

NARRATIVE REPORT

FOR

1 9 4 9

DAVIDSON COUNTY

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INTRODUCTION

Being in the Piedmont Area we normally think of a great livestock and field crop combination. Davidson County is no exception. Of course, dairying has received more emphasis than any other phase of livestock. However, the interest in beef cattle and hogs has taken a decided rise in the current year. Consequently we have recommended quality pasture for quality livestock. The wheat and barley crop was only fair but the spring oat crop was especially good both in acreage and yield. Hay crops were one of the best ever with a considerable tonnage being placed on the market. Another important source of cash income is our lespedeza seed which produced high yields. The corn production "War" with Virginia added new zest to an all out effort toward higher corn yields. The extreme shortage of tobacco plants and the ever increasing tobacco diseases made it necessary for us to give considerable time and thought to this important cash crop. In this diversified county we devoted time and energy to all types of farming and to all kinds of crops.

The current year began with one of the mildest winters "old timers" have ever experienced. The large acreage of pasture and alfalfa which was seeded came along with nearly miraculous stands and winter growths. There was scarcely a farmer who did not get nearly perfect stands. Because of the mild winter and early spring dairymen began producing a surplus of milk. Consequently we saw the lowest dairy prices since pre-war days. Along with this price decline we saw small grains and feeds sell for a little less. Farm labor was still scarce except

Beef cattle
& hogs

lespedeza
seed

Beef
wheat

mild
winters

surplus
milk

for a short recession in May and June. Due to the mild winter and spring, small grains grew to such heights that widespread lodging resulted. This naturally lowered small grain yields, particularly that of wheat and barley. The coming of spring saw the building of two new large egg markets radiating from here into several surrounding counties.

weather
egg
markets

EXTENSION ORGANIZATION AND PLANNING

As county Extension personnel we make every attempt to carry out a balanced farm program. With our important dairy and livestock work we naturally made plans for a bigger and better pasture, hay, and grain program. The next link in this chain was to advise farmers to use an ample supply of fertilizer nutrients. This might be in the form of stable manures, soil improving crops, or commercial fertilizers.

Probably the most important phase of our work is to better the living conditions of our farm and other county people. This has been uppermost in our minds as we planned each work activity. Of course, a high living standard is not realized in a few years; therefore, we aimed all work toward conservation of the soil and other natural resources. To further strengthen this work a farm and home improvement day was planned by our agricultural workers council. We not only encouraged and aided our farmers in better crop production but we assisted them in exhibiting at the local county fair. We planned for the 1949 fair to not only be bigger and better but we planned for larger premium listings.

F. & H.
W. J.
Day

In formulating a well rounded program we realized the need of working with the people living in our towns. The merchants plan and

sponsor the 4-H and FFA baby beef show and sale. Civic clubs sponsor 2 corn growing contests. ✓

At the end of the year we glory in the fact that we can look back and see very definite accomplishments. It is true that not all our ambitions were fulfilled. However, our dairy program has moved forward in spite of declining prices. The number of grade A barns has increased. A large number of good grade dairy cows have been purchased by our dairymen along with outstanding purebred Guernseys and Holstein Friesians. In addition to the services of artificial breeding, several purebred bulls have been placed. It is likely that, on a percentage basis, the interest in beef cattle has led the parade.

Our pasture and alfalfa program has grown rapidly. Many farmers have seeded from 20 to 30 acres for pasture and permanent hay. Such a program is at least threefold: first, it furnished feed for livestock; second, it conserves the soil and water; third, it more evenly distributes farm labor. In getting this before our people we used many Extension procedures. We made numerous personal visits, held meetings and demonstrations, wrote news articles, and used other methods. 20th 30A

Likewise we have recommended that small grains be seeded and used on every farm. The small grain contest stimulated already present interest. The new Atlas wheats have made us realize the value of higher small grain yields. All of the three corn production contests have been carried out with a great deal of success, even though weather conditions generally were against high yields. also

Drainage projects have made un-usable land accessible to our livestock program. Many farm buildings and dwellings have been constructed for better farm comfort and for economy. Poultry has been given its

4

rightful place in a balanced farm economy. Hatching eggs have been given special attention with recommendations on both present and future production.

4-H ORGANIZATION AND PLANNING

With the beginning of 1949 came the largest group of boys ever enrolled in club work in Davidson County. The eighteen 4-H clubs boasted of an enrollment of 580 boys. Helping to make up this grand total were the members of two newly organized clubs, the Pilot Junior and the Reedy Creek Junior 4-H clubs.

To keep such a large number of boys from becoming bored and inactive, each club met regularly once a month with its own officers presiding over business meetings and its members directing and participating in numerous and varied club programs.

We sought new ways of making our county council more helpful in arousing interest in 4-H work throughout the county. Membership in our council is made up of officers from all clubs; however, attendance was opened to all members. A gavel was presented at each meeting to the club having the most members present. One of the new clubs, Reedy Creek, became the permanent possessor of the gavel by having the largest number in attendance three times. Several projects were sponsored by the council, the one with the most outstanding results being the mailbox improvement campaign. Churchland club, with its record of 56 mailboxes improved by 45 members, was the winner in this contest. As a reward to the Churchland club the council staged a Valentine party at the County Building with approximately 125 boys and girls attending.

This year greater emphasis was placed on 4-H Church Sunday. At

580
own
Meeting
eval
ms.

least one church in each school district observed this day with a well planned program. A special feature was a county wide picnic and vesper service for club members and their parents. Mary Sue Moser, Assistant State 4-H leader, was the guest speaker for this occasion and more than 130 parents and young people attended the service.

Twenty-three 4-H boys and twenty-five girls from Davidson County joined a similar number of boys and girls from Person County for a week of fun and fellowship at Camp Millstone. Enthusiasm ran high since we had no camping trip the previous summer. Camp score cards were used to select the boys and girls who were most active and interested in club work, thereby enabling us to select the most worthy of our members for a good camp experience. Twenty-six boys and girls from Davidson County went to Raleigh for 4-H club week August 1 to 8. Each club elected one boy and one girl as its representatives. Expenses of these delegates were paid in part, and in some cases, in full, by their respective clubs. Rose Carolyn Crouse, a delegate from Denton club, was nominated for State Council President. She was strongly supported but was eliminated in the final election.

