

NORTH CAROLINA AGRICULTURAL EXTENSION  
SERVICE  
N. C. STATE COLLEGE OF AGRICULTURAL AND ENGINEERING  
AND  
UNITED STATES DEPARTMENT OF AGRICULTURE

I. O. SCHAUB, DIRECTOR

NARRATIVE REPORT

DUPLIN COUNTY

L. F. WEEKS.....COUNTY AGENT

DECEMBER 1, 1945 TO DECEMBER 1, 1946

EDWIN E. WRIGHT.....ASSISTANT COUNTY AGENT

DECEMBER 1, 1945 TO DECEMBER 1, 1946

ADDISON JENRETTE.....ASSISTANT COUNTY AGENT

JUNE 10, 1946 TO DECEMBER 1, 1946

INDEX .

	PAGE
1. Introductory Remarks.....	1
2. Agricultural Engineering.....	2
3. Animal Husbandry.....	7
4. Dairying.....	10
5. Agronomy.....	11
6. Horticulture.....	18
7. Forestry.....	21
8. Farm Management.....	24
9. Poultry.....	25
10. Farm Labor.....	27
11. Other Activities.....	28
12. 4-H Clubs.....	29
13. Special 4-H Club Activities.....	29
14. 4-H Projects.....	35

I. INTRODUCTORY REMARKS

This report covers the work done during the year 1946, by the County Agent, L. F. Weeks, who worked the entire year; Edwin Wright, Assistant County Agent, who worked from December 1, 1945, to February 2, 1946; and Addison Jenrette, Assistant County Agent, who worked from June 10, to November 30, 1946.

The Farm Forestry Assistants time was divided between Cumberland, Bladen, Sampson, and Duplin counties. During the Extension year, ending November 30, three different Foresters were employed and served as the Farm Forestry Assistant in these four counties. R. E. Reed served during December 1945, W. G. Davis served from January 16, through May 1946, and Ross S. Douglass served from July 1, through November 30, 1946.

During the fall of 1945 the County Agents met with the District Farm Agent, Mr. C. H. Brickhouse, in the County Agent's Office in Kenansville to study and work out an Extension Plan of Work for 1946. The Extension Specialists furnished an outline of demonstrations that they would assist the county agents with during the year. From this outline, demonstrations were planned which we felt were most needed in Duplin County. Before the Annual County Plan of Work was finished, long timed objectives were outlined, based on the immediate and long time needs for Agricultural changes in the county.

At the time our Annual Plan of Work was developed there were two agents employed, the County Agent and Assistant, therefore,

the county plans were based on what the two agents might be expected to do during the year.

On February 2 the Assistant County Agent, Mr. Edwin Wright, was called from the county to take additional training at State College in tobacco production, after which, he was sent to Roberson County as tobacco assistant.

During the months of February, March, April, and May there was no Assistant Agent on the job in Duplin County. Many of the demonstrations outlined in our Annual Plan of Work, most of which were to be started during these spring months, were never started.

There were 49 baby beef calves being fed out and fitted for the April shows which required a great deal of the County Agent's time. In addition, fourteen 4-H clubs were meeting monthly, and it was necessary that the County Agent meet each of these clubs.

## 2. AGRICULTURAL ENGINEERING

### (a) Farm Drainage:

On January 24 Mr. Howard Ellis, Agricultural Engineering Extension Specialist, was invited to the county for a demonstration on dynamite ditching. This demonstration was held on the farm of Mr. C. C. Thigpen, Pink Hill, N. C., R.F. D. One hundred and eighty-five farm people attended this demonstration.

Mr. Ellis assisted at this demonstration by showing how dynamite should be put in the ground in order to get the best ditching results.

Several test charges were set off in order to determine the amount of explosive to use, and the distance at which each load should be spaced.

Two hundred and forty yards of ditch was blasted, using 265 pounds of dynamite. It was calculated that it cost approximately \$20.00 to blast a ditch three feet deep, 5 feet wide at the top and 100 yards long. This demonstration created a great deal of interest among the farm people throughout the county.

On later dates, similar demonstrations were conducted by the County Agent, in cooperation with the Soil Conservationist, on the farms of Arthur Whitfield, Kenansville, N. C.; Leonard Kennedy, Beulaville, N. C.; Mrs. Alice Kornegay, Magnolia, N. C.; and Arthur Kennedy, Beulaville, N. C.

Two groups of 15 to 25 farmers were assisted with community drainage problems. One group in the Fountain's store community, and the other in the Cedar Fork Community. These groups of farmers pooled their orders for dynamite and labor in order to blast canals that were effecting drainage on their farms.

At the present time, there is a very strong demand for 50 percent ditching dynamite for ditching purposes in Duplin County, however, adequate material is not available due to the shortage of fats being produced at the livestock packing plants, from which nitroglycerin is made. When ditching dynamite is again available, many miles of canals, which are now seriously effecting the drainage of the farms, will be opened up,

Farm drainage tile has been off the markets in this area since last February. There is a very strong demand for 4 inch tile for draining of cultivated land. It has been said, that there are enough open ditches in the cultivated fields of Duplin County, if tiled, to produce enough crops to pay the farm taxes.

A few farmers who had tile on hand have been assisted by the County Agents with staking ditches, determining the proper fall, and the proper methods of installing their tile.

(b) Cooperative Dynamite Orders:

Due to the fact that there is no dealer in Duplin County retailing dynamite, the County Agent has assisted farmers with securing this material through cooperative orders. During the year 31,500 pounds of 40 percent ammonium dynamite was ordered for stumping purposes. Two thousand pounds of 80 percent nitroglycerin material was ordered for ditching purposes.

During the past 4 years, over 100,000 pounds of dynamite has been ordered cooperatively by the County Agent for the farmers. The labor shortage has made the farmers conscious of the need of stump free land, in order that farm machinery may be fully utilized.

(c) Farm Buildings:

During the war years, farm dwellings and other farm building repairs were neglected. Immediately after the fighting ceased a large number of farm families attempted to make these needed repairs.

Building materials being limited, and under priority, made it difficult for these repairs to be made. It is estimated that 400 farmers have called at the County Agent's office during the year seeking information on how to obtain priority for building materials.

