

N O R T H C A R O L I N A

A G R I C U L T U R A L E X T E N S I O N S E R V I C E

A N N U A L N A R R A T I V E R E P O R T

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Bertie

COUNTY

B. E. Grant

COUNTY AGENT

E. E. Bishop

ASSISTANT COUNTY AGENT

CONTENTS

	Pages
INTRODUCTION	1
EXTENSION ORGANIZATION AND PLANNING	2-5
AGRICULTURAL ENGINEERING	4-5
PASTURES	6-7
LEGUMES	8
SOIL TESTING	9
CORN	10-11-12
COTTON	13
PEANUTS	14-15-16-17
TOBACCO	18
ANIMAL HUSBANDRY	19-20
HORTICULTURE AND POULTRY	21
FORESTRY	22
GENERAL SUMMARY	23-24
IMPROVEMENTS AND PLANS FOR NEXT YEAR	25-26

Projects receiving major emphasis in the 1949 extension program were corn, pastures, peanuts, tobacco, beef cattle and swine. Notable progress was made in the pasture program with more pastures seeded according to extension recommendations than in any preceding year and possibly all preceding years. An estimated 2500 acres were seeded in the county.

In the beginning of the year 1960 more farmers were interested in beef cattle and hogs, pastures and corn for feed production and in the use of black shank resistant varieties of tobacco as this disease had spread to a number of additional farms in 1949. The County Agricultural Planning Committee had been organized in 1949 through the cooperation of local agricultural agencies and leading farmers. The agricultural situation in the county had been carefully studied and recommendations prepared for a general improvement of farm income and family living over a period of years. At the beginning of the year it was agreed that a report on the study made by this committee and its recommendations should be carried to the people of the county. Accordingly, community meetings were held throughout the county last winter with the chairman and vice-chairman of the committee assisting agricultural leaders in explaining the recommendations to local farmers.

Meetings of the county planning committee have been held each month throughout the year, in addition to special meetings on a community basis and those for special studies.

In reviewing activities of the planning committee at the beginning of the year of the goals and accomplishments for 1949, it was the unanimous decision of the group that the pasture project selected for major emphasis in 1949 had been very successful and that this project should be continued again in 1960. At the suggestion of Fred Sloan, State Program Planning Leader, Brice Rathford, in Charge of Farm Management Extension was invited to meet with the group and give suggestions for working out plans to revise farm operations in the county in light of the increased mechanizations on the farms and to increase farm income through increased pasture and corn production for an expanded livestock program.

Rathford met with the committee in August and worked up data for different types and sized farms as they now exist with suggested changes. This data was reviewed before the entire committee at the November meeting, preparatory to putting it on slides for use at community meetings.

4-H AND OLDER YOUTH

Ninety-nine 4-H club meetings were planned for the year of 1960. Plans were made for programs and demonstrations on tractor maintenance, keeping 4-H records, forestry, gardening, tree study, establishing pastures, estimating corn yields, feeding dairy and beef calves. County council meetings were planned for the months of December, March, June and September. Five 4-H Church Sundays were planned for the month of May. Four-H summer camp was planned for the month of June. Plans were made for boys to be enrolled in 239 4-H projects and 200 days were to be spent in advising the boys on proper practices and checking results. It was planned that 426 visits would be made to farms where these projects were to be carried out. An achievement program was planned for the month of November.

Ninety-three 4-H club meetings were held during the year of 1960. Each of the topics listed previously were discussed and demonstrations given on six of them, with the exception of feeding dairy calves. In place of holding this demonstration, plans were made with each club to put on an educational exhibit at the Bertie County Fair.

During the September meetings, a fair committee was appointed in each 4-H Club to be responsible for selecting and assembling materials to be used in the exhibits. Club members came to the exhibit building and constructed their exhibit.

Three county council meetings were held during the year. Attendance was only fair. Only five 4-H Church Sundays were planned, but programs were presented by club members in 7 churches in the county. Club members were assigned to give certain parts on the program and they were assisted in reviewing these parts by the extension agents and local leaders. The pastor of the various churches and the agents planned the program 10 days to 2 weeks prior to the services. Attendance of club members at most of these services was very good.

Bertie County held an encampment with Beaufort and Martin Counties at the Manteo camp. Twelve boys from Bertie County attended. Members were very cooperative in assisting with chors and recreation at camp.