*4-H
week*

During the summer special effort was made to visit all 4-H boys in the county and keep in contact with them as much as possible. To speed up the visiting and to make it more effective, groups were notified to meet at designated places in their communities for a tour of projects. In this way we were able to visit every boy in 4-H work in the county and, in many cases, to contact the parents. Seeing what other members were doing and how they were doing it proved a benefit to the boys. Aside from the educational value the tours proved to be

*Summer
visit*

helpful socially; for at many stops we were treated to watermelons, cold drinks, and the like.

In March, National 4-H Club Week was observed. Two clubs presented radio programs over the county's two stations, WBUY and WYHC; other clubs arranged window displays in Thomasville, Lexington and Denton. Citizens of Davidson County became more 4-H club conscious after our observance of National 4-H Achievement Week, November 1 to 7. Everyone of the 18 clubs did something special for the occasion. Ten arranged displays in store windows; six put displays in their schools; two presented radio programs. ✓

Two County Achievement days were held during the year. The 1948 Achievement day was held on Saturday, December 11 at the Lexington Country Club. Jesse James, Assistant 4-H club leader, was guest speaker. "4-H Televised," a playlet recognizing county winners in all projects, was presented. Following, a picnic lunch was served and informal recreation filled the afternoon schedule. One hundred forty boys and girls attended. The 1949 Achievement day was held Friday, November 25 at the Carolina Theater in Lexington. County winners were recognized in a playlet "The 4-H Highway;" and the new 4-H picture, "The Green Promise," was shown to 450 club members, parents and friends. This picture was shown through the courtesy of three motor companies in Lexington. All those attending agree that this event was truly the highlight of this year's work. *2*
achieve-
Deep

Local Achievement day was held in all 15 of the county's schools and exhibits of various projects were presented on a competitive basis. Some clubs had very well planned displays; one club using "Harvest" for its theme had an unusually outstanding exhibit.

In response to the invitation from our county superintendent, we attend the pre-school meeting of all the teachers at the beginning of the school year. We have the privilege of explaining and reviewing 4-H work with all the teachers of our county. For the first time, in order to vary the program, we used three 4-H boys who very effectively explained and showed the importance of their activities in rural life.

Recreation has been stressed in individual club and in county meetings. Each club elected a boy and a girl to serve as recreational leaders in their group. They were responsible for some type of recreation at each monthly meeting of their club. County recreational meetings were held every other month, alternating with the meeting of the county council. At these meetings which were usually at night and always open to parents, special occasions and holidays were celebrated. Particularly outstanding was the Halloween party, when 150 members and parents gathered at the County Building for an evening of fun and fellowship.

AGRICULTURAL ENGINEERING

In 1948 the plan of work called for 20 days to be devoted to Agricultural Engineering. This to be distributed among home designs, farm buildings, terracing, ditching, current in the home, farm safety, machinery, and hay driers. These enterprises were to be carried out by the various Extension methods.

One farm machinery and soil conservation field day was held in April on the Troy Mabe farm. This was the biggest single event of the year with approximately 75 different pieces of machinery in action

*From
Mabe
1948*

on the farm. The machinery was designed to give farmers the newest and most efficient usage. The 75 items of machinery were used in land preparation, for seeding, for terracing, and in the construction of a fish pond. The six equipment dealers did an excellent job in all phases of the work. In all cases they cooperated with the farm owner and with the agricultural workers council, sponsors of the event.

Another important phase of this work was the installation of two hay driers. Results obtained through the use of these two artificial curers are an excellent example of what good hay should look like. Both units are oil burning heaters. One curer completes the curing process in the bale while the other cures chopped hay. We will watch with interest the feeding of this artificially dried hay to both dairy and beef cattle.

With the construction of 11 grade A dairy barns this year along with numerous other barns and various farm buildings we have furnished many blue prints. One 60 foot by 60 foot pole barn was built for beef cattle. Another is under construction on a dairy farm. These barns are becoming popular since they can be built with timber on the farm and with farm labor. The Surge Company furnished a blue print for, and supervised, the construction of a three stanchion milking parlor. Many dairymen think that certain minor changes might make it agreeable for routine work.

Terracing with light equipment is becoming more popular with the average farmer. This is brought out by the fact that over 300,000 feet of terraces have been built this year with farm tractors or teams.

*2
Hay
Driers*

*Baled
Hay
Cured*

11

Another soil conserving practice is ditch blasting. More than 13,000 feet have been blown with excellent results being obtained. Zeb Grubb opened a ditch through a 20 acre creek bottom that is now a wonderful Ladino-Fescue pasture. The agents accompanied by a group of farmers attended a meeting in Lenoir in May on the proposed flood control program for the Yadkin River watershed. The purpose of this program is to retard erosion and run off rather than try to master flood waters. This proposed program would include and affect Davidson County. 13000

AGRONOMY

We planned to spend 165 days with work connected with the varied subjects which come under agronomy. The adult program was carried out as scheduled but 4-H with 50 days planned used only 24. This time was to be spent on improving corn yields, cotton production, top dressing small grain, alfalfa, establishing permanent pastures, soil testing, tobacco and its related subjects, combine milo, sweet clover and small grain in general. As Davidson County is a diversified farming area we try to achieve a balance between agronomy and livestock. It is a well known fact that the two go hand-in-hand and are interdependent. A successful program in one demands an equally successful one in the other. No cow will last long without pastures, hay and feed crops. ✓

Our farmers respond remarkably well to these beliefs and there are some wonderful pastures in the county with more acres of improved permanent pastures being added each year. Fescue has been in the lime-light and, although it has not replaced orchard grass, it has been seeded along with Ladino clover on about 1800 acres. On January 20 1800

around 70 people, representing fertilizer industries and other businesses from this and other states, visited Maegeo Farm to observe Fescue pastures. This grass fully deserves its popularity for it has proven to be a great milk and meat producer.

The early spring brought ideal growing conditions and Ladino clover was good on practically all farms and on all soil types. Many farmers resorted to the mowing machine when their livestock were unable to cope with so much grazing. The hay made from these pastures started filling hay lofts early in the season, and a few silos.