A large percentage of these people were seeking small amounts of materials, and their total repair cost was small enough to be exempted under the priority regulations. That is \$400.00 for farm dwellings and \$1000.00 for other farm buildings.

When these farm people called on the merchants for small amounts of sheet rock, windows, doors, lumber, they were sent to the County Agent's office for a priority, regardless of the quantity of material or the cost of repairs.

It seems that very few merchants were willing to take time to explain the exemptions in effect, or assist the farmers with obtaining the small amount of materials needed. It was necessary that the Agents spend a great deal of time explaining the exemptions, and referring those who needed a priority to the P. M. A. County representative, whose responsibility was to issue application forms, and bring them before the County P. M. A. Committee for their approval, then send them to Raleigh for approval by the State P. M. A. Office.

Blue prints and building plans have been supplied and discussed with approximately 20 farm families building dwellings, and approximately 40 who were building other farm buildings.

Mr. C. L. McGaslan, Extension Agricultural Engineer, was invited to the county in June to assist with drawing up plans for the first mechanical hay drier to be built in this area of the state.

Mr. Melvin Cording, Manager of the Duplin Dairy, Wallace, N. C., is now building this hay barn. He has practically all of his hay drying equipment to install, as soon as the barn is completed.

Seeing the need of adequate wiring in farm homes and other farm buildings, the Extension Workers of Duplin County, including the Home Agent, County Agent, and Negro County Agent, called a county wide meeting in the Court House in Kenansville, on the night of March 21, of people interested in wiring. At this meeting 110 farm people were present to see a very interesting demonstration by Mr. W. J. Ridout, Jr., Agricultural Engineer Extension Specialist. Mr. Ridout clearly demonstrated, by the use of electrical equipment and various sizes of wires, what happens when a building is improperly wired. He pointed out that the size of wire needed, under practically all home and farm conditions, and emphasized avoiding over loading.

(d) Water Systems:

Several farm families have been assisted during the year with planning and installing water systems, including the simple hand pump system, the electric pump system, and hydraulic ram. A demonstration water system was installed on the farm of Mr. Adrian Bostic's, Kenansville, N. C.

Mr. Bostic had an artesian well flowing 25 gallons of water per minute, 4 feet above the ground level at his house 1100 feet away. It was impossible to get a satisfactory source of water. A hydraulic ram was installed and connected to a 400 gallon tank, mounted on a steel scaffold 30 feet above the ground level at his



house. The hydraulic ram is pumping 45 gallons per hour of this good artesian well water to his tank, at the house, 1100 feet away. The total lift from the ram to the tank, at the house, is 88 feet. The total installation cost Mr. Bostie a little over \$300.00. He says, that he would not take \$1000.00 for his present supply of water.

(e) Flame Cultivation:

On August 21, Mr. J. C. Fergerson, Agricultural Engineer Extension Specialist, was invited to Duplin County to conduct a flame cultivation demonstration. This demonstration was held on Mr. D. H. Boney's farm near Teachey. Mr. Boney had a field of strawberries in which he was interested in destroying the grass and weeds. Several of his neighbor strawberry growers were invited to come out and see the flame cultivation.

Due to the time of year when the grass was old and tough, and the density of it in Mr. Boney's field, the cultivator had to be operated at a very slow speed in order to destroy the grass and weeds. Those present agreed that if the flame thrower was successful under the prevailing conditions that it was sure to be successful under all conditions. It was very obvious that the flame cultivator would work satisfactory if the operation was started before the field was deeply matted with grass and weeds 12 to 15 inches deep. It was also agreed that under the conditions under which it was tried it was not very successful.

### 3. ANIMAL HUSBANDRY

(a) Swine:

During the past two years farmers of Duplin County have

been interested in owning and producing enough hogs to meet the family needs. Until price ceilings were lifted, they found it unprofitable to feed hogs until they were finished for market.

Practically all of the hogs reaching the market from Duplin County, until price ceilings were lifted, were pigs going to the barbecue trade. No ceilings were in effect on hogs of this size. During this period a large number of the breeding stock were sold, but since price ceilings were lifted, the prices have risen from \$14.55 per hundred to approximately 23 cents per hundred. Now there is a definite trend toward an increased production of hogs in the county.

Breeding stock is in strong demand. Twenty-six pure bred bears have been placed, and approximately 50 pure bred gilts and sows have been placed with swine growers.

With 71,000 acres of corn being produced annually there has been an excess of grain during this period. In the fall of the year when the corn was harvested, the price slumped suddenly, due to the fact that the local feed mills have been over-loaded with trying to handle this excess volume.

There has been a definite shortage of protein supplement, therefore, the County Agent has encouraged the farmers to grow temporary legume pastures, to help supplement the proteins. There are a large number of hog growers who are utilizing soybeans, crimson clover, white dutch clover, and ladino clover in their pastures.

The results of the following thrifty pig demonstrations clearly indicates the shortage of proteins.

Mr. E. V. Vestal, one of our best hog producers, practices rotating his farrowing sows to worm free grounds, and keeps them

there until the litter of pigs is weaned.

On November 9, two litters of pigs were weighed at 56 days old; each litter had 11 pigs. Litter number 1, weighed a total of 208 pounds, or an average of 19 pounds per pig; litter number 2, weighed 244 pounds, or an average of 22.2 pounds per pig. Mr Vestal stated that he was satisfied that the reason for the light weight of his pigs was due to inadequate animal source of protein.

(b) Beef Cattle:

There is a definite increase in the number of beef cattle in Duplin County. The reduction in the number of hogs, and increased beef supply, has reflected this trend.

During the year 5 pure bred beef bulls have been placed with farmers. Eighteen pure bred and graded heifers and cows have been placed.

In September the County Agent went to Stanton, Virginia and bought 25 feeder steer calves for 4-H club members and adult farmers.

