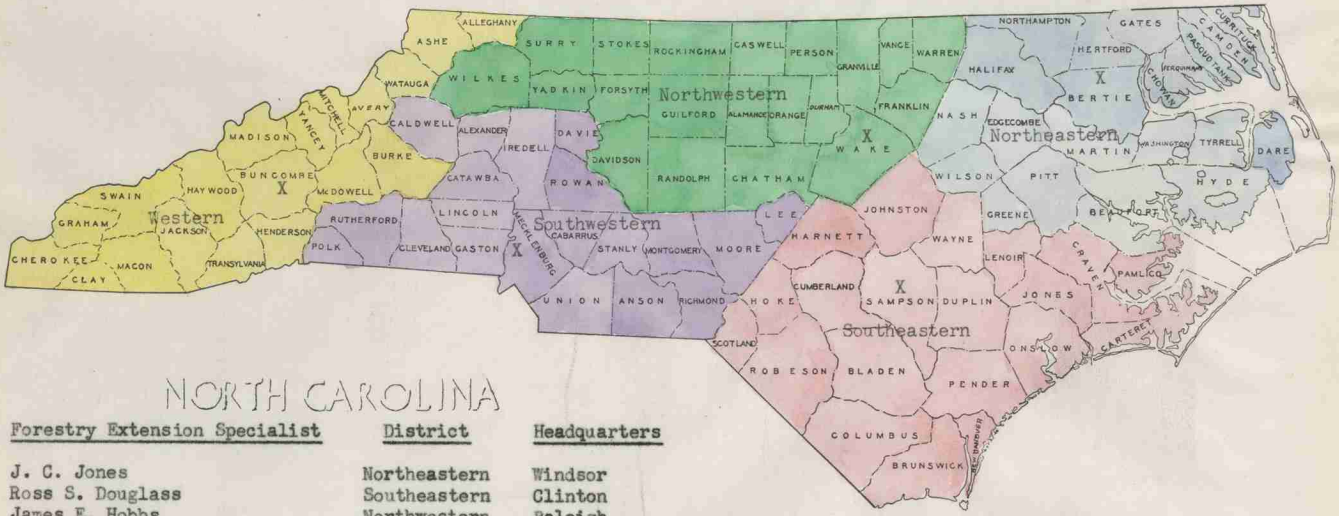
A. Timber Management:

Such phases of management as thinning and stand improvement, selective cutting, pruning, management plans, woodland examinations are included under this heading.

1. Thinning and Stand Improvement: In their plans of work for 1948, white county agents set their goal to assist 1,596 farmers and 219 4-H Club members with this type, largely of the visual or method type. The purpose was to show how to do the job and encourage farmers to make timber thinning a regular practice. The 1948 reports from these agents show 94 counties with 3,369 farmers making improved thinnings, weedings or prunings of forest trees. Likewise, the Negro agents planned to assist 979 farmers and 54 4-H Club members with similar projects. Reports from 31 Negro agents show 787 farmers making improved thinnings, weedings, or prunings of forest trees following their instructions and advice.

Map III

EXTENSION DISTRICTS
SHOWING TERRITORY ASSIGNMENT AND HEADQUARTERS
FOR FORESTRY EXTENSION SPECIALISTS 1/



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Forestry Extension Specialist	District	Headquarters
J. C. Jones	Northeastern	Windsor
Ross S. Douglass	Southeastern	Clinton
James E. Hobbs	Northwestern	Raleigh
George W. Smith	Southwestern	Charlotte
John E. Ford	Western	Asheville

Field contacts have been made by forestry extension specialists in all counties of their respective districts.

1/ Forestry extension on a district basis was initiated July 1, 1948.

This type of work provides spare-time employment for both landlord and tenant. The harvest can be converted into either fuel wood or pulpwood. Fuel wood cutting is a necessary farm chore. When done systematically it can serve two purposes: Supply fuel and improve the forest. On-the-ground assistance was given by extension foresters to county agents in handling many demonstrations of this type. Literature, demonstration outlines, instructions, etc., pertinent to this type of work were furnished to all county agents.

2. Selective Cutting: In their 1948 plans the white county agents proposed to assist 929 farmers and 43 4-H Club members in making selective cuttings in timber of commercial size and quality. Ninety white agents report giving assistance to 2,796 farmers in this type of work. Likewise, Negro agents planned assistance to 157 adult farmers and 3 4-H Club boys, and 39 of these agents report having assisted 922. This is a good example of agents, both white and Negro, doing more than originally planned.

   The demand for lumber and other timber products continued strong and the prices high. Many farmers wanted to cash in much of their timber, often at a sacrifice in the growing younger stands. We were not able to handle all requests for assistance from county agents and farmers for technical assistance. However, in addition to many demonstrations teaching the methods of selection and selling the idea of this type of harvest, the two extension foresters rendered service in selection, marking and scaling to 17 farmers. Scaling and marking totaled 1,551,974 board feet and 245 cords. In addition, cruises or estimates were made for 7 farmers covering 2,710,000 board feet of sawtimber and 360 cords of pulpwood. In these cases partial cutting to a high diameter limit was recommended. In areas served by farm foresters, where more direct assistance, supervision, and guidance could be given, much good work in selective cutting was accomplished. A more detailed report of the work of the farm foresters will be given under Marketing.

3. Pruning: To stimulate interest in care and management of forest plantings we have encouraged farmers to prune their young pines when they reach a size of 4 to 5 inches d. b. h. for the purpose of growing better-quality timber. These plantings are usually so uniform in growth that most people will prune all trees to a height of 6 to 8 feet and later prune only the selected trees to be left for the final crop. This much pruning is not expensive and serves as a good interest creator. The extension foresters conducted 8 demonstrations in pruning. The forestry extension specialists who are more constantly in the field conducted many more. After participating in these demonstrations many farmers have secured pruning saws and carried on the program. One farmer in Randolph County pruned 10 acres. Many more prunings are visible as you travel the highways.

4. Management Plans: The woodland on any well-organized farm should be definitely planned to promote full development, growth, and wise use. To promote better management of farm woodland we have given assistance in developing management plans as follows:

a. Woodland Management Plans for all of the farmers cooperating under the Unit Test Demonstration farm program are being made as rapidly as possible. This is a cooperative project in which the Extension Service and the T. V. A. are participating. First, a simple outline on one sheet was prepared for use in making these plans, which provide: (1) An inventory showing area, type and condition of the woodland, history as to fire and grazing damage, (2) a determination of what is needed to bring the woodland into a productive condition, (3) a determination of the farm needs and whether there will be a deficiency or a surplus for market, (4) a five-year working plan fitted to the woodland condition, the farmer's need, and the labor available for seasonal work in the woods.

These plans are made by the assistant county agents with the help of the forestry extension specialist or a forester from the T. V. A. Mr. Ford, our forestry extension specialist, has spent the major portion of his time since being assigned to the Western District on this type of work. To November 30, 1948, 248 of these woodland management plans had been developed.

We expect to follow up and give further assistance on the carrying-on of these plans from year to year.

b. Balanced Farming Program: Mr. Gray was assigned to work with the county agents and farmers cooperating under the Balanced Farming Program in Nash County. Considerable ground work has been done on a number of farms, much of which has been in creating a definite interest in better management of the woodland. Many of the farmers under this program have some good timber, and at first their principal interest was to market their timber at current high prices. With a few Mr. Gray has been able to lay a good foundation, and we anticipate some excellent results as this project progresses. A good example of balanced farming is shown by the experience of a Nash County farmer, Mr. E_____:

One of the major aims of the extension forestry program has been to convince farmers that they could keep themselves and their help busy the whole year round by working their own woodland during the slack season. The extension foresters have shown through countless method and result demonstrations that good wages can be made from systematic harvesting and careful selling of woods products.

Mr. E_____, a member of the newly formed Balanced Farming Association in Nash County, decided to see if he could make his farming operation a year-round paying proposition. The assistant extension forester and the agent working for the Balanced Farming Association went over his farm woods with him and then helped him to select trees which needed cutting on about 20 acres. The pines on this 20 acres were not old although they were of sawtimber size, but they needed thinning out so that rapid growth would continue.

After the trees were marked, Mr. E____ took his regular hired help and cut the marked trees into sawlogs. He contracted with a sawmill operator to cut the logs into lumber on a custom basis and made arrangements to sell this lumber to another firm who agreed to buy it and pay him $45 per thousand board feet at his home farm.

Mr. E____ and his hired help snaked the logs to this mill with farm equipment. They were careful in cutting the marked trees not to damage those which had been reserved for growing stock. As a result, they left a good stand of pines on the 20 acres in better growing condition than they were in before the thinning was made.

Mr. E____ was able to pay his regular help good wages throughout the winter months. He reports that he and his hands kept busy every day of the year. He kept careful records of all expenses and income. He found that he cleared $25 per thousand for the poor-quality and crowded trees which were removed in this saw-timber thinning. In approximately two months of the normal slack season he cleared $1,500 from the harvest and sale of 60,000 board feet of lumber cut from these trees.

Mr. E____ planned to work through another part of his woodland this past winter. However, several of his neighbors liked what he had done and contracted him and his hired help to log their woods the same way. They have kept him so busy that he has not had time to get to his own timber this past winter. His hired help is sticking right with him because he is one of the few farmers in the county who can keep them busy at good wages throughout the entire year.