An added source of income is derived from Ladino clover seed. *clover seed*
 We believe Odell Owens, of Route 3, Lexington, holds one of the top seed production records. In July he harvested 112 pounds of seed from 3 acres. The seed is in excellent condition. The field of clover was seeded in the spring of 1948 and was grazed during the late summer and fall. This spring the field was not grazed. Mr. Owens mowed the clover and in a few days raked it with a side delivery rake. It was then loaded on trailers and hauled to a clover huller. Only about 50 pounds of orchard grass were saved since it was mowed late. D. G. *Seed*
 Wilson, Route 1, Linwood, harvested approximately 1000 pounds of Kentucky 31 Fescue and Ladino clover seed with a combine. There was nearly 5% clover seed. He also harvested around 1200 pounds of orchard grass. The Fescue land is being grazed after combining until winter sets in, then nitrogen will be applied so as to stimulate grass growth, a practice followed annually.

Not quite as much alfalfa was seeded this fall as last, the total number of acres being 400. *400*
 In the early spring many newly seeded alfalfa

fields appeared to have stem rot. The plants turned yellow and wilted looking as if hot water had been poured on them. Warmer dry weather seemed to be the remedy needed. Sheriff Wilford Fritts, one of the larger alfalfa growers in the county, purchased a hay drier. This insures top quality hay with all the leaves intact.

Tobacco and its problems required a good bit of attention. Three tobacco meetings were held on January 28 with 225 in attendance. S. N. Hawks showed slides and talked to the farmers on diseases, varieties, fertilization, curing and storing of tobacco.

All sections of the county had blue mold in the tobacco plant beds. Some farmers sprayed with Formate, but rainy weather and neglect retarded control measures. As a result, we were short of tobacco plants. This meant getting plants from eastern counties and in border counties of South Carolina.

Fifteen farmers and two agents attended the tobacco field day at Rural Hall. An interesting and helpful tour was held.

*Rural
Hall*

A prolonged dry spell in July caused considerable damage to tobacco. It wilted and died so rapidly farmers were unable to pull it fast enough. Some late set tobacco sunburned badly. After being put in the barn much of the leaf went "dead." The Tobacco Associates, Inc., and the acreage allotment referendums were carried by a large majority. The tobacco people of our county found time to go to the polls and express their belief in the need for tobacco programs.

Two meetings were held in September on the chemical treatment of tobacco plant beds and on pasture production. One meeting was at the Wallburg School with 90 farmers attending. The other one was held at the Welcome School with 125 farmers present. A picture was shown at

both meetings on the preparation of the plant bed and the methods of applying chemicals. Also we gave out charts and instructions on application methods for Cyanamid, Uramon and the new 16-8-2 fertilizer. We discussed plant beds and the prevention of blue mold, handing out information on this also. Pasture production was discussed at length at both meetings. We are of the opinion that more tobacco beds will be treated by chemical methods next year than last. 16-8-2

Through the cooperation of Dr. E. R. Collins, sixty-five farmers received 60 tons of ANL nitrogen top-dressing to put on their small grain in the spring. Each of the farmers was entered in the small grain contest which was conducted by the county agents in order to determine which farmers in each township were eligible to buy the Atlas 66 and 50 wheat. In all, there were one hundred farmers who entered the contest and at harvest time 35 of these requested that we check their fields. Most of them made good yields. The barley crop was only fair. Both fall and spring oats were extremely good. A lot of wheat had lodged or broken down, but on the whole the yield was about average for the county. Two farmers who had good oat yields were John Skoen of Denton whose 3 acres of Fulgrain oats produced 100 bushels per acre and Wilson Hedgecock, Route 2, High Point, who averaged 101 bushels on 6 acres. Atlas

During the week of October 10 there was a total of 82 bushels of the new Atlas wheat distributed to Davidson County farmers. These were the leading grain growers, so we should have an ample supply of Atlas seed wheat in our county next year with a fair grain season. Also there Atlas

was a total of 50 bushels of the Colonial barley and 20 bushels of Arlington oats placed with our farmers.

*Colonia
Arlington*

When Governor Scott and Governor Tuck declared a "corn production war" our farmers rallied to the colors with hybrid seed, added fertilizer, and good cultivating practices as their ammunition. Added incentive was given by prizes awarded in three corn growing contests sponsored by the Denton Grange and two civic clubs. These proved successful with 200 entries. The sponsors are to be thanked for their splendid cooperation and the contestants are to be congratulated on their good yields. We have no way of knowing which state will win, but we do know the farmers of Davidson did their share to bring the honor to the "Old North State." The only prohibiting factor was the prolonged dry spell just as corn began to ear, which naturally reduced the yield.

weather

George Mize, Route 4, Lexington, was the corn growing champion in 1947 with a 134 bushel yield and in 1948 with 149 bushels. He set out this year to establish a new record and discovered that with 72 years experience he can still learn by doing. This year he had around 20,000 plants per acre with 1200 pounds of 5-10-10 fertilizer under his corn, 600 pounds of ANL nitrogen and 20 loads of stable manure. He found that this number of plants was too many, for being this thick and lack of rainfall cut his yield to 98.4 bushels. Mr. Mize will be back in there next year striving to recapture his laurels.

98.4

Representing Davidson County 4-H members at the N. C. Foundation Seed Producers Short Course and Banquet was Johnny Beck, of Denton. Johnny has been a member of the 100 Bushel Corn Club for three years, having raised 126 bushels of corn per acre.

More members have been enrolled in corn projects for 1949 than any other crop. Our number of members in the 100 Bushel Corn Club has increased this year with 5 members raising over 100 bushels. Mack Shoaf of Midway club raised 112 bushels of corn and is county winner in Field Crops. The Kiwanis Club of Lexington gave enough hybrid corn for 1 acre of corn to 45 4-H club boys throughout the county. They also donated some money for prizes to the boys raising the highest yield. One month's club demonstration was devoted to the production of corn. Slides showing the recommended steps to higher corn yields were shown in connection with the demonstration.

5-110

112

The county Soil Conservation Speaking Contest was held in Lexington. 4-H boys and girls from 4 different schools entered the county competition. An FFA member was county winner with Johnny Beck of Denton second and John Robert Sowers of Churchland third.

