

NORTH CAROLINA
AGRICULTURAL EXTENSION SERVICE
ANNUAL REPORT

for
1957.

Period covered: December 1, 1956 to November 30 1957.

Name of Project: Farm Forestry Extension Work

Covering work done by J. L. Gray, In Charge, Forestry Extension; W. M. Keller, Forestry Extension Specialist; and District Forestry Extension Specialists F. E. Whitfield, E. M. Jones, H. J. Andersen^{1/}, J. H. Gilliam, R. S. Douglass, and J. C. Jones^{2/}. Work of L. H. Hobbs, Forestry Marketing Specialist, and G. W. Smith^{3/}, Forestry Utilization Specialist, covered in separate reports.

Percentage of time devoted to project: 100

Date Submitted: April 17, 1958. Signed: Project Leader

Date Approved: _____, 195 . Signed: Asst. State Director of Extension Work

Date Approved: _____, 195 . Signed: Director of Extension Work, U. S. Department of Agriculture

- 1/ To June 30, 1957
2/ Beginning November 18, 1957
3/ Beginning July 1, 1957

ANNUAL REPORT
FARM FORESTRY EXTENSION WORK
NORTH CAROLINA

December 1, 1956 - November 30, 1957, Inclusive

John L. Gray, In Charge, Forestry Extension
Walter M. Keller, Forestry Extension Specialist

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John L. Gray, In Charge, Forestry Extension
Walter M. Keller, Forestry Extension Specialist

I. Results or Accomplishments

A. Overall Progress

1. 4-H Forestry - At the beginning of the 1956 program year, definite activity and result goals were set in most phases of the Extension Forestry program; and the 4-H program was included in this set. This program was continued for the year 1957, and the 4-H goals and accomplishments were as follows:
 - a. Ten per cent increase in white 4-H forestry project completions. In 1956, we had 3,741 completions, an increase of 5% over 1955. In 1957, we had 4,224 project completions among white 4-H Club members. This represented an increase of 13% over 1956. This increase was a little surprising in light of the fact that an acute shortage of white pine seedlings for planting in the western Piedmont and Mountain counties continued to exist during the 1956-57 planting season.
 - b. Four-H forestry demonstration competition goals call for 50% of the counties in the state to have club members entering district contests and each district to have an entrant

in the state forestry demonstration contest. In 1957, 46% of the counties participated in district contests; and all six districts had entries in the state contest.

- c. In 1957, the goal was for each of the 100 counties to send a delegate to the annual 4-H forestry leader training camp. Ninety of the counties actually sent delegates, and there were 93 boys in camp. Four of the counties which did not send delegates were in the Eastern Extension District, and this district had been without a forester since September, 1956.
- d. The 1957 goal for long-time records called for 30 counties to submit record books to be judged in selecting a state forestry winner. Only three records were received from each district, making a total of 18 for the state.

2. Adult Program

- a. Forest Fire Protection - This program is largely the responsibility of the North Carolina Division of Forestry, but this department helps promote the program as much as possible. As a follow-up to Governor Hodges' state-wide forest fire prevention conference held in Raleigh in October, 1956, this department helped two counties, Henderson and Beaufort, set up county forestry committees to work on this problem. Two other counties, Caldwell and Onslow, held forest fire prevention conferences of their own and had about 300 people turn out at each of them.

The Asheville Agricultural Development Council sponsored a Western North Carolina Fire Protection Conference, and over

1,000 people from 21 counties attended. All agricultural agencies, including Forestry Extension, cooperated in this endeavor.

- b. Long-time Cooperators - In 1956, an ultimate goal was set of one long-time forestry cooperator in each of the 100 counties of the state. To date, 58 of these cooperators have been set up. Eighteen of them were set up during 1957.
- c. Brushland Conversion to Pine - In 1956, goals were set calling for one hardwood conversion demonstration per county where needed. Sixty-nine such demonstrations were established in 26 counties during 1956. In 1957, 12 such demonstrations were established in 9 additional counties.
- d. Training Farm and Home Development Agents - One program objective was to hold a woodland analysis training school for county personnel in each of the original 12 Farm and Home Development counties. These training schools had been held in 8 of the counties during 1955 and 1956, and three more were held during 1957. This leaves only one county, Yancey, in which the training school has not been held. A school was scheduled for that county during 1957, but the county had a conflict on the scheduled date, and it was necessary to cancel the school.
- e. Tree Planting - During 1957, a record total of 15,830,000 forest tree seedlings were ordered on application blanks distributed by Extension personnel, or were distributed through programs handled by the county agents' offices. This was

10,000,000 more seedlings than the previous record number placed by Extension personnel during the record year of 1955.

In 1957, Extension personnel were responsible for placing 60% of all tree orders received at state nurseries as compared with 48% in 1956.

3. Administrative Accomplishments

- a. Marketing - This project, initiated during 1956, has continued to develop; and the monthly "Tarheel Timber Market" report has been very favorably received. Details of this program will be covered in a separate report.
- b. Utilization - A utilization specialist was hired and assigned to the Extension Forestry Department as of June 1, 1957. George Smith, who was on leave of absence from the department while taking graduate training in wood technology, was the man hired to initiate this utilization project. He will develop a program designed to reach sawmill operators and other primary wood processors. This project will be covered in a detailed, separate report.
- c. Agent Time Devoted to Forestry - In 1957, all white male county extension workers devoted 3.62% of their total work time to forestry. This represents a very slight decrease from 1956, but this decrease is more than offset by a change in the method of keeping these records. Prior to 1957, days devoted to forestry included time spent on wildlife conservation. In 1957, this practice was discontinued; and forestry time and wildlife time were listed as two separate items. In

light of this change, the 1957 percentage actually indicates a considerable increase of agent time devoted solely to forestry.

B. Accomplishments by Major Work Phases

1. Tree Planting - Extension Forestry staff members devoted approximately 9% of their time to this phase of the program in 1957.

A total of 15,830,000 seedlings were ordered and planted by 3,276 adult and 4-H Club members. This breaks down as follows:

4-H -----	1,019 orders ---	1,705,000 seedlings
Adults ---	2,257 orders ---	14,125,000 seedlings

This amounted to 60% of the total orders received by the North Carolina Division of Forestry nurseries, and 27½% of the total number of trees ordered.

Even though the state nurseries produced approximately 15,000,000 more seedlings in 1957 than they did in 1956, they did not begin to meet the demand for seedlings. Interest in tree planting had shown a steady increase since the end of World War II, but during 1957 there was a sharp reduction in tobacco allotments and the announcement of the Soil Bank program was made. These two factors combined to help spark a demand for seedlings far beyond the 1957 nursery production. Many hundred applications for tree seedlings had to be returned, and the entire nursery production was oversubscribed before the first seedlings were lifted for shipment in November of 1956. There was a very serious shortage of slash, loblolly and white pines. The shortage was particularly acute in the 33 white pine planting counties in the western end of the state. This white pine shortage has been chronic!

With an effective demand for about 15,000,000 white pine seedlings annually, production has never exceeded 5,000,000, and has dropped as low as 3,000,000 annually. Faced with this chronic shortage, the agents in these white pine planting counties have not emphasized planting for fear of aggravating this shortage. There is, however, a bright spot in this white pine situation. The state Division of Forestry during 1956 acquired a site for a new nursery near Morgantown, North Carolina; and the nursery will be primarily concerned with the production of white pine. Since white pine seedlings must be held for two years in the beds before lifting, the first seedlings from this nursery will not become available until the fall of 1958. At that time, however, there will be approximately 16,000,000 white pine seedlings available from this nursery; and that should give a great impetus to the tree planting program in the western counties.

During the previous two program years, considerable emphasis was put on encouraging counties to buy planting machines and make them available to landowners. At the end of the 1956 program year, 54 such machines were available in 38 different counties. During 1957, at least 15 more machines were added in 11 counties. This makes a total of 69 such machines available by the end of the 1957 program year. In addition to these, many individuals have bought planting machines and are doing planting on a custom basis in their communities.

Ross Douglass, forestry specialist in the Southeastern District, reports on a farmer in Richmond County who decided to put an entire

large farm in the Soil Bank, Conservation Reserve. This farmer bought a tree planting machine to plant his trees; and after finishing his own job, he turned to doing custom planting for his neighbors.

During the summer of 1956, Assistant County Agent A. S. Hardee of Halifax County and Jim Andersen, forestry specialist, sat down and mapped out a "Plant a Million" program for Halifax County, to be carried out during the 1956-57 planting season.