5. Woodland Examinations: At the request of woodland owners and county agents the extension foresters made 207 woodland examinations for the purpose of analyzing the problems and determining the possibilities of a management program. Many of these developed into future working projects.

A good example of what often follows after making an initial woodland examination and "selling" the idea of forest management is shown by a report by Assistant Extension Forester Gray covering work with a Negro farmer in Wilson County. We quote this, as follows:

"Charlie R____ of Wilson County, a colored tenant farmer with a large family, had been working hard and saving his money for several years. He had his eye on an 83-acre tract of land located near the farm on which he was living. This land had not been farmed and had no improvement on it, but Charlie knew that it was good land and felt that he could make a good farm out of it.

"When Charlie and his hard-working wife had accumulated $2,000, they made a deal to buy the 83 acres for $3,500 and put up the $2,000 as a down payment. They borrowed the remaining $1,500. They still continued

farming as tenants on the original place; but, during the slack season, Charlie and his sons began clearing up the front half of the 83 acres to get it ready for crops.

"This front half had been heavily cut over, but a number of scrubby pines and hardwoods had been left. Charlie and his boys cut these trees into cordwood lengths and stacked the wood along the front side of the place on the highway. They began selling a considerable amount of this wood for $8 per cord at the roadside and were thus paid for their work in cleaning up the land.

"In looking over the land before buying, Charlie noticed that the back half of the place had a fairly heavy stand of large and small pines. He called on C. W. Foster, Wilson County's Negro county agent, for advice in handling this woods. Foster told Charlie to get some of his neighbors together, and they would go over the situation with the helpof a forester. All of them would thus learn something about handling timber, and Charlie would get some good individual advice.

"Foster contacted the assistant extension forester, and a meeting was held in January. At this meeting the forester taught the colored farmers to scale standing timber and also demonstrated how to select trees which were ready for sale and how to make a satisfactory sale. Charlie was impressed and asked the forester to come back and give him some help when he had time.

"Later on in the spring, the forester and the Negro agent visited Charlie again; and together they marked and scaled the timber on the back half of the 83 acres. The stand was made up of old scattered pines, many of which were showing signs of heart rot but still had a considerable percentage of sound material in them. These trees, which had been left behind in an earlier cutting, had seeded in a thick stand of younger pines, many of which were of sawtimber size but were not ready for cutting. Some of these younger trees were being held back by the old trees and were having a hard time getting their share of the sunlight and moisture.

"The old trees were the only ones the group marked for sale. When the job was completed, the volume in the older trees amounted to 178,461 board feet. The forester went over the details of a simple contract form for selling marked timber and furnished Charlie with copies and a list of possible buyers.

"Charlie contacted several buyers, showed them over the timber, and invited them to make him an offer for the marked trees. He did not make a sale until July 22, but at that time he received $3,500 cash for the marked trees. This amounted exactly to the price he had paid for the entire 83 acres. The buyer had considerable experience in cutting marked-and-scaled timber because Charlie's was the fourth tract he had bought in the past three years.

"Charlie R_____ thus paid for his farm and had his $2,000 down payment

B. Data from Weekly Field Reports from Forestry Extension Specialists. For five-month period, July 1 - November 30, 1948.

Type of Data	Specialists					
	Ford	Jones	Douglass	Hobbs	Smith	Totals
Time: Days in field	77	81	76	81	100	415.0
Days in office	36	35	50	39.5	27	187.5
Days annual leave	12	12	1	7.5	--	32.5
Holidays	3	3	4	3	4	17.0
Days on sick leave	3	--	--	--	--	3.0
Visits to: Agents	82	65	83	95	147	472
Demonstrations	123	21	59	75	3	281
Others	46	84	84	61	378	653
Meetings: Number	20	47	47	10	22	146
Attendance	956	643	2,656	1,674	620	6,649
Number of letters	157	26	104	37	232	556
Number of conferences	41	9	101	79	87	317
Number of news articles	--	1	4	--	14	19
Mileage - By auto	8,760	7,395	7,903	8,977	8,813	41,848

Comment:

This work on the basis of Extension districts was initiated July 1, 1948. The type of report form available for the early months was not sufficient to get good statistical data covering the project. The specialist assigned to each district visited each county, conferring with the county agents on plans for conducting a more intensified program of forestry extension and began putting these plans into operation. See Map III.

C. Data from Annual Reports, 1948, of White County Agents

Forestry Activities and Accomplishments

	Results	Number of Counties Reporting
a. Forest Conservation		
1. Days devoted to line of work by:		
(a) Home demonstration agents	4.0	3
(b) Agricultural agents	2,279.0	100
(c) State extension workers	390.7	85
2. Number of communities in which work was conducted this year	1,007	100
3. Number of voluntary local leaders or committeemen assisting this year	1,052	78
4. Number of farmers assisted this year		
(a) In reforesting new areas by planting with small trees	1,419	83
(b) In making improved thinnings, weedings, or prunings of forest trees	3,369	94

	Results	Number of Counties Reporting
(c) With selection cuttings	2,796	90
(d) With production of naval stores ...	61	2
(e) With production of maple syrup products	1	1
(f) In timber estimating and appraisal.	1,862	86
5. Number of farmers cooperating this year in prevention of forest fires ..	35,880	76
b. Forest Marketing and Distribution		
1. Days devoted to line of work by:		
(a) Agricultural agents	351.3	69
(b) State extension workers	31.0	15
2. Number of communities in which work was conducted this year	628	69
3. Number of voluntary local leaders or committeemen assisting this year	582	48
4. Number of established cooperatives assisted during the year	3	3
5. Number of members in the cooperatives assisted during the year	61	3
6. Value of products sold or purchased by cooperatives assisted during the year	$221,700	3
7. Number of farmers or families not members of cooperatives assisted during the year	3,077	63
8. Value of products sold or purchased by farmers or families involved in the preceding question	$2,312,316	63
c. Forestry with 4-H Clubs		
1. Number of boys - Enrolled	1,109	73
Completing projects ...	624	69
2. Number of girls - Enrolled	46	9
Completing projects ..	15	6
3. Number of acres involved in completed projects	3,949.2	69

Comment:

The 1948 reports show county agents (white) in 100 counties and home agents in 3 counties devoting a total of 2,634 days to forestry work, an average of 26.34 days per county. This total time is supposed to include the work of the eight farm foresters employed for the first seven months of this year. The job of aiding 244,000 farm woodland owners in the development and management of more than 9 million acres of forest is great. We need assistant county agents (foresters) in 58 individual counties and 20 groups of two or more smaller counties.

D. Data from Annual Reports, 1948, of Negro County Agents

Forestry Activities and Accomplishments

	Results	Number of Counties Reporting
a. Forest Conservation		
1. Days devoted to line of work by:		
(a) Home demonstration agents	4.0	2
(b) Agricultural agents	173.2	40
(c) State extension workers	12.5	9
2. Number of communities in which work was conducted this year	193	40
3. Number of voluntary local leaders or committeemen assisting this year	339	38
4. Number of farmers assisted this year		
(a) In reforesting new areas by planting with small trees	20	7
(b) In making improved thinnings, weedings, or pruning of forest trees	787	31
(c) With selection cutting	922	39
(d) In timber estimating and appraisal.	364	28
5. Number of farmers cooperating this year in prevention of forest fires	4,365	31
b. Forest Marketing and Distribution		
1. Days devoted to line of work by:		
(a) Agricultural agents	30.7	17
(b) State extension workers	1.0	1
2. Number of communities in which work was conducted this year	58	17
3. Number of voluntary local leaders or committeemen assisting this year	65	14
4. Number of farmers or families not member of cooperatives assisted during the year	220	17
5. Value of products sold or purchased by farmers or families involved in the preceding question	$82,342	17
c. Forestry with 4-H Clubs		
1. Number of boys - Enrolled	52	9
Completing projects ...	46	8
2. Number of acres involved in completed projects	53	8

Comment:

Forty Negro agents and two home agents report some forestry work in 1948, devoting 207.9 days to this phase of extension work, or an average of approximately 5.2 days per county reporting. In addition, these agents had the assistance of forestry specialists for 13.5 days.

back, with which he plans to buy a good tractor and equipment to go with it. He is also counting on working the tops of the cut trees into wood and selling it for additional income. He can thin out his young stand of sawtimber to get lumber to build his house and outbuildings when he gets ready. His young trees are free to grow more rapidly than before; and Charlie would be the first to admit that, although he is middle-aged, he, too, has made some growth this past year."

B. Forest Planting:

With so much idle land not restocking to trees from natural seed sources it becomes necessary to resort to artificial planting. This year, 1948, has seen a greater interest shown by farmers, 4-H Club members, and F. F. A. students in reclaiming some of this idle land. This applied not only in open fields but in some of the more heavily cut-over woodland which would not reseed.

1. Planting Forest Trees for Timber: We have cooperated with the Division of Forestry, North Carolina Department of Conservation and Development, in promoting forest planting and the distribution of forest planting stock. The Division operates two state nurseries for the production of tree seedlings of the major species of pine, yellow poplar, black locust, red cedar, black walnut, ash, etc. The Division of Forestry also has a working agreement with the Tennessee Authority under which the T. V. A. produces seedlings for distribution to farmers and other landowners in fifteen counties draining into the Tennessee River, on a free basis.

