# NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE ANNUAL NARRATIVE REPORT

of

1955

BERTIE
COUNTY

E. E. GRANT
COUNTY AGENT

CONTENTS

The year 1955 has been a trying one for Bertie County farmers. The three hurricanes of August and September and the heavy rains accompanying them cut steeply into the profits of Bertie farmers. Peanut and cotton yields are about one-half of 1954.

Major emphasis this year has been put on corn, peanuts, cotton, tobacco, swine, beef cattle, and further development of the Challenge Program. Corn is now grown on more acres in Bertie than any other crop. There was an increased interest in corn production during the year as indicated by the organization of three community corn clubs and a 4-H corn contest.

Interest in livestock cooled somewhat due to the low prices, but the continued cut in allotment acreage crops has kept livestock numbers about static with those of a year ago. Currently a Beef Cattle Producers Association is being organized.

Soybean acres continued to increase and there were beginning to be small acreages devoted to small grains and Milo.

Several peanut demonstrations were either lost or value reduced due to flood conditions of August and September.

Preparation of this report has been hampered by the illness of the county agent.

## 4-H AGRICULTURAL ENGINEERING

### Tractor Maintenance

The Tractor Maintenance project in Bertie County is not as popular with 4-H club members as it should be. Only four boys carried the Tractor Maintenance project last year. Because of the fact that the assistant agent was out of the county two weeks last June for the In-Service Training School and camp, the Tractor Driving Contest was not held as planned. It is hoped that we will have one next year.

### Farm & Home Electric

The enrollment in the Farm & Home Electric project increased this year from three to 16. Kenneth Simmons, the boy who represented Bertie at the 1954 Farm & Home Electric Congress was partially responsible for the increase. When he missed his question at the congress, he promised to enroll 10 new members in the Farm and Home Electric project. When he came home he did not forget his promise. He enrolled six new members in the project.

Our county winner this year was J. H. Sanford, also of Windsor School. He gave a fine report of the Farm & Home ElectricCongress to his local club.

### Farm & Home Safety

Safety is always a worthwhile enterprise. Certainly the Safety project needs more attention than it was given in Bertie this year. We had 10 boys enrolled in the Farm & Home Safety project.

## CORN

In order to encourage the adoption of the recommended practices in corn production, adult corn clubs were organized at Midway, Perrytown, and Pine Ridge with a total membership of 61. Each club elected from its membership a president and secretary-treasurer. In order that funds would be available to pay for a harvest banquet at the end of the season and award a trophy to the member producing the highest yield in each club, it was voted to charge a $3.00 membership fee. At the time of organization, no other prizes were planned but interested developed to the extent that three additional prizes were offered for the highest yields in the Midway Club with one ton of 5-10-10 fertilizer as first prize, 1600 pounds of 5-10-10 fertilizer for second prize, and 400 pounds of anhydrous ammonia applied on four acres as third prize. The Perrytown Club also had one ton of 5-10-10 fertilizer offered as first prize and $25.00 in electrical appliances as second prize. Quarterly meetings of the Midway Club have been held by the Midway Club.

During the growing season the crops were very promising for many of them had prospects of producing 100 bushels or more, although dry weather in July reduced earlier prospects. A few of the members used irrigation during this period. Prospects fell very badly as a result of the three hurricanes in August and September along with 26 inches of rain. The corn was blown down so badly that many of the members decided that it would be most difficult to get a harvest record on their corn and in order to salvage as much as possible from it before the quality of the corn became too badly damaged, they fenced the area and turned hogs on it. After observing this situation we decided that in order to get very many yield records we would have to advise using the rough estimate plan of arriving at the corn yield by ear count and row width. Midway and Perrytown Clubs adopted this plan with the request that members turn in their estimates by specified times, after which the highest indicated yields were re-checked by committees from the clubs. The Midway committee re-checked eight of the highest indicated yields by harvesting and weighing the corn from a 12½ foot space on two rows at eight places in each field, after which moisture test was run on each sample. Highest yields were found to have been produced by E. J. Pruden, Jr. with 127.2 bushels, W. S. Hughes 107.4 bushels, and E. L. Taylor 105.9 bushels.

In the Perrytown Club the re-check committee reported Alton Freeman's yield to be 112 bushels, and Charlie Cullipher's 109 bushels.

Eleven members from the two clubs reported yields of 100 bushels, or more. Average yield for 28 members reporting was 92.5 bushels. Seventeen of this number used hybrid Dixie 82, five used N. C. 42, and three used N. C. 27. Average row spacing was 38 inches and average distance in the drill was reported to be 15½ inches.

All members were advised to use one of the recommended hybrids, but some thought their open pollenated corn, or barn corn, as they call it, would produce more than the recommended hybrids, so the Midway Club decided to have one of their members conduct a variety demonstration where all the recommended hybrids would be used, along with other hybrids and open pollenated varieties being used in the community. This demonstration was conducted by Richard Smithwick. Harvest record from this demonstration showed all plats damaged by the hurricanes and excessive rains but it was noticeable that some plats stood the hurricanes much better than others and produced much better quality of corn, indicating that some have much better strength of stalk and are more resistant to insect attack.