4-H boys expanded their knowledge and experience of a larger number of crops by growing cotton, milo and small grains for projects. Ira Rickard, of Churchland, was county winner in Cotton Production while Wayne Ward, of Denton, excelled in milo yield.

There continues to be considerable interest in combine milo. A typical reason is given by John Penninger, Route 6, Lexington. John planted 24 acres and harvested an average yield of 45 bushels per acre. A look at his expenses is also revealing. The following costs per acre were incurred: plowing, \$3.50; disking, \$3.00; planting, \$2.00; cultivation, \$3.00; seed, \$1.00; harvesting, \$4.50; and fertilizer, \$8.60; for a grand total of \$25.60. He sold his milo for \$2.50 per hundred, making total receipts of \$1,620.00. Total expenses were \$64.40. Net income was \$1,005.60. He used 200 pounds of 3-9-8 at planting and 200

45

1,005.60

pounds of 7-7-7 as top-dressing. Thus his reason, backed up with figures, is that he can make more out of *milo*, than he can corn, on less labor.

ANIMAL HUSBANDRY

The agents spent 106.5 days with work pertaining to animal husbandry. Beef cattle claimed the majority with swine being second. Interest in beef animals is on the march in the county. Several established herds are in the county and each year sees one or two new ones joining the ranks. The annual 4-H Baby Beef Show and Sale keeps the attention of the 4-H boys focused in this direction and there are good prospects for future breeders in this group. Several days each year for selecting, feeding education, and fitting for this show are spent by the agents. *Beef*

On February 8, 160 farmers attended a livestock school. In the morning Paul Swaffer talked on beef cattle and sheep. He stressed proper feeding and management. He also showed the group a picture on livestock feeding. During the afternoon session John Winfield talked on the outlook for beef cattle, hogs and sheep. Jack Kelly showed some slides on breeds of swine, proper housing, pastures and other related information. Then a discussion was held and many questions asked by breeders were answered. All those present found the school worthwhile and timely. The specialists gave them good information. *Livestock School*

An idea of the quality of beef animals being sold by our breeders can be found in the fact that when Mr. E. C. Stokes and his son, Leon, sold 8 Hereford steers in March the steers averaged 1200 pounds and sold for 24½¢ per pound. The steers were raised by the Stokes. *Beef*

They all graded choice. Five buyers representing large packing companies looked at the steers and all said the animals were as good or better than any they could buy in Chicago.

In May, the agents helped arrange for and judge the district FFA livestock judging contest. Swine and dairy cattle were judged at Maegeo Farm, and beef cattle at Hillcrest Farm. Twenty counties were represented in this contest.

The second annual Davidson County Fat Stock Show and Sale for 4-H and FFA club members was held on May 25 at the Central Livestock Market. The event was sponsored by the Lexington Chamber of Commerce. The grand champion steer was exhibited by Gene Fritts, a member of the Lirwood 4-H club. His steer weighed 1075 pounds and sold for 50¢ per pound. It should be mentioned that Gene chose his steer from his father's herd of Herefords and did not have to buy one from Virginia or western North Carolina as is often done. Twenty-four calves were shown by 22 boys with 8 calves grading choice and in the blue ribbon group; 15 grading good and in the red ribbon group; while one of medium grade placed in the white ribbon group. Judges were Harry Hamilton of Boone and L. I. Case from State College. Mr. Hamilton was also the auctioneer for the sale which averaged 29½¢ per pound for the 24 steers.

*Show
&
Sale*

29½¢

During the month of October the 4-H club meetings consisted of a study of the various breeds of beef cattle and actual demonstrations on mixing home grown feed for feeding beef cattle. Boys of all ages displayed a great deal of interest in beef cattle and their feeding. A large number of boys are becoming interested in beef cattle for breeding purposes. They have fattened steers for sometime, but have not had the breeding stock for herds. Now they want a heifer or two for the foundation

of a beef herd for themselves. Heifers have been scarce and expensive, but once these animals are available at a reasonable price a number of boys do hope to start raising beef cattle.

In April the 4-H meetings dealt with swine. Slides were shown on the breeds of swine, equipment and management practices. It is hoped the interest shown by the boys will be translated into action, and good results are hoped for, especially, in improved sanitation and better feeding of their pigs. *Swine*

Mr. Jack Kelly, Extension Swine Specialist, was in the county June 1. He visited boys who received Poland China gilts as their 4-H club project. These gilts were given by the Sears pig chain which has been active in Davidson County for about 10 years. It has been kept going by each member giving a new member a registered gilt from the one he received the previous year. Mr. Kelly gave the boys some valuable information on management and feeding. Members this year are Gene Hoover, Claude Graves, Allen Dunning, Edwin Yarbrough, Darrel Snyder, Bill Everhart, Conley Koontz and Rose Carolyn Crouse. *Club*

Two breeders and the county agent attended the Southeastern Poland China Conference at Dunn September 1 and 2. They took part in the judging discussions, attended the banquet and all the two day's activities. Some very valuable swine information was received. *P.C. conf.*

M. W. Hughes, who looks after the swine at the Mills Home in Thomasville, is doing a fine job with the fall crop of pigs. He had 12 Poland China sows to farrow in September and October with a total of 112 pigs. They have raised 98 pigs up-to-date, for the good average of 8 1/6 pigs per sow. Recently the Home has built new lots and farrowing houses for

the sows. They have a pasture program with Ladino clover and orchard grass, and have a corn, soybean hogging off practice in operation. A few weeks ago they sold a load of fat hogs and we asked the farm manager why he had hogs for sale now, in addition to supplying the Home with meat. His answer is indicative of the progress that is being made throughout the county. He replied that it was due to the raising of more pigs per sow, good management and the feed and pasture program being carried on at the Home. When we get all our farmers to apply similar programs most of our swine problems will be solved. *Hogs*

DAIRYING

The days required to put our dairying plans into practice exceeded the planned number by thirty, as dairying occupies an important place in the county. The type of work planned was with artificial breeding, securing dairy calves, dairy cattle shows, DHIA work, milk quality improvement, dairy barns, testing, and dairy calf members - old and new. Our plans were carried out through meetings, demonstrations, farm visits, news articles, distribution of bulletins, office calls and personal contact. Statistics on dairying for the year reveal that 667 farm visits were made in carrying out our program. Seven result demonstrations were started and five completed. Thirty-two method demonstration meetings were held. There were twenty-one general education meetings concerning dairying with 1323 in attendance.