Sixteen farmers were assisted during the year with developing permanent pastures, on which beef cattle were to be the present stock. Several others have been assisted with feeding and managing their small herds. It is estimated that there are approximately 100 per cent more cattle of good beef blood in Duplin County now as compared with 4 years ago. (1942)

## (e) Work Stock:

During the summer months the County Agent, working cooperatively with the local veterinarian, arranged for horse and mule clinics, for the purpose of having these animals vaccinated against the commonly known sleeping sickness. An epidemic of this disease has spread through the eastern half of the county each of the last 4 summers. More than 100 mules and horses were treated at these clinics.

*Dairying*

## (4) Dairying:

During the year, the County Agent and other agricultural workers, cooperating through the Agricultural Workers Council, have put forth a special effort directed at increasing the dairy cattle population in the county. Steady progress is being made year by year in this direction. The number of milk cows have been increasing during the past few years. We are still very short of the number needed to furnish the family milk supply. We have only 5100 cows to furnish milk to approximately 7,000 farm families. The distribution of these cows are not very good. Many farmers have two or more cows while a large per cent have no cows at all. Milk is being supplied to the schools in this county by Whites Ice Cream Company, Wilmington, N. C.

During the year, a \$60,000 milk plant has been erected at Wallace by the Duplin Dairy. A good number of farmers in the Wallace area are now interested in developing small herds of cattle, to help supply the demand of this milk plant. It is expected, that as the plant gets in operation more growers will become interested

in dairying.

During the year, farmers have been assisted with securing 5 pure bred dairy bulls, and 16 pure bred or graded cows and heifers.

To further stimulate the interest of dairies in the county, the Duplin Dairy at Wallace, N. C., gave to the County Agent 5 registered jersey heifers, to be placed with outstanding 4-H club boys. These heifers become the property of the club members when they return to the County Agent, a pure bred heifer to be given to some other club boy. Three of these calves were entered in the Junior Dairy Cattle Show in Goldsboro, N. C., in October, and made a very good record in the show. Complete details on this project is discussed under 4-H club activities in this report.

Approximately, 75 farmers have been assisted this year with establishing permanent pastures, on which, dairy cattle is the principal livestock.

#### AGRONOMY

##### (a) Tobacco:

Slightly over 26,000 acres of tobacco was grown in Duplin County this year, and sold for an average price, slightly above, \$53.00 per hundred. This being a record production and record price received to date.

Through meetings, news paper articles, and circular letters; the County Agent's have assisted farmers with problems of fertilization, varieties, diseases, and insect control.

There has been a great increase in the number of plant beds treated for weed control by the use of Cyanamid and Uramon. Two result demonstrations with the use of Cyanamid were conducted with C. L. Knowles, Rose Hill, N. C.; and J. A. James, Wallace, N. C. Each of these men drew plants from the treated area of their beds 7 days before they drew plants from the untreated portion of their beds. An estimate that 20 hours of labor, per hundred square yards, were saved where the beds were treated for weed control.

On December 19, Mr. Howard R. Garriss, Extension Plant Pathologist, attended a county wide meeting of tobacco growers and discussed tobacco diseases, beginning with blue mold and going on through with various diseases. Mr. Garriss used Kodachrome slides to illustrate his discussion, and help the farmers in identifying the various tobacco diseases. It was at this meeting that Fernate was introduced to the growers for blue mold control. The demand was greater than the supply of this material during the plant bed season. Close checks were made with Mr. A. S. James, Wallace, N. C.; Kenneth Blanchard, Wallace, N. C.; and Joe Williams, Beulaville, N. C. on the results of the treatment. Two of these men, who started early and used sprays with ample force, received good results. The other farmer, who attempted to use a knap sack spray with very little force, received very little results. On one of the successful beds, plants were pulled nine days earlier than from the untreated portions; and on the other successful treated bed, plants were pulled 10 days earlier than from the untreated section. Mr. Blanchard completely set his crop from his treated bed before any plants were ready on his non treated beds.

More tobacco disease have been evident in the county this year than any previous year, of which we have a record. Approximately, 45 fields were visited during the growing and harvesting season, to help the farmers in identifying the diseases they had. In these fields we found cases of black shank, sore shin, granville wilt, fusarium wilt, and root knot. Mr. Encas Lanier, of Chinquapin, lost 80 per cent of the tobacco from an 8 acre field by black shank. Many others suffered similar results, however, not quite so severe.

Tobacco barn fires have been a menace to tobacco growers in the county for a long time. A complete survey was made, following the burning season, to determine exactly how many barns were lost this year. It was found that 87 tobacco barns were lost by fire, while being used for curing tobacco. This information has been furnished to the farmers through news articles and circular letters, and they were advised to use every precaution to prevent these losses another year.

In order that the Agents could be posted on tobacco production, they made two trips to the Oxford Experiment Station, one during the plant bed season and one during the growing season, to secure all information possible. This information has been, and will be, passed on to the farmers throughout the county.

(b) Corn:

During 1946, an all out effort was made to increase the corn yield per acre in Duplin County. Even though the

yield per acre has picked up slightly during the last two years, it is still too low. The present yield being around 24 bushels per acre. These low yields per acre cause the cost of corn to average well above \$1.00 per bushel. This high cost grain has had a definite influence in the downward trend of hog production. Using hybrids recommended by the Experiment Station, and recommended open pollinated varieties, we have encouraged growers to space their corn according to the amount of nitrogen that they intend to apply, cultivate shallow, stop cultivating early, and therefore receive a substantial increase in yield. These practices have been followed by a large number of the corn growers, who are annually producing 71,000 acres of corn in the county.

The shortage of nitrogen available this year seriously effected our corn yields. At the time growers needed their nitrogen to side dress their corn crops, in many cases, it was not available. An increased number of growers have learned that 100 pounds of 16 per cent nitrogenous fertilizer will increase the corn yield approximately 8 to 10 bushels. They realize that this is an economical investment and we expect more to follow this practice, of increased nitrogen, in future years.

Two adult result corn production demonstrations were conducted, one with Mr. Joe Walker, Calypso, N. C.; and one with Mr. M. L. Lanier, Chinquapin, N. C. These demonstrations created a lot of interest in their respective communities. Several groups of neighboring farmers visited these demonstrations and observed the results. Mr. Walker planted 105E hybrid beside of Latham's yellow. Even though this demonstration was not fertilized highly,



good results were obtained. Two hundred and fifty pounds of 4-8-4 fertilizer was applied under the corn. Two hundred and fifty pounds of nitrate of soda was applied when the corn was about 15 inches high. This corn was planted in 4 feet rows, 18 inches in the drill. The hybrid produced 63.1 bushels per acre, Lathan's yellow produced 59.8 bushels per acre.