The open pollenated varieties were all blown down, also many of the hybrids. Among the white hybrids Coker 811 stood up best, also produced the soundest corn. Additional recommended white hybrids that produced higher yields than Coker 811 were Coker 911, N. C. 29, N. C. 11 and Tenn. 29. These all showed about the same strength of stalk and similar quality of corn with Coker 911 producing the highest yield, although it was a little more subject to insect injury than the others. The additional white hybrids either were badly blown down, produced poorer quality of corn, or lower yield.

Among the yellow hybrids, Dixie 82 and N. C. 42 produced the same yield and quality of corn. However, in spite of the fact that Dixie 82 grows too tall, it was standing better than any of the other yellow hybrids, except Dixie 18, but yield produced by Dixie 18 was less, as it is primarily a silage corn.

A new yellow hybrid developed by the N. C. Agricultural Experiment Station, N. C. 46 which was released this year for the first time, shows promise of producing a high yield of sound corn, although it was down worse than Dixie 82. It is a one eared hybrid of earlier maturing than Dixie 82 but the quality of the corn from it was one of the best. A few Bertie farmers who planted it this year have reported that they like it and expect to plant more of it next year. Some are reasoning that since the two eared hybrids normally produce only one ear when planted thickly, they might as well use a one eared hybrid for thick planting.

Highest yield in all plats was produced by DeKalb 1050, a corn belt hybrid that is said to have been developed for southern conditions; however it is not on the recommended list. This hybrid was down worse than Dixie 82 but not as badly as most plats. While most of the ears from this plat were sound, about 10 percent were badly weevil eaten.

The best hybrids produced from 20 to 50 percent more than the open pollenated varieties. Alton Freeman, President of the Perrytown, says he is one who thought his barn corn would produce more than the recommended hybrids, so he planted an acre of it side of his Dixie 82 contest acre but is now convinced for he says his Dixie 82 was 50 percent better than his barn corn and was not blown down by the hurricanes as badly as his barn corn.

The harvest banquet for the corn clubs will be held in Windsor on Friday night, December 2, 1955 to which all members are invited. At that time trophies and prizes will be awarded the winners.

List of members from Midway and Perrytown Adult Corn Clubs and reported yields

| | Hybrid | Width of row | Distance in row | Bu. per acre |
|---|---|---|---|---|
| E. J. Pruden, Jr., Merry Hill | Dixie 82 | 36" | 12" | 121.2 |
| Alton Freeman, Colerain | Dixie 82 | 36" | 18" | 112 |
| Charlie Cullipher, Colerain | Dixie 82 | 36" | 18" | 109 |
| W. S. Hughes, Merry Hill | Dixie 82 | 36" | 10" | 107.4 |
| A. C. Perry, Colerain | Dixie 82 | 36" | 24" | 107 |
| E. L. Taylor, Merry Hill | N. C. 42 | 42" | 12" | 105.9 |
| M. H. Taylor, Merry Hill | N. C. 42 | 36" | 12" | 104.6 |
| Webster Daniels, Colerain | Dixie 82 | 36" | 10" | 103 |
| Ed Bowen, Merry Hill | Dixie 82 | 42" | 12" | 101.9 |
| M. W. Britt, Merry Hill | N. C. 27 | 42" | 10" | 100 |
| J. C. Evans, Merry Hill | Dixie 82 | 42" | 8" | 100 |
| R. P. Smithwick, Windsor, R-2 | N. C. 42 | 42" | 16" | 95 |
| Edward Taylor, Merry Hill | Dixie 82 | 30" | 11" | 98 |
| R. E. Perry, Merry Hill | Dixie 82 | 36" | 18" | 96 |
| H. J. Baker, Merry Hill | Dixie 82 | 30" | 24" | 77 |
| Leslie Carter, Merry Hill | Dixie 82 | 44" | | 90 |
| Ed Daniels, Merry Hill | Dixie 82 | 42" | | 87.9 |
| J. F. Taylor, Merry Hill | Dixie 82 | 36" | | 86.8 |
| John Brown, Merry Hill | Dixie 82 | 41" | 14" | 80.1 |
| V. H. Lee, Merry Hill | Dixie 82 | 36" | 16" | 69.2 |
| Cecil Perry, Colerain | | 36" | 18" | 64 |
| J. D. Cale, Colerain | | 36" | 18" | 80 |
| Billy White, Colerain | N. C. 27 | 39" | 18" | 78 |
| W. B. Perry, Colerain | N. C. 42 | 36" | 26" | 67 |
| J. C. Daniels, Colerain | N. C. 42 | 36" | | 68 |
| Everett Miller, Colerain | N. C. 27 | 39" | 18" | 94 |
| R. S. Taylor, Merry Hill | Dixie 82 | 38" | 11" | 86.8 |
| Average | | 38" | 15½" | 92.5 |

With perfect stands, the spacings given would have made approximately 10,000 stalks per acre. Yields were reduced from dry weather in July and all crops were severely damaged by the three hurricanes and 26 inches of rain in August and September, which in turn caused many of the members to fail to report their yields. The members of the Pine Ridge Club failed to report any of their yields, although it appeared that some of them would have produced 100 bushels or more per acre. Members of this group turned hogs on the corn soon after it was blown down in order to salvage as much as possible before the corn began to rot.