Miss Margaret Clark, Assistant State 4-H Leader, assisted the agents in a meeting with prospective local leaders on April 27. Only 5 persons attended this meeting, but they were very enthusiastic about helping to carry out the 4-H program. We are hoping that these 5 leaders will help in securing others.

Our annual Achievement Day program was held on the night of November 17 with an attendance of 65 club members. Miss Margaret Clark was the main speaker. Club members made brief talks on 4-H Camp, 4-H Week, Farm and Home Electric Congress and Dress Revue. After the presentation of awards and certificates, the Merry Hill Club was presented a beautiful plaque for having had the most outstanding club during the year. Following the program the new county council officers for the year of 1951 were installed in a candle lighting ceremony, while those present sang, "Follow the Glean." After a brief period of square dancing, the group was dismissed.

AGRICULTURAL ENGINEERING

Two tobacco barns were changed to ridge type ventilation in 1949. One new barn was built this year with this type of ventilation. Farmers who have used this type of ventilation report satisfactory cures with a saving of about 20% in fuel, but this method does not seem to be spreading.

With the assistance of J. C. Ferguson, Farm Machinery Specialist, tractor maintenance schools were held at Colerain and Lewiston. Veteran trainee farmers, F. F. A. and 4-H club boys attended the school at Colerain in addition to other adult farmers.

Some work has been done in trying to get rural telephones where surveys were made a few years ago, but we do not seem to be making much progress in getting them. The chairman of the North Carolina REA has agreed to work with us in getting telephones but no definite date has been set by him as to when he can do this.

4-H AGRICULTURAL ENGINEERING

Tractor projects

Fifteen tractor maintenance projects were planned for the year, but only 4 boys were really interested in enrolling for the project. Two of these boys completed the work. A demonstration on "How to care for the tractor" was given at all schools during the month of December. Two tractor schools were planned and held during the month of March. Mr. J. C. Ferguson was in charge of the schools at the Colerain and Lewiston schools. More interest was shown in the Colerain schools with an attendance of over fifty persons.

Farm and Home Electric projects

Plans were made for 10 or 15 boys to enroll in this project, but again not enough interest was shown. This is a project that we hope to build up in this county. Five boys enrolled in this work and two of them burned in record books. A movie on this subject, "More Time for Living" was shown to all 4-H club members during the month of April. Roy Stocks, of the Windsor Club, was declared the County Champion and attended the Better Farm and Home Electric Congress in Raleigh.

PASTURES

From a one acre Ladino clover demonstration seeded about five years ago by S. B. Adams of Whites township, the pasture program has now spread to all parts of the county with all agencies in the county working on the same program and with seed dealers stocking the recommended seed. Pastures were selected as the major enterprise for the county agricultural planning committee in 1949 and again in 1950. At the committee meeting last winter when goals and accomplishments were reviewed, the group agreed that definite progress had been made in the pasture program with more than two thousand acres seeded. The group agreed that the pasture program should be continued as a major project in 1950. Every farmer who did not already have ample improved pasture has been urged to seed at least one acre to furnish grazing for the livestock on the farm and more where additional livestock are kept or will be added to supplement the farm income. This has been done through community meetings, circular letters, newspaper articles, radio programs and personal contact. The County PMA office reports that purchase orders were issued to 667 farmers for 4422 pounds of Ladino Clover seed under the 1950 and 1951 programs in addition to the tall fescue and orchard grass used with the clover. At two pounds of clover seed per acre this was enough to seed 2211 acres to ladino clover pastures. This does not cover the entire acreage seeded as some of the farmers purchased their seed without PMA purchase orders.

On May 2 a pasture tour was held with an attendance of 175. Included in the group were representatives from State College, The State Department of Agriculture, Representatives of commercial firms along with local county people. The tour was pronounced a decided success.

There is room for much further expansion of the pasture program to better utilize land in the county for crops best adapted, land on which crops drown in wet years and waste land now producing no revenue but which when put in proper condition, limed, fertilized and seeded according to recommendations produces excellent Ladino clover pastures. When this is done livestock can be further increased for additional farm income. Some of the farmers are now getting as much income from their livestock as they do from their cash crops.