Many dairymen are finding it more and more difficult to secure good dairy cows. Also, they are very expensive. Concrete evidence was found when Jesse Green of Thomasville dispersed his herd of 31 grade Holstein cows and heifers for better than a \$300.00 average. Had the cattle been *cont*

fresh, or near freshening, they would have brought more. We are convinced that farmers can raise their herd replacements and additions much cheaper than they can purchase them. This is one point we stress in our Artificial Breeding program; heifer calves by quality bulls should be retained and grown out.

It is a long slow process, but dairymen are gradually turning to calfhood dehorning. We are assisting dairymen with this method. Best results have been obtained by using "Pol." This preparation contains Antimony Trichloride and Salicylic Acid which dries quickly thus reducing the danger of the calf rubbing it off. Another method we are investigating as possibly being even better is the use of electricity for dehorning. Should this prove as promising as it sounds, we shall add this method to our program for the coming year and more will be heard about it in future reports. During January, 1949, a series of six meetings was held by the agents regarding our over-all dairy program and artificial breeding practices in particular. We were impressed with an attendance of 375 at these meetings. We discussed the advantages of dairying in our livestock and grassland farming program. Following this discussion, we reviewed the progress of our artificial breeding and pointed out the outstanding bulls which are available, at a nominal cost, to our farmers in the county. As the year ends there are 180 farmers with a total of 944 cows belonging to the county breeding association. Good publicity for the program was obtained through an exhibit at the county fair of six "test tube" calves. All of these were good, growthy individuals and the public could easily see the results being achieved.

A large number of the Davidson County grade A milk producers attended the North Carolina Milk Federation meeting held at Salisbury on August 4. A great deal of interest was being shown at this time concerning the surplus

art. Prog.

showing

elect.

of milk and the decline in prices. The old saying that "time heals all things" proved true in this instance. At the present the situation has quieted down, as little is being said. *milk*

Field Days of the Guernsey breeders at Winston-Salem and the Holstein breeders at Lenoir were attended by interested dairymen. The Guernsey cattle folk have a county club this year and one of their meetings was highlighted with the showing of "Man Made Miracles," the film which is receiving international fame. The Holstein breeders are only a step behind and their county club is now in the formative stage.

During the year we have helped farmers purchase L&O animals. We are always interested in making the best better and securing good foundation stock is one way. Of course a report on this phase of work would be incomplete without an account of the Junior Calf Show. Needless to say, hours of preparation go into the planning and execution of such an event. The quantity of calves was reduced this year by elimination at district shows. Likewise, this procedure raised the quality of animals exhibited. One of the most successful District Junior Dairy Shows was held at Coble Farms, Lexington, this year. A banquet for all exhibitors and parents was given by Coble Dairy Products with a special program given by 4-H and FFA boys and girls. On show day 27 4-H boys and girls exhibited 31 animals. These placed very well in the show ring having received 9 blue ribbons, 14 red ribbons and 8 white ribbons. *740*
Calf Show

Three of our Negro farmers attended the dairy short course held at A and T College, Greensboro, in March. They were impressed with the course and plan to go back if it is given next year.

First attempts at a County 4-H Dairy Judging Team were made in preparation for the State Dairy Judging Contest at Morrocroft Farm near Charlotte. Representing our county in the state contest were Clayton Beck, John Robert Sowers, Bill Everhart and Edwin Yarbrough. A little advanced training in judging dairy cattle was given to all 4-H boys in the county at their March 4-H club meetings. This was done by having all boys judge the cows in the Board's Dairyman Judging Contest. Many interesting placings were received but no favorable placings in this contest.

Dairy Team

A Dairy Demonstration entitled "Managed Milking" was presented in the County Dairy Demonstration Team Contest with John Robert Sowers and Edwin Yarbrough being the county winners. They then went to 4-H club week where they competed in the state contest and were declared state winners in Class A Dairy Production Demonstration Team. They were then guests on the program at the Statesville Junior Dairy Show banquet and at the Piedmont Junior Dairy Show banquet.

Dairy Team

Some very nice Guernsey and Holstein heifers were exhibited at the Davidson County Fair by 4-H boys and girls. Twenty-one animals were exhibited by junior members, which were entered in competition with the senior show as well as having a junior show. Prizes were awarded to 4-H members who entered in both the junior and senior divisions.

ENTOMOLOGY

Whenever we begin thinking of insects we naturally think of their control on garden crops, tobacco, and in the home and barn. These have received our attention along with poultry parasites, grain insects and rat control work. We planned for 16 days to be devoted to these projects.

It seems that tobacco insects were worse this year than usual. *Bad*
 Many farmers found themselves dusting and spraying, time after time for horn worms. With the introduction of many new vegetable crop insecticides we find it hard to keep abreast with the chemists. Many vegetable crops must be continually dusted or sprayed if the insects are to be controlled. Ira Michael, Route 3, Lexington, lost 5 acres of turnips and mustard greens because of a severe infestation of aphids. He will be expecting the insects next year and will be prepared to combat them. However, the potato tuber worm still threatens our Irish potato crop. *Worse*

The problem of cattle lice and poultry parasites might be described as one relatively easy to control but one that is often neglected. Simple materials such as spent motor oil will help control them. However, we get better results by using some of the newer chemicals. Sodium Fluoride is our standby for poultry lice. A dust of sulphur and rotenone, or Marlate as a spray, has given our farmers excellent results on cattle. ✓

The problem of fly control is still one of particular importance. A *fly*
 few years back we believed that their control with DDT would soon make them nearly non-existent. However, this is not the case since its usage is limited. This insecticide is being replaced by Marlate when used on livestock. Our farmers find this chemical very effective on horn flies and to a lesser extent on others. Fly control cannot be achieved by only

spraying, but we must practice farm sanitation.