The extension foresters and county agents cooperate in supplying application blanks to farmers, giving information on kind of trees to plant, methods of planting, etc. At the end of the planting season the Division of Forestry reports to the Extension Service the results of our effort by furnishing a list of all farmers who secured trees on applications furnished through the Extension Service. The report for the 1947-48 planting season shows that as a result of the extension program 446 individuals or firms in 66 counties secured 1,714,605 trees from the state nurseries. This is an increase over the previous year of 35 per cent in number of plantings and 94 per cent in total seedlings planted. See Map IV and Table II. Also, 217 farmers in 15 counties secured a total of 426,600 trees produced by the T. V. A. nursery. This shows an increase over the previous year of 429 per cent in number of plantings and 268 per cent in total seedlings planted. See Map V and Table III.

The above does not show the full results of planting by farmers. Many farmers, as well as other landowners, contacted the State Division of Forestry direct in securing application blanks. Also, the Soil Conservation Service distributed quantities of trees to farmers who are cooperating with Soil Conservation districts.

The county agents cooperate with all agencies. The combined reports

Table I

FARM FOREST PLANTINGS

North Carolina Agricultural Extension Service
North Carolina Division of Forestry
Tennessee Valley Authority, Cooperating

Source of Planting Stock[1/]

Nurseries	Number of Seedlings	Number of Individual Plantings
N. C. State Forest Nurseries	1,714,605	446
T. V. A. Nurseries		
For timber growing and erosion control	426,600	217
For Tree Crop Tests - Black walnut	100	42
Totals	2,141,305	705

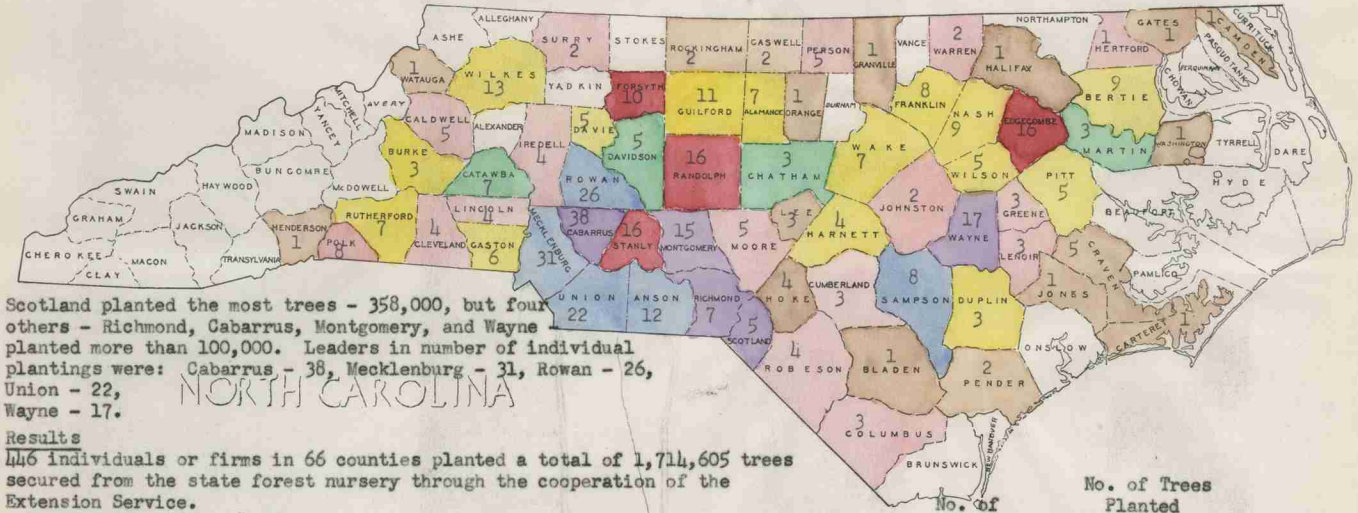
1/ Applications for trees shown above were made through the cooperation of the county agents and the forestry extension office and transmitted to the North Carolina Division of Forestry, which handles the distribution of trees from all public nurseries.

Map IV

DISTRIBUTION OF FOREST TREES FROM STATE FOREST NURSERY - SEASON 1947-48

Through Cooperation of North Carolina Agricultural Extension Service

By Counties, Number of Plantings, and Number of Trees



Scotland planted the most trees - 358,000, but four others - Richmond, Cabarrus, Montgomery, and Wayne planted more than 100,000. Leaders in number of individual plantings were: Cabarrus - 38, Mecklenburg - 31, Rowan - 26, Union - 22, Wayne - 17.

NORTH CAROLINA

Results

446 individuals or firms in 66 counties planted a total of 1,714,605 trees secured from the state forest nursery through the cooperation of the Extension Service.

Loblolly pine	- 1,314,850
Slash pine	- 196,350
Shortleaf pine	- 113,500
Black locust	- 36,950
Longleaf pine	- 36,405
White pine	- 10,000
Yellow poplar	- 3,300
Red cedar	- 1,500
Black walnut	- 1,350
White ash	- 350
Cork oak	- 50

The figures in counties indicate the number of individual plantings in each county represented.

Color	No. of Counties
Purple	5
Blue	5
Red	4
Green	4
Yellow	15
Pink	16
Brown	17

No. of Trees Planted Per County	
Above	100,000
50,000 -	99,999
25,000 -	49,999
20,000 -	24,999
10,000 -	19,999
5,000 -	9,999
Less than	5,000

Table II

FOREST TREES PLANTED IN NORTH CAROLINA BY FARMERS - SEASON 1947-48
Through Cooperation of North Carolina Agricultural Extension Service

North Carolina Agricultural Extension Service
North Carolina Division of Forestry, Cooperating

Planted by Farmers
on Private Land

Trees from Nurseries Operated by N. C. Division of Forestry

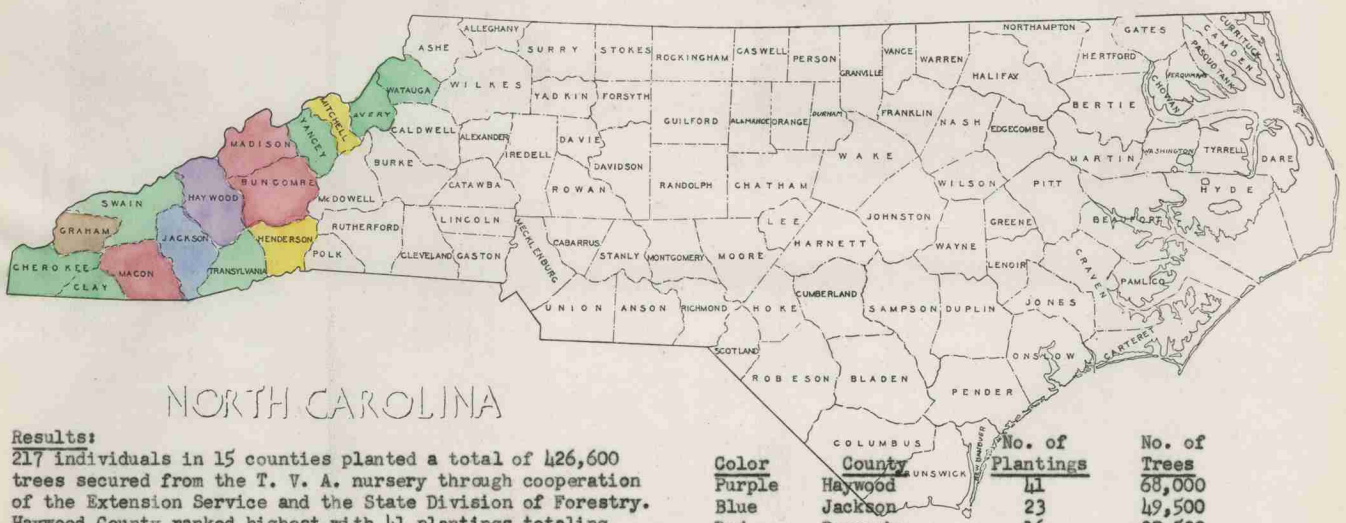
County	Plantings	Number of Trees by Species												Totals
		Pines					Red Cedar	Yellow Poplar	Black Locust	White Ash	Black Walnut	Cork Oak		
		Loblolly	Shortleaf	Longleaf	White	Slash								
Alamance	7	9,500	500											10,000
Anson	12	54,500		1,000										55,500
Bertie	9	13,700												13,700
Bladen	1					1,000								1,000
Burke	3		2,000		10,000									12,000
Cabarrus	38	106,100	12,000			500		1,000	500					120,100
Caldwell	5		9,000											9,000
Camden	1	1,000												1,000
Carteret	1	1,000		1,000										2,000
Caswell	2	1,000	2,000											3,000
Catawba	7	500	19,500											20,000
Chatham	3	23,500												23,500
Cleveland	4	3,100	6,000											9,100
Columbus	3	8,500												8,500
Craven	5			500					3,800					4,300
Cumberland	3	7,000												7,000
Davidson	5	20,500	1,000	3,000										24,500
Davie	5	7,550	8,000						1,500	350				17,400
Duplin	3	7,000		500					3,000		50			10,550
Edgecombe	16	36,000					1,000							37,000
Forsyth	10	1,250	19,000					2,000	5,000					27,250
Franklin	8	11,000												11,000
Gaston	6	11,000												11,000
Gates	1	4,000												4,000
Granville	1	4,000												4,000
Greene	3	4,500		1,000										5,500
Guilford	11	10,500	1,000	2,000					3,000					16,500
Halifax	1	2,400		600										3,000
Harnett	4	10,000				1,000								11,000
Henderson	1								4,000					4,000
Hertford	1	6,000												6,000
Hoke	4	3,600		1,000										4,600
Iredell	4	4,000	1,000											5,000
Johnston	2	4,800		200										5,000
Jones	1	4,000												4,000
Lee	3	500		1,500										2,000
Lenoir	3	7,500												7,500
Lincoln	4	2,000	3,000											5,000
Martin	3	20,000												20,000
Mecklenburg	31	60,500	3,500								500	50		63,550
Montgomery	15	101,000							5,000					106,000
Moore	5	5,000		1,000										6,000
Nash	9	15,500		1,500										17,000
Orange	1	1,000												1,000
Pender	2	2,000												2,000
Person	5	6,000												6,000
Pitt	5	8,300				850			1,600					10,750
Polk	8	5,500	2,000											7,500
Randolph	16	33,500												33,500
Richmond	7	169,000		13,000										182,000
Robeson	4	5,000												5,000
Rockingham	2	1,000									500			1,500
Rowan	26	51,700		500			500							52,700
Rutherford	7	7,100	3,000					300	3,000					13,400
Sampson	8	59,950		2,000					500					62,450
Scotland	5	182,000	5,000			171,000								358,000
Stanly	16	28,900												28,900
Surry	2		5,000						500					5,500
Union	22	51,000		5										51,005
Wake	7	8,400		1,500					3,500					13,400
Warren	2	6,500												6,500
Washington	1			600										600
Watauga	1								50		300			350
Wayne	17	81,000		4,000		20,000			1,000					106,000
Wilkes	13		12,000						1,000					13,000
Wilson	5	13,500				2,000								15,500
Totals	446	1,314,850	113,500	36,405	10,000	196,350	1,500	3,300	36,950	350	1,350	50		1,714,605