Halifax Paper Company agreed to make a planting machine available to the county, and Mr. Hardee agreed to accept responsibility for scheduling its use. Due to heavy demand later on during the planting season, a second machine was made available.

A serious seedling shortage was shaping up in the state. So Halifax Paper Company ordered a million seedlings to be shipped in the early part of the planting season and let the county landowners order from this stockpile. The company rented a cold-storage locker and put the seedlings in the locker and let the county agent distribute them to landowners on the basis that a landowner would buy a thousand trees and receive another thousand free. Any landowner could get up to 10,000 trees free by buying an equal amount. One hundred five landowners took advantage of this offer to order 1,056,500 seedlings, and more would have been planted had the seedlings been available. So great was the demand that the county agent ended up with a backlog of orders for 200,000 seedlings to be carried over to the next planting season.

The county agents' offices in three counties in the state were responsible for placing over 1,000,000 seedlings each during the 1956-57 planting season. They were as follows:

<u>County</u>	<u>No. of Applications</u>	<u>Seedlings Ordered</u>
Anson	160	1,605,500
Scotland	106	1,552,700
Halifax	111	1,070,000

2. 4-H Forestry - Members of the Extension Forestry Department devoted approximately 21% of their total work time to the 4-H phase of the program.

Four-H Club members from 99 counties participated in and completed forestry projects for which they turned in records. During the year 6,681 white club members were enrolled in forestry projects, and 4,224 completed projects. This represents an increase of 13% in project completions over the 1956 program year.

In the demonstration phase of the program 46 counties had an individual or team entrant in district contests. This compares favorably with the total of 40 counties participating in 1956 and 38 counties participating in 1955.

All six district winners received an expenses-paid week to 4-H Club Week held in Raleigh in July, and all six entered in the state competition. The state winners were Jimmy Cherry and Jimmy Wilson of New Hanover County. Their demonstration was entitled "An Ounce of Prevention" and showed the harmful effects of forest fires and demonstrated methods for preventing such fires. The members of the winning team each received an engraved gold wrist watch.

The third annual 4-H Forestry Camp, held at Camp Millstone, June 3 to 9, 1957, was attended by 93 delegates from 90 counties. Attendance was hurt by the fact that the Eastern District was without a forester during the entire program year, and thus four of these counties failed to even nominate a delegate.

Two assistant county agents from each of the six extension districts attended the camp as counsellors. In addition, two assistant agents doing Rural Development work in Anson County attended all the classes at camp. These two agents did not stay in camp, but commuted from Wadesboro daily to receive this forestry training.

Mr. Robert Williams, forester with Southern Bell Telephone & Telegraph Company, and Mr. Howard Singletary, Southwestern District agent, attended and served as evaluators of the program.

In the best-record phase of the program, 84 counties selected county winners and awarded medals to them at county Achievement Days. In 18 counties county winners prepared long-time records and entered them in state competition. These 18 records were evenly distributed, with three being entered from each of the six extension districts. These records were judged in October by a committee of county agents with assistance from the Extension Forester's office. Robert Bates of Mecklenburg County was selected as state winner. Bates' record book was submitted in the national competition, and he was selected as one of twelve national winners by the National 4-H Committee. This makes two years in a row that

North Carolina has had a national winner in forestry, Robert Auman having won the same distinction in 1956.

In 1957, 1,019 4-H Club members planted 1,705,000 forest tree seedlings. This was 500,000 more trees than club members planted in 1956, but was 500,000 less than club members planted in the record year of 1955. This 4-H planting program has been seriously crippled by the serious shortage of white pine seedling stock. This is clearly demonstrated by the fact that in 1955, when plenty of free seedlings were available, club members in the fifteen TVA counties ordered 1,000,000 seedlings. In 1957, club members in these same counties were able to get only 170,850 seedlings.

In 1957, all one hundred counties held forestry training programs for 4-H Club members, and 24,845 club members received definite training in forestry from county extension workers or members of the Forestry Extension staff. This is a decrease of 10,000 club members from 1956, but it was an expected result. For the past ten years North Carolina Pulp Company and Champion Paper & Fibre Company have been giving free tree seedlings to 4-H Club members and allowing the local county agents' offices to handle the ordering and distribution of these seedlings. It became common practice throughout the state for the local 4-H agent to hold either his October or November series of club meetings on tree planting. At this meeting he gave instructions in ordering and planting trees, and this went into the records as club members receiving forestry training. In the summer of 1957, however, both these paper companies decided to change their method of giving away these trees and to take over the distribution of these trees by their own personnel. They had their field

foresters give out the application blanks and receive the orders, thereby almost completely bypassing the agents' office. The result was that these same agents saw little need for holding a series of forestry club meetings stressing planting during October or November of 1957, and did not hold them. In light of the change, a drop of 10,000 members receiving forestry training appears to be very moderate indeed.

3. Brushland Conversion - The members of the Extension Forestry Department devoted about 15% of their total work time to this program phase.

Converting brushland to pine or carrying out operations that will assure natural restocking of pine is a long-time investment, and a program of many practices, depending on the local situation. The different practices applicable to the different regions of the state were well covered in the 1956 report, and no necessity can be seen for covering them again in this report.

This was a program largely confined at first to the Coastal Plains and Sandhills, but today it is quite common in the Piedmont and is beginning to be seen in the mountains. At least 20 result demonstrations of this practice were set up during 1957, and it is interesting to note that 8 of these were in the Piedmont area and 4 of them were in the mountains.

Ross Douglass, Southeastern District forestry specialist, has been active in this phase of the program for several years; and he set up 3 additional demonstration areas during 1957. One of these areas was in Sampson County and 2 were in Bladen County. Mr. Douglass said that the acute seedling shortage terminated this phase of the

program early. Another serious handicap was the lack of North Carolina Forest Service personnel who could make the "need and practicality" inspections and "satisfactory completion" inspections required before the landowner could receive A.C.P. or Soil Bank cost-sharing assistance. Mr. Douglass helped make these inspections in Sampson County in order to keep the program alive. Mr. Douglass' efforts had a marked effect in Sampson County and show how well this practice is accepted when a little promotional and technical assistance is provided. In 1955, there were practically no requests for this practice under the A.C.P. program. In 1956, Mr. Douglass did a great deal of promotional work and even made some of the inspections, and this resulted in 34 applications for A.C.P. cost-sharing assistance. During 1957, 81 applications were received and approved, and additional applications had to be turned down because of a lack of funds.

Mr. Douglass states that this program also gained a wide acceptance in Moore and Richmond Counties, but that he does not have the figures available on the number of A.C.P. applications.

John Gilliam, Northwestern District forestry specialist, stirred up quite a bit of interest in this phase of the program during 1957. Hardwood control demonstrations were held in Orange and Person Counties. Halifax Paper Company assisted by sending their heavy diskling equipment to these counties to help get the program underway. Attendance was large, and a lot of interest was created at these two demonstrations. As a follow-up to these demonstrations, a special effort was made in Orange County to set up contractual

service and stimulate farmer participation in a cull hardwood conversion program. Orange County was set up as a pilot Piedmont county in the program for A.C.P. participation. Any farmer wishing to participate could sign up for 10 acres at \$30 per acre A.C.P. cost-sharing assistance. This cost-sharing covered mechanical disking, poisoning cull trees, and planting. Seventeen farmers signed up for a total of 168 acres. Two contractors were doing the mechanical disking, and a hand crew was set up to do the poisoning and planting operations. No accurate cost figures are yet available on this project, but preliminary figures indicate that the landowner's out-of-pocket costs will be approximately \$10 to \$15 per acre above the A.C.P. cost-sharing payments.

In the Mountain district, Fred Whitfield set up hardwood control demonstrations in Graham, Transylvania, Swain and Avery Counties. Due to the mountainous terrain, no mechanical preparation was attempted. In Avery and Swain Counties plots were set up testing the effectiveness of Kuron and 2-4-5-T in cups, frills, and as a foliage spray. In Graham and Transylvania Counties, plots were established and all the cull hardwoods were cut and the areas planted to white pine.

The Transylvania County plot was set up along a highway on the Whitmire farm. This farmer had a small sawmill on his farm, and he used it to cut all the larger cull hardwoods from the plot into lumber. He got enough hardwood lumber out of the operation to build two nice barns on his farm. He followed this up with poisoning and

further release work on the area. A roadside sign unit has been ordered for the area.