Membership in the three organized adult corn clubs was: Midway 30, Perrytown 16, and Pine Ridge 15.

## 4-H CORN

A 4-H Corn Production Contest was organized last spring in order to encourage more interest in the corn project among 4-H members. Corn is grown on more acres in Bertie than any other crop. Often times the yields are far below what they could be if good practices were followed.

Regulations for the contest were as follows:

1. Contest acre must be bona-fide 4-H project or portion 4-H project.
2. Soil sample must be taken on the contest acre and recommendations followed as nearly as possible.
3. Corn planted must be one of recommended hybrids or good open-pollinated variety.
4. Yields will be determined by estimation method.
5. The project record book will be turned in before any prizes are awarded. A 4-H member not completing his corn project book will not be eligible for contest awards.
6. Three prizes will be awarded as follows:

| | |
|---|---|
| 1st place winner | $25.00 |
| 2nd place winner | 15.00 |
| 3rd place winner | 10.00 |

The following Bertie County fertilizer and seed merchants contributed to the prize money and thus made this contest possible:

| | |
|---|---|
| J. Lebron Morris | Roxobel |
| Lewiston Supply Company | Lewiston |
| Bertie Farmers Exchange | Windsor |
| Powell & Stokes | Windsor |
| Farmers Supply Company | Colerain |
| Eastern Supply Company | Roxobel |
| W. R. Lawrence | Perrytown |

This year we had 28 corn projects with 17 entering the contest. The contest winners will be announced Achievement Night scheduled for December 5 at Mars Hill School. Johnny Todd will be awarded first place with yield of 120 bushels per acre; Edwin Parker, second placd with 108 bushels; and Bill Perry, third place with 98 bushels.

The contest will be continued next year.

Edwin Parker won a blue ribbon for his entry of 10 ears of 312 Pioneer corn at N. C. State Fair.

## PEANUTS

With more farmers adopting recommended practices in peanut production, the average yield has been gradually increasing, having gone from 990 pounds average in 1949 to 1600 pounds in 1954. We are stressing the importance of following the research program and putting the recommended practices into general use.

Since 15 Bertie farms reported an average increase of 366 pounds per acre in 1954 with N. C. 2 over their farm stock, which in turn sold for an average of $76.00 more per acre, we have given wide publicity of these results and urged all farmers to at least plant a part of their 1955 crop in this variety. In addition, H. W. Jilcott of Roxobel has cooperated in conducting a demonstration with selections made by Dr. W. C. Gregory of X-ray treated peanuts. Five of these plats were planted in an uniform field in addition to farm stock, N. C. 2 and one plat of extra large selected from N. C. 2.

It is generally recognized that potash and lime are essential for profitable peanut production. In order that farmers might use these materials more wisely, we have urged them to take advantage of the soil testing service and send in samples from fields to be planted in peanuts. While the needed amount of lime does good, it does not hold that an additional amount is better as some farmers have learned, thereby having trouble with manganese deficiency. Since there are varying opinions as to the relative value of different kinds of lime, five farmers have cooperated in conducting demonstrations using different kinds of lime. On one of these, check plats were left without land plaster. In these, we have used straight dolomitic lime, 15% magnesium lime, potash lime and burnt shell lime.

Formerly, diseases and insects were of little recognized importance but their control is becoming of increasing concern. Seed treatment is now a regular practice, and a large percent of farmers dust their peanuts for leaf spot control. The control of nematodes also appears to be a problem in some fields. The southern corn root worm has caused severe damage on the heavier soils in some years. Two pounds of actual Aldrin applied before the first cultivation has been found to give satisfactory control. Thrips often damage the young peanut plants. Leaf hoppers and corn ear worms have damaged the foliage, necessitating the use of an insecticide along with the dust used for leaf spot control.

It appears advisable to use an application of Aldrin on the heavier soils for root worms and thrips, and one pound of DDT on lighter soils for control of thrips where root worms are not a problem. Many farmers have this year used leaf spot control dust containing 5% DDT for control of leaf hoppers and corn ear worms. We are expecting this to be a standard recommendation.

Lime and Potash Demonstration with T. W. Griffin, Woodville - Peanuts

| Plat | Lime | Potash Added | Yield Per Acre |
|---|---|---|---|
| 1 | 640 lbs. burnt shell lime - 15% magnesium added | 64 lbs. of 50% muriate of potash | 1629 lbs. |
| 2 | 650 lbs. of 5% potash lime | | 1652 |
| 3 | 640 lbs. landlax (Royster product) | | 1531 |
| 4 | 640 lbs. dolomitic lime | | 1408 |

Landlax is a by-product of cement industry containing about 5% potash. This field showed a pH of 7.3.

When soil sample report was heard from 100 pounds of potash was recommended. Lime applied before report was received. Field had not been limed for several years. Manganese deficiency showed in plat 3.

The results show clearly the value of potash in peanut production. However, the 15% magnesium lime failed to give the increase in yield over dolomitic lime as reserach findings had indicated.

The adverse weather might have effected the results.