In our plan of work we did not mention termites but because of many requests we have devoted a good bit of time to their control recently. Dr. T. M. Dobrovsky worked with us one day and advised many farmers on the proper control method. Many of our people, including us agents, were amazed to hear this authority speak. Termite companies will find it more difficult to spray some houses in Davidson County. Requests for Dr. Dobrovsky's recommendations are pouring into our office and our guess is that we will devote much more time to this phase of work next year.

Another insect not planned for, or wanted, is the screw worm. For the first time it made its way into Davidson County. Frankly, at first we were a little slow but the screw worms soon put us on our toes. They were getting worse day by day. A young veterinarian acted quickly and began applying "Smear 62." So far as we know not a single animal was lost because of screw worms.

FARM MANAGEMENT

The TVA test demonstration farms have received the majority of the Farm Management time. Farm records, farm planning, and tours on other farms also received attention. We had planned a farm and home improvement contest in cooperation with our Granges but this was not carried out.

Our TVA farms received and applied 30 tons of phosphate with nearly all of this fertilizer being applied on alfalfa and permanent pastures. We recommended this to our farmers since we felt this would give them the greatest financial returns.

Considerable time has been given newly established farms and new

termites

Screw worm

farm residents. Three farmers from New York and Pennsylvania are now located here and have been visited many times and made familiar with our farming methods. We are always glad to see young farmers begin farming for themselves. In this connection we have helped and advised them whenever possible. ✓

The Farm Management Graduate Class of State College made its annual visit to two of our farms in order to study actual farming operations. The 16 students and two faculty members visited the farms of Webb Wilson and Charlie Graham, both of Linwood. On the Wilson farm the students observed a program of beef cattle, swine, and dairying with no row crops. At the Grahams they saw a large dairy operation and an excellent pasture and hay program. *G. W.*

FORESTRY

A total of only 16 days was planned for Forestry. The work was to be devoted to thinning, selective cutting, planting, insects, and sales. Forty-seven farm visits to adults and 4-H club members were made during the year. W. G. Kelley, Forestry Specialist, spent one day with us advising farmers regarding plantings.

Carl Sink of Welcome is an ardent believer in red cedars. This is brought about by his wanting all the farm land utilized. Then too, he has been selling Christmas trees for 29 years. Mr. Sink plants most of the trees and allows others to grow and produce wherever they volunteer. *W. G. Kelley*

Since the extreme southern area of the county is not so highly cultivated the land owners naturally expect more income from trees. Clayton Surratt of Newsom has cut a lot of timber but he expects someone in his family to cut still more. He has made plantings to reforest the cut over

areas. Other farm owners are planting idle and steep land to pine, poplar, and black walnut seedlings.

Boys of Davidson County have been more interested in the planting of pine seedlings than most any other phase of the forestry program. Fifteen thousand trees were ordered last year from the trees available to 4-H members by the North Carolina Pulpwood Company. Due to the exhausted supply, however, we were unable to receive them. Other members interested in the same program this year have ordered much earlier with the hope that they will be able to get their full quota of seedlings. 15000

John Reid, of Reeds 4-H club, received a free trip to the State Forestry Camp held at Lake Singletary in July. John had had some experience in both planting and thinning and caring for the farm woodlot. He enjoyed the week at forestry camp and says he thinks more boys should have the opportunity for a similar experience. Greg

HORTICULTURE

The horticultural crops return a considerable amount of income to our people. Therefore, we planned 42 days for work with fruits, garden and truck crops, sweet potatoes, small fruits, and home beautification.

Most farms have some fruits for home use but there is very little commercial. The only commercial fruit is peaches. These are usually all sold from the orchards to local buyers and users. The crop this year yielded only fair but the price was good. There are two young commercial orchards that should have peaches for sale next year. With the necessity of spraying for fruit production we are turning more attention to small fruits. These crops require little or no spraying. Also, we have a new market for our strawberries. Small fruits are more likely

to bear every year than are large fruits.

For many years our farmers have sold rather large amounts of sweet potatoes. Our potato production increases very little since economic yields are limited to the lighter soil types. It is generally agreed that sweet potatoes and tobacco do best on the same soil types. As tobacco has a much higher cost value per acre we find farmers leaning toward the leaf crop. However, we still have much sweet potato land relatively free from disease. Nearly every year we have at least one or two farmers who grow certified seed. This, of course, does not furnish our people with enough good seed stock. This is borne out by the fact that in April we purchased 120 bushels of certified Louisiana strain Porta Rican seed potatoes.

Johnny Koontz of Welcome produced 215 bushels of sweet potatoes on $\frac{1}{2}$ acre and was declared county and district winner for 1948-49. A \$25 War Bond was Johnny's prize for being district winner in sweet potatoes. Again this year Johnny was declared county winner even though he was not able to surpass his previous yield.

A real opportunity came to 4-H boys and girls of Davidson County who were interested in horticulture when 10,000 Blakemore strawberry plants, given by Bryer Ice Cream Company of Philadelphia were distributed among 110 members. These plants, given to members representing every school in the county but one, were set out in March. They have had excellent livability. Recipients have cared for them through the summer looking forward to having lots of berries next spring. Mr. H. R. Niswonger, Extension Horticulturist, spent one day in our county and visited many of the members who received strawberries. He was able to meet with groups in various parts of the county to give actual demonstrations, in their strawberry rows, of the correct culture and the value of keeping them free from weeds and grass.

S. C. Est.

Seed

120

215

Homework

A large number of boys and girls did work in home gardening. By growing more food at home, more money was left to be used for other purposes. Max Lanning of Linwood had a very nice little garden and was county winner for the boys. He hopes next year that he can grow something in his garden to have fresh in each of the twelve months.

Because of our geographic location we normally have a ready market for truck crops. Many of our farmers and truckers make weekly or semi-weekly trips to market with roasting corn, beans, peas, okra, melons, and others. They find this a profitable enterprise and one that can be adjusted to fit their other farming operations. Very few farmers use truck crops as the main source of income but it is merely used as a supplement.