4. Long-time Cooperators - Approximately 10% of the time of this department in 1957, was devoted to this phase of the program.

Since this program is a continuing one, and was dealt with in the two preceding reports, it is not deemed necessary to go into the mechanics of it again in this report. This program has an ultimate goal of one cooperator in each county of the state, and at the beginning of 1957, there were 40 such cooperators. Twenty new ones were added during the year, making a total of 60 cooperators at the end of the program year.

Fred Whitfield, Western District forestry specialist, cites a good example of this type of cooperator. Claude Parrish of Route 1, Bryson City, has been carrying on a forestry program on his farm since 1954, being guided by Whitfield's recommendations. Mr. Whitfield made the following report on Mr. Parrish's progress:

"In 1954, Mr. Parrish sold \$126 worth of posts and 15 cords of pulpwood worth \$180, and, in addition, cut for his own use 12.5 thousand board feet of lumber from his farm woodland.

"In 1955, he sold \$170 worth of lumber, \$70 worth of fence posts and 30 cords of pulpwood worth \$390.

"Continuing his operations in 1956, Mr. Parrish sold 2,500 board feet of lumber, 43 cords of pulpwood, and 4 cords of bark from his woods.

"During this same period he bought 80 rods of wire and fenced off 50 acres of woodland from cattle, after which he started a white pine planting program on the area.

"In 1957, Mr. Parrish had roads built into more of his woodlands in order to further develop them. He is interested enough in forestry that he recently purchased 150 acres more woodland and has asked for assistance in developing it. He now has more than 300 acres of farm woodland under management. Since starting his program, he has planted over 5,000 white pine to reinforce natural reproduction."

See Exhibit E in the back of this report for a detailed management plan worked up by Mr. Whitfield for a long-time cooperator.

5. Roadside Demonstrations - Approximately 4% of the time of staff members was spent on this phase of the program.

Thirty-one roadside sign units had been placed by the end of 1956, and 9 additional units were placed during 1957. This made a total of 40 sign units which had been placed by the end of the 1957 program year.

6. Measurement, Marketing, Harvesting, Preservation and Utilization - Approximately 11% of the time of staff members was devoted to this phase of the program.

This represents one of the earliest activities in the forestry extension program, and it is still one of the largest and most important fields. It is so large that in 1956, a marketing specialist was hired to handle that particular phase of the program. His activities are covered in a separate marketing report. Then, in 1957, George Smith completed graduate training and returned to the staff as a utilization specialist and at present is handling utilization, preservation and some harvesting work. Mr. Smith's work is covered in a separate utilization report.

Each of the district forestry specialists gets many small requests from landowners for help in marketing and harvesting, in particular. The following case, reported by Jim Andersen, forestry specialist in the Northeastern District, is typical of these requests:

"In 1942, Will Eason, Jr., a Nash County farmer, planted a five-acre field to loblolly pine. But fifteen years ago the trees available for planting were of poorer quality than those now being produced by the State Forest Service nurseries. Mr. Eason's trees had an exceptionally hard time with insects and diseases. As time passed they appeared to their owner to be exceptionally scrubby. Mr. Eason finally got to the point of thinking about clear-cutting the whole area and starting over with something else."

At this point Will Eason talked to Jim Andersen, and Jim suggested that a pulpwood thinning be made in the plantation. Mr. Andersen referred Eason to J. C. Gamble, a pulpwood dealer representing Halifax Paper Company in the Rocky Mount area. The pulpwood dealer was allowed to thin the young plantation; and from that time on, the looks of the stand - and Eason's view of it, too - have made steady improvement.

"The five-acre plantation yielded 33 cords of pulpwood. Income from this operation represented over four times the initial cost of planting. The thinning operation cleaned out the diseased and poorly formed trees and left a full stand of thrifty, fast-growing young pines. They look lots better, too, and Mr. Eason even allows he might keep them on for a while now.

"The next income is not far off, either. This small woods will

yield an equal amount of wood (based on present growth rate) in four or five years. The second thinning will also leave a full stand of growing stock for future saw-log harvests."

7. Forest Insect and Disease Protection - Approximately 5% of the time of staff members was devoted to this phase of the program.

Lacking a staff member with special training in forest insects and diseases, the Extension Forestry program in North Carolina has never emphasized forest insect and disease protection. Present plans, however, call for a change in this attitude. Mr. Fred Whitfield, forestry extension specialist in the Western District, plans to take leave of absence starting in September, 1958, to return to school for graduate training in the field of forest insects and diseases. Upon completion of this work, he will be moved in to Raleigh and will handle the state-wide program on forest insects and diseases.

The pine bark beetle outbreaks which were quite heavy from 1952 through 1956, abated considerably during 1957, due principally to wetter, cooler weather during the spring and summer. There were local outbreaks of these beetles, but they were not on so wide a scale as during the previous years.

The forestry extension specialists stationed in large cities like Raleigh, Charlotte, Winston-Salem, and Asheville had to devote considerable time to identifying insect specimens and making control recommendations for shade trees. This shade-tree work has been increasing rapidly from year to year, and it will soon be necessary to give some special consideration to new ways of handling

it.

Ross Douglass, forestry extension specialist in the Southeastern District, reported numerous pine plantation failures in Bladen and Sampson Counties on both 4-H plantings and plantings on Bladen Lakes State Forest. Douglass requested help from Raleigh on this problem. The extension forester took Dr. Maki, silviculturist; Dr. Kelman, pathologist; and Joe Sasser, nematologist, down to these counties to investigate the problem. Results of tests of soil samples taken by the nematologist indicated a heavy infestation of nematodes, which were apparently seriously affecting the seedlings. The results of these tests were so impressive that a three-year research fellowship has been established at North Carolina State College to investigate nematode influence on pine seedlings.

8. Department Administration, Supervision and Program Development - The practice of establishing accomplishment goals, started in 1955, was continued; and the extension forester in charge was able to rate each district specialist on the basis of how his district compared with others in attaining the goals set.

In addition, the practice in the past of the extension forester to hold individual progress conferences with each staff member was continued. This practice was discussed in detail in the 1956 annual report.

The department program of professional improvement through graduate training was explained in detail on pages 37 through 41 of the 1956 annual report. George Smith entered the North Carolina State College, School of Forestry on June 1, 1956, to take graduate

training in forest utilization under this program. Mr. Smith completed his training on May 30, 1957; and on June 1, 1957, he returned to the staff of the Forestry Extension Department. His work since returning is covered in a separate utilization report.

The extension forester was out on sick leave for $2\frac{1}{2}$ months during the summer of 1957, and was unable to complete work on lining up a sponsor to provide \$5,000 to continue the department's graduate training program. As a result, no staff member was in graduate school during the 1957-58 school term. Plans are made to continue this program, however; and in September, 1958, Mr. Fred Whitfield will enter graduate school to specialize in forest insects and diseases.

The extension forester cut thirty-one three-to-four-minute radio tapes on specific forestry questions for use over WOEL, Rocky Mount, N. C., radio station.

The extension forester also prepared a mimeograph on "Effect of Form Class and Merchantability Limit on Tree Volume."

The extension forester prepared a proposal for setting up an Extension Forestry Advisory Committee. The School of Forestry has similar committees set up to work with their different departments, and it has proven quite valuable. This committee would be made up of representatives from the sawmill industry; the various wood processing industries; lumber dealers; pulp and paper industry; consulting foresters; and several large prominent landowners who have exhibited an interest in forestry. This committee would meet in Raleigh in October when the other advisory committees for the

School of Forestry meet. At this meeting the program of the Forestry Extension Department would be presented to the committee, and discussions both pro and con would be encouraged. This committee would have no policy-making powers, but their ideas and suggestions would be valuable in shaping future developments and activities of the department. These committee members would be leaders in their own field, and it is felt that this program would give them a better understanding of the role of the Extension Service, and would encourage more widespread support from all the various groups who are interested in the welfare and products of our forests. This idea has been approved, and a committee will be set up to meet in October, 1958, at North Carolina State College.

During 1957, a new area assignment proposal was worked out and submitted to the Assistant Director. The proposal received tentative approval, and it will be gradually put into effect as the district men are moved in to the Raleigh office. It will probably be 1960 or 1961 before this program will be in full effect.