Peanut Variety Test With R. W. Jilcott, Roxobel

| Plat | Variety | Yield Per Acre (Pounds) | Government Grade | Approximate Money Value |
|---|---|---|---|---|
| 1 | A 8 | 1408 | | |
| 2 | M-1 | 1436 | | |
| 3 | Y T 12 | 1484 | | |
| 4 | Y T 32 | 1402 | | |
| 5 | Y T 36 | 1560 | | |
| 6 | Va. Bunch | 1416 | | |
| 7 | N. C. 2 (Large Selects) | 1635 | 12.67 | $207 |
| 8 | N. C. 2 (Regular) | 1513 | 13.10 | 198 |

Plats 1, 2, 3, 4, 5, and 7 approximately 0.2 acre, plat 6 approximately 0.4 acre, while plat 8 measured 3.2 acres.

The experimental lines as tested in other counties did not have good enough quality to justify their release as varieties. In our test they failed to surpass N. C. 2 except for the one line Y T 36.

The large selects were those following in extra large classification by the use of U. S. Government grading screens. The increase in yield of selects over N. C. 2 regulars was offset by a lower grade. The increase in value of the selected extra large is hardly significant.

Peanut Demonstration Studying Different Plant Nutrients In Cooperation With Bertie County Farm

| Plat | Material Used | Acre Yield (lbs.) | Government Grade (lb.) | Acre Money Value |
|---|---|---|---|---|
| 1 | 1000 lbs. of ground limestone per acre - no potash - 400 lbs. land plaster | 990 | 11.00¢ | $108.90 |
| 2 | a. 1000 lbs. of ground limestone per acre and 100 lbs. muriate of potash per acre. 400 lbs. land plaster | 1126 | 10.22 | 115.08 |
| | b. Same as (a) with land plaster not applied | 1178 | 9.81 | 115.56 |
| 3 | a. 1000 lbs. of 15% magnesium per acre and 100 lbs. of muriate of potash per acre - 400 lbs. of land plaster | 976 | 9.30 | 90.77 |
| | b. Same as (a) with no land plaster | 1032 | 9.88 | 101.96 |
| 4 | a. 1000 lbs. of burnt shell lime per acre - 100 lbs. of muriate of potash | 968 | 10.39 | 100.58 |
| | b. Same as (a) with land plaster left off | 1017* | 9.93 | 100.99 |
| 5 | 1000 lbs. of ground limestone per acre - no potash | 938 | 10.22 | 95.86 |

* There was some question as accuracy of this figure.

Plats 1, 2, 3 and 4 followed cotton. Plat 5 followed soybeans for oil in 1954.

The 15% magnesium lime was prepared by Reliance Fertilizer and Lime Company of Norfolk, Virginia by adding dolomitic limestone to calcitic or burnt oyster shell lime. Soil Sample report recommended 1000 pounds of dolomitic lime.

This demonstration included several combinations of different liming materials, potash and land plaster. It was hoped that some really good data might come from it. However, the severe storms of August and September probably reduced greatly the significance of the data. The average of plats 1 and 5 (dolomitic lime - no potash) is $12.38 for money value while the value of 2 a was $115.08, a difference of $12.70 in favor of the use of 100 pounds of potash. The 15% mangesium lime failed to give the increase in yield of 300-500 pounds per acre as indicated by research findings over straight dolomitic or straight calcitic lime. The actual yield of 15% mangesium plat 3 a was inbetween that of ground limestone, plat 2 a, and burnt shell lime, plat 4 a. The increase in yield in all three plats for which the landplaster was left off is hard to explain on basis of research and past farm experience. The drop in grade for the plats 2 b and 4 b which received no plaster is as expected but 3 b graded higher than 3 a.

Peanut variety demonstration conducted by L. A. Cullipher, Colerain, N. C.

| Plat | Variety | Yield (bags) | Government Grade | Per Acre (lbs) |
|---|---|---|---|---|
| 1 | N. C. 2 | 12 | 12.55 | 1057 |
| 2 | Common Runner | 14 | 13.21 | 1302 |

Each plat, one acre

This is the only test that we have had in Bertie County comparing runner peanuts with N. C. 2. This test would seem to indicate the runners are superior under conditions of this season and on this particular light sandy soil. However, there was a low spot on the far end of plat 1. Also this was not an outstanding yield for either variety. The peanuts were behind cotton and received 400 pounds of 5-10-10 at planting. They received 400 pounds of land plaster second week in July. No sulfur dust was used.

Mr. Cullipher has agreed to conduct a similar test in 1956.

## 4-H PEANUTS

4-H club members are fortunate in Bertie County in having the Farm Bureau to sponsor a Peanut Production Contest opened only to 4-H and FFA members. The prizes are: first $50.00, second $25.00, third $15.00 and fourth $10.00.

Peanut yields are generally lower this year than last year due to the three hurricanes which hit eastern North Carolina this summer, but some good yeilds were being obtained by 4-H members.

Each project was measured off in advance of digging and are kept separately at picking time. A separate grade is also run on the peanuts from the club acre. In reporting the yield a brief record, soil sample recommendation, and the signature of disinterested person are required.

The 4-H club members entering the contest this year are as follows:

Aulander School - Jimmy Rawls, Danny Harrell, Joe Early, and William Edgar Pierce.

Colerain School - Johnny Baker, Louis Cullipher, Carl Jean Hughes and Gerald Perry.