Map V

Forest Trees Planted by Farmers on Tennessee River Watershed - Season 1947-48

Through Cooperation of North Carolina Agricultural Extension Service
State Division of Forestry and Tennessee Valley Authority
Trees from T. V. A. Nursery

By Counties, Number of Plantings, and Number of Trees



NORTH CAROLINA

Results:

217 individuals in 15 counties planted a total of 426,600 trees secured from the T. V. A. nursery through cooperation of the Extension Service and the State Division of Forestry. Haywood County ranked highest with 41 plantings totaling 68,000 trees.

In addition to farmer plantings: 6 industrial plantings - 69,000, and 1 municipality planting - 7,000.

The supply of trees was not sufficient to meet the demand.

Color	County	No. of Plantings	No. of Trees
Purple	Haywood	41	68,000
Blue	Jackson	23	49,500
Red	Buncombe	16	37,500
	Madison	8	36,500
	Macon	20	35,000
Green	Swain	15	29,500
	Cherokee	15	24,500
	Watauga	12	24,500
	Yancey	17	23,500
	Clay	7	23,000
	Transylvania	9	21,000
	Avery	13	20,100
Yellow	Mitchell	5	14,000
	Henderson	8	11,000
Brown	Graham	8	9,000
Totals	15	217	426,600

Table III

FOREST TREES PLANTED ON DIRECT COOPERATING PROJECTS IN NORTH CAROLINA

North Carolina Agricultural Extension Service
North Carolina Division of Forestry
Tennessee Valley Authority, Cooperating

Planted by Farmers on Private Land in Valley Counties

Trees from T. V. A. Nursery - Spring of 1948

County	Number Plantings	Number of Trees by Species				Totals
		Shortleaf Pine	White Pine	Black Locust	Yellow Poplar	
Avery	13	500	16,500	500	2,600	20,100
Buncombe	16	12,500	21,000	2,000	2,000	37,500
Cherokee	15	21,500	1,500	1,500		24,500
Clay	7	22,500			500	23,000
Graham	8	3,500	1,500		4,000	9,000
Haywood	41	7,000	52,500	1,000	7,500	68,000
Henderson	8	1,000	9,000		1,000	11,000
Jackson	23	5,000	42,500	500	1,500	49,500
Macon	20	21,000	12,500	500	1,000	35,000
Madison	8	18,500	12,500	3,000	2,500	36,500
Mitchell	5		11,000		3,000	14,000
Swain	15	17,500	6,000	500	5,500	29,500
Transylvania	9	6,000	14,500	500		21,000
Watauga	12		21,000		3,500	24,500
Yancey	17	19,500			4,000	23,500
Totals	217	156,000	222,000	10,000	38,600	426,600

of 83 white agents show assistance to 1,419 farmers in reforesting new areas by planting trees. Seven Negro agents report assisting 20 farmers with forest plantings.

Counties leading in the 1948 farm forest planting program with the number of trees planted were: Scotland - 358,000, Richmond - 182,000, Cabarrus - 120,100, Richmond - 106,000, and Wayne - 106,000. However, leading in the number of individuals planting trees we find the counties having more than 20 plantings were: Haywood - 41, Cabarrus - 38, Mecklenburg - 31, Rowan - 26, Jackson - 23, Union - 22, Macon - 20. There were other counties having 15 or more plantings per county.

2. Christmas Tree Plantings: Due to the failure in germination and further trouble at the nursery the red cedar supply was almost a blank. We were able to secure only 1,500 trees for 3 4-H Club Christmas tree plantings.

3. Black Walnut Planting: Only 4 individual farmers or club members were able to secure a total of 1,350 black walnut seedlings from the state nursery. The demand for these trees fluctuates so much that the nursery will not risk planting many nuts. Many farmers and club members have been encouraged to plant nuts direct rather than reset seedling trees. Of course, we cannot get reports on the results of the direct-nut planting.

With this season distribution of budded black walnut trees through cooperation of the Tennessee Valley Authority has been concluded. Under this cooperative program of "Tree Crop Field Tests and Demonstrations" we furnished 100 budded black walnut trees (Thomas variety) to 42 farmers in 5 counties - Avery, Buncombe, Graham, Henderson, and Transylvania - for planting as demonstrations in better-nut production. See Map VII and Table V.

4.. Cork Oak Plantings: Through the cooperation of the McManus Cork Project sponsored by the Crown Cork and Seal Company, the Extension Service continued the project in planting cork oak acorns on a semi-experimental basis to determine if cork oak could be established under general farm conditions. A total of 697 pounds of acorns were distributed by agents in 20 counties. In most cases these acorns were given to 4-H Club members in lots of one-half pound each. Each club member was given a card with instructions on how to plant and care for cork oak. About October 1, the director of the McManus Cork Project sent a letter with a report card to each club member asking for information on results - Number of acorns planted, Number of living trees, Height of the tallest tree. There were many failures, but quite a few reported good results. See Map VI and Table IV.

C. Forest Protection

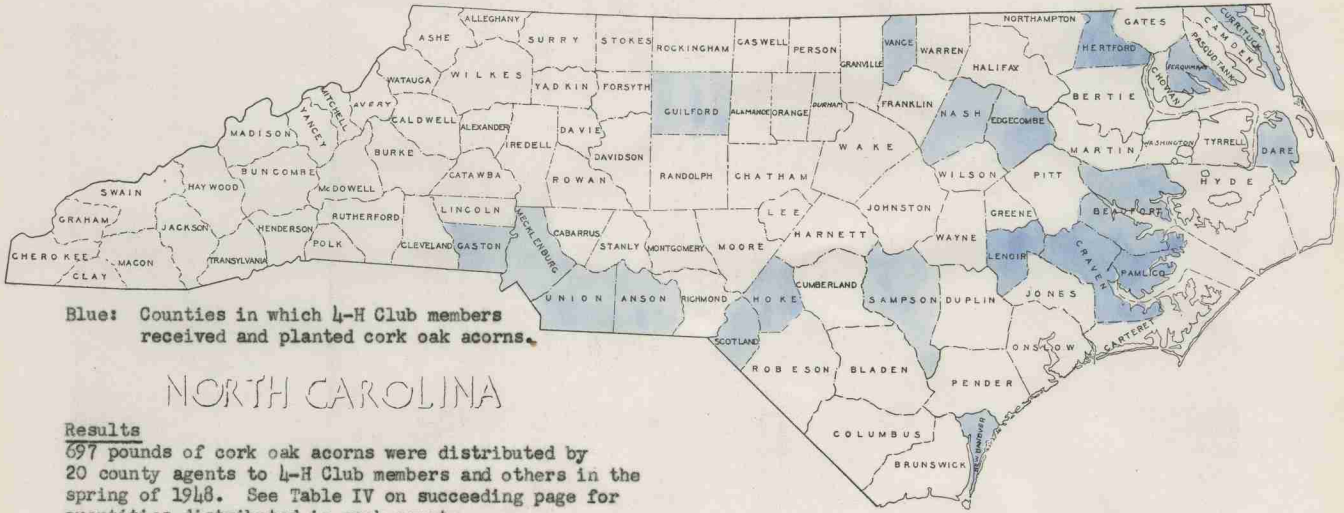
Protection of the forests from fire, disease, and insects is of prime importance. The average timber owner can take care of the usual insects and diseases through systematic cutting of affected trees. Fire is more of a neighborhood problem, requiring community cooperation.