It has long been recognized that the six extension districts as presently organized are a pretty good administrative set-up, but they represent a rather poor distribution of the forestry work load. An attempt has been made in the new set-up to confine each district within the same physical type area; such as, Coastal Plain, Piedmont, or Mountains. In addition, an attempt has also been made to equalize the work load among the specialists concerned. In so far as possible, the new districts were arranged so that each district forestry

specialist had about the same number of farm woodland owners and the same number of woodland acres to work with. The proposed districts are as follows:

- (1) Northern Coastal Plain, containing the following 18 counties: Warren, Franklin, Nash, Edgecombe, Halifax, Northampton, Gates, Hertford, Bertie, Martin, Washington, Tyrrell, Dare, Chowan, Perquimans, Pasquotank, Camden and Currituck.
- (2) Central Coastal Plain, containing the following 14 counties: Wake, Johnston, Wayne, Wilson, Pitt, Greene, Lenoir, Jones, Onslow, Carteret, Craven, Pamlico, Beaufort, and Hyde.
- (3) Southern Coastal Plain and Sandhills, containing the following 15 counties: Richmond, Moore, Lee, Harnett, Hoke, Scotland, Robeson, Columbus, Brunswick, New Hanover, Pender, Bladen, Cumberland, Sampson and Duplin.
- (4) Northern Piedmont, containing the following 17 counties: Watauga, Ashe, Alleghary, Surry, Wilkes, Yadkin, Forsyth, Stokes, Rockingham, Guilford, Alamance, Caswell, Person, Orange, Durham, Granville and Vance.
- (5) Southern Piedmont, containing the following 17 counties: Alexander, Catawba, Lincoln, Gaston, Cleveland, Mecklenburg, Union, Anson, Montgomery, Stanly, Cabarrus, Iredell, Rowan, Davie, Davidson, Randolph and Chatham.
- (6) Mountains, containing the following 19 counties: Avery, Caldwell, Burke, McDowell, Mitchell, Yancey, Madison, Buncombe, Rutherford, Polk, Henderson, Transylvania, Haywood, Swain, Jackson, Macon, Clay, Cherokee and Graham.

Each of these proposed districts would contain, in active forestry counties, approximately 25,000 farm woodland owners and 1,000,000 acres of farm woodlands. Recognition was taken of the fact that many counties, particularly in the Piedmont, were becoming increasingly urbanized and industrialized and thus had a very low future forestry potential.

In addition to these area assignments, it was proposed that each specialist have a subject-matter assignment. Some subject-matter assignments contemplated are: (1) Christmas tree growing and marketing, (2) bottomland hardwoods, (3) planting and hardwood control, (4) forest insects and diseases. These subject-matter assignments are only tentative, and several additions will be made.

Two personnel changes were made during the year. On June 1, 1957, George W. Smith returned to the staff from graduate training and inaugurated a forestry utilization program. On November 18, 1957, J. C. Jones was hired to replace H. J. Andersen as forestry extension specialist, Northeastern District. Mr. Jones had served in this same job until 1952, when he left the Extension Service to become a pulpwood dealer with Halifax Paper Company.

On June 30, 1957, H. J. Andersen resigned as forestry extension specialist, Northeastern District, and accepted a position as a TV specialist in the Extension Information Department.

As of November 30, 1957, staff members and assignments are as follows:

<u>Name</u>	<u>Title</u>	<u>Area or Subject Matter Responsibility</u>	<u>Headquarters</u>
J. L. Gray	In Charge, Forestry Extension	State-wide	Raleigh
W. M. Keller	Forestry Extension Specialist	4-H and tree planting - state-wide	"
G. W. Smith	Forestry Utilization Specialist	Utilization - state-wide	"
L. H. Hobbs	Forestry Marketing Specialist	Marketing - state-wide	"
	Forestry Extension Specialist	Eastern District	County Agent's Office, Plymouth
J. C. Jones	"	"	Raleigh
R. S. Douglass	"	"	County Agent's Office, Clinton
J. H. Gilliam	"	"	Agricultural Building, Winston-Salem
E. M. Jones	"	"	County Agent's Office, Charlotte
F. E. Whitfield	"	"	Courthouse, Asheville
		Western District	

II. Activities at the State or Area Level

A. Work with State Extension Supervisors, District Agents, and Youth Leaders in Program Planning

The extension forester presented a detailed report on the program of the Extension Forestry Department at the monthly meeting of specialists-in-charge.

An elaborate department exhibit was prepared for the annual meeting of the North Carolina Agricultural Extension Service held at Pinehurst, North Carolina, in May, 1957. Large photographs were used to depict the different activities of the department; and pictures, posters, bulletins, and models were used to show how these activities were carried out. At least one member of the department staff was on duty at the display all of the time; and as each group of extension workers came around, they were shown around the booth, and the organization and functions of the forestry department were explained to them. The exhibit received much favorable comment, and was written up in the Extension Service Review.

The extension forester and the Western District forester met with the agents at a regular meeting of the Western District and presented to the agents the results of the TVA study on "Influence of Woodland and Owner Characteristics on Forest Management." They also reviewed with the agents at this meeting the plans for establishing a long-time demonstration program in the TVA counties. This would be a cooperative effort between TVA and Extension, and will be dealt with more fully under section "C" of this part of the report.

In planning the 4-H Forestry Camp for 1957, a joint conference was held in April between the Extension Forestry staff and the 4-H state

office staff. At this time, all plans for the camp were reviewed and discussed.

Since the 4-H staff and the forestry staff are both assigned by districts, the district forestry extension specialist, district agent, and associate 4-H club agent in each district acted as a committee to select two assistant county agent 4-H counsellors for the 1957 4-H Forestry Camp.

John Gilliam, Northwestern District forestry extension specialist, sat down with M. E. Hollowell, the district agent, and discussed the advantages of appointing one agent in each county to handle the county extension forestry program. Mr. Hollowell followed through with this suggestion in three counties - Rockingham, Person and Yadkin -, and the results were most encouraging. It is planned to follow up and do this in all 17 counties during 1958.

B. Assistance Given to or Received from Other Subject Matter Specialists and Research Personnel

The extension forester cooperated with H. M. Ellis, In Charge, Agricultural Engineering Extension, in setting up a trip to Florida to see a self-propelled 50-ton LeTourneau disc used in land-clearing operations. J. B. Hunt and Sons, equipment distributors, sponsored the trip; and, in addition to Mr. Gray and Mr. Ellis, Mr. Graham Chamblee, supervisor of Bladen Lakes State Forest, and two large Sandhills landowners went along on the trip. The purpose of the trip was to determine whether the large machine could be used in land clearing or mechanical hardwood control operations in the sandhills of North Carolina.

The extension forester was responsible for getting Dr. Maki, in charge of forest management research and instruction of the School of Forestry; Dr. Kelman, pathologist; and Joe Sasser, nematologist, interested in making a study of the excessive mortality in young pine plantations in certain localities, in Bladen and Sampson Counties. As a result of this investigation, a three-year research fellowship has been established at North Carolina State College to investigate nematode influence on pine seedlings.

Extension Forester Gray served as a member of the advisory committee for the Calhoun Experimental Forest at Union, South Carolina. Mr. Gray, along with E. M. Jones, Southwestern District, and John Gilliam, Northwestern District forestry specialists, attended an advisory committee meeting at this center during the summer of 1957. They participated in the discussions and made suggestions for revision of research projects and inclusion of new projects. Mr. Gray served as a discussion leader at this meeting.

C. Assistance Given to or Received from Various State, Federal and Other Agencies or Interest Groups

In the Federal agency field, 1957 was marked by continued close cooperation between the Extension Forestry program and the Agricultural Conservation program and soil bank program of the Agricultural Stabilization and Conservation agency.

Extension Forester Gray, Forestry Extension Specialist Keller, and representatives of the North Carolina Division of Forestry served as a forestry advisory technical group to the state A. S. C. committee.

During the year several conferences and meetings were held by this committee with H. V. Mangum, administrative assistant of the state A.S.C. office.

The extension forestry staff prepared a special issue of the "Farm Forestry Facts" sheet on "Tree Planting - 1958 Soil Bank and A.C.P." This fact sheet acquainted county agents and others on the mailing list with the major changes in the forestry phases of the 1958 soil bank and A.C.P. practices.

In addition, Extension Forester Gray worked with Dan Hatch, assistant chief, Price Support Section, and prepared a mimeograph on "Soil Bank Tree Planting Procedure for North Carolina Farmers."