Mars Hill School - Carroll Jones, J. D. Jones, Melvin Thompson Early, Billy Myers and Hubert Earl Baggett.

Merry Hill School - Bobby Britt, Tracy White, J. B. Brown, Gene White, Allen Smithwick and Robert Perry.

Windsor School - Lloyd Dunlow, Edwin Parker, Willie Ray Harrison, Kenneth Simmons, Jessie Leggett, William Stocks and William E. Lawrence.

West Bertie School - Charles Bazemore and William Askew.

The deadline for entries is December 10, 1955. The contest winners will be announced at the Annual Farm Bureau Day probably in March. Last year Allen Smithwick won third place in the Farm Bureau Contest open to all farmers, FFA, NFA, and 4-H members with a yield of 28 bags on his acre and weight of 2660 pounds.

This year two 4-H club boys won ribbons at North Carolina State Fair. Louis Cullipher of Colerain Senior Club won first place for N. C. #2 variety and Allen Smithwick third place for same variety. Last year Allen won first place for N. C. #2 at the State Fair.

## TOBACCO

In order to bring the results of the research program and extension recommendations on improved practices in tobacco production, county and community meetings were held with the discussions led by the extension tobacco specialists. Good attendance was had at these meetings, indicating farmer interest.

Plant bed fumigation demonstrations were held on Tilden Brown's farm near Colerain and on Daniel Johnson's farm near Askewville in cooperation with representatives of Matheison Chemical Company. All reports from farmers who have used this method of weed control in the plant beds have been favorable and an increasing interest is shown in this method each year.

Some ten or 12 years ago the first demonstration in the county with Cyanamid was put on by J. H. Hughson of Colerain township. He reports that he has been using it each year since with good results. He has already applied it on 800 yards of plant bed for his 1956 crop but says he will fumigate 200 additional yards for comparison.

Bertie farmers, as well as those in other counties, were very much interested in the new varieties Coker 139 and 140 and the demand for seed was greater than the supply, especially for 139, which has given highest results in 1954. In order that we might have results of these two varieties compared with the varieties most commonly grown in the county, a variety demonstration was conducted by Melvin R. Cobb, Merry Hill, Route 1, with plats of Coker 139, Coker 140, Dixie Bright 101, White Gold and Hicks. In 1954 White Gold and Hicks were the leading non-resistant varieties in the county. Dixie Bright was widely used for black shank resistance.

Hail and wind storms damaged the tobacco in June. Dixie Bright, which is more brittle than other varieties, appeared to have been damaged worst. Black shank was not a problem in the field where the plats were located. The tobacco was graded by a federal grader and support price used in determining the value of each grade. While highest money value was produced by Hicks and White Gold, it is too risky to take a chance with non-resistant varieties where there is a probability of black shank, as some farmers have learned the hard way. Less farmers had this sad experience this year than in former years.

Tobacco farmers have been gradually increasing the amount of fertilizer used for tobacco, both in pounds and in higher analysis, but tobacco specialists advise against the use of excessive amounts. John Brown of Merry Hill, Route 1, conducted a fertilizer demonstration using four plats of .075 acre each plat getting same amount of nitrogen but from a different analysis. Rates used were based on 1000 pounds per acre of 4-8-10. Analysis used were

3-9-6, 3-9-9, 4-8-10 and 6-12-15. Since the 3-9-6 plat had less potash than the other plats and produced a higher return, it appears that at the rate used, this was as much as could be profitably taken up by the plants and that larger amounts did harm instead of good.

For a number of years small demonstrations have been conducted using oils and later oils and sprays with MH-30 for tobacco sucker control with varying results. A few farmers used Boyal oil this year on their entire crop with satisfactory results but the average of the results in the ten demonstrations where we used Boyal No. 300 and MH-30 were not satisfactory, so that in spite of the labor required for hand suckering, that is still the best method.

A large part of time was taken up during the growing season in identifying tobacco diseases. When we could not make positive identification, specimens were sent to the plant disease clinic at State College. This service is enabling farmers who have black shank to show up in a small way the first to avoid non-resistant varieties in future years.

Following three dry summers more farmers got interested in putting in irrigation systems so that water could be applied when needed, although there was not as much need for irrigation as in former years.

Tobacco farmers have been encouraged to attend the field days held at the Tobacco Research Stations, Attendance this year was at Greenville and Rocky Mount.

## 4-H TOBACCO

Even though tobacco is the principal money crop of Bertie County, still it is not very popular as 4-H Club project probably because of the large amount of labor demanded and the reluctance of parents to give any of their tobacco as a 4-H Club project. Again only 5 boys had tobacco as their project. Allen Smithwick made a ton to the acre on 1.7 acres. Thomas Earl and Ronnie Northcott also had good tobacco projects.

TOBACCO FERTILIZER DEMONSTRATION IN COOPERATION WITH JOHN BROWN, MERRY HILL, N. C.

| Plat | Analysis | Amount Per Acre | Yield Per Acre | Support Price Value Per Acre |
|---|---|---|---|---|
| 1 | 3-9-6 | 1333 | 1560 lbs. | $791.48 |
| 2 | 3-9-9 | 1333 | 1462 | 723.02 |
| 3 | 4-8-10 | 1000 | 1437 | 755.38 |
| 4 | 6-12-15 | 667 | 1464 | 741.18 |

All plats received the same amount of nitrogen. Since plat No. 2 with 50 percent more potash than plat No. 1, but produced less primings, lugs and cutters than plat No. 1, it appears that at the rate used, plat No. 1 had all the potash that the crop could use and the additional amount did not give any benefit, but caused a reduction. Plats 3 and 4 had a little less potash than plat No. 2.

