1927

1927 Extension Service Annual Report

Clemson University Cooperative Extension Service

W. W. Long

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Clemson College, S. C.,
November 17, 1927

Dr. E. W. Sikes, President
Clemson College, South Carolina.

Dear Dr. Sikes:

I respectfully submit the report of the Extension Service for the year 1926-27.

Very truly yours,

W. W. Long, Director

Enclosure
Introduction

During the last few years we have seen references made by thoughtful men to a number of rural people as "The forgotten men and women". The fact that it is possible to make any such reference to a number of American citizens is a reflection upon our modern civilization. The indifference and ignorance on the part of the commercial, industrial and professional groups of the basic industry - agriculture - (basic, and seemingly forgotten and neglected industry) has been tragic. They have simply thought of agriculture in terms of "to reap, to cook, and to weave." They have failed to appreciate that the problems of the farmers are the problems of the city man, and without his sympathy, moral support and cooperation it is and will be impossible for the farmer to solve intelligently and wisely the problems involved in establishing a permanent rural civilization, based on self-satisfying conditions.

This is especially true as to cooperative purchasing of farm supplies and the marketing of farm products. Unless
the business end of agriculture, which is largely cooperative purchasing and marketing, can be put on an efficient basis, it is folly to even think of a permanent prosperous agriculture. The tragedy of it all is that certain selfish, grasping and short-sighted business men have in many instances weakened or destroyed the marketing associations of farmers by arousing the suspicions of the farmer against the officials of their organization and destroyed their confidence in the principles of cooperative marketing.

At last there seems to be a general awakening throughout the business and industrial world to the necessity of the business man acquainting himself with the problems of the farmer, and exercising his influence in the counting rooms, legislative halls, and in conference with the agricultural leaders of the country. This being true, it seems as if it would not be out of place in this report to refer briefly to what some of the great characters of the world have to say about the dignity, the effect upon citizenship and government, and the economic necessity of profitable and independent agriculture.

George Washington, in his last address to Congress in 1796, said: "It will not be doubted that, with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of patronage."

In 1910, Theodore Roosevelt, with the advantage of over a century and a quarter of our national development to judge from, wrote: "If there is one lesson taught by history, it is that the permanent greatness of any State must ultimately depend more upon the character
of its country population than upon anything else. No growth of cities, no growth of wealth, can make up for a loss in either the number or the character of the farm population. In the United States more than in almost any other country we should realize this and should prize our country population. When this Nation began its independent existence, it was as a Nation of farmers. The towns were small, and were for the most part, mere sea-coast trading and fishing ports. The chief industry of the country was agriculture, and the ordinary citizen was in some way connected with it. In every great crisis of the past a peculiar dependence has had to be placed upon the farming population; and this dependence has hitherto been justified. But it cannot be justified in the future if agriculture is permitted to sink in the scale as compared with other employments. We cannot afford to lose that preeminently typical American, the farmer who owns his own farm."

President Roosevelt to the Commission on Country Life, appointed by him in 1908 to study rural life in this country, writes in part as follows:

"No nation has ever achieved permanent greatness unless this greatness was based on the well-being of the great farmer class, the men who live on the soil; for it is upon their welfare, material and moral, that the welfare of the rest of the nation ultimately rests."

"It is especially important that whatever will serve to prepare country children for life on the farm, and whatever will brighten home life in the country and make it richer and more attractive for the mothers, wives and daughters of farmers, should be done promptly thoroughly and gladly. There is no more important person, measured in
influence upon the life of the nation, than the farmer's wife; no more important home than the country home; and it is of national importance to do the best we can for both.

"The farmers have hitherto had less than their full share of public attentions along the lines of business and social life. There is too much belief among all our people that the prizes of life lie away from the farm. I am, therefore, anxious to bring before the people of the United States the question of securing better business and better living on the farm, whether by cooperation between farmers' buying, selling and borrowing; by promoting social advantages and opportunities in the country; or by any other legitimate means that will help to make country life more gainful, more attractive and fuller of opportunities, pleasures, and rewards for the men, women and children of the farms."

"The underlying problem of country life is to develop and maintain on our farms a civilization in full harmony with the best American ideals. To build up and retain this civilization means, first of all, that the business of agriculture must be made to yield a reasonable return to those who follow it intelligently; and life on the farm must be made permanently satisfying to intelligent, progressive people. The work before us, therefore, is nothing more or less than the gradual rebuilding of a new agriculture and a new rural life. We regard it as absolutely essential that this great general work should be understood by all the people."