Forestry Extension Specialist Ross Douglass helped several counties out by making compliance inspections and approving forestry practices for payments when these counties fell way behind on their inspections.

With the help of the publicity given to the soil bank program by the Extension Service, the following results were achieved in 1957, in the tree planting phase of the Conservation Reserve, Soil Bank:

Number of farmers signing up for tree planting -----	680
Number of counties represented -----	83
Number of acres to be planted -----	19,073

In September, 1957, Forestry Specialist Keller attended the meeting in Atlanta, Georgia, where the new features of the soil bank and A.C.P. programs were explained to the officials of Southeastern states A.S.C. offices.

Forestry Extension Specialists Keller, E. M. Jones and Gilliam met with Soil Conservationists at different district S.C.S. meetings and reviewed for these groups the organization, functions and services offered by the Forestry Extension Department.

Summer cutting in pines has been the subject of a hot controversy for several years in this state, with this department standing in opposition to summer cutting. In July, 1957, Forestry Specialist Keller met with Charlie Speers, forest entomologist, Southeastern Forest Experiment Station; Chris Goodwin, North Carolina Division of Forestry; Young Rainer, Southern Pulpwood Conservation Association; Howard Doyle, North Carolina Hardwood, Furniture & Veneer Council; Carl Holcomb, Virginia extension forester; and Dick Boyce, Champion Paper and Fibre Company, and came to a general agreement on summer cutting in pines. In light of the evidence, the group modified its stand and approved summer cutting under several very definite conditions. Conditions under which summer cutting may be normally carried out were spelled out in detail; and county agents, woodland owners and other interested persons are being advised of this information.

Forestry Extension Specialist Fred Whitfield assisted the Southeastern Forest Experiment Station in lining up eight or ten people who had white pine plantations 10 years old or over and who were willing to have several pines cut from these plantations for stem analysis and growth study. These plantations were selected from all over the Western District under a wide variety of conditions.

The U. S. Forest Service cooperated with Forestry Specialist Whitfield in assisting the Haywood County 4-H Council to obtain Fraser fir seedlings to plant in a Christmas tree project. The seedlings were lifted from thick natural reproduction under a virgin stand of fir near Burnsville.

The U. S. Forest Service also cooperated with Whitfield in providing Fraser fir seedlings from a similar source for a Christmas tree project

for the vocational agriculture class in Boone, N. C. The Extension Service assisted with this project because the U. S. Forest Service would not sell these seedlings to the group unless Forestry Specialist Whitfield were along to supervise the work.

The year 1957 also saw the inauguration of a "Long-time cooperator demonstration program" with TVA and Extension Service cooperating. This program was jointly developed by forestry representatives of the North Carolina Agricultural Extension Service and the TVA, and provides for the unification of efforts of the two agencies in promoting better management of small woodlands in western North Carolina. The project will be carried out on the ground as a part of the regular Extension Service program through the normal channels of the county agent organization. TVA has agreed to provide three man-months' time of a forester each year in helping to guide and direct the project, giving special on-the-ground assistance with field activities, and in the preparation of establishment and follow-up reports. Since the project also involves some interests of other agencies, both TVA and the Extension Service agreed to seek cooperation and assistance from the North Carolina Division of Forestry, A.S.C. and other state and Federal agencies, as well as from private industry as may be appropriate in development of the project.

For the past nine years, this department has worked in close cooperation with progressive-minded wood-using industries and has supported them, as well as solicited their support, in promoting the expansion of timber growing in this state. The highlights of cooperation in 1957 given and received from such industries are as follows:

1. Free Seedlings - The free-seedling program has been discussed in detail in each annual report during the past several years, and it is not necessary to go into a long drawn-out discussion of this program in this report. Details of this program may be obtained by looking at any one of the past five or six years' annual reports.

International Paper Company had been in the habit of giving free trees to adults on a matching basis to landowners residing within truck-hauling radius of company installations in North Carolina. This program had been highly successful; but in the fall of 1957, International Paper Company felt it was no longer necessary to offer free seedlings to induce landowners to plant trees, and, therefore, they abandoned this program.

As discussed earlier under Tree Planting in this report, the Halifax Paper Company at Roanoke Rapids, N. C., cooperated with the county agent's office in Halifax County in making a million seedlings available free to landowners in Halifax County. This program was eagerly accepted by the landowners of this county, and all of the free trees were planted.

During the 1956-57 planting season the North Carolina Pulp Company, as was their usual custom, offered one million free loblolly pine seedlings to 4-H Club members in the 65 eastern-most North Carolina counties. This offer was made through the county agents' offices, with the extension forestry personnel supervising the distribution of application blanks and information. A total of 418 4-H Club members ordered and received 1,007,000 trees under this North Carolina Pulp Company free-seedling offer.

In the 35 western-most counties in North Carolina the Champion Paper and Fibre Company offered 350,000 white pine seedlings, 150,000 shortleaf pine seedlings, and 200,000 loblolly pine seedlings, making a total of 700,000 tree seedlings offered free to 4-H Club members in these 35 counties. In these counties 601 4-H Club members ordered and received 698,000 free pine tree seedlings under this Champion Paper and Fibre Company offer.

In the summer of 1957, however, both of these paper companies indicated a desire to modify this free-seedling program of theirs. In the case of North Carolina Pulp Company, they themselves took over the entire handling and distribution of these free seedlings. The Forestry Extension Department took no part in this program except to notify the county agents of this change and encourage them to support the North Carolina Pulp Company in their handling of this program. North Carolina Pulp Company continued to cover the same 65 counties in eastern North Carolina, and orders were processed directly from the 4-H applicant through their district foresters throughout the state. As yet, we do not know how well this program worked out.

The Champion Paper and Fibre Company did not make quite as big a change in their free-seedling program, but they did draw back somewhat from their previous area. In 1957-58 planting season Champion Paper Company covered only the 11 counties in the extreme southwestern corner of North Carolina. It covered, generally, only those counties within trucking distance of the mill at Canton. The 4-H agents in these 11 counties continued to handle applications from 4-H Club members for free seedlings; but after they took the

orders from the club members, they forwarded them directly to Ray Orr, conservation forester at Canton, and he handled the approval and forwarding of these applications to the North Carolina Division of Forestry.

Champion Paper & Fibre Company's withdrawal to this eleven-county area left twenty-four counties in the western Piedmont and northern mountain sections of the state which were not covered by any free-seedling offer to 4-H Club members for the 1957-58 planting season. Attempts were made to get the Bowater Paper Company to take over this program in this area, but they were in the midst of a heavy building program at Rock Hill, South Carolina, and were not in position to take over this program at this time. The Southern Railroad was also approached about the possibility of sponsoring this program in this 24-county area since most of these counties were served by their railroad, but they indicated that decreased revenues prohibited them from going into such a program at this time. Therefore, as we went into the 1957-58 planting season, there were no free tree seedlings available at all in this 24-county area.

2. In the summer of 1957, Mr. Ray Orr, conservation forester for Champion Paper & Fibre Company, indicated that he thought there was necessity for a meeting of the conservation foresters from Champion Paper Company and the Forestry Extension staff from North Carolina State College. He felt that these two organizations had been drifting apart somewhat in their views on different forestry matters and it would be beneficial to both if they could get together for several days and iron out any differences which had arisen between their

organizations and discuss forestry problems common to both organizations. Such a meeting was set up and was held in Waynesville, North Carolina, in October, 1957. The meeting was attended by all of the members of the Forestry Extension staff and by six conservation foresters from Champion Paper & Fibre Company. Any differences existing between the two groups were quickly ironed out, and a lot of good feeling was reestablished between the two organizations. One proposal coming out of the meeting and which was followed up to completion was the suggestion that some means should be found by which county agents could refer landowners directly to Champion Paper Company conservation foresters for service work. In many of these counties no service work was provided by the North Carolina Division of Forestry, and in the counties where such service was provided these farm foresters were often overloaded. Mr. Orr indicated that his men would be willing to come in and help with marking and other service jobs to landowners in this area. As a result of this, a postal card form was prepared for distribution to county agents, with the name and address of the nearest Champion Paper conservation forester stamped on the front of the card. On the back of this card was a form requesting forestry assistance by a landowner, and all the landowner had to do was to check for the type of assistance he wanted and then sign his name and address on the card. When Champion Paper Company received these cards, their service forester would immediately write a letter and send a copy to the extension forester's office and follow up on this request. This program was instituted, the cards were printed and were distributed to the county agents in the counties covered

by the Champion Paper Company conservation foresters.