4-H PASTURES

All boys taking animals for a project were expected to put in permanent pastures. Most of the boys have done so, but more work needs to be done on this subject. A demonstration on "How To Establish a Permanent Pasture" was planned for the month of May and was presented at all of the schools. Much interest was shown in this demonstration. At the Bertie County Fair, the Askewville 4-H club prepared a booth and put on a "pasture making" exhibit. A cut of real pasture turf was used in this exhibit. Special sheets for records on pastures will be prepared for the year of 1961.

LEGUMES

The County FMA office has issued purchase orders to 92 farmers for 13,880 pounds of crimson clover; to 225 farmers for 139,050 pounds of winter peas; and to 139 farmers for 46,880 pounds of hairy vetch.

We have urged farmers to take full advantage of the provisions of the County FMA program for assistance in carrying out approved soil building practices. The winter legume seed are planted to turn under for soil improvement.

SOIL TESTING

Farmers are being advised to take advantage of the soil testing service provided by the State Department of Agriculture. This has been considered of special importance for land to be planted in peanuts and where pastures are to be established. The first recommended step in establishing a Ladino clover pasture is to send a sample of the soil for analysis and recommendation. In a few instances where this was not done, failure has been experienced in establishing the pasture because not enough lime or fertilizer was used.

A number of farmers who had soil tests made last winter and who had fields low in potash to be planted in peanuts were requested to follow the recommendations but leave one or more stack rows without additional potash so they might determine the value of the potash for increasing their peanut yield. It appears that the application of potash is profitable for increasing peanut yields on low potash soils.

CORN

The corn program has been continued this year but less emphasis has been put on it than in former years. Four additional farmers have qualified in the N. C. 100 bushel corn club. Eugene Todd, a 4-H member of the Aulander club had the highest estimated yield in the county at the time set for making an official check so chairman from out of the county were invited to assist in making an official harvest of the acre along with farmers and businessmen of the county. The official yield on his acre was found to be 124.4 bushels. County agents from Martin and Chowan counties supervised the harvest and weighing after an official measurement had been made of the acre.

According to the preliminary check, C. D. Bazemore of Snakebite township had the highest yield on one acre in the county, but his yield was not official, although we pulled, shucked and weighed the corn at eight places in the field according to the method recommended by Dr. E. R. Collins, except we harvested the corn on two rows at each place for a distance of 25 feet to give a total of 1/40 acre harvested. The shelling percentage was found to be 88.5% and moisture 14.6% and according to the formula for determining official yields, the yield was calculated to be 142.46 bushels.

Formula:

$$\begin{aligned} 8920 \text{ pounds ear corn} \times 88.5 \text{ (shelling \%)} &= 7894 \text{ pounds} \\ \text{shelled corn} \times 100 &= 84.4 \text{ (moisture)} = 6741.47 \\ 84.5 \times 86 &= 4732 \\ 6741.47 \div 4732 &= 142.46 \text{ bushels} \end{aligned}$$

While the county agent and assistant agent assisted in checking this yield which was almost in agreement with the preliminary check made by Bazemore, it was not convenient with him to get a committee to harvest the entire acre. He had made the N. C. 100 bushel club in a previous year and has produced more than 100 bushels on one acre for three years straight. He is not satisfied as he is still trying to make 160 bushels on one acre.

Joseph Walston of Roxobel made the 100 bushel club with a yield of 102 bushels on one acre. Willie Bazemore, a tenant on J. A. Speight's farm, produced 100.2 bushels on one acre. Bob McGaw produced 106 bushels on one acre in Snakebite township. T. S. Speight of Snakebite township produced 89 bushels per acre, thereby qualifying as an associate member of the N. C. 100 bushel corn club.

While the acreage planted in hybrid corn has been increasing, we find considerable complaint against it with some of the farmers going back to open pollinated corn, because of hybrid corn falling down in the field and not having as good weevil resistance as desired. Bearing this in mind, we took the matter up with Dr. Paul Harvey last spring with the request that if he had any new corn hybrids that showed promise in overcoming these objections and also make at least as good yield as N. C. 27 that we would like to have seed for a test plot. Dr. Harvey sent a small amount of seed of four new hybrids that were planted on J. A. Speight's farm in Snakebite township according to the plan given on the following page.