The business world must understand that rural life is the basis of our national life. "This is an assumption that is as old as any civilization which has advanced beyond the pastoral stage. History
bears witness to its truth; the newer social developments of the twentieth century have not disproved it." As one writer expresses it: "Agriculture is not only an occupation which some individuals follow for profit; it is a great national interest determining, in a dominant way, the fortunes of the nation and the opportunities and character of the population." The words on the seal of the United States' Department of Agriculture bear witness to this industry: "Agriculture is the foundation of manufacture and commerce."

The economics of the situation of agriculture are bound up with certain social considerations. These in turn wait for their inspiration and development upon such agencies as the rural home, school, and church, but rural homes, schools and churches can best perform their task when the communities in which they are placed are economically prosperous. We must guard against thinking of agriculture merely as a means of food production. It has as much to contribute to the mind and character of the nation as to its stomach. As one writer expresses it: "Agriculture is more than an industry. It is a way of life. The farm and farm home are inseparable. Merchants and manufacturers do not live at their places of employment. The architect does not dwell in his temple, nor the engineer on his bridge. But the farmer's work is centered in his home:"

So agriculture becomes a problem involving great human values. It is a manner of life that demands a twenty-four-hour a day service:

"Let us look, for a moment at the testimony of leaders of other times and nations:

"Civilization and agriculture are indissolubly linked to-
It was by means of the gradual development of an agricultural mode of life that primitive man was able to arrive at a degree of social permanency. The tremendous significance of this transition from a wandering existence, deeply impressed racial tradition, and let the thinking of antiquity to ascribe to agriculture a divine origin. Brahma in Hindustan, Iris in Egypt, Demeter in Greece, and Ceres in Italy, were credited with the founding of agriculture.

Homer pictures the quiet satisfaction the heart of the king as he views the ploughmen at their essential task; "Among them the king was standing in silence with his staff, rejoicing in his heart;"

"Sociologists trace the development of a nation through these economic stages; fishing, hunting, and hoe-culture, pastoral, agricultural, industrial, and commercial. The period of their greatest stability is the agricultural stage. To and from this, as a climax, the others mount and fall away. They do not, of course, always realize this. During the eras of industrial success and commercial expansion, prosperity seems so evident, and the future is still unknown. But a glance back into history discloses a warning of serious portent."

As early as Homeric times, Greece had attained a considerable agricultural development. Stock-raising, crop-production, and dairying were indulged in. For the most part free peasants were the land owners. The king described by Homer, had a right to his thrill of pleasurable satisfaction as he noticed these things. After the eighth century B.C., changes began to occur: wars, emigration, and industry, changed the
basis of Greek economic life. City life, with large industrial
and commercial interests, became dominant. Because of the failure
to work out a just and wise system of land tenure, many of those
who were formerly free peasants became slaves tilling the estates of
capitalists; while others, who found the struggle in the country too
hard, flocked to the cities. Thus the national life of Greece was
undermined by wholesale exploitation of the farming population.

In Italy, under Roman rule, the story was not greatly
different. Roman farmers, in the early days, knew and practised an
extensive system of farming. As in Greece, most of these were free
peasants, owning and tilling their land. But gradually the same
economic causes as had wrought toward the downfall of Greece, began
to bring about a change. Militarism, conquest, slave-ownership, the
consolidation of small farmers, absentee land-ownership, and the
growth of cities, with the ruthless exploitation of the agricultural
classes generally, broke down agriculture and ruined the small farmers.
Many flocked to the cities to swell the parasitic masses there. "With-
out a large body of independent and self-respecting farmers, and with
her city population demoralized by idleness, vice, and luxury, Rome
was in a position to fall a prey to the more vigorous invaders of the
North."