We think it is a fact that a man's prosperity can be judged by his surroundings. This being true we can look about and see progress on many farms. More than ever before we see farm people grassing their yards, setting shrubbery, and carrying out other home beautification practices. It is gratifying to note that our farm people are not stopping with their homes. The work is being carried to their churches and schools. We are quite sure that on a percentage basis, more public buildings and grounds in Davidson County are receiving a face lifting than are farm homes. As a specific example, last spring John Harris, Landscape Specialist, spent one day with us making personal visits and holding meetings. During the day three churches and one farm was visited. To date all three churches have carried out his plans but the farm house is just as it was before the visit.

MARKETING

No matter how good a crop we produce unless it is profitably marketed that crop is a failure. Seeing the need for better marketing we planned 29 days for this work. This time to be divided between adults and 4-H club members.

During the year our 4-H boys and girls received experience in marketing through the sale of their baby beef calves and their pullets. The 23 steers sold at auction averaged 29.25 ¢ per pound, with the grand champion steer bringing 50 ¢ per pound. The pullet sale was held in connection with the pullet show sponsored by The Sears Foundation. These pullets averaged \$ 1.85 per bird for the 144 sold. The top birds brought \$ 3.00 which proved to these boys and girls that it pays to care for their poultry. 29.25?

One of the first issues to arise in marketing was the selling of our Lespedeza seed crop. At first the seed moved slowly, but by the last of April you could hardly find a 100 pound bag of seed for sale. Many farmers haul their seed to markets in nearby counties. Others advertise for truckers and groups of farmers to come to their farms. We make every effort to bring the seller and buyer together and they make their own trading terms and prices. *Exp
sell*

Since sweet potatoes have been a little hard to move lately we advise farmers to let us know the amount they have for sale. When buyers come by our office we can direct them to farms where potatoes are for sale. Last spring we sold several thousand bushels in this manner. In our beef cattle and swine program we have told buyers about farmers who have quality livestock for sale. Competition among the

buyers helps net the farmer more dollars.

The " sore " spot of our marketing came this summer in our milk. Since pre-war days we had been able to sell every pound of milk we could produce but all of a sudden in the spring we found ourselves in a flooded milk market. Since the dairyman had not been warned he proceeded to produce every pound of milk he could the year around. With farm costs still high it was hard for the dairyman to visualize a much lower price for his milk. However, as the summer progressed the producer and processor came to recognize each others problems. Then it was that the grudges were forgotten and the dairyman determined to produce more milk in the winter months. *milk*

Because of our tobacco diseases we saw the need of getting more resistant varieties that still maintain high quality. We worked closely with our experiment station and with farmers who needed these tobaccos. The result was that more than 4 pounds of Black Shank resistant tobacco seed were used by our farmers. Since many tobacco plant beds were destroyed by blue mold we called on county agents in the east for tobacco plants. They put forth every effort to see that we got quality plants at a nominal cost. Because of untiring efforts we were able to set nearly a full crop. *4H*
Plants

Marketing of eggs received a big boost from two different sources. Coble Dairy Products added a daily pick-up of fresh eggs from the farms along the milk routes. As few as a dozen a day may be sold through this channel. Also, a local egg breaking plant was established by Standard Brands, Inc. They began buying eggs in the early spring and have a capacity of 30,000 dozen eggs per day. These two outlets will absorb any amount of eggs our poultrymen produce. *eggs*

PLANT PATHOLOGY

We planned for 20 days to be devoted to this line of work but we actually used 13 days, with the major portion of the time being given to tobacco diseases, truck crops, and sweet potatoes. Work with dry rot in buildings has required some time. Also, we have devoted time and effort in trying to determine the cause and identity of extensive reddening of corn blades.

Since tobacco is still an important crop and also since it is very susceptible to diseases, we have made many farm visits and recommendations on diseases. Many of our farms and much of the tobacco soil is infested with black shank. Therefore, we carried out demonstrations with resistant varieties in order to put information before our people. Other diseases such as blue mold and leaf spot were dealt with rather extensively. The blue mold was severe this season.

Even though we do have control measures for late blight in tomatoes we still have a big loss. Many late crops are completely destroyed just before being ready for use. In recent years it has been very discouraging for farmers to even attempt to have a late tomato crop. Wilt and other diseases do much toward lowering the yield and quality of the sweet potatoes. However, many of these diseases do not so completely destroy the crop as is the case in other produce. Our potato growers are ever aware of the loss resulting from diseases and carry out control measures.

It is astounding to see the results wrought by dry rot in dwellings. Not long ago it was discovered that a farm home was in such terrible condition that four rooms had to be refloored and reworked. It was plainly evident that this trouble might well have been caused by poor ventilation.

For the past two years we have had a great deal of trouble with corn

blades turning red. The coloration resembles magnesium or potash deficiency but the soils analysis does not reveal these deficiencies. The stalks are normal in growth and the yield is normal even though the discoloration is evident on a large per cent of the plants in certain fields. This condition will be watched even more closely next year in an attempt to find the cause. This, of course, is being carried out in cooperation with our Extension Pathologist.

POULTRY

The agents devoted 63 days to poultry which was 13 more than was called for in the plan of work. The phases receiving attention were placing purebred baby chicks, culling, growing better pullets, laying flock management, demonstration flock records, vaccinating for fowl pox, and a poultry school.

We held one poultry meeting at the Welcome School in January. Production of hatching eggs was the main topic at the meeting. We have a big demand for disease-free hatching eggs. Hatcheries in Davidson County are buying from three to four thousand dollars worth of eggs out of our county each month. We should produce these eggs and keep the income here.

An all-day poultry school was held February 15 at the Robbins School Auditorium in Lexington. A total of 165 poultry producers attended. C. F. Farrish, Extension Poultryman, discussed the poultry outlook and broiler production in Davidson County and predicted a leveling off of poultry prices in the near future. Dr. R. S. Dearstynes talked about common diseases of poultry. He stressed sanitation and disease prevention.