	<u>No. of stalks in 50 feet</u>	<u>Stalks down</u>	<u>No. of ears on 50 feet</u>	<u>Yield per acre bu.</u>
1. N. C. 27 (yellow)	24	6	43	82.0
2. N. C. 8004 (yellow)	25	5	39	60.9
3. N. C. 8016 (yellow)	23	3	38	70.5
4. N. C. 8105	26	2	42	69.2
5. N. C. 8106	24	4	34	66.5
6. Dixie 17	21	10	41	78.8
7. Smithwicks two ear	23	4	39	66.5
8. N. C. 27 open pollinated from crib	24	5	39	62.2

A 25 foot space on one row at two places was harvested. Number of stalks in the harvested plats were counted, number broken with ears on the ground and number of ears for each 50 foot plat counted to get the above data. Eight plats were planted using the four new hybrids, also N. C. 27, Dixie 17, Smithwicks two ear and N. C. 27 seed taken from the barn. One of the new hybrids N. C. 8105 made the highest yield, stood up best and had good quality corn.

During the growing season and at harvest N. C. 8106 appeared to be superior to anything in the test. At harvest it was standing up better than anything else in the test. We have been so favorably impressed with it that we have notified Dr. Harvey that we think it should be put into commercial production if it shows up as well in other tests as it did here and that we would like to have additional seed for further work with it in 1951.

J. A. Speight and Herbert Jenkins are cooperating with the N. C. Crop Improvement Association in growing hybrids N. C. 27 and Dixie 17 for seed. T. S. Speight is working with the N. C. Foundation Seed Growers in growing in-breds for the production of single cross hybrids.

We shall expect to continue to make corn a major project at least until we reach the goal of doubling the average yield in the county. Plenty of fields now produce from 50 to 75 bushels per acre. As the livestock are increased in the county, there will be an expanded need for corn as it is the only important grain crop produced here.

4-H CORN

Plans were made for fifty-nine members to enroll in corn projects. Sixty-one members enrolled and thirty-four of them completed their work. Most of these boys planted hybrid corn. Some of their dads are still not sold on the hybrids. The twelve fields which have been estimated to date average 74½ bushels. However, I think that the best fields have been checked.

Eugene Todd of the Aulander Club made a yield of 124.4 bushels of N. C. 27 per acre. His acre was declared the highest 4-H yield and was harvested by a county committee which was made up of members of various agricultural committees.

A demonstration on "How to Estimate Corn Yields" was given in October, as previously planned. Most of the 4-H boys should be capable of estimating their yields, as this is the second year that the demonstration has been presented.

COTTON

On farms when tobacco is not grown cotton has been the second important cash crop. The severe reduction in cotton acreage created quite a problem on the larger cotton production this year was boll weevil control, which was made much worse by continued rains during the month of July. A number of cotton fields were examined for boll weevil infestation. Examination of cotton plants the last week in May and early June showed the heaviest infestation of boll weevils that we had ever found that early in the season. Cotton farmers were strongly urged to follow the boll weevil control program using toxaphene dust, otherwise they might expect to produce very little cotton this season, unless they had unusually favorable weather in July and August for natural control. Approximately ninety percent of the farmers used some control, but most of them did not continue a thorough dusting program in July and August. Rain and threatening rain almost every day in July caused many not to continue the boll weevil program for fear the insecticide would be washed off resulting in a loss of labor and money spent for the poison. The only instances we know of where a fair crop of cotton was made was on fields where dusting was continued until early August. Many farmers put on two to four early applications and then quit. They made little cotton. In spite of the fact that we had the heaviest winter survival of weevils on record to begin working on the cotton early in the season, as a result of the mild weather last winter, late applications this season seemed to have been worth more than the early applications.

All gins in the county have been executing bonds to send out samples to the cotton classing office for Federal Classing.

Of the four contestants who entered the 5 acre cotton contest, only one of these had a yield which could be considered good for the year. L. T. Liverman, of Windsor, grew 1169 pounds of seed cotton to the acre. Mr. Liverman dusted his cotton four times with toxaphene.

Fields of five farmers were checked each week by the assistant county agent. Even though four or five applications of dust were made, the favorable weather conditions for the weevil kept the percentage of infestation fairly high and most of the men made approximately one-half bale of seed cotton per acre.