Perhaps a few quotations will remind us of the honorableness
and cultural value of this ancient profession:

"All this I relate to you to show that quite high and mighty
people find it hard to hold aloof from agriculture, devotion to which
art would seem to be thrice blest, combining as it does a certain sense
of luxury with the satisfaction of an improved estate, and such a train-
ing of physical energies as shall fit a man to play a free man's part...... I hold that there is no better employment for a gentleman than this which permits the soul leisure to satisfy the claims of friendship and civic duty." (Socrates)

"Now in the course of nature the art of agriculture is prior, and next come those arts which extract the products of the earth, mining and the like. Agriculture ranks first because of its justice; for it does not take anything away from men, either with their consent as do retail trading and the mercenary arts, or against their will as do the war-like arts. Further, agriculture is natural; for by nature all derive their sustenance from their mother, and so men derive it from the earth. In addition to this it conduces greatly to bravery; for it does not make men's bodies unserviceable, as do the illiberal arts, but it renders them able to lead an open-air life and to work hard; furthermore, it makes them adventurous against the foe, for husbandmen are the only citizens whose property lies outside the fortification." (Aristotle)

"It is not knowledge nor want of knowledge on the part of farmers that causes one to thrive while another is needy...... For the land never plays tricks, but reveals frankly and truthfully what she can and what she cannot do. I think that just because she conceals nothing from our knowledge and understanding, the land is the surest tester of good and bad men. For the slothful cannot plead ignorance, as in other arts; land, as all men know, responds to good treatment. Husbandry is the clear accuser of the recreant soul." (Xenophon)

Varro, in his third book on agricultural matters, writes; "Farming is not only the most ancient, but the best of all professions;
for divine nature made the country, but man’s skill the town."

Centuries later, Abraham Cowley, in his political works, frankly expresses his estimate of the advantages of the rural life as against others:

"Happy the man who from ambition freed,
A little field and little garden feed;
The field does frugal nature’s wants supply,
The garden furnishes for luxury.
What farther specious clogs of life remain
He leaves for fools to seek, and knaves to gain."

COUNTY AGENT ACTIVITIES

The various activities of farm demonstration agents as well as of specialists are largely reported by projects in succeeding pages and will not be repeated here. However, the following gives in brief statistical form some outstanding facts covering the work in counties. Of course all lines of work are not under way in all counties and the figures in parentheses show the number of counties included in each statement:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of counties with agents</td>
<td>40</td>
</tr>
<tr>
<td>Number voluntary local leaders assisting with extension program (29)</td>
<td>477</td>
</tr>
<tr>
<td>With farmers</td>
<td></td>
</tr>
<tr>
<td>With farm boys</td>
<td>174</td>
</tr>
<tr>
<td>Number farm visits made conducting extension work (39)</td>
<td>21,906</td>
</tr>
<tr>
<td>Number calls on agents relating to extension work (39)</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>43,512</td>
</tr>
<tr>
<td>Telephone</td>
<td>35,080</td>
</tr>
<tr>
<td>Number days agents spent in office (39)</td>
<td>2,711</td>
</tr>
<tr>
<td>Number days agents spent in field</td>
<td>3,619</td>
</tr>
<tr>
<td>Number individual letters written (38) Educational</td>
<td>46,283</td>
</tr>
<tr>
<td>Number fairs at which educational exhibits were made, Community (17)</td>
<td>32</td>
</tr>
<tr>
<td>County (24)</td>
<td>37</td>
</tr>
</tbody>
</table>
Demonstration meetings held (32) Number .......... 1,202
Attendance .......... 37,696

Farmers institutes and extension short courses (14) Number .......... 61
Attendance .......... 2,870

Number meetings at which were shown -
Motion pictures (18) .......... 215
Lantern slides (13) .......... 101

Number soil demonstrations under way
(35) Number .......... 1,225
Acreage .......... 16,595

Number cereal demonstrations - (34) Corn .......... 740
(16) Wheat .......... 224
(22) Oats .......... 995
(20) Rye .......... 442
(10) Barley .......... 39
(4) Other .......... 719

Acres involved -
(31) Corn .......... 3,615
(11) Wheat .......... 324
(20) Oats .......... 4,024
(18) Rye .......... 790
(11) Barley .......... 234
(2) Other .......... 1,155

Number legumes and forage crops demonstrations -
(17) Alfalfa .......... 133
(34) Soybeans .......... 681
(9) Sweet clover .......... 26
(16) Crimson Clover .......... 133
(2) Vetch Hay .......... 11
(3) Clover (red, white & alsike) .......... 9
(15) Cowpeas .......... 263
(3) Bur Clover .......... 21
(19) Velvet Beans .......... 131
(1) Field Beans .......... 1
(10) Peanuts .......... 37
(20) Lespedeza .......... 140
(22) Pastures .......... 241