3. The Southern Bell Telephone & Telegraph Company again in 1957, agreed to sponsor the state-wide forestry camp and awards program in North Carolina. A picture brochure of the 1956 program listing results was prepared and presented to them early in the spring of 1957, together with a request for continued sponsorship in 1957. Bell Telephone has been very well pleased with the results of this program; so they agreed to sponsor all district and state awards and the state L-H forestry camp again in 1957.
4. Extension Forester Gray appeared on the program at the annual area meeting of the Southern Pulpwood Conservation Association held at Nags Head in the first week of June, 1957.

Also, in cooperation with the Southern Pulpwood Conservation Association, two "get-acquainted" meetings were held during the summer of 1957. One of these meetings was held at Williamston, North Carolina, on August 5 and 6; and the other meeting was held at Wilmington, North Carolina, on August 8 and 9. Those invited to these meetings were: one county agent per county and one Soil Conservation Service worker per county, plus the district extension agents, extension directors, extension forestry staff, state foresters and district foresters of the North Carolina Forest Service, and one representative from the Farm Management staff from the Extension Service here in Raleigh. The invited agents each provided only transportation and time to and from the meeting, and the Southern Pulpwood Conservation Association provided the program, the meals and the lodging. Attending these meetings from the Extension Service were

at the Williamston meeting 25 county agents, 3 district extension agents, 1 assistant director and 2 forestry specialists. At the Wilmington meeting there were 29 county agents, 2 district extension agents, 1 assistant director and 6 forestry specialists. The sponsors, through the Southern Pulpwood Conservation Association, were the North Carolina Pulp Company, Riegel Paper Company, and International Paper Company. The program was the same at each of these meetings and was as follows:

The invited agents and others arrived at the meeting place in time for lunch. Following lunch of the first day an indoor session was held, at which four different subjects were discussed by representatives from the Association or from the pulp industry. These four topics were: (a) Land Ownership Policy, (b) Wood Procurement System, (c) Services to Landowners, and (d) Timberland Leasing Program. Following these papers a short discussion was held by the group, and then the group adjourned for a social hour and banquet.

The second day of the program provided for a field trip that was made during the morning to some of the management areas on North Carolina Pulp Company land in the case of the Williamston meeting and to Riegel Paper Company land in the case of the Wilmington meeting. The group was then fed dinner. And in the afternoon they were taken on a tour of the pulp mills at either North Carolina Pulp Company at Plymouth or Riegel Paper Company at Acme. Following this mill tour, the group adjourned and returned to their home counties.

These meetings were very well received by the agents, and the Southern Pulpwood Conservation Association was very well pleased with the response and the reaction they got to these meetings.

The counties sending agents to these meetings were as follows:

Williamston - August 5 and 6

Beaufort, Chowan, Currituck, Gates, Hyde, Pasquotank, Perquimans, Tyrrell, Washington, Edgecombe, Franklin, Greenville, Greene, Halifax, Hertford, Martin, Nash, Northampton, Vance, Wake, Warren, Wilson, Durham, Orange, and Person

Wilmington - August 8 and 9

Alamance, Caswell, Chatham, Wayne, Cabarrus, Mecklenburg, Stanly, Union, Carteret, Craven, Jones, Onslow, Pamlico, Anson, Bladen, Brunswick, Columbus, Cumberland, Duplin, Harnett, Hoke, Lee, Montgomery, New Hanover, Pender, Robeson, Sampson, Scotland, and Richmond

Extension Forester Gray, in 1957, started preparing an industry feature for the North Carolina Forestry Association monthly news letter. This monthly feature by Extension Forester Gray highlights cooperative forestry program practices of conservation-minded or public-relation-minded companies, starting with companies which have had little or no publicity along these lines in the past.

III. Assistance Given County Extension Workers with Both Adult and Youth Work

- A. With specialists assigned on a district basis, the Forestry Extension Department is able to render close personal service to county agents whenever and wherever it is needed. Generally speaking, all counties are contacted by the district specialists of this department each year with regard to program planning. Some examples of these services provided are as follows:

In the Northwestern District, John Gilliam, forestry extension specialist, made a talk to all the agents at a district meeting on the forestry outlook for the next fifteen years as it applies to Extension activities in the coming years.

Mr. Gilliam also held a joint meeting in each county with all agricultural agencies represented, and an attempt was made to formulate the forestry program for that county for the coming year. He said that a lot of interest was shown and that several counties came up with very good programs; such as, field

days, forestry week programs, and grower-buyer meetings. Following this general meeting, a meeting was held in each county with all county extension personnel represented, and an attempt was made to develop a county forestry program for the year. This information was included in the county plan of work. This included both adult and youth work.

B. Examples of special assistance in planning, organizing and conducting new subject matter were as follows:

Mr. Gilliam reported some very basic planning and work was done in the mountain counties and upper Piedmont counties on the Christmas tree program. Interest has been growing rapidly in producing Christmas trees in this area, and some steps have been necessary to meet this growing interest. Agents in the counties concerned have agreed to contact landowners and put in demonstration plots using different species and methods of producing Christmas trees.

E. M. Jones, forestry extension specialist in the Southwestern District, reported spending considerable time with the Catawba County agent in working up a Fraser fir Christmas tree market. This market was made possible through the help of Mr. Carroll Carpenter of Hickory, North Carolina, a large dealer in Christmas greens and decorations for municipalities.

Mr. Fred Whitfield, forestry extension specialist in the Western District, spent considerable time and effort in preparing Riker mounts on insects and diseases affecting forest trees. Mounts prepared include those on the Pales weevil, the pine

sawfly, seventeen-year locust, white pine blister rust, white pine aphid, and the southern pine beetle. A notebook was also prepared with various leaf insects and diseases. These have been made available to county agents in the Western District and may be shown at meetings of all kinds and also used on TV programs.

C. Obtaining the Cooperation of Local Organizations and Commercial Agencies

Industry assistance on the county level was best exemplified in 1957, by the numerous forestry contests held either for adults or for 4-H and F.F.A. members in fourteen specific counties in the state, plus one general district contest which covered the entire Western District. These contests and sponsors were listed on pages 62 and 63 of the 1956 annual report, and it is not felt necessary to list them again. The only changes in the contests in 1957, were that Stokes and Wilkes Counties dropped out of this program because no free tree seedlings were available to them for the 1957-58 planting season. Other than the withdrawal of these two counties, these contests remained the same as they were in 1956.

In addition to these contests, specialists of this department helped county agents secure sponsors for roadside sign units in the various counties.

In addition, John Gilliam, Northwestern District forestry extension specialist, was instrumental in arranging with Dick Boyce of Champion Paper & Fibre Company and Robert Hare of Halifax Paper Company to provide forestry service and assistance in counties

where no other forest services were available. In addition, Halifax Paper Company also cooperated with the county agents in Orange and Durham Counties and Mr. Gilliam in providing heavy equipment, and personnel to operate it, in putting on a mechanical land preparation demonstration.

D. Major Assistance in Selection, Training and Use of Local Volunteer Leaders

Main emphasis in 1957 in this phase centered around the follow-up to the Governor's fire conference held in October of 1956. The district extension foresters and Extension Forester Gray assisted several counties in setting up local forestry committees or holding forest fire conferences in their individual counties. In the cases of Henderson and Beaufort Counties, Extension Forester Gray assisted the local county agents and local leaders in forming a forestry committee. In Onslow County, Extension Forester Gray assisted D. A. Halsey, the county agent, in organizing and putting on a forest fire conference known as the "Keep Onslow County Green" conference. This meeting was highly successful and was attended by 300 people. In Caldwell County, E. M. Jones, Southwestern District forestry extension specialist, and J. L. Gray assisted the county agent in putting on a forest fire conference at Lenoir. This conference was also successful and attracted 250 people. As mentioned earlier in the report, Fred Whitfield, Western District forestry extension specialist, assisted in putting on the western North Carolina fire protection conference held at Asheville, North Carolina. Over 1,000 persons from 21 western counties attended this conference.