Map VI

Cork Oak Plantings - Season 1947-48

Under Supervision of North Carolina Agricultural Extension Service
With the Cooperation of the McManus Cork Project

By Counties



Blue: Counties in which 4-H Club members received and planted cork oak acorns.

NORTH CAROLINA

Results

697 pounds of cork oak acorns were distributed by 20 county agents to 4-H Club members and others in the spring of 1948. See Table IV on succeeding page for quantities distributed in each county.

Table IV

CORK OAK ACORN DISTRIBUTION

North Carolina Agricultural Extension Service
McManus Cork Project, Cooperating

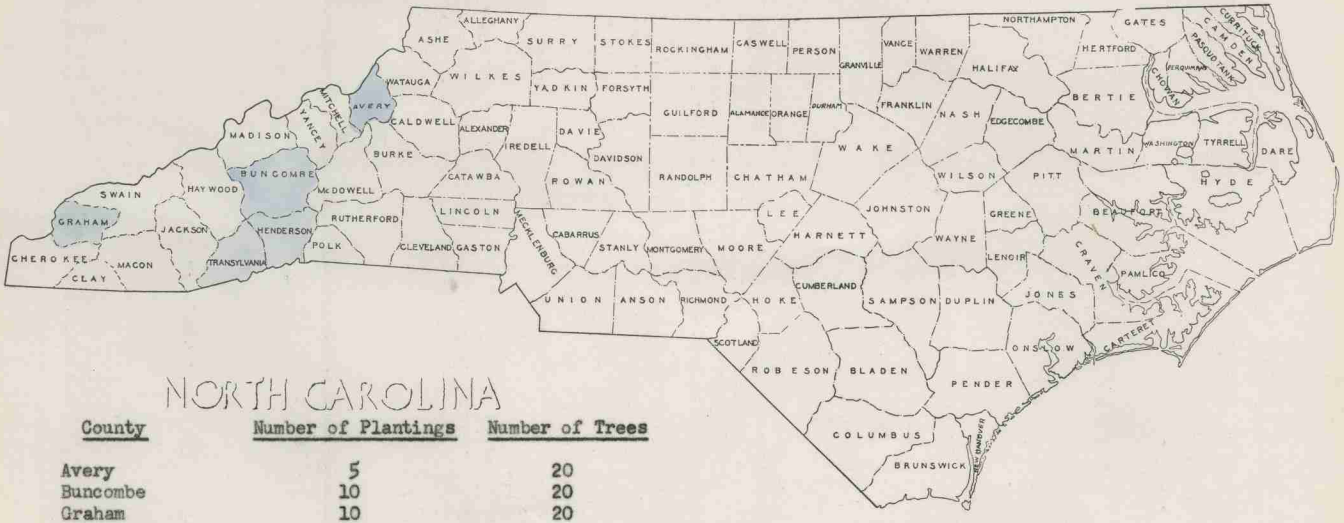
County	Acorns Distributed by County Agents (Pounds)	Number of 4-H Club Members and Others Receiving Acorns 1/
Anson	50	
Beaufort	15	
Craven	12	
Currituck	25	
Dare	30	
Edgecombe	15	
Gaston	30	
Guilford	2	
Hertford	30	
Hoke	40	
Lenoir	15	
Mecklenburg	30	
Nash	50	
New Hanover	20	
Pamlico	10	
Perquimans	30	
Sampson	200	
Scotland	15	54
Union	8	
Vance	30	
Totals - 20	697	

1/ County agents, with exception of E. O. McMahan, failed to make reports on the number of people - 4-H and others - receiving these acorns.

Map VII

Budded Black Walnut Trees - Tree Crop Test - T. V. A. Nursery - 1947-48
Distributed under Supervision of North Carolina Agricultural Extension Service

By Counties, Number of Plantings, and Number of Trees



NORTH CAROLINA

County	Number of Plantings	Number of Trees
Avery	5	20
Buncombe	10	20
Graham	10	20
Henderson	10	20
Transylvania	7	20
Totals - 5	42	100

Note: This distribution completes this cooperative project which has been conducted over a number of years to encourage the growing of the better types of easier-cracking black walnuts.

Table V

BLACK WALNUT-TREE CROP FIELD TEST DEMONSTRATIONS

North Carolina Agricultural Extension Service
Tennessee Valley Authority, Cooperating

	Spring of 1948	
County	Number of Plantings	Number of Trees Budded Black Walnut
Avery	5	20
Buncombe	10	20
Graham	10	20
Henderson	10	20
Transylvania	7	20
Totals - 5	42	100

Note: This distribution completes this cooperative project, which has been conducted over a number of years to encourage the growing of the better types of easier-cracking black walnuts.

1. Diseases: Most of our work dealing with diseases has been confined to identification of the particular disease and then providing the farmer with information on how to control same. This work is handled from day to day, both in the field and through correspondence as needed. We do general educational work in disease prevention, as is evidenced by the special series of meetings and motion picture showings in the interest of blister rust control.

   For the purpose of acquainting farmers and other timber owners as to the spread and possible control of white pine blister rust a series of 27 meetings was held in Alleghany, Ashe, Avery, Mitchell, Watauga, and Yancey Counties. The Blister Rust Control Service of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, cooperated in this work. Mr. Walter A. Stegall, Jr., agent, (field supervisor), Asheville, N. C., and Mr. Martin Miller, agent (field supervisor), Harrisonburg, Virginia, accompanied the assistant extension forester. The meetings were held in school auditoriums and had an attendance of 2,478 farmers, veteran agricultural trainees, 4-H Club members, F. F. A. boys, and business men.

   In two counties white pine blister rust has been found on white pine. In most of the others the spores have been found on alternate hosts - ribes. There is danger of further spread. At each meeting a film showing the history, symptoms, damage, and control of the disease was shown, and the blister rust agents discussed the situation and warned those present to be on the lookout for infected plants and asked that report of same be made. The extension forester showed a film on forest management and flood control and discussed forest planting and management of the farm woods.

2. Insects: No serious outbreaks of insects on forest trees have occurred. Most requests for information have been in regard to various types of pine beetles and insects affecting shade trees. One bad case of Ips in Wayne County was handled successfully when the timber owner acted quickly and called in an operator and cut and removed all trees infected.

3. Fire Prevention: After the establishment of a growing stand the second step in forest management of woodland is protection from fire. The extension foresters have encouraged farmers to give whole-hearted cooperation to the State Division of Forestry in its fire control work by:

   a. Urging farmers to recognize their individual responsibility in fire protection on their own farms. In the eastern section of the state we have encouraged farmers to make use of the heavy equipment operated by the Division of Forestry in plowing fire-lines where needed and practical. The farmers pay for this work on a per mile basis on either single or double lines. Many farmers use their farm tractors and heavy disc harrows for maintaining these lines and, in some cases, constructing additional or auxiliary fire-lines.

b. Through literature, news articles, and at meetings we have promoted the over-all program of rural fire prevention, both for a community and for individual farms.

c. We have distributed literature through county agents, neighborhood leaders, and 4-H Clubs in support of the nation-wide Fire Prevention Week program. This literature was furnished by the U. S. Forest Service, the U. S. Extension Service, and the American Forest Products Industries, Inc.

As a result of the participation of the Extension Service in fire prevention we can report the following: Seventy-six white county agents report 35,880 farmers cooperating this year in prevention of forest fires. Likewise, 31 Negro county agents make similar reports, with 4,365 Negro farmers cooperating in this effort.

D. Erosion Control:

As the supply of planting stock at the forest nurseries becomes greater, the farmers of the Piedmont and Mountain areas put forth more effort to reclaim their idle, eroding lands. Examples showing results are found in every community. So forest planting to control erosion and grow timber has become a practice - not a theory. These hard-ribbed clay hills will soon cease to be ghosts staring farmers in the face.

1. Piedmont Area: The major portion of forest planting is for the purpose of either stopping erosion or preventing possible future erosion and eventually producing a timber crop. Trees from the state forest nursery and the Soil Conservation Service are used in this area. The Extension Service has had a part in promoting this work. Our records show the following counties leading in this type of work: Cabarrus - 38 farmers planted 120,100 trees, Montgomery - 15 farmers planted 106,000 trees, Mecklenburg - 31 farmers planted 63,550 trees, Anson - 12 farmers planted 55,500 trees, Rowan - 26 farmers planted 52,700 trees, Union - 22 farmers planted 51,005 trees. Six other counties in the Piedmont - Catawba, Chatham, Davidson, Forsyth, Randolph, and Stanly - planted 20,000 or more trees. In all, 30 out of 35 Piedmont counties report one or more plantings. See Map IV and Table II.

2. Mountain Area: Erosion control as a protection to utility developments is of primary interest to the Tennessee Valley Authority and other utilities of the Mountain area. For this reason the T. V. A. cooperates with the Extension Service and State Forest Service by furnishing free tree seedlings to farmers and other landowners for planting in the 15 counties draining into the Tennessee River. During the planting season of 1948 a total of 426,000 trees were furnished to 217 farmers in this area, with the number of individual plantings ranging from 5 in Mitchell to 41 in Haywood. In fact, all of the 15 counties planted some trees; and all except Graham, Henderson, and Mitchell planted more than 20,000 trees. The leaders were: Haywood - 41 farmers planted 68,000 trees, Jackson - 23 farmers planted 49,500 trees, Buncombe - 16 farmers planted 37,500 trees, Madison - 8 farmers planted 36,500 trees, Macon - 20 farmers planted 35,000 trees. See Map V and Table III.