PEANUTS

Farmers have been advised to have the soil tested prior to planting peanuts so as to get the report from the laboratory on the need for lime and potash. Where fields were low in potash an application of 100 pounds of muriate of potash per acre on top of the row as the peanuts are cracking the soil is usually recommended. We have suggested that farmers having such fields leave one or two stack rows without the potash so they might compare the yield from the untreated plat with the treated plat. Reports have been received from W. A. Tadlock, Jr. of Windsor, Route 4 and G. E. Wade of Colerain on results. Tadlock reported using 75 pounds of muriate of potash per acre on top of the row as the peanuts were cracking the soil and obtained a yield of 1504 pounds per acre. Where no potash was used the yield was 1306 pounds per acre, giving an increase of 198 pounds of peanuts for the use of the potash. At 12½ cents per pound for the peanuts, this represents a nice profit for the potash used. This was on a light ruston sandy loam soil.

G. E. Wade had winter peas growing in his field that tested low in potash. He applied 600 pounds of 2-12-12 fertilizer per acre broadcast on part of the winter peas in February. On the part where the 2-12-12 was not used he applied 100 pounds of muriate of potash per acre on top of the row as the peanuts were germinating, but did not have a no potash plat. His yield per acre where 600 pounds of 2-12-12 fertilizer was broadcast on the winter peas was 1291 pounds. Where the potash was applied on top of the row the yield was 889 pounds per acre. This was an increase of 402 pounds of peanuts for using the 600 pounds of 2-12-12 on the winter peas over the 100 pounds of muriate of potash after the peanuts were planted.

We have been conducting peanut dusting demonstrations for a number of years but until 1949 only dusting sulphur was used in these demonstrations. Over a period of years these demonstrations had shown an average increase in yield of 300 pounds per acre. At the suggestion of Howard R. Garris, Extension Plant Pathologist, one plat in each demonstration was dusted with copper-sulphur in 1949 and again in 1950. The results in 1949 were decidedly in favor of using copper-sulphur dust. In 1950 six demonstrations were conducted but results have been variable although copper-sulphur appears to give best results. In these demonstrations from two to four applications were made with the first application made the last week in June in one demonstration and the first application not made until the last week in July in two. On account of so much rain during the month of July and farmers being so hard pressed to save the bobaco crop, these applications were not made at the correct time.

The demonstration conducted by J. T. Harrell of Whites township, a veteran trainee farmer, had only the two late applications. His yield per acre was as follows:

Dusted with sulphur	856 pounds
Dusted with copper-sulphur	936 pounds
Not dusted	720 pounds

Increase for copper-sulphur over undusted plat was 216 pounds per acre. Even this increase represented a nice profit with peanuts at 12½ cents per pound.

Best results were obtained by H. R. Outlaw of Merry Hill township. He made three applications and obtained the following yields per acre:

Copper-sulphur	2526 pounds
Check or undusted	1913 pounds
Sulphur	2355 pounds

Applications of dust were made on July 15, July 31 and August 14.

On September 6 each plat was checked for defoliation from leaf spot with the following percentages:

Copper-sulphur	17%
Check plat	30%
Sulphur plat	23%

The copper-sulphur plat showed an increase of 613 pounds of peanuts per acre. At 12½ cents per pound, the increase was worth \$76.62 per acre.

In the demonstration conducted by J. F. Dilday results were not consistent, part of which was due to a variation in the land. He made three applications of both sulphur dust and copper-sulphur with the following yields per acre reported:

Sulphur	1340 pounds
Copper-sulphur	1567
Undusted plat	1776 pounds

Lloyd Hughes of Trap made three applications of both sulphur dust and copper but on account of July rains which caused a rush in curing tobacco in order to save the crop, the first application was not made until the latter part of July and a heavy rain washed off one application. It was evident at harvest time that the peanuts in the area dusted with copper-sulphur were not as good as in the other plats. The following yields per acre were picked:

Sulphur	1655 pounds
Copper-sulphur	1824 pounds
Check plat (not dusted)	1371 pounds

The increased yield from the sulphur plat was about what would normally be expected.

T. S. Speight of Snakebite township made four applications of both sulphur dust and copper-sulphur at two week intervals with the first application made the last week in June. His peanuts were planted in April. His yields per acre were:

Sulphur dusted	1593 pounds
Copper-sulphur	1773 pounds
Check plat (not dusted)	1494 pounds

Increase of copper-sulphur over undusted plat was 279 pounds per acre. At 12½ cents, the increased yield was worth \$34.91. Speight figures it cost \$4.60 per acre to dust the crop, for labor, dust, power and depreciation of machinery. He used about 15 pounds of dust per acre for each application.