Twenty-four, one acre hybrid result demonstrations were placed with 4-H club members, and accurate results obtained. Details of these demonstrations are described under 4-H club activities in this report.

(c) Pastures:

One of the most intensive campaigns put on in the county this year was better permanent pastures. On January 19, Dr. R. L. Louvorn was invited to meet with the Agricultural Workers Council to work out pasture recommendations for Duplin County. At this meeting recommendations on fertilization, land preparation, liming, seeding, and care of the pasture were thoroughly discussed and agreed upon by all present. Approximately, 2,000 copies of these recommendations were printed and distributed to interested farmers throughout the county. A copy of these recommendations are found on the following page.

In August, a result demonstration meeting was held in a pasture established by J. B. Stroud, Kemansville, N. C. A large group of farmers present, agreed that this was the nicest stand of white clover, dallas grass, lespedesa, and orchard grass

they had ever seen growing. At this meeting, Mr. C. H. Holland stated that he had not fed a bale of hay on his farm in 12 years. He maintains three work stock, about 10 cattle, and 5 to 10 brood sows. He stated that he depended on permanent pastures and temporary grazing for all of his forage feed and stated that others could do the same thing.

(d) Soybeans:

Soybeans are gradually replacing our cotton acreage. In the north west part of the county, in Faison and Calypso area where cotton has been most popular in the past, soybeans are gaining acres steadily. With this situation in mind, the County Agent placed a result demonstration on variety and fertilization of soybeans on the farm of Mr. L. P. Wells in cooperation with Dr. E. E. Hartwig, of the Experiment Station. We are expecting interesting results from this demonstration. Figures have not yet been obtained from Dr. Hartwig, who harvested the test plot.

(e) Winter Cover Crops:

Farmers in Duplin County have seen the results of winter cover crops, especially austrian winter peas. They are increasing their acreage yearly. This year 128,000 pounds of austrian winter peas were issued to the growers through the P. M. A. Office. Additional peas, vetch, and crimson clover seed were purchased from local seed dealers. It is not unusual to have a farmer report that he has doubled his corn acre yields, where following behind a good winter cover crop.

## (f) Lespedeza:

Lespedeza, for hay, is gaining acreage each year, replacing such crops as soybeans and cow peas. This crop was hardly known in Duplin County 7 years ago, but at the present time seed dealers have found it difficult to furnish the demand of lespedeza seed.

Bad weather conditions during the fall caused a heavy loss in the hay crop, and we are still importing about 1200 tons of hay annually.

## HORTICULTURE

## (a) Fruits:

Even though strawberry acreage in Duplin County has been reduced considerably during the war years, we still grow above 400 acres. Good yields of strawberries were enjoyed during 1946, and the best price received on record. The price averaging slightly above \$11.50 per 24 quart crate.

Through news paper articles, circular letters, and educational meetings the Extension Agents assisted the farmers with problems of fertilization, cultivation, insects, diseases, grading, and marketing.

The red spider has severely attacked the berry crop. They were present in large numbers in the spring, and again during the warm fall months. Thirty-three farmers were assisted with controlling this insect by being furnished a formula of lead arsenic and dusting sulphur. It was estimated that Charles Bowden, Teachey, N. C., lost \$12,000 worth of berries before he brought the spider under control. Several growers experienced leaf spot and scorch

disease in their berry fields. These growers were advised how to control this disease by spraying.

There is a growing interest in establishing small home orchards. Gordon West, Warsaw, N. C., conducted a very interesting demonstration on care and management of his orchard, consisting of one acre of a variety of fruit trees. Mr. West first pruned his trees during the winter, and then followed a complete spraying program throughout the growing and fruit season. As a result, he produced a fine crop of apples, peaches, pears, plums, cherries, and grapes. Kodachrome slide pictures were taken of this demonstration, and will be used in future educational meetings.

(b) Sweet Potatoes:

Starting three years ago with a sweet potato program, by ordering a truck load of certified Louisiana Strain seed sweet potatoes, we now have approximately 500 acres of good quality potatoes growing annually. Many growers are turning to this crop as a main source of income. These growers are converting their tobacco barns into sweet potato curing houses, therefore, more efficiently utilizing their investment in farm buildings. A strong sweet potato market has developed at Walsen where any grower can sell his sweet potatoes at any time.

(c) Irish Potatoes:

Approximately, 3,000 acres of Irish potatoes were grown in Duplin County during 1946. One of the best yields in recent years were produced. The Farm Agents assisted the Irish potato growers with fertilization, disease, insect control,

selling to the Government, and with labor needs to harvest the crop.

A demonstration was conducted showing a group of approximately 40 farmers how a one row potato digger works.

There was quite a bit of dissatisfaction among the potato growers when the price dropped below support prices and the Government began to receive the potatoes at support price. It was difficult for them to understand the procedure to follow in order to deliver their potatoes to the Government, and quite a bit of criticism was offered.

(d) Other Truck Crops:

The acreage of the county truck crops including lima beans, snap beans, cucumbers, peppers, squash, cranberry beans, egg plants, okra, cantaloupe, watermelon, garden peas, and sweet corn remained about the same each year. One particular crop may gain a few acres at the expense of some other truck crop. The Agents have worked with these truck growers during the year when they were called upon for specific assistance.

(e) Blueberries:

Twenty-two additional acres of cultivated blueberries have been planted in the county during 1946, giving us a total of above 90 acres of blueberries in the county at the present time. Land is being cleared and preparations made for approximately 50 more acres of this crop. Realizing that the success of these new growers depend primarily upon the type of soil selected, the Farm Agents made a special effort to assist with the selection

of the proper types of land.