TOBACCO VARIETY DEMONSTRATION IN COOPERATION WITH MELVIN R. COBB, MERRY HILL, N. C.

| Plat | Variety | Yield Per Acre | Value Per Acre |
|---|---|---|---|
| 1 | Dixie Bright 101 | 1811 lbs. | $869.53 |
| 2 | Coker 139 | 1893 | 977.92 |
| 3 | White Gold | 1863 | 1,049.91 |
| 4 | Hicks | 1889 | 1,026.26 |
| 5 | Coker 140 | 1808 | 904.51 |

Black shank was not a problem in this field. Where there is no black shank, this would indicate that the non-resistant varieties may be more profitable than the resistant varieties. It will be noted that Coker 139 gave the highest number of pounds and value per acre of the resistant varieties, and even if the resistant varieties do not produce as much as the non-resistant on disease free soil, only resistant varieties should be used on diseased soil.

## COTTON

Cotton is becoming of less and less importance to farms that have both tobacco and peanut allotments but it is still an important crop to those farms that do not have tobacco allotments, although the acreage has been drastically reduced.

Following all the recommended improved practices are important for realizing the most profit from the crop, but all the other practices without good insect control, too often results in a very poor crop. Gilbert Rhodes reports having followed all the recommended practices on his farm in Snakebite township and has obtained a yield of 625 pounds of lint per acre. The average yield in the county this year is not expected to be more than 250 pounds of lint per acre. Three hurricanes and 26 inches of rain in August and September interferred with the insect control program on most farms, and also lowered the quality of the crop produced. During the months of June and July, weekly checks were made of weevil infestation on eight farms with reports made both to the extension entomologist and to cotton farmers of the county.

## 4-H COTTON

Cotton and 4-H'ers just don't seem to mix. Bertie County, which plants 7,000 acres of cotton annually under the present allotment program, had only three cotton projects this year in spite of the fact that the assistant county agent encouraged 4-H members to carry the cotton project. Bobby Jernigan of West Bertie School had a good cotton project and will be the county winner in this project.

## SOYBEANS

In recent years there has been a gradual increase in soybean acreage grown for combining. We have made an effort to get growers follow the recommended practices for more profitable yields, including soil test and following recommendations from such tests in the use of lime and fertilizer. Growers were assisted in getting seed of the new Lee variety since it was so highly recommended and carries the desirable yellow color.

A one-acre variety demonstration was planted in cooperation with C. D. Bazemore of Snakebite township, consisting of Ogden, Roanoke, Jackson, and Lee. The crop was fertilized with 300 pounds per acre of 0-10-20. Soybeans were reported badly damaged from the hurricanes but an excellent crop is expected in this demonstration.

Soybean Variety Demonstration conducted by C. D. Basemore, Route 1, Windsor

| Plat | Variety | Yield Per Plat | Yield Per Acre | Shatter Resistance | Color |
|---|---|---|---|---|---|
| 1 | Ogden | 369 | 1920 lbs.<br>32.1 bu. | Fair | Green - Much purple stain |
| 2 | Roanoke | 326 | 1697 lbs.<br>28.3 bu. | Good | Yellow - Some purple stain |
| 3 | Jackson | 354 | 1845 lbs.<br>30.8 bu. | Good | Yellow - Some purple stain |
| 4 | Lee | 423 | 2202 lbs.<br>36.7 bu. | Very Good | Beautiful yellow |

Each plat contained 0.192 acres. Rows 32 inches wide. 300 pounds of 0-10-20 per acre used in bands to side of seed at planting time. This test gave 4.6 bushels higher yield in favor of the Lee variety per acre over Ogden variety. Shatter resistance is excellent for Lee and the Lee beans did not exhibit the undesirable purple stain disease. It is anticipated that a high percentage of the soybeans planted in Bertie for oil in 1956 will be of the Lee variety.

## 4-H SOYBEANS

Soybeans became for the first time a 4-H project when James Raleigh Cobb, Jr. selected his 1955 projects. James Raleigh was amazed when the soil sample report on the area which he planned to plant beans recommended that his soil did not need any additional plant nutrients for his crop. James Raleigh also had 3 pigs in our Fat Stock Show and has done an excellent job of keeping records on his projects. He is also on Bertie 4-H Livestock Judging Team.

## SWINE

A few years ago a group of Bertie farmers who were raising purebred hogs decided to organize a Bertie County Purebred Swine Association for the purpose of promoting better hogs on the farms of the county. Their decision to form such an organization is paying off in getting better quality hogs on Bertie farms and judging from the prizes won at the State Fair two of the Hampshire breeders must have some of the best Hampshires in the State. They are Morris Brothers and A. T. Powell & Son. No less than 35 ribbons and seven champions, including two grand champions, were won by these two outstanding breeders of Hampshire hogs. Colerain township of Bertie County was on the map in the swine department of the fair and visitors were impressed that Bertie County was a good place to look for top animals of this breed.