One demonstration put on by Jesse Jones of Rose Mead for a tenant on a nearby farm was lost on account of the tenant picking the crop so that record of yields could not be obtained.

Peanut yields this season have been quite variable and less than normal on account of so much rain in July and resulting grass but farmers whose crops were not damaged by rains and grass who were able to carry out the dusting program according to instructions have generally made a fair yield. Highest reported yield was received from W. R. Lawrence of 65 bags on two acres which were top dressed in June with 250 pounds of 5-0-20 top dresser per acre. He dusted his crop with copper-sulphur and says he was well paid for doing so. He had one field that had been overlimed on Hermitage farm where he had been making a very poor crop.

In the spring of 1949 he requested information on what he should do to correct the trouble. He was told to have his fertilizer manufacturer to mix enough manganese sulphate with the peanut fertilizer to give an application of 50 pounds of manganese sulphate per acre. His crop from this field in 1949 was almost normal. He had similar trouble with two fields on the Lewis Perry farm near Perrytown and repeated the process this year with the field that was planted in peanuts and reports a much better crop of peanuts than he had been able to make on this field in recent years. He is convinced that he had been using too much lime on some of his crop land.

For a number of years Dr. W. C. Gregory, of the N. C. Agricultural Experiment Station has been doing breeding work with peanuts. Last winter in a conference with county agents from the eight main peanut producing counties it was agreed to test in these counties five of the crosses made by Dr. Gregory with one farmer in each county. The test in Bertie County was planted on W. L. Powell's farm of Windsor. Results from these tests are to be determined later.

4-H PEANUTS

Plans were made for 35 members to enroll in peanut projects. Twenty-one members enrolled, but most of them did not keep accurate records of their work. Nine of these boys completed the projects successfully. Special emphasis will be put on this project during the year of 1961.

TOBACCO

An increased amount of work on tobacco has been necessary to control blue mold and black shank. Many requests were received to determine whether plants had black shank. This disease has now spread to all sections of the county, although it is not yet on all farms. Farmers who had this disease in their 1949 crop sought advice on the best resistant variety to use and three variety tests were conducted where Oxford 1, Dixie Bright 101 and 102 along with the Vesta strains were used with the usual non-resistant varieties. Assistance was given farmers in getting seed of the resistant varieties, particularly Dixie Bright 101 and 102.

Some of the growers discovered the disease in newly set plants in time to plow them up and reset with resistant plants. Opinion is divided as to which is the better variety to grow in 1951, mainly between Oxford 1 and Dixie Bright 101 with a few who will grow Dixie Bright 102. Those who used Oxford 1 this year were generally well pleased with their crop. Further testing appears to be needed to determine which will be superior. A tobacco tour was held in August to observe the variety tests. A number of farmers had one or more of the resistant varieties in comparison.

Four tobacco plant bed weed control demonstrations were put out in October. In one of these demonstrations a plot was treated with gas furnished by Dow Chemical Company. We have been conducting plant bed weed control demonstrations for a number of years and quite a number of farmers are now using cyanamide on their plant beds for weed control but the other materials have not come into general use. On account of the dry season and cool weather in early spring these demonstrations did not turn out as well last spring as they usually do.

A few plants were treated on six farms for sucker control, using mineral oil and acid tablets. The mineral oil appears to be worth further testing.

ANIMAL HUSBANDRY

Swine

Many Bertie farmers are adding to their cash crop income through sale of market hogs. It appears that the hog population in the county is now at an all time high. There is also an increasing number of pure bred breeders in the county. At the county fair in October six breeds were represented, namely, Spotted Poland China, Duroc, Hampshire, O. I. C., Tamworth and Yorkshire.

Farmers who are using Ladino clover for their pigs to graze while they are on self-feeders are highly pleased with their results. Increased corn yields and more good Ladino clover pastures are making a profitable hog enterprise. A. P. F. is being tried with pigs grazing ladino clover. Further work is planned with it next spring.

4-H Swine

It was estimated that thirty-two 4-H club boys would take swine projects during the year, but the interest was high and sixty-four boys enrolled for this work. Only thirty boys completed successful project work. Seven more boys were included in the pig chain of registered spotted poland gilts. This brings the total of pigs placed to seventeen animals. Miles White of the Windsor club has a registered spotted poland china gilt whose litter of eight pigs average 50 pounds at fifty-six days of age. The previous litter averaged forty-five pounds. There were nine pigs in this litter.