On July 16, Mr. J. Y. Lassiter, Extension Horticulturist, and Mr. Emmitt Morrow, Associate Horticulturist, from the Experiment Station spent the day in the county working with these new growers, examining the land available for berry production. It was found that among three of the largest potential growers, only one had selected a desirable soil for blueberry patches. The other two were advised to either, select more desirable soil, or try blueberry production on a limited scale in the fields that they had anticipated planting them. The blueberry growers in the county have been furnished information on disease resistant varieties, fertilization, and methods of rooting seedlings.

#### FORESTRY

During the year, we have had three changes in the position of Farm Forester Assistant. Mr. R. E. Reed served during the month of December, Mr. William Davis from January until July 1, and Mr. Ross Douglass from that time until the end of the year.

With the assistance of the Farm Forester who worked in Sampson, Bladen, Columbus, and Duplin County 54 farmers have been assisted with forestry problems, including timber scaling, timber thinning, planting, forestry management, etc. During March, the Farm Forester and County Agent conducted a timber thinning demonstration with the 4-H club members and F. F. A. boys, of the Wallace school on a farm wood lot near the school. Approximately 78 boys attended this demonstration. Several of

these boys are carrying forestry projects.

On February 19, the Farm Forester, Mr. Davis, E. W. Graeber, in Charge of Extension Forestry, and Mr. Stroud of the Regional Forestry Office of Atlanta, spent the day in Duplin County and assisted with a timber scaling and timber thinning demonstration on the farm of Marvin Simmons, Seven Springs, N. C., R. F. D. A group of 24 farmers attended this demonstration and were very much impressed with the interesting demonstrations on care, and management of the farm woods lot.

Realizing that forest fires are the most serious enemy to the woods land of Duplin County, the Farm Agent working with the County Forest Warden, requested the County Commissioners to purchase fire fighting equipment, to be located and used in the county. The equipment was delivered to the County Forest Warden in the spring of 1946. The equipment included a caterpillar tractor, a heavy fire lane disc plow, and a long trailer truck for transporting the equipment. The equipment has been kept busy when weather permitted it's operation since it's delivery. The following is a list of farmers having fire lanes cut, and the number of miles of fire lanes cut on each farm.

Frank Mercer	Pink Hill, N. C.	.4 miles
Roland Thomas	Pink Hill, N. C.	6.4 miles
Wells Thomas	Pink Hill, N. C.	1.6 miles
Earl Williams	Pink Hill, N. C.	.5 miles
Yance Gavin	Kemansville, N. C.	7.0 miles
Willie Smith	Pink Hill, N. C.	.9 miles
Ray Smith	Pink Hill, N. C.	1.5 miles
Frank Rhodes	Beulaville, N. C.	1.5 miles

G. D. Miller	Boulaville, N. C.	2.1 miles
George Rhodes	Pink Hill, N. C.	1.7 miles
Claudy Sumner	Pink Hill, N. C.	.7 miles
Grover Duff	Pink Hill, N. C.	1.3 miles
Jasper D. Thomas	Pink Hill, N. C.	5.8 miles
Joe K. Miller	Pink Hill, N. C.	.2 miles
Gordon Brown	Boulaville, N. C.	.3 miles
Frank Baker	Boulaville, N. C.	.6 miles
George Rhodes	Pink Hill, N. C.	2.1 miles
Norwood Mercer	Boulaville, N. C.	.6 miles
Herbert E. Keel	Pink Hill, N. C.	.7 miles
Jessie Thigpen, Jr.	Pink Hill, N. C.	1.0 miles
Ruby Miller	Pink Hill, N. C.	1.4 miles
F. E. Rouse	Rose Hill, N. C.	6.1 miles
Tyson Lanier	Boulaville, N. C.	4.0 miles
Wilbert Lanier	Chinquapin, N. C.	1.7 miles
Ralph Fickett	Boulaville, N. C.	4.2 miles
L. C. Miller	Boulaville, N. C.	1.6 miles
Roland Thomas	Pink Hill, N. C.	.9 miles
Ash Miller	Boulaville, N. C.	.3 miles
W. A. Carroll	Boulaville, N. C.	.4 miles
Thurman Brown	Boulaville, N. C.	.6 miles
J. M. Sandlin	Boulaville, N. C.	.7 miles
M. B. Brook	Boulaville, N. C.	.6 miles
S. H. Brook	Boulaville, N. C.	.7 miles
Andrew Wilson	Boulaville, N. C.	.8 miles
George W. Lanier	Boulaville, N. C.	.3 miles
H. L. Kennedy	Boulaville, N. C.	.6 miles
Mrs. Laura North	1515 Magnolia Ave. Norfolk S. Va.	1.3 miles



Mrs. G. I. Stinoel	Kenley, N. C.	1.3 miles
Calhoun Mercer	Pink Hill, N. C.	.8 miles
W. L. Miller	Konansville, N. C.	.4 miles
Ralph Miller	Konansville, N. C.	.6 miles
Ralph Brown	Konansville, N. C.	1.1 miles
George Sumner	Boulaville, N. C.	.7 miles
W. M. Everton	Boulaville, N. C.	.6 miles
A. L. Batts	Boulaville, N. C.	.6 miles
W. T. Brock	Boulaville, N. C.	1.7 miles
Ben Stroud	Konansville, N. C.	2.7 miles
Willie Brock	Boulaville, N. C.	.3 miles
B. V. Byrd	Rose Hill, N. C.	2.1 miles
H. H. Hall	Rose Hill, N. C.	14.3 miles

#### FARM MANAGEMENT

##### (a) Situation, Outlook, and Planning:

Through educational meetings, circular letters, and news paper articles the Farm Agents have attempted to keep farm people posted on the agricultural situation during the year. Production and price trends were brought to their attention, and lots of thought was given to the possible future trends.

With prices constantly rising on most all items that the farmers have to buy, including farm land, which has risen about 100 per cent since March 1942, the farmers were advised to buy only when they could pay cash, and to think in terms of long time income from the farms that they were purchasing.

(b) Farm Records:

Farm record books were furnished to approximately 80 farmers during the year. An increased interest in farm records has developed during recent years. These records come in handy, so the farmers say, when they go to file their income tax returns.

Approximately, 70 bulletins were furnished to farmers requesting information on how to file their income tax.