Morris Brothers of Wakelon had senior and junior champion boars, also reserve champoin and grand champion boars. In addition, they had first place junior yearling, first place senior pig, first place senior spring pig, second place senior spring pig and first place in junior spring pig, all in the boar class. For female Hampshires, they had first senior yearling, also fourth and fifth place junior spring pigs. They also had first place Get of Sire, second place Produce of Dam, and second place young herd.

A. T. Powell & Son exhibited the grand champion sow, senior champion sow and junior champion sow. Ervin Evans, herdsman for the Powell farm, reports that their ribbons also included first place yearling sow, first and second place senior gilt, first and fourth place senior spring gilt, and third place junior spring gilt. In the boar class, they had second place junior spring boars, and third place senior spring boar. They also won first place for a young herd, second place for Get of Sire, first place, Produce of Dam.

So according to the above, it looks like Powell & Son and the Morris Brothers just about won all the most important placings for Hampshire hogs at the State Fair and that farmers in this area who are interested in good Hampshires can go to Colerain township and find some of the best in the State.

The State Meeting of the Hampshire Association was held at Colerain in August and A. T. Powell & Son held their first farm sale in September with 50 animals included in the sale. Powell & Son have recently had the first litter in the State to qualify as a certified litter.

The Feeder Shoat Market conducted by Whitehead Brothers at Windsor each Wednesday afternoon has been very popular.

There has been an increasing number of Bertie farmers producing market hogs.

## 4-H MEAT ANIMAL PROJECTS

Even though Bertie County is predominately a field crops county, there are more meat animal projects than field crops projects among 4-H'ers. Last year we had 12 baby beef projects, 96 swine projects and one sheep project.

A year ago about now Bertie County Fat Stock Show was on shaky ground. Few were interested in having a show at all in 1955. But finally it was decided that another show would be tried. Windsor Chamber of Commerce agreed to be sponsor to the event. At a meeting of Fat Stock Show Association in November, 1954, it was decided to include hogs in the show for 1955. Since Bertie has far more pork producers than beef producers, it was thought that this would increase interest. When show time came around in 1955, there were 18 exhibitors of hogs with 8 of them being 4-H members. These 4-H members exhibited 23 hogs and Bobby Powell won both Grand Champion individual and Grand Champion pen of three honors. The Grand Champion individual was bought by the Bank of Windsor at 36¢ per pound, while Gillam Brothers paid 25¢ for champion pen of three.

All nine steers in the show were exhibited by 4-H members with Haywood White showing the Grand Champion for the third straight year. The Grand Champion sold for 41¢ and was bought by Heckstall's Warehouse in Windsor.

A good crowd was on hand for the show, and it was said by several farmers who had children participating that businessmen supported the show the best that they ever have in history of Bertie County Fat Stock Shows.

Preliminary plans for the show for 1956 have been made. Regulations this year require exhibitors to own steers 6 months in advance of the show and hogs 3 months. The name of the show has been changed from Bertie County Fat Stock Show and Sale to Bertie County 4-H and FFA Livestock Show and Sale.

There are 16 steers on feed for the show in 1956. It is hoped that the Windsor Chamber of Commerce will again sponsor the event.

About two-thirds of the steers on feed are of the Angus breed. Last year the Grand Champion was an Angus.

An effort is being put forth to obtain more economical feeding by 4-H Club members this year. Last year most of the boys would not have shown a profit if their steer had been sold at market price. Each boy is encouraged to feed as much home grown feed as possible.

Haywood White was district winner for the Meat Animal project. He joined the Bertie County Purebred Breeders Association at their spring meeting.

## 4-H POULTRY

Fifteen 4-H boys had poultry as their project. Most of these were broiler projects with a few laying hen endeavors.

The sheets prepared by poultry extension specialists were helpful with these projects and they were sent regularly to 4-H members with poultry projects.

Certainly Bertie needs more laying flocks. Eggs are brought into the county from the outside continually. The few commercial producers have no trouble marketing their eggs.

## 4-H FORESTRY

There were eleven 4-H boys who had some phase of forestry as their project during 1955. Richard Smith, who recently became a 4-H member, planted two acres to cedars last January. Kenneth Simmons planted an acre of loblolly pines. William Earl Lawrence planted a recently cut over area in pines.

William Earl Lawrence represented Bertie at the Forestry Camp at Millstone. He gave a glowing report of a wonderful week of fun and learning when he returned. Bertie 4-H members hope to go to camp there next summer.

## SWEET POTATOES

Sweet potatoes are grown on most farms in the county, primarily for home use. We think they should be grown for home use on all the farms. The acreage grown for market largely consists of only a few acres per farm, which varies from year to year, largely according to how the market was the year before.