Beef Cattle

Bertie County is not yet a beef cattle county but there has been a healthy increase in beef cattle interest with the increased acreages seeded to Ladino and grass pastures. Each year additional farms are adding a few beef cattle and farmers raising beef cattle already are increasing their pasturage and adding more cattle. Seven farmers were assisted in getting registered bulls and seven were assisted in getting pure bred or grade beef type heifers. W. J. Robertson of Rose Mead has an outstanding herd of Shorthorns. He and his neighbor, C. K. Freeman showed some of their cattle at the county fair and also at the N. C. State Fair. They won all the prizes at the State Fair on Shorthorn Cattle. Knowles Bros. of Windsor, Route 4, are also building up a herd of registered Shorthorns.

4-H BEEF CATTLE

Nothing definite was planned for baby beef projects for the year, but I have been able to place five young steers for a 4-H show and sale to be held in Ahoskie next spring with three other counties cooperating. All but one of these boys have good permanent pastures for their calves. They are being trained to feed, fit and show these animals. A method demonstration on "Mixing Feed for Beef Calves" was presented at all of the clubs during the month of November. If the show and sale is successful, I hope to get at least eight boys to feed beef calves next fall.

4-H DAIRY CATTLE

Two years ago, a 4-H calf chain was sponsored by the Chamber of Commerce and three registered Jersey heifers were placed with boys and girls. One of the original heifers died with bloat and two of the offspring were lost. At present, there are two registered cows and 1 calf as a result of the chain plan. We should have another calf to be presented to a 4-H member in the early summer. Four other registered heifers were purchased at the same time as the chain calves. These boys are doing a good job with their calves. All of them have established pastures for the animals. Of seven boys enrolling in dairy projects, five of them completed the work.

4-H HORTICULTURE

Home Gardens

Plans were made for twenty-nine members to carry gardening in 4-H project work. Twenty-nine boys enrolled in the project with a completion of fourteen members. Projects were very good, except during the late summer when weed growth was heavy. Boys were encouraged to have at least eight vegetables in their gardens.

National Jr. Vegetable Growers Association

Miles White, John and Edwin Parker of the Windsor Club, entered in the National Junior Vegetable Growers Contest and completed records on their vegetables. These three boys had a total of 2 acres of garden. This project will receive special emphasis during the coming year. Marketing facilities in the county are poor.

Garden movie

A movie entitled, "The Farm Garden" was shown at all 4-H clubs during the month of February. Interest was high and the showing of the film is probably responsible for more members doing a better job with their garden projects this year.

4-H POULTRY

4-H Projects

Plans were made for 16 members to enroll in poultry. Twenty-four enrolled and only 7 completed. Milton Robertson of the Mars Hill Club has 100 white leghorns which are in about 65% production. He has a modern laying house and an excellent stand of Ladino clover for them to graze. He didn't make much profit for the year, but hopes to do well when he adds another 100 to the flock this year. Miles White of the Windsor Club also has a nice flock of layers.

Caponizing Demonstrations

W. C. Andrews held a caponizing demonstration at the Aulander High School and approximately twenty boys attended. Some of the boys performed the operation successfully.

The assistant county agent and the home agent held a caponizing demonstration at the farm of W. F. Knowles of Woodard with an attendance of thirteen persons.

4-H FORESTRY

Tree Planting

Plans were made to encourage 4-H boys to order seedlings for planting. On most of the farms, there was not a place to set seedlings, but three club boys ordered 3500 trees and set them out. Mr. J. C. Jones and the assistant agent carried out a "Tree Planting" demonstration at the home of David White of Merry Hill during February at which thirteen boys were present and assisted with the planting.

Thinning Contest

Mr. J. C. Jones gave 4-H club boys a timber thinning contest during the month of March. He also discussed cedar tree planting and the 4-H Wildlife Project.

Exhibit

The Mars Hill 4-H clubs put on a forestry exhibit at the Bertie County Agricultural Fair. Tree planting, reseeded and timber thinning were demonstrated.

GENERAL SUMMARY

As a result of the corn program, average corn yields have steadily increased, mainly from the use of hybrid seed, more nitrogen and less deep cultivation. The average county yield for 1950 is estimated to be 40 bushels per acre. More acreage was seeded to improved pastures in 1949 than in any previous year. A larger acreage by a larger number of farmers has been seeded in 1950 than was seeded in 1949. We expect this acreage to continue to expand, with increased interest in livestock, especially hogs and beef cattle.