(c) Crop Rotations:

In addition to 45 tobacco rotations worked out for the farmers on farms where tobacco disease were present, 5 general crop rotation demonstrations were conducted on the farms of Joe Williams, Boulaville, N. C.; J. G. Holland, Faison, N. C.; B. W. Grady, Mt. Olive, N. C.; B. D. Grady, Warsaw, N. C.; and Luther Guy, Warsaw, N. C. These growers have been following their rotations for 6 consecutive years. Crop yields on these 5 farms have increased approximately 30 per cent during these 6 years.

POULTRY

During the past 7 years turkey production in Duplin County has increased approximately 500 per cent. At the present time, we are growing about 90,000 turkeys annually. The Farm Agents have worked very closely with these turkey growers, especially the new growers helping them secure poults from disease free sources and helping them with feed, care, and management of the flock.

Several of our growers are producing about 5,000 birds per year.

There has been a tendency toward crowding these birds in the brood houses. This has been discouraged by the Agents because in practically every case where crowding was practiced, it resulted into costly experience.

Mr. Nash Johnson of Rose Hill, N. C., operates the only turkey hatchery in the county. He carries a flock of 25 to 25 hundred laying hens, and has made a special effort to keep diseases out of his flock.

During this year, the poor quality of feed on the market has reflected in the thriftiness of the birds. A number of growers have become discouraged with the feed situation. The Agents have encouraged all turkey growers to provide ample green feed for their flocks, to help offset the poor quality of commercial feeds.

Mr. James Ward and Steve Wilkins of Rose Hill, N. C., have been assisted with establishing a poultry dressing plant at Wallace, N. C. This plant will soon be in operation.

Very few commercial flocks of chickens exist in Duplin County, however, the Agents have worked with those who are producing eggs and poultry on commercial basis. Five culling demonstrations were conducted, news articles, and letters were used to inform the poultrymen of the proper methods of feeding, management, and care of their flocks.

Mr. E. B. Bishop, Pink Hill, N. C., R.F.D. started a demonstration flock record on his flock October 1.

On January 22, a group of poultry producers of the county attended a one day poultry school in the Federal U. S. G. Building in Jacksonville, N. C. Poultry Specialist, and Technicians

from N. C. State College, were present to outline and discuss most all phases of poultry production.

#### FARM LABOR

It has been necessary that the Farm Agents spend considerable time during 1946 on farm labor problems. We did not have a Farm Labor Assistant on the job until May 20, at which time, Mr. James M. Hunter assumed the job of Farm Labor Assistant and served until November 30.

During the year we supplied information on 620 agricultural registrants to the local Draft Boards. Approximately 60 farmers were assisted with securing tenants. Producers of strawberries, snap beans, Irish potatoes, and other truck crops were assisted with securing labor to harvest their crops.

Local leaders in the various communities throughout the county cooperated with the Farm Labor Program, by recruiting available labor in their respective communities to be transferred to other communities in need of farm labor. This was especially true in the areas where truck crops were produced, including strawberries and Irish potatoes. Approximately, 80 workers were recruited and placed with potato growers. The same number was used with harvesting string beans and strawberries. Growers were assisted with securing 60 laborers for picking blueberries.

Thirty-two Bahamians were secured and placed on 9 different communities, where they helped harvest tobacco. These Bahamians worked on 25 farms. They were placed with farmers who showed the greatest need for labor. These tobacco growers

later said, "they would have lost a portion of their crop had it not been for this assistance from the migratory laborers? A complete record of the farm labor activities of the county is reported in James M. Hunter's Annual Report under separate cover.

#### OTHER ACTIVITIES

The County Agents cooperated in many ways during the year with other agricultural agencies. In addition to serving as Chairman of the County Agricultural Workers Council, the County Agent served in an advisory capacity with the A. A. A. Program, Soil Conservation Program, Farm Security Program, Production Credit, and R. E. A.

The County Agent was called upon to help establish standard values on rural property to be used in the county revaluation program for tax purposes.

A survey of 105 farms along the North East river was made showing the agricultural losses from floods during the past 10 years, and was furnished as evidence in a hearing before Army Engineers in an attempt to get a snagging project approved for the North East river.

The County Agent served as Chairman of county committee whose responsibility it was to establish a post of the Salvation Army in the county. The County Agent also served as President of the local Lions Club; and Secretary of the N. C. Alumni Club, and Chairman of the Professional Improvement District of the County Agents Association.

#### 4-H CLUBS

In Duplin County there are 16 organized 4-H clubs, with an enrollment of 967 members of which 543 are boys. Two new clubs were organized this year, one in the Rose Hill School, and one in the Outlaw's Bridge School. At the present time, there remains only one school in the county without a 4-H club. In six of the schools, there are two clubs, a Junior Club and a Senior Club. The Junior Club includes the fifth, sixth, seventh, and eight grades, and the Senior Club includes the high school students. The schools in which 4-H clubs have been organized recently have only one club. The schools with two 4-H clubs are: Galypso, Soullaville, Chinquapin, Wallace, Kemansville, and N. F. Grady, those having only one club are: Faison, Warsaw, Rose Hill, and Outlaw's Bridge.

Monthly meetings were conducted for seven months with exception of the two new clubs which met three times each. This is a total of 104 meetings during the year.

#### SPECIAL 4-H CLUB ACTIVITIES

Since, the close of the war, all the regular club activities have been resumed.

##### (a) County Council:

The 4-H County Council is composed of the officers of the various 4-H clubs. Regular meetings were held every two months this year, and the Council helped plan the 4-H programs in the county and also the special events, such as Federation Day, Achievement Day and 4-H Camp.

(b) Spring Federation:

A countywide Federation was held this year on June 15 at the Kenansville School. The County Council planned an interesting program for the day, during which time the coronation of the King and Queen of Health took place. Approximately 80 Club members and their parents were present.

A Federation Day program is shown on the following page.

(c) Encampment:

The 4-H Summer Camp resumed its normal place in our Club program this year. During the week of August 5 - 10, 56 4-H boys and girls, and 8 adult leaders attended the summer encampment held at the Bladen County 4-H Camp at White Lake. All of the members attending seemed to have enjoyed the program for the week, which included not only recreation, but practical work in Forestry, handicraft work and 4-H Club records. Mr. Howard Ellis from State College spent two days at Camp teaching the boys and girls rope work. They made rope halters. Mr. Ross Douglas, Farm Forester also spent two days with us teaching tree identification during his stay at camp.