E. Assistance to Agents in Preparation and Use of Teaching Devices

In May of 1957, Mr. H. J. Andersen, Northeastern District extension specialist, put on a training school for agents from each of his 18 counties. The primary purpose of this school was to teach agents how to use some of the more common forest techniques. Mr. Andersen arranged the program so that the agents received instruction in thinning, scaling, marking, and even the use of the prism in plotless cruising of timber. Thirty-five county agents and assistant agents attended this training meeting, and Mr. Andersen was assisted by Extension Forester Gray and Forestry Extension Specialist Keller. In addition, Mr. Andersen had arranged for several industrial foresters to assist in this training session. Mr. Ben Allen, forester for Camp Manufacturing Company, handled the pulpwood marking part of the program. Mr. J. C. Jones and J. C. Gamble, pulpwood dealers, also assisted in this phase of the training. Mr. Lacey Rowe of Tarboro, forester for the Georgia-Pacific Plywood Corporation, handled a session on management of bottomland hardwoods for this meeting. This meeting was well attended and well received by the county agents, and several of the agents present expressed a desire to receive more detailed training in certain phases of these programs.

IV. Contribution to Regional Extension Program

In October, 1957, Extension Forester Gray and Forestry Extension Specialist Keller, along with representatives from the North Carolina Division of Forestry, met with representatives from Region 8 of the U. S. Forest Service and discussed and planned soil bank publicity featuring the forestry part of the conservation reserve program. At

this meeting all publicity techniques used by the Forestry Extension Service in this state were reviewed by this group, and the Region 8 officials also distributed samples of some publicity methods used by other states in Region 8. As a result of this meeting, all the groups present agreed on which publicity techniques would be used in this state; and orders were placed for many of the materials furnished by the U. S. Department of Agriculture for this purpose. Folders, mimeographs, outdoor signs and newspaper mats were ordered from the U. S. Department of Agriculture and were all shipped to the office of the state extension forester. In turn, the extension forester distributed all of these materials according to the distribution pattern decided upon by the planning group. Many ideas were picked up at this planning conference and put into use in publicizing the soil bank program in North Carolina. The North Carolina Wildlife Resources Commission also had a representative at this conference; and, as a result of this fact, the Forestry Extension Department adopted a policy of encouraging all landowners who planted areas to pine seedlings to go ahead and also plant a border strip of game feed patches or to reserve small plots not larger than one-quarter of an acre in the interior of these pine plantations which would be planted to some type of grain food or cover. The Extension Forestry office gave this game-food-patch idea wide publicity and created a lot of interest in adopting this practice throughout the state.

V. Special

- A. During the year program activities and accomplishments in certain special fields were as follows:

1. Farm and Home Development

In 1957, this department continued a program feature started

in 1955, to help strengthen the ability of agents to make woodland examinations and help Farm and Home Development families decide what to do to use their woodland for supplemental income, build up its productivity, etc. This feature is a one-day woodland analysis training school held on the individual county level, generally on a Farm and Home Development farm, for members of the county extension staff.

In 1957, these schools were held in 16 additional Farm and Home Development counties in North Carolina. With the exception of Yancey County, this completed the training schools for all of the original Farm and Home Development counties in the state of North Carolina. These training schools were very effective in stimulating the agents to do more forestry work in the counties. In one of the Farm and Home Development counties the agent was so stimulated by these meetings that he immediately embarked on a very ambitious forestry program. Without mentioning the name of the county, this agent began doing so much forestry work that his district agent felt it necessary to warn him to cut down on the amount of forestry work he was doing and reminded him that he was also responsible for all the other agricultural phases of work on these Farm and Home Development farms in his county. This was an extreme case, but it pointed up how much enthusiasm can be generated in the agents as a result of these woodland analysis training schools.

In the Western District, Mr. Fred Whitfield, forestry extension specialist, reports that considerable time was spent on

giving individual assistance in the form of preparing written plans for Farm and Home Development families. These written forest management plans are very simple and general, but at least they provide the families with a guide in their future forestry activities. Mr. Whitfield reports that in 1957, fifteen such plans were written by himself and the county agents involved in his district. As an example, Mr. Whitfield reported that Harold Cabe, Farm and Home Development farmer of Route 2, Franklin, North Carolina, has embarked on a five-year forestry program on his farm. This first season he cut 56 trees on his farm containing approximately 1,200 board feet of lumber, which was needed for farm repairs.

2. Rural Development

This was a relatively new program throughout the country and has been established in only two counties in North Carolina. These two counties set up under this program in 1957, were Watauga in the west and Bertie in the eastern part of the state. This is a program designed to raise local living conditions and standards in relatively poor or somewhat backward counties. Later in 1957, Anson County came into this program.

Extension Forester Gray and Forestry Marketing Specialist L. H. Hobbs met with representatives from the Southeastern Forest Experiment Station in Anson County and mapped out a marketing research program to be followed in these Rural Development counties. Forestry Marketing Specialist Hobbs then worked in close cooperation with marketing specialists from other subject-matter

departments in collecting information and background material to be used in preparing a more detailed Rural Development program for these counties.

1957 represented another big year in the ever-growing and -expanding Extension Forestry program in the state of North Carolina.

Exhibit A

EXTENSION FORESTRY GOALS AND ACCOMPLISHMENTS - 1957

District	Total number of counties	4-H Goals					10% increase in white 4-H forestry project completions	5 long-time 4-H forestry records per district
		Forestry Camp 1 delegate each county	Demonstration competition of counties in district	District entrant in state competition	Total			
					No. of counties	No. of entrants		
Eastern	16	12	5	x	292	276	3	
Northeastern	18	17	8	x	599	729	3	
Southeastern	17	17	4	x	695	738	3	
Northwestern	17	15	10	x	609	672	3	
Southwestern	17	15	8	x	798	962	3	
Western	15	14	11	x	748	847	3	
State total	100	90	46		3741	4224	18	

Exhibit A, Cont.

EXTENSION FORESTRY GOALS AND ACCOMPLISHMENTS - 1957

District	Narratives written	Woodland analysis training schools held	Adult Goals		Long-time cooperators set up	Hardwood conversion demonstrations
			Roadside sign units placed			
			1957	1956		
Eastern		1		2		
Northeastern	22	8		12		
Southeastern	52		4	10	3	5
Northwestern	10	3	3		5	3
Southwestern	4	1		5	9	
Western	11		2	2		4
State total	77	13	9	31	17	12

Exhibit B

STATISTICAL SUMMARY - 1957

Item	Specialists								Total
	Gray	Keller	Andersen	Douglass	Gilliam	E. M. Jones	Whitfield	J. C. Jones	
1. Days in office	146.5	188.0	27.5	69.4	88.5	68.5	55.5	5.5	649.4
2. Days in field:									
With agents	45.0	52.0	137.5	114.8	142.0	181.0	161.0	1.0	834.3
With others	25.0	28.0	16.0	65.8	23.5	12.5	47.5	2.5	220.8
Sub-total - (2)	70.0	80.0	153.5	180.6	165.5	193.5	208.5	3.5	1,055.1
3. Holidays taken	9.5	10.0	7.0	10.0	9.0	9.0	10.0	1.0	65.5
4. Annual leave	2.0	14.5	4.0	17.0	2.0	13.5	11.0		64.0
5. Sick leave	52.0		4.0		21.0				77.0
6. Civil leave (jury)	9.0						2.0		11.0
7. Military leave				10.0					10.0
Sub-total -									
(3, 4, 5, 6, 7)	72.5	24.5	15.0	37.0	32.0	22.5	23.0	1.0	227.5
Grand total (1 to 7)	289.0	292.5	181.0	287.0	286.0	286.0	286.0	10.0	1,917.5
Total number of									
individual meetings	106	27	24	42	66	23	80		368
Total attendance	4,667	3,639	825	1,749	1,813	989	4,154		17,836

Exhibit C

COOPERATIVE EXTENSION WORK

IN
AGRICULTURE AND HOME ECONOMICS

NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

STATE OF NORTH CAROLINA

EXTENSION SERVICE
COUNTY AGENT WORK

State College Station
Raleigh, N. C.

July 10, 1957

To: All District Agents, County Agents and
Assistant County Agents.
From: Walt Keller, Forestry Extension Specialist
Subject: Final summary of seedlings ordered through Extension personnel,
1956-1957 planting season

Gentlemen:

This past winter, the 1956-1957 planting season, a total of 15,830,375 forest tree seedlings were ordered on application blanks distributed by Extension personnel, or were distributed through programs handled by the county agents' offices. This was 10,000,000 more seedlings than the previous record number placed by Extension personnel. In the planting season of 1955-1956, the county agents' offices were responsible for placing 5,798,000 seedlings.