E. Timber Scaling:

"Guesstirating" farm timber is rapidly becoming a lost art in North Carolina. Farmers are wanting to know "How much timber do I have?" before attempting to make sales. The forestry extension office and county agents as well have been swamped with requests for assistance in scaling timber. Often farmers think they just want a general estimate of all their timber, but they are becoming easy to convince that what they really need is a good job of scaling or measuring of selected trees for a systematic harvest. This permits an intelligent sale while maintaining a growing forest.

The service program of marking and scaling timber under the Farm Woodland Management Project was discontinued as of June 30, 1948. But this applied only to the free-service feature. We continue to advise farmers on the management of their woods and teach them how to do the job of scaling themselves. We make available to the farmers a source of tree and log scale sticks, also supply them with handy tables for measuring farm timber. By this method we can teach one farmer or a group of farmers at the same time. We advise farmers to use the tree-by-tree method of scaling timber. This takes the "guess" out of the job.

The extension foresters, during the year 1948, conducted 22 timber scaling demonstrations to teach the method of doing the job. Since July 1, 1948, the five forestry extension specialists assigned to districts have conducted many demonstrations. Many county agents carry their scale sticks in their car and show farmers how to scale standing timber at every opportunity. Tree and log scale sticks were secured for 131 farmers. The demand exceeded the supply of sticks available.

As a service prior to June 30, 1948, the extension foresters assisted 17 farmers in marking and scaling 1,551,974 board feet and 245 cords of timber for market and home use. They also assisted 7 farmers in making cruises or estimates covering 2,709,957 board feet and 360 cords of timber. This was done either by the sample-plot method or by determining the volume of the average tree and having the farmer make counts of the total trees to be estimated.

Again as a service the farm foresters gave assistance to 457 farmers in marking and scaling timber on 7,997 acres totaling 19,636,000 board feet of sawtimber and 4,433 cords of pulpwood. See Table VII for more details.

County agents (white) in 86 counties report giving assistance to 1,862 farmers during 1948 on timber estimating and appraisal. Also, 28 Negro agents report giving such assistance to 364 Negro farmers.

We have also referred a number of people with larger tracts of timber to consulting foresters, with whom we try to cooperate closely. These consulting foresters have rendered good and valuable service to a number of people who could not handle the job themselves.

F. Marketing:

Every American is able to recognize profit. Many farmers grow timber and accumulate a nice profit standing on the stump. But often these same farmers lose the profit, and even their shirt too, when they make blind sales; that is, selling timber without knowing the volume, quality, and value. We have covered the matter of scaling or volume determination on a preceding page. The Extension Service has endeavored to give assistance to farmers in marketing their timber by supplying market information, sample sales agreements, and through assistance on timber sales.

1. Timber Market Information: The forestry extension office endeavors to maintain an up-to-date file of information on markets, both local and otherwise, on various timber products available within the state. This includes buyers and mill operators who have cooperated in doing good jobs of cutting, especially marked timber; lists of pulp mills and their various buyers or contractors; markets for veneer logs, markets for miscellaneous species of hardwoods, such as, dogwood, beech, birch, cedar, walnut, etc. This type of information is made available to farmers, county agents, vocational teachers, and others. In regard to prices we can only give a range of prices at which timber has sold in various sections during the previous six months. Prices vary greatly depending upon type, quality, location, volume of products, logging conditions, degree of utilization, etc.

2. Timber Sale Agreements: A written sales agreement is always advisable. Such agreement should be simple and understandable to both parties. This will avoid disagreement later. We furnish sample sales contracts to fit the specific points of any sale. Often we help the seller and buyer in preparing their agreement.

3. Assistance to Farmers on Timber Sales: The average farmer makes comparatively few timber sales during his active farming experience; therefore, he often lacks confidence in his own judgment in making timber sales. Many are timid in approaching buyers and often make sale to the first prospective buyer who approaches them. Believing that competition will result in better sales, we suggest to farmers that they contact at least 4 to 8 operators who might be interested in their timber, give them information on the kind, quality, and volume of timber they have to offer, and ask for an on-the-ground inspection and the submission of bids.

We encourage mutual cooperation of buyers and sellers. This promotes mutual understanding and working relationship between the timber grower and timber operator. We cooperate with buyers by giving them information about timber available, and solicit their cooperation in doing a good, conservative job of cutting. More and more lumbermen have become convinced that foresters are doing a good job of selecting, marking, and scaling timber, trying to scale according to what timber will actually cut if a good job of milling is done. There are numerous cases in which the buyer and seller agree on a price per thousand based on the forester's scale.

Reports on sales with which the extension foresters gave assistance show 10 sales totaling 2,141,305 board feet with a stumpage return of $56,875. We gave assistance on many other projects preparatory to sales but upon which farmers have not made reports.

The Farm Woodland Management Project (in operation only part of the year), under which eight farm foresters were employed cooperatively by the Extension Service and the U. S. Forest Service, is a combination of management and marketing. These eight farm foresters served 30 counties for a total of 52.5 man-months. See Map II and Table VII. During the period December 1, 1947 - June 30, 1948, the farm foresters assisted 473 farm timber owners in making sales as follows: Sawtimber - 22,011,000 board feet, veneer logs - 126,000 board feet, pulpwood - 4,124 cords; fuelwood - 3,811 cords, miscellaneous products - 37 cords, with a total stumpage value of $436,679. In addition to stumpage value of sales the farm foresters report additional labor income earned by farmers in harvesting timber with their own labor and equipment to the amount of $41,800.

Under the heading, "Forest Marketing and Distribution," 69 white county agents report devoting 351.3 days in aiding farmers with their timber marketing problems, with 63 of these agents showing assistance to 3,077 farmers in selling $2,313,316 worth of timber products. Also, 17 Negro agents spent 30.7 days in aiding farmers with timber marketing, giving assistance to 220 farmers in making sales amounting to a total of $82,342.

The experience of Harvey Faulk of Lee County as shown in the following news story will give some idea of what farmers can do when they go about the management and marketing of their timber in a systematic way:

"Lee County Dairy Farmer Sells the Skim Milk
out of his Woods and Saves the Cream

"Last year just before Christmas, Harvey Faulk of Jonesboro, Route 3, was getting nervous. He had just completed a new dairy barn and was finishing up the construction of a fish pond. Cash was getting short.

"Timber prices were good and Mr. Faulk was thinking seriously of cashing in his timber. Many of his trees were of sawtimber size, and he had received one or two bids for all of them. Perhaps prices would never again be as high for timber as they were then. He wanted to clear some bottomland to put into pasture and thought it might be a good idea to sell the rest of his timber down to a certain stump size.

"Ken Harmon, Lee County agent, suggested that Mr. Faulk have a forester look over his timber and give him some adivce on handling it. Mr. Harmon contacted John Gray, assistant extension forester at Raleigh, and Mr. Gray came down and went over the woods with Mr. Faulk and Mr. Harmon.

Table VII

FARM WOODLAND MANAGEMENT PROJECT[1]

North Carolina Agricultural Extension Service
U. S. Forest Service, Cooperating

December 1, 1947 - June 30, 1948

Area	Farm Forester	Months Employed	Farmers Given Assistance		Timber Marked and Scaled or Cruised			Reported Sales of Stumpage and Products[2]											
						Volume			Volume					Value					
			No.	Acres Involved	No. of Acres	Saw Timber MBF	Pulpwood Cds.	No. Sales	Saw Timber MBF	Veneer Logs MBF	Pulpwood Cds.	Fuelwood Cds.	Misc. Products Cds.	Saw Timber Dollars	Veneer Logs Dollars	Pulpwood Dollars	Fuelwood Dollars	Misc. Products Dollars	Totals Dollars
I	E. J. Sylvester J. C. Jones	1 6	16	962	498	2,166	-	4	818	-	-	-	-	10,585	-	-	-	-	10,585
II	R. S. Douglass	7	55	3,626	724	1,047	440	12	2,035	-	273	30	-	33,585	-	546	60	-	34,191
III	W. W. Barnes	7	45	3,501	1,574	3,088	1,060	25	4,259	113	610	-	-	81,800	3,000	1,350	-	-	86,150
IV	V. G. Watkins	7	67	3,601	650	2,571	510	24	3,086	13	351	50	11	61,838	700	1,040	175	216	63,969
V	W. H. Wheeler	3.5	63	6,462	3,052	2,674	1,285	13	1,075	-	1,285	50	-	24,450	-	2,410	100	-	26,960
VI	J. E. Ford	7	97	6,086	349	1,137	625	114	1,630	-	300	859	26	24,048	-	300	859	230	25,437
VII	J. E. Hobbs	7	47	3,637	791	5,674	423	17	5,011	-	1,125	500	-	129,672	-	2,100	300	-	132,072
VIII	A. H. Maxwell	7	67	3,661	359	1,359	90	264	4,097	-	180	2,322	?[3]	52,085	-	410	4,670	150[3]	57,315
Totals		52.5	457	29,536	7,997	19,636	4,433	473	22,011	126	4,124	3,811	37	418,063	3,700	8,156	6,164	596	436,679

1/ This project was discontinued as of June 30, 1948.
2/ In addition to the stumpage value of sales reported by farm foresters six of them report additional labor income earned by farmer in harveting, wholly or in part, timber with their own labor and equipment in the amount of $41,800.
3/ Christmas tree sales report not in volume but in value only.