3/4 to 4

Poultry School

T. B. Morris talked about the production of eggs and the preparation of poultry products for market. L. W. Herrick discussed turkey production. In the afternoon session the staff discussed problems of the poultrymen who were present. Thirty-two dozen of eggs were entered in the egg show which was held in connection with the poultry school. 32

On March 11, we distributed 1200 New Hampshire Red chicks, which were furnished by the Sears Poultry Foundation, to 12 boys and girls from 4-H clubs. These were Peggy Leonard, Betty Ann Swicegood, Rex Swain, Annie Lee Sowers, Jack Bean, Shelby Jean Long, Anita Swing, H. W. Davis, Kay Leonard, Nancy Yarbrough, William Hanes and Betty Jo Lanier. The Sears Poultry Chain has been carried on in the county for several years. The boys and girls had excellent livability with their chicks and they grew into beautiful healthy pullets. Some had as many as 96 or 99 of the original they received. All were vaccinated for fowl pox. The 4-H Poultry Show and Sale was held at the County Building September 9. The pullets were judged by Mr. C. F. Parrish and Mr. Thomas B. Morris. Following the show was the sale which averaged \$ 1.85 per bird. A luncheon for the boys and girls and their parents was held at the Methodist Hut. Prizes were awarded the exhibitors at the luncheon with \$15.00 going to the blue ribbon group, \$10.00 to the red ribbon group, and \$5.00 to the white ribbon group. After receiving such a good start in poultry production, a number of the boys and girls continued their laying flock through their first year of production. This has been most valuable to them since their pullets were at their peak of production during the first year. 1200
96-99

One club member, Claude Graves, was given 25 baby chicks by a Lexington businessman to grow for capons. He agreed to give him the chicks and buy them at market prices, if he would feed and care for them until they were large enough to market. This Claude did, raising 22 of the 25 birds. These capons averaged 8 pounds when marketed. Claude says he did very well on this project.

E. O. Lane of Denton is doing a fine job with his poultry. For the 6 month period, December through May, his record shows: average number birds kept during 6 months, 2335; total number eggs produced per bird, 98.30; total feed cost, \$782.40; total value of eggs, \$16,843.15; total return above feed cost, \$902.75; total return above feed costs per bird for 6 month period, \$3.57. The mortality rate during this time was 109 birds. We encourage all poultrymen to keep records in order to know what their flocks are doing at all times. \$902

The over-all poultry situation can well be summed up in the opinion expressed by Mr. Parrish after spending a day visiting several adult poultry producers in the county. He said all were doing well, but in order to make more money poultrymen must keep more birds and cut down on overhead expenses.

OTHER

A rather new but interesting project has been undertaken by a number of boys in our county. Through the cooperation and efforts of the Davidson County Wildlife Club in Lexington, considerable interest in the growing of quail was stimulated. The Wildlife Club, realizing the increasing shortage of quail and the need for impressing the youth with this condition, became interested in the growing of quail in captivity.

W. H. H. 24

The club then purchased 20 pairs of Bob White Quail and distributed them to 20 4-H club members. These boys were required to give back to the club one pair of quail to replace the ones they received in order to give another club member the same opportunity. Thus the newest chain for club members was formed.

Members of the Wildlife Chain were John Robert Sowers, Churchland; Billy Everhart and Max Lanning, Linwood; Don Palmer, Southmont; Billy Dwight Hedrick, Davis-Townsend; Raymond Surratt, Elwina Lanier and Von Lloyd Cook, Denton; James Harry Hill, Reedy Creek; Richard Page, Fairgrove; Seth Moore and Earl Hayworth, Wallburg; Billy Ray Barrier and Richard Perryman, Hasty; John Reid, Dan Craver, Alton Myers and Franklin Morphis, Reeds; Max Shoaf and June Carter, Tyro.

This project has been new to both club members and leaders, so they have not done their best. However, enough quail have been raised to replace the ones purchased this year. It is hoped that next year we will raise still more and begin to release them on farms over the county.

SUMMARY

We believe this report representative of the work we have carried out during the year. Major emphasis has been placed on field crops, dairying, animal husbandry, and poultry. We attempt to carry out a balanced farm program which will benefit the largest number of people for the longest period of time. It is evident that a lasting agriculture must plan for the future.

During the year three corn production contests have been carried out. A large amount of alfalfa and permanent pasture has been seeded thus establishing a more stable livestock program. Our second annual baby beef

show and sale was held and the third one is already planned. The seventh annual Piedmont Junior Dairy Show was again held under the auspices of Coble Dairy Products, Lexington. Another annual event is the county fair held at Lexington. The fair this year was bigger and better than ever before with its first swine exhibit. The activities and entries will be seriously hampered next year unless more space can be provided.

Fair

The Farm and Home Week under the leadership of Roy Lehr, one of our farmers, was an outstanding event of the year. Davidson County had the second largest number of people attending the event.

The 4-H club program has been highlighted by a strong county council. Under its direction our boys and girls attended 4-H club camp and the 4-H short course at Raleigh. The new project, quail raising, was given the members by a strong county wildlife club. The winning of the state group A Dairy Production team topped off a year of progress.

*Dairy
Win*

We of course cannot overlook or forget a year of cooperation with other agencies in the county. The PMA, Soil Conservation Service, Vocational Agriculture and Home Economic teachers, FHA and others have helped make this a pleasant and profitable year.

SUGGESTIONS FOR THE COMING YEAR

No one of us can deny the importance of an extensive forestry program. We should do a great deal more on thinning, selective cutting, and planting seedlings of recommended species. The effects of such a program would be far reaching and advantageous in many respects. In addition to forestry there are other soil conservation practices to which

we should adhere. More and higher producing pastures should be a goal on every farm. Many of our so called "good farmers" need to graze their livestock more months per year. We should aim at 9 to 10 months every year. Then with these quality pastures we could keep more dairy cattle, beef animals, and swine. However, we should not merely be interested in numbers but should strive to raise the yearly production of every dairy cow, beef animal, and hog.

The artificial breeding of dairy cows will make a stronger dairy industry. Bulls available to us through test tubes are proven for transmitting high producing daughters. We should encourage the owners of dairy cows to use this service whether they have one cow or a dozen cows. The heifer calves resulting from artificial breeding must be retained for herd replacement in order to fully realize the benefits of the program.

With the establishment of the two new egg markets we have an endless demand for quality eggs. Our poultrymen should be encouraged in the coming year to produce more in order to supply the demand. We believe that poultry kept for egg production will fit into a farm program established on field crops. This would more evenly distribute the labor throughout the year and provide additional income.

These goals must not only apply to adult farmers but apply as well to 4-H club members.