All of the figures for each county, district, and the state are totalled for you in the attached report, and there is no point in me listing a lot of figures here in the body of this letter. I would, however, like to point out that the agents' offices in Anson, Halifax, and Scotland Counties each placed over 1,000,000 seedlings; and several other counties approached this mark.

Despite the serious seedling shortage during the past planting season, we feel that your efforts made it a very successful year.

EASTERN DISTRICT

County	Free L-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered
Beaufort	3	4,000	5	6,000			8	10,000
Camden								
Carteret	1	5,000	5	16,000	2	6,000	8	27,000
Chowan	4	18,000					4	18,000
Craven	1	500	14	78,000	1	5,000	16	83,500
Currituck								
Dare			1	500			1	500
Gates			2	6,500			2	6,500
Hyde								
Jones			4	7,000			4	7,000
Onslow			2	6,000			2	6,000
Pamlico	2	9,500	6	23,000	1	500	9	33,000
Pasquotank								
Perquimans								
Tyrrell								
Washington								
District totals	11	37,000	39	143,000	4	11,500	54	191,500

NORTHEASTERN DISTRICT

County	Free L-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered	Appli- cations	Seedlings ordered
Bertie	5	7,500	1	5,000			6	12,500
Edgecombe			27	137,500			27	137,500
Franklin	11	12,000	16	68,000			27	80,000
Granville	4	23,000	30	238,000			34	261,000
Greene			2	30,450			2	30,450
Halifax	1	2,000	5	11,500	105	1,056,500	111	1,070,000
Hertford	3	15,000	5	39,400	38	190,900	46	245,300
Johnston	3	4,500	8	87,000			11	91,500
Lenoir			13	40,000			13	40,000
Martin			9	30,000			9	30,000
Nash			3	15,500			3	15,500
Northampton	5	15,000	4	109,550	7	35,450	16	160,000
Pitt	1	5,000					1	5,000
Vance	4	4,000	7	41,000			11	45,000
Wake	9	26,000	4	14,200	2	10,000	15	50,200
Warren	6	17,500	2	7,000	17	85,000	25	109,500
Wayne	1	500	24	235,700	22	110,000	47	346,200
Wilson			1	1,000			1	1,000
District totals								
totals	53	132,000	161	1,110,800	191	1,487,850	405	2,730,650

SOUTHEASTERN DISTRICT

County	Free 4-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered
Anson	30	96,000	89	1,342,750	41	166,750	160	1,605,500
Bladen	35	63,900	35	199,850	15	65,050	85	328,800
Brunswick	18	53,450	5	47,500	1	2,000	24	102,950
Columbus	13	20,500	6	32,000	1	5,000	20	57,500
Cumberland	6	25,500	34	333,500	13	62,500	53	421,500
Duplin	14	43,500	6	26,500	3	27,000	23	97,000
Harnett	3	4,500	14	152,500	1	5,000	18	172,000
Hoke	3	8,500	34	234,000	5	25,000	42	267,500
Lee			9	141,000	43	211,000	52	352,000
Montgomery	31	115,000	71	478,000	30	134,000	132	727,000
Moore	17	57,300	26	453,800	4	20,000	47	531,100
New Hanover			2	1,500			2	1,500
Pender	2	1,000	11	228,500			13	229,500
Richmond	13	37,500	21	186,500	10	33,000	44	257,000
Robeson	18	22,500	22	550,500	4	13,500	44	576,500
Sampson	10	13,500	23	274,500	5	25,000	38	313,000
Scotland	14	53,000	74	1,421,200	18	78,500	106	1,552,700
District								
totals	227	615,650	482	6,104,100	194	873,300	903	7,593,050

NORTHWESTERN DISTRICT

County	Free 4-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered
Alamance	1	1,000	11	31,600	2	6,000	14	38,600
Alleghany	25	24,500	9	62,000			34	86,500
Ashe	45	30,000					45	30,000
Caswell	7	14,000	2	5,000			9	19,000
Chatham	5	7,000	32	505,250	18	64,250	55	576,500
Davidson	6	13,000	3	6,000			9	19,000
Durham			2	10,500			2	10,500
Forsyth	1	500	6	12,100			7	12,600
Guilford	9	11,425	4	20,000			13	31,425
Orange			2	41,000	1	5,000	3	46,000
Person	14	21,500	32	204,500			46	226,000
Pendolph	11	20,000	16	58,700	7	27,000	34	105,700
Rockingham	8	7,000	9	65,500			17	72,500
Stokes	13	9,500					13	9,500
Surry	2	2,000	5	27,000			7	29,000
Wilkes	15	14,200	7	31,000			22	45,200
Yadkin	2	4,500	2	10,500			4	15,000
District								
totals	164	180,525	142	1,090,650	28	102,250	334	1,373,425

SOUTHWESTERN DISTRICT

County	Free L-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered
Alexander	8	10,500	1	500			9	11,000
Burke	7	5,600	51	207,000			58	212,600
Cabarrus	31	75,000	6	12,050	2	6,000	39	93,050
Caldwell	19	17,700	8	30,600			27	48,300
Catawba	3	2,500	6	52,000			9	54,500
Cleveland	25	45,050	8	30,750	12	44,000	45	119,800
Davie	14	20,500	1	2,000			15	22,500
Gaston	11	14,000	16	80,600	3	14,000	30	108,600
Iredell	10	19,500	13	50,000			23	69,500
Lincoln	21	32,500	28	220,100	8	30,000	57	282,600
McDowell	20	20,100	4	5,400			24	25,500
Mecklenburg	1	1,000	13	48,500			14	49,500
Polk	17	22,550	14	51,400			31	73,950
Rowan	14	21,500	8	9,500			22	31,000
Rutherford	117	230,000	27	188,500	6	22,500	150	441,000
Stanly			2	7,000	1	5,000	3	12,000
Union	19	31,000	27	143,500	16	65,500	62	240,000
District								
totals	337	569,000	233	1,139,400	48	187,000	618	1,895,400

WESTERN DISTRICT

County	Free L-H Trees		Purchased Trees		Free Trees to Adults		County Total	
	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered	Appli- cations	Seedlings, ordered
Avery	25	12,500			33	50,000	58	62,500
Buncombe	2	1,500	1	2,500	69	112,000	72	116,000
Cherokee	26	25,500			108	572,000	134	597,500
Clay	4	5,000			51	196,500	55	201,500
Graham	13	10,000			10	31,000	23	41,000
Haywood	69	51,000	4	4,000	32	75,000	105	130,000
Henderson	27	17,500	4	24,000	43	90,000	74	131,500
Jackson	18	11,500	3	11,000	64	100,000	85	122,500
Macon	1	1,000	4	7,000	102	140,500	107	148,500
Madison	4	3,000			25	70,000	29	73,000
Mitchell	8	7,000	1	3,000	28	90,000	37	100,000
Swain	10	5,850	1	1,000	30	60,000	41	66,850
Transylvania	15	15,000	6	6,000	45	90,000	66	111,000
Watauga	4	4,000	2	15,000	35	75,500	41	94,500
Yancey	1	500			34	49,500	35	50,000
District								
totals	227	170,850	26	73,500	709	1,802,000	962	2,046,350
STATE								
TOTALS	1,019	1,705,025	1,083	9,661,450	1,174	4,463,900	3,276	15,830,375

Exhibit D

STATE AND DISTRICT TRENDS - NORTH CAROLINA
PROPORTION OF WORK TIME DEVOTED TO FORESTRY
ALL WHITE MALE COUNTY WORKERS

Area	Years											
	1950	1951	1952	1953	1955	1956	1957*	1958	1959	1960		
Eastern District	2.3	2.4	2.5	2.5	3.0	3.2	2.50					
Northeastern District	3.6	3.7	3.7	4.2	4.4	4.7	3.96					
Southeastern District	2.7	2.6	2.9	1.7	3.5	4.5	3.47					
Northwestern District	3.6	3.3	2.9	2.6	2.7	2.8	3.56					
Southwestern District	2.5	2.7	2.4	2.2	3.3	3.2	2.96					
Western District	3.1	3.5	4.2	3.8	4.2	4.1	4.29					
State-wide	3.09	3.13	3.14	2.91	3.55	3.75	3.62					

*Prior to 1957, days devoted to forestry included wildlife conservation. In 1957, only forestry time is listed.