"Mr. Faulk's woodland was broken up into three small blocks and one larger area. The first small block examined was an old-field stand of pine in which all trees were approximately the same age. Most of the trees were of sawtimber size, but the larger trees were growing rapidly and were of good quality. They needed more room to keep up their fast growth. Mr. Gray recommended that this area be thinned out, selling the smaller trees and the poor-quality trees only for sawtimber.

"Conditions varied considerably in the second block examined. One small patch supported a stand of large trees, many of which were limby. The forester recommended that this area be clear-cut, leaving a ring of heavy-topped trees around it to seed in a new crop of pines.

"Behind this patch was an area of younger trees in which the largest had just reached small sawtimber size. This area needed thinning out, but the poorer trees were not large enough for sawlogs. Consequently, it was decided that it should be thinned later on for pulpwood.

"Farther back towards the creek, the men found a patch of tall, middle-aged trees which were crowded and slowing down in ring growth. As in the first block examined, most of the trees were of sawlog size, with the largest trees having the best tops and making the fastest growth. Here, too, a thinning was needed to give the larger trees more room.

"The third block examined contained tall pines of fair sawlog size. These trees were growing in and along both sides of a drainage. The majority of the trees had been crowded for so long that the tops were too short for rapid growth. However, there were several which had satisfactory tops and were making good body growth. The forester recommended that all trees be cut except these large-topped trees which should be left to grow and to reseed the block.

"The last block examined was a long streak of land located along a drainage between two fields. This streak contained a mixture of pine, oak, and gum, with much of the oak and gum of poor quality. It was decided that practically all of this oak and gum should be sold together with such pines as were crowded, limby, or defective.

"The lower end of this block widened into a bottom which contained some very limby pines plus some large gum, maple, poplar, etc. Mr. Faulk planned to put this land into pasture; so it was decided that the area would be clear-cut.

"Mr. Gray and Mr. Harmon helped Mr. Faulk to mark and measure all trees to be sold on the five blocks. Mr. Faulk was somewhat skeptical. He was wondering if he would be able to sell the timber when only the poorer trees were marked for sale. At first he could not see why it was best to leave the large-topped vigorous trees rather than the smaller ones. However, when he tried his hand at the marking, he could see for himself that leaving small skimpy-topped trees was a poor practice.

"After the job was completed and the volume in the trees to be sold was determined, Mr. Faulk made a determined effort to sell the marked trees to different local timber operators. He told them that he wanted to sell the marked trees on a lump-sum basis. The local operators were afraid to bid on the basis of the measured volume. They had never bought timber when each tree had been marked for cutting and individually measured by International rule. Many of them thought that the volume shown on the report was too high. In fact, some went so far as to bet that it was 46,000 board feet too high.

"Mr. Faulk finally arranged to sell the marked trees to a reliable operator, who agreed to pay him a certain price per thousand board feet with the payment based on the tally of the lumber cut. The operator did a nice job of logging. He took only the marked trees, cut them close to the ground, and left no logs in the laps. He paid Mr. Faulk for 3,136 board feet more than was shown in the volume report amounting to approximately one per cent more than the measured volume.

"Mr. Faulk received approximately $90 per acre from this sale. His woodland is in better condition than before. The trees now on the land are of good quality and are vigorous growers. They now have room to maintain rapid growth. If Mr. Faulk cares to do so, he will be able to make another large sale ten years from now. He has some pulpwood to harvest yet in thinning out one or two young stands and in working over the sale area to get out runty and defective trees which were too small to mark for the sawtimber sale.

"Mr. Faulk is sold on the value of marking and measuring his timber. And the main reason perhaps is that he received more cash from this partial harvest than he was originally offered for all of his timber."

G. 4-H Clubs:

Seventy-three white county agents and nine home agents report 1,109 boys and 46 girls enrolled in forestry projects, while 69 county agents and 6 home agents report 624 boys and 15 girls completing their projects, with 3,949.2 acres of land involved.

Nine Negro agents report 52 boys enrolled in forestry projects, while 8 Negro agents report 46 boys completing their projects involving 53 acres of land.

4-H Club members participated in timber thinning, forest planting, fire protection, and tree study project. Planting projects included primarily pines, a few red cedar, and black walnut, also an extensive planting of cork oak acorns. There was a heavy demand for red cedar, but the supply was so limited as to make our Christmas tree project unimportant. Among the special projects by club members were:

1. Timber Thinning Contests: Two counties, Surry and Wilkes, had timber thinning contests for 4-H Clubs. These were started in the fall of

1947 and completed in spring of 1948. Four counties, Caldwell, Stokes, Surry, and Wilkes, have similar contests underway beginning in fall of 1948.

The sponsors for each of these 1947-48 contests were: Wilkes County - The Wilkes Chamber of Commerce, which offered $175 in prizes. Surry County - The Kiwanis Clubs of Elkin and Mt. Airy, which offered $200 in prizes. The competition was keen, with more than 20 contestants in Wilkes and 10 in Surry. Every winner of a prize did an excellent job and established a good demonstration for his community. These contests were conducted by the county agents with the help of the farm forester. The contests were judged by the extension forester and the farm forester.

2. Planting Projects:

a. The Wilkes Chamber of Commerce continued their offer to provide 1,000 pine seedlings to any 4-H Club boy in Wilkes County who would plant an acre of idle land. Thirteen boys took advantage of this offer, planting 13,000 trees.

b. North Carolina Pulp Company 4-H Club-F. F. A. Reforestation Project: In July, 1947, Mr. Trowbridge of the North Carolina Pulp Company wrote the Extension Service saying, "We will purchase 250,000 loblolly pine seedlings from the North Carolina Department of Conservation and Development if the Extension Service will distribute them to 4-H Club members and F. F. A. boys to stimulate more forest planting." We accepted the challenge. When the campaign got underway the demand indicated a "sell-out." The ceiling was lifted and broadened to include a few veteran farm trainees and a few roadside show-window plantings. Table VI and Map VIII show the distribution of trees under this project. A total of 363,500 loblolly pine seedlings were planted by 49 4-H Club members, 98 F. F. A. boys, 8 veteran farm trainees, and 11 other farmers. You will note that F. F. A. boys predominate in this project, which is due to two factors: First, the boys average older than do 4-H Club members; second, the vocational teachers are with their students five days each week, while county agents see the 4-H Club boys only once each month for about one hour.

c. McManus Cork Project: Recognizing cork as a critical item during the recent world war the Crown Cork and Seal Company set up the McManus Cork Project to promote the introduction of cork oak trees and encourage their growth in the temperate areas of the United States. The project was mostly an experiment to see if this tree could be established widely by planting acorns under general farm conditions and attention. The 4-H Clubs in the eastern half of North Carolina have for several years cooperated in this project. For the season 1947-48 the county agents in 20 counties distributed 697 pounds of cork oak acorns to club members and others in their counties. The McManus Cork Project furnished acorns collected from introduced cork trees growing in California. See Table IV and Map VI.

Table VI

REFORESTATION PROJECT
4-H CLUB AND F. F. A. - SEASON 1947-48

Free Trees[1]

County	4-H Club		F. F. A.		Veterans' Class		Farmer for Roadside Planting		Total Trees
	No.	Trees	No.	Trees	No.	Trees	No.	Trees	
Alamance	1	1,000	1	1,000			3	6,000	8,000
Anson			4	6,000					6,000
Bertie			2	5,000	7	8,700			13,700
Cabarrus			16	46,100					46,100
Camden	1	1,000							1,000
Chatham			2	3,500					3,500
Columbus					1	4,500			4,500
Cumberland	3	3,000							3,000
Duplin	1	5,000	1	2,000					7,000
Edgecombe	6	18,000							18,000
Franklin	6	8,000	2	3,000					11,000
Gates			1	4,000					4,000
Guilford	1	5,000	3	3,500					8,500
Harnett			1	3,000					3,000
Lenoir			2	6,000					6,000
Martin			2	3,000					3,000
Mecklenburg	2	6,000	13	30,500					36,500
Montgomery	1	3,000	2	3,000			4	14,000	20,000
Moore			3	3,000					3,000
Nash			1	1,000					1,000
Pender			1	1,000					1,000
Person	4	4,000							4,000
Pitt	1	3,000	1	1,300			1	4,000	8,300
Randolph	1	4,000	6	17,000					21,000
Richmond	3	8,000							8,000
Robeson	3	3,000							3,000
Rowan	2	4,000	9	20,000					24,000
Sampson	4	10,000					1	1,000	11,000
Scotland	3	5,000							5,000
Stanly			2	2,000					2,000
Union	3	6,000	16	29,000					35,000
Wake			1	5,000			2	6,400	11,400
Wayne	3	3,000					3	9,000	12,000
Wilkes[2]	13	13,000							13,000
Wilson			3	11,000					11,000
Totals	62	113,000	98	209,900	8	13,200	11	40,400	376,500