To the adult leaders, goes much credit for the success of our Camp program. They acted as group leaders during the week and helped supervise the boys and girls during our stay at White Lake.

A daily camp program is enclosed.

(d) State 4-H Club Week:

Eight boys and six girls attended the State 4-H Club Week at State College this year. Each school in the county with an organized 4-H Club was represented. From the program outlined and the fellowship with other 4-H Club members, the boys and girls attending gained much information, which has been inspiring to them in their Club work.

(e) Achievement Day:

The County Council met and planned a program for our annual 4-H Achievement Day. It was held on November 9 at the Kenansville School and about 75 4-H members and their parents were present.

The following awards were presented:

Beef Calf --- Ray Taylor of Faicem.

Field Crops --- Donald Kornegay of B. F. Grady.

Poultry --- George Ulrich of B. F. Grady.

Dairy Calf --- Jimmy Sykes and Richard Gordin of Wallace,  
and Gene Holland of Warsaw.

The B. F. Grady Club was presented a banner for the most outstanding Club in the County during the year.

Mr. O. P. Johnson, County Superintendent of Schools, made an inspiring talk on 4-H Club work. A recreational period and refreshment rounded out the program for the day.

An Achievement Day program follows:



## (f) Service Club:

The Duplin County Service Club was reorganized in September, after being suspended during the war years. Monthly meetings have been held since then. Twenty four members are enrolled in the Club.

Projects which have been selected by the members for 1946 include home beautification, home orchards project, and improving the grounds around the Agriculture building.

## PROJECTS

## (a) Animal Husbandry:

A large number of 4-H and F. F. A. boys were interested in baby beef calves this year. In the fall of 1945, 49 baby beef calves were placed in the county by the County Agent and the Vocational Agriculture Teachers. The calves were feed under their supervision and were marketed in April at the Fat Stock Show.

On April 9, a County Baby Beef Calf Show was held in Kenansville. Thirty-eight calves were entered in all, by the 4-H and F. F. A. boys. Mr. J. C. Pierce from State College judged the entries. Haywood Fountain an F. F. A. boy from Chinquapin exhibited the County Grand Champion, and Vieter Taylor a 4-H boy from Faison was Reserve Champion with his calf. Cash prizes were awarded all entries. Champion \$10.00, Reserve Champion \$6.00 and all other entries \$2.00 each. Prize money was made available by the merchants of Kenansville and the County Commissioners.

After the Kenansville show, the calves were taken to the Eastern Carolina Fatstock Show which was held in Kinston on April

10 and 11. After the show, the calves were sold at auction, averaging approximately 25 cents per pound.

Six calves from the county were entered in the Fatstock Show held in Rocky Mount. The calves sold for about the same price there as in Winston.

Due to the high price of feed and cost of calves this fall, only 24 calves were placed with club members in the county to be fed out and sold next spring.

Entries in the Kenansville Show, and a financial statement of the 4-H calves in show, is shown on the following page.

Swine production was the most popular project with the club boys in the county this year. One hundred and forty-four boys enrolled in pig club work, of which 97 completed their projects. One hundred and twenty-six animals were produced weighing 22,500 pounds.

(b) Agronomy, Corn:

Much interest was shown this year in production of hybrid corn. Forty-eight boys were enrolled in corn work and 24 selected hybrid corn as their projects. Good results were obtained, but due to the scarcity of nitrogen a large number of the members could not secure the fertilizer recommended. In yield, 24 hybrid projects checked yielded about 9 bushels per acre more than the regular field corn. Insect damage from weevil was much greater in the field on the hybrid corn than on other types of corn grown. This is the undesirable fault of the corn in this section. Results from hybrid corn demonstrations are shown on the following page.

## 4-11 HYBRID CORN DEMONSTRATIONS 1946 H. C. LOSE

NAME	CLUB	NO.	FERTILIZER		NITROGEN	ROW WIDTH	YIELD	CHECK YIELD
		ACRES	AMT.	ANALYSIS				
Wayne Roberts	Calypso	1	400 $\frac{1}{2}$	4-10-6	400 $\frac{1}{2}$	4'	48.1	39.7
Waytt Roberts	Calypso	1	400 $\frac{1}{2}$	4-10-6	400 $\frac{1}{2}$	4'	48.1	39.7
Murphy Thigpen	Beakville	1	300 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4'	59.5	54.9
Albert Kornegay	B. F. Grady	1	300 $\frac{1}{2}$	4-10-6	250 $\frac{1}{2}$	4'	52.7	40.4
Samuel Herring	B. F. Grady	1	200 $\frac{1}{2}$	4-10-6	200 $\frac{1}{2}$	4'	37.9	No Check
James Vernon	B. F. Grady	1	400 $\frac{1}{2}$	4-10-6	250 $\frac{1}{2}$	4'	45.5	38.2
Gaston F. Grady	B. F. Grady	1	400 $\frac{1}{2}$	4-10-6	250 $\frac{1}{2}$	4'	45.2	No Check
Donald Kornegay	B. F. Grady	1	400 $\frac{1}{2}$	4-10-6	400 $\frac{1}{2}$	4'	43.4	31.2
John B. Dail	B. F. Grady	1	500 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4'	46.5	No Check
Dennis Sholar	Chinquapin	1	400 $\frac{1}{2}$	4-10-6	400 $\frac{1}{2}$	4 $\frac{1}{2}$ '	24.3	22.0
Adren Goodman	Kennansville	1	400 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4 $\frac{1}{2}$ '	37.2	25.5
F. L. Goodman	Kennansville	1	400 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4 $\frac{1}{2}$ '	37.2	25.5
L. B. Brown	Kennansville	1	400 $\frac{1}{2}$	4-10-6	250 $\frac{1}{2}$	4'	46.1	36.9
Everette Spell	Warsaw	1	200 $\frac{1}{2}$	4-10-6	200 $\frac{1}{2}$	4 $\frac{1}{2}$ '	36.5	No Check
Graham Phillips	Warsaw	1	300 $\frac{1}{2}$	4-10-6	150 $\frac{1}{2}$	4 $\frac{1}{2}$ '	36.5	No Check
Max Fytos	Wallace	1	400 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4 $\frac{1}{2}$ '	46.9	32.1
Jimmy Sykes	Wallace	1	400 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4 $\frac{1}{2}$ '	46.9	32.1
William Moore	Chinquapin	1	500 $\frac{1}{2}$	4-10-6	300 $\frac{1}{2}$	4'	47.2	35.8
TOTAL		18					785.1	451.6
					AVERAGE		43.6	34.7