J. H. Hughson of Colerain township grows a few acres for market each year but in 1954 his crop was severely damaged by wire worms. He brought a sample to the county agent's office for diagnosis of the trouble and advice on how to prevent it. The question was taken up with specialists at State College and arrangements were made to lay out a series of plats on which Dieldrin would be used on part, Aldrin on part, and check plats left untreated for comparison. The Dieldrin and Aldrin were applied with a lime sower prior to bedding the land in the spring, using 60 pounds of 5% materials, so as to give three pounds of the pure insecticide per acre. Harvest check was made of the effectiveness of the treatments. Damage was not as bad on the untreated plats as it was in 1954 but almost no damage was observed on the treated plats. Aldrin and Dieldrin proved to be equally effective. This demonstration was conducted in cooperation with Dr. Britt of the N. C. Agricultural Experiment Station, and Extension Entomologist, H. E. Scott. Hughson says he is satisfied with the results of the demonstration and now knows how to control this pest in the future.

## 4-H VEGETABLE CROPS

With the continued cut of allotment crops, just what to do with excess acres becomes more of a problem. One of the few directions a Bertie farmer might turn is to vegetable crops. Many times a good garden is lacking in a farming operation.

Ray White and Charlie Jackson found that vegetable crops can be profitable as 4-H projects. Ray planted snapbeans in the area devoted to tobacco beds last year. His acre project of the wax type snapbeans sold for $375 and a net profit of $250. Also he had squash and an acre of peanuts.

Charlie had an acre of cabbage for his project. When the hard freeze came in late March, it looked like Charlie's project was gone. They looked like fire had been through them. But Charlie did not give up and in the end he sold $170 worth of cabbage from his project.

There were 22 home garden projects.

## 4-H Club Work In General

During 1954-55 school year there were fifteen 4-H clubs in Bertie County, six senior and nine junior clubs with a total enrollment of approximately 650 boys and girls. The clubs are met once each month for one hour period. This year at the beginning of the new school year a new officer was elected for all of the clubs, that of a devotion leader. It was thought that a short devotional period would strengthen the club meeting and give the agents an opportunity to observe more boys and girls while appearing before the clubs.

County Council for Bertie 4-H clubs is again meeting monthly rather than every other month as was the case last year. The County Council adopted two county projects at the September 1955 meeting. These are the erection of welcome signs at the county borders and the buying of a record player for social occasions. The County Council decided at the October meeting that three things would be tried in order to raise money necessary to carry out the projects. First was the sponsoring of a 4-H Club night in each of the seven schools. This series of social meetings has been concluded except for Merry Hill school with net profit of $65 being had. Approximately $100 will be needed in order to carry out the two projects.

Later 4-H talent night and cake sale will be held.

The County Council officers for new school year are: President, Margaret Schweineke; Vice-President, Gene White; Secretary, Barbara Jean Hoggard; Treasurer, Mitchell McKeel; Reporter, Jane Lawrence; Assistant Secretary, Frances Todd; Devotion Leader, Ridley Tyler; Recreation Leader, Anne Barnacascel; Song Leader, Judy Smithwick.

In June, 23 boys and girls attended Camp on historical Roanoke Island. It was a week of learning, playing, and fun for everyone. It was the first 4-H Camp ever attended by the assistant county agent, and he enjoyed it immensely.

During the last week in July six Bertie County boys attended 4-H Club week at State College. Four of the boys represented Bertie County in the State Livestock judging contest. On the way home, all the boys requested that they be placed on the list of those wanting to attend club week in 1956.

In August, a county 4-H picnic was held at Colerain Beach with only a fair attendance. The picnic was cancelled on the first date because of the foul weather and the weather was still unsettled on August 31. There was fun and plenty of food for the sixty 4-H members attending.

Achievement Night was held December 5 at Mars Hill School with approximately 140 in attendance. We were honored to have Margaret E. Clark, Assistant State 4-H Club Leader, to attend our program and to give us a short inspiring talk. Other dignitaries attending included County Commissioners W. R. Lawrence and W. L. Powell, School Principal F. M. Tucker of Mars Hill, Teachers, Mr. Lloyd and Mrs. Raynor, and the Rev. H. G. Thompson.

The story of 4-H activities for the year 1955 was portrayed in pageant entitled "Bertie 4-H 1955" with Mitchell McKeel serving as narrater. It could definitely have gone off smoother, but many compliments were received concerning the program.

The following boys were recognized as county project winners:

Haywood White - Meat Animal
Bobby Powell - Swine
Johnny Todd - Corn
Kenneth Simmons - Peanuts and Forestry
Allen Smithwick - Tobacco and Field Crops
Bobby Coefield - Cotton
J. H. Sanford - Farm & Home Electric

Special awards for outstanding achievement in activities went to the following:

Mitchell McKeel - Leadership
Allen Smithwick - Boys Agriculture
Haywood White - Achievement
Carroll Jones - Danforth Award

The plaque for the school with highest percentage of record books completed was awarded to Mars Hill School.

When listing objectives for Bertie County 4-H club work during 1955 a year ago, it was stated that more completed record books and good behaviour at Junior 4-H club meetings was highly desirable. We feel that a measure of success has been attained along these lines but there is still much to be done before we can say that these objectives have been satisfactorily met. During 1956, we hope to have baby beeves fed out on a more economical basis and we are encouraging more participation in what might be called minor projects such as entomology, wildlife, safety, and tree identification.

This year we had three adult men leaders who were recognized at Achievement Night program for their help with boys 4-H club work. Next year we plan to have meetings for the training of adult 4-H leaders. More adult leaders are needed badly.