As a result of the spread of black shank in tobacco an increased amount of work has been necessary with this crop in order to advise farmers on the best varieties to use. More farmers are learning the importance of controlling blue mold in the plant beds in order to be more certain of having ample plants on hand to set out the crop at the best time.

Soil testing is giving farmers better information on the fertilizer and lime needs of various crops.

A county fair was held in October. It was initiated by the County Planning Committee. Cooperation of the Windsor Chamber of Commerce and Merchants Association along with business firms and other citizens of the county made it possible. Valuable support was received from the Bertie County Commissioners. The fair was considered such a success that the County Commissioners were favorably impressed in providing permanent fair buildings on county owned property.

Meetings of the County Agricultural Planning Committee have been held each month and intensive work has begun in studying farm operations with suggestions on revising them for a better farm income.

4-H GENERAL SUMMARY

About one-third of the 4-H boys enrolled in the various projects completed them successfully. Fields of hybrid corn were better than the previous year. The yield of 124 bushels for Eugene Todd exceeds any made by a 4-H boy for several years. Four-H boys had access to more pastures for their livestock projects than in any previous year. Feeding baby beef calves was started in the county again. This is in line with the program that we hope to develop in the county.

A King and Queen Contest was held in every club in the county by 4-H members. The money was used to help the 4-H club members bear expenses of their trip to summer camp.

A Health Contest was carried out in each club, with the county nurse making the selection for the queens and kings of each club. The winners met in the office of the county doctor and he selected the county king and queen who represented Bertie County in the Health Festival at 4-H club week.

Four-H Church Sunday programs were carried out successfully at seven churches with a good attendance. The members carried out their parts very well.

Eight boys and girls were chosen by their respective clubs to represent Bertie County at 4-H Club Week in Raleigh. These representatives were well pleased with the program and one of them gave a report of the activities at the Achievement Program.

Two boys and two girls from 4-H clubs in Bertie County took part on the 4-H Radio program over WPTF.

During the summer a picnic for all club members in Bertie County was held at Colerain Beach. The recreation consisted of swimming, games and contests. A picnic lunch was served after the recreation. About fifty club members attended this outing.

IMPROVEMENTS PLANNED FOR ADULT WORK
FOR NEXT YEAR

We plan on a continuation of the major 1960 activities in 1961 with further stress on soil testing, urging farmers to take soil samples for testing in December so as to get quicker service from the laboratory, enabling them to lime fields this winter that should be limed and urging them to apply lime not later than next spring on land to be seeded to Ladino clover pastures in the fall of 1961. Many farmers were handicapped in getting lime this fall for seeding their pastures at the recommended time.

We shall expect to do further testing of new corn hybrids in 1961 also new peanut hybrids. A continuation of the pasture and livestock programs appears desirable. The experience of this year has shown the importance of an adequate boll weevil control program for profitable cotton production in years when there is a heavy weevil infestation.

IMPROVEMENTS PLANNED FOR 4-H WORK FOR NEXT YEAR

I am of the opinion that we still have a long way to go with establishing and maintaining permanent pastures in Bertie County. Even though we have made much improvement, there are still some farmers and 4-H club members raising livestock without good permanent pastures. I am going to put much emphasis on 4-H club pasture work during the year. A booklet will be stapled together and passed out to all boys taking pasture for a project. In this booklet, the club members will give a complete history of the practices used in seeding the pasture and the methods used in maintenance.

The Agricultural Engineering projects need to be stepped up. We are planning another County Tractor School this year and hope to have more boys to enroll in the tractor maintenance project. Many boys will sign up for pigs, corn and gardens, but will not take the Farm and Home Electric Project unless they are personally encouraged. More work needs to be done on this project. We hope that the talk given by our county winner at Achievement Day will result in more members enrolling during the coming year.

The assistant agents from Bertie, Martin, Beaufort, Pitt and several other counties plan to hold a meeting and let each agent put on their favorite demonstration. We feel that each agent present can gain some valuable information and that this will strengthen the 4-H program in this area.

There are two things which I think do more to strengthen the 4-H program than anything which can be done--more visits to 4-H parents and securing more local leaders. These are two things that I plan to give special effort to.