WORK 194

Dublin

County

Days on Pasture	Initial Cost or Value	Cost of Concentrates	Total Feed Cost	Other Costs	Cost Per Pound of Gain	Selling Price Per Pound	Total Sale Price	Profit Or Loss Excl. of Prem's	Total Awards Won
30	81.79	77.15	93.15	4.00	25.3	24	232.50	41.66	3.00
0	85.24	70.49	90.45	0	24.1	24	195.55	37.18	3.00
0	88.47	48.00	40.00	2.50	15.4	24	182.40	65.43	3.23
20	85.14	15.15	28.50	5.00	18.5	24	147.00	60.86	0
	71.02					24	174.40		2.00
	85.85					22	182.32		0
0	70.35	88.87	75.97	0	31	24	178.20	28.83	3.00
20	85.40	45.05	85.11	5.00	24.5	25	143.75	20.24	0
0	75.15	54.87	60.87	0	22.5	25	171.25	35.25	3.00
0	88.73	63.87	75.97	0	29.2	23	168.65	15.95	3.00
0	80.98	70.49	90.45	0	35.5	24	185.00	12.18	3.00
30	75.02	47.85	76.55	0	29.5	25	185.75	31.62	3.00
0	73.39	63.25	75.25	0	25.5	25	132.50	25.85	1.66
0	71.01	70.00	70.00	5.00	24	25	190.00	43.99	3.00
0	71.62	48.00	48.00	2.50	26.2	24	149.45	27.23	3.23
0	88.30	63.87	75.97	0	36.1	25	185.15	37.85	0.12
0	92.88	87.35	87.35	1.25	31.5	24	199.20	37.74	3.00
0	105.11	28.40	47.40	7.50	23.2	24	205.20	44.59	3.00

## FINANCIAL REPORT BABY BEEF CLUB WORK 194

County

Duplin

Name of Member	First Weight	Days on Feed	Final Weight	Daily Gain	Concentrates Fed Lbs.	Days on Pasture	Initial Cost or Value	Cost of Concentrates	Total Feed Cost	Other Costs	Cost Per Pound of Gain	Selling Price Per Pound	Total Sale Price	Profit Or Loss Excl. of Prem's	Total Awards Won
Wayne Roberts	460	184	680	1.20	4615	0	78.11	57.35	57.35	1.25	60.2	80	158.00	6.99	3.00
Jimmie Sykes	408	177	638	1.30	2900	0	68.77	65.57	75.97	0	55	80	149.50	4.99	3.00
R. H. Lemier	524	177	800	1.53	3000	0	94.77	54.99	60.99	0	65.0	28 3/4	182.00	23.98	3.00
Wayne Roberts	561	184	820	1.34	4615		100.33	57.35	57.35	1.25	58.2	84	200.00	11.97	3.00
Victor Taylor	547	184	830	1.81	1908	30	92.82	52.61	57.61	6.52	19.8	85	220.00	22.98	3.00
G. L. Whitfield	555	184	720	.91	2185	0	95.30	38.40	47.40	7.50	33.8	84	176.00	42.00	3.00
Wyatt Roberts	537	184	790	1.30	4615	0	91.18	57.35	52.35	1.25	48.2	84	177.00	6.32	3.00
Ray Taylor	487	184	680	1.05	1905	30	82.69	52.61	57.61	6.52	33.2	83	150.00	18.04	3.00
Ray Taylor Incomplete Record	465						78.98								
Ray Taylor	504	184	845	1.55	1905	30	95.27	52.62	57.62	6.52	28.0	84	207.00	47.08	3.00
Albert Kornegay	537	184	730	1.16	3600	0	91.18	48.40	48.40	1.20	46	84	150.00	36.90	3.00
Victor Taylor	476	184	625	1.20	1905	30	80.82	52.62	57.62	6.52	18.8	80	150.00	36.00	3.00

(c) Agronomy, Tobacco:

Forty-three projects were carried in tobacco of which 36 were considered completed. An average yield of 1050 pounds per acre, sold for an average price of about 52 cents per pound.

Mr. C. M. Pierce, from the U. S. Department of Agriculture, attended the March series of club meetings and demonstrated to the 4-H club boys standard grades for flue-cured tobacco. He also discussed the post war marketing conditions as it might affect tobacco.

(d) Agronomy, Pastures:

Three permanent pastures have been started in connection with our dairy calf program.

(e) Dairying:

More interest is being developed in dairying than in the past years. Twelve boys elected dairy projects and produced approximately 1840 gallons of milk for home consumption.

A 4-H dairy calf club was also started in the county. Mr. Melvin Gording of the Duplin Dairy donated 5 pure bred jersey heifers, in cooperation with the County Agent, to the 4-H clubs of the county. The calves will be given each boy on a chain basis. The first heifer raised from each heifer in turn will be given another interested member. Three calves have been delivered this year. A permanent pasture project is also required in connection with the boys receiving calves.

Three calves were entered in the Junior Dairy Calf Show in Goldsboro, on October 23. Richard Gording of Wallace, N. C.

placed first in the Jersey Senior Calf Show with his calf. Gene Holland of Warsaw, N. C. placed first; and Jimmy Sykes of Wallace, N. C. placed third in the Jersey Junior Yearling class with their calves. All the calves were blue ribbon winners and each boy received \$10.00 prize money.

(f) Poultry:

Fourty-six boys enrolled in poultry projects, producing 2875 birds and approximately 1600 dozen eggs.