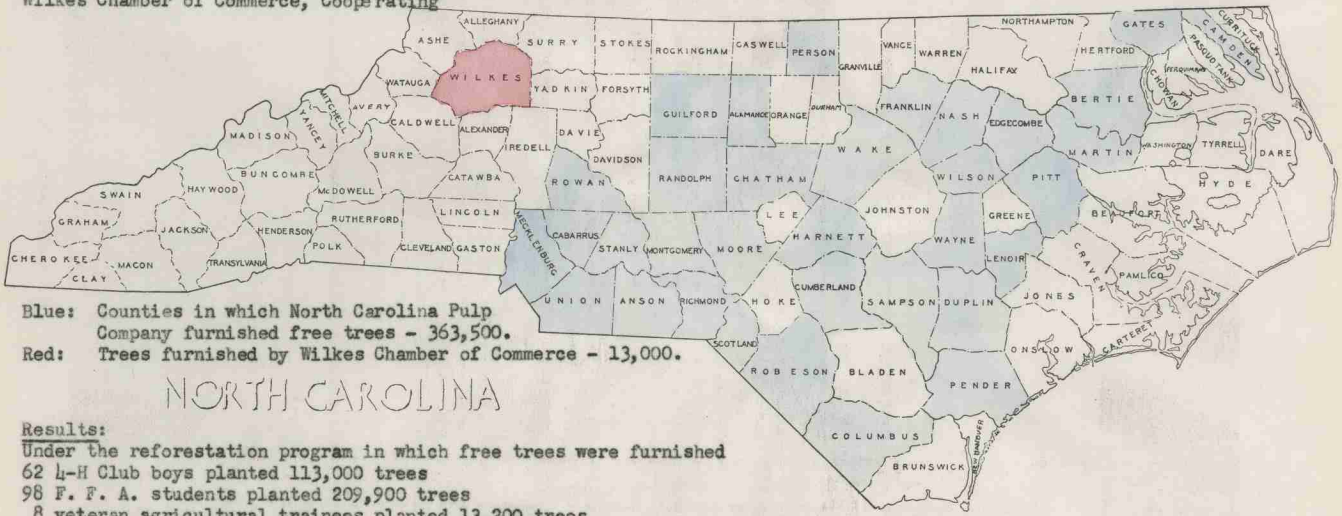
1/ All trees in this free distribution to 4-H Club members, F. F. A. students, veterans' classes, and a few adult farmers for "show-window" plantings on highways were paid for by North Carolina Pulp Company except as indicated 2/.

2/ These trees paid for by Wilkes Chamber of Commerce.

Map VIII

Reforestation Project
4-H Club and F. F. A. - Season 1947-48
Free Trees
By Counties

North Carolina Agricultural Extension Service,
North Carolina Division of Forestry,
North Carolina Pulp Company,
Wilkes Chamber of Commerce, Cooperating



Blue: Counties in which North Carolina Pulp Company furnished free trees - 363,500.
Red: Trees furnished by Wilkes Chamber of Commerce - 13,000.

NORTH CAROLINA

Results:
Under the reforestation program in which free trees were furnished
62 4-H Club boys planted 113,000 trees
98 F. F. A. students planted 209,900 trees
8 veteran agricultural trainees planted 13,200 trees
11 farmers planted 40,400 trees in roadside show-window demonstrations.

Thirty-five counties cooperated in this project.
See: Table VI for distribution of trees and number of plantings in each cooperating county.

d. Planting Plans for 1948-49:

(1) North Carolina Pulp Company continues their project for 4-H and F. F. A. reforestation with an offer of 500,000 trees for the season 1948-49, covering the same counties as this year with loblolly pine trees as their offer.

(2) Champion Paper and Fibre Company makes an offer of 200,000 trees - white pine, shortleaf pine, and loblolly pine - to be distributed to 4-H Club and F. F. A. boys in 15 south-western counties.

(3) International Paper Company joins the procession by offering 200,000 trees - loblolly pine - to farmers or 4-H Club and F. F. A. boys in a selected group of counties from which they draw wood.

3. Field Days: Forestry field days for 4-H Club boys were held as follows:

a. Wilkes County - A forestry field day sponsored by the Wilkes Chamber of Commerce was held on December 5, 1947, with 50 selected farm boys in attendance. These boys were selected in a tree-naming contest conducted in 10 high schools by the county agent and farm forester. Five boys were chosen from each school. While it was open to all boys within certain age limits, 90 per cent of the boys selected were 4-H Clubbers.

The program was under the direction of the county agent, with the following demonstrations conducted by foresters: "Timber Thinning and Stand Improvement" by John E. Ford, farm forester; "Timber Scaling and Estimating" by John L. Gray, assistant extension forester; "Forest Planting and Pruning" by R. W. Graeber, extension forester. Graeber also discussed "Growing Timber as a Farm Crop." Carl W. Strauss, U. S. Forest Service, Atlanta, Georgia, gave the boys a broad picture of the "Forests in Our National Welfare." Ed Meeks, Atkins Saw Company, demonstrated the use and care of crosscut saws. Ralph Elliott, Sandvik Saw and Tool Company, demonstrated use and care of bow saws. Following this field meeting the Chamber of Commerce provided lunch for all at the Wilkesboro High School.

b. Caldwell County - The forestry field day for 4-H Club boys was sponsored by the Lenoir Chamber of Commerce and local wood-using industries. County Agent Max Culp had the assistance of John L. Gray, assistant extension forester, and Farm Foresters John E. Ford and A. H. Maxwell. Demonstrations and contests were conducted in timber thinning, forest planting, timber scaling, etc. A number of cash prizes were awarded. Announcement was made about a county-wide forest planting and timber thinning project to be started in the fall of 1948.

4. 4-H Camps: Only 2 camps for 4-H Club members were attended this year. Due to the serious outbreak of polio almost all camps were canceled.

Plans had been made for the following:

a. Wildlife and conservation camp for white 4-H Clubs.

b. Wildlife and conservation camp for Negro 4-H Clubs.

c. Forestry camp for farm boys.

H. Special Meetings:

Assistance was given with a number of special meetings when a part of the program featured educational phases of forestry. Among such meetings were:

1. Veteran Farm Trainees: Many of the instructors of the veteran farm trainee groups asked for assistance in giving their groups some instruction in forestry. Some instruction was given at indoor meetings but more often at field demonstrations. We did not get a report from the farm foresters and later the forestry extension specialists as to the volume of assistance given to these groups, but from the state office we assisted in 15 indoor meetings with an attendance of 933, also 37 field meetings and demonstrations with an attendance of 2,070.

2. Bent Creek Experimental Forest: With the cooperation of the staff at this branch of the Southeastern Forest Experiment Station we held two special all-day meetings for farmers to study the work and results of the farm forest research projects at the station. Farmers and veteran farm trainees from Henderson County attened the first day. Similar groups from Buncombe and Haywood participated in the second meeting. A field lunch was served each day by the Champion Paper and Fibre Company. During the afternoon of each day demonstrations with chain saws and other equipment were held. However, nothing attracted more or closer attention than the work of Ed Meeks in filing and fitting crosscut saws.

3. Field Day for Sawmill Men: This was sponsored by the Wilkes Chamber of Commerce and was held December 4, 1947, with about 100 people participating. The morning program began with a stop at an operating sawmill, where Carl W. Strauss discussed "A Mill Set-up and Operation." John Gray demonstrated log scaling by both Doyle and International rules. John Ford, the local farm forester, was the leader of the party, and R. W. Graeber was master of ceremonies. Other stops included: (a) Selective cutting for sawtimber followed by a clean-up of tops, cull and crippled trees for pulpwood, (b) a planting about five to six years old, (c) a thick stand of shortleaf pine ready for a selective cut, (d) a selective cut which had been made two years previously in which white pines were favored as the reserve crop. Reproduction was showing up nicely. At this stop John Gray

and John Ford gave a demonstration in scaling standing timber.

By this time someone thought of the dinner bell; so as we came out of the woods a hot barbecue with all the trimmings was awaiting our attention. The Meadows Mill Company was the host in providing this excellent feed.

For the afternoon program the machinery people took over at the Lawrence Miller woods where we had plenty of hardwood logs to cut. Chain saws of several makes and types, both gas and electric, were demonstrated, also bow saws and crosscuts.

4. Pulpwood Demonstration: We assisted the field man for the International Paper Company in planning and conducting a pulpwood demonstration and meeting on November 17, which was attended by approximately 400 invited farmers and woodland owners. The company furnished a barbecue dinner. The chief talk was made by the Lieutenant-Governor. For this demonstration two comparable half-acre plots were measured off and staked. All trees to be cut were marked with yellow paint spots; those to be left were banded with white paint at breast height. All trees on both plots were calipered and volume of take and leave calculated. Then one plot was cut or thinned according to plan and the wood corded and measured as a check against the calculated volume. The volumes compared within a few cubic feet. All of this work was done prior to the meeting, and all data and other information were available in printed form.

Outlook for 1949

The demand for planting stock will probably exceed the supply, even though the nurseries will have about doubled the number of trees. The cooperation of pulp companies has stimulated planting among farmers.

The demand for lumber will continue strong, but with a probable slight reduction in price.

Due to the open winter weather the supply of pulpwood will probably exceed demand.

Many farmers will want to sell timber, fearing possible slump in price. However, buyers are becoming more cautious and are not buying too far ahead.

County agents are showing a more vital interest in forestry both for adults and 4-H Club members.

With five forestry extension specialists assigned to districts we can render greater educational assistance.

Two counties with the cooperation of the Extension Service have employed assistant county agents in forestry. We have hopes for 4 to 8 more foresters in this work by July 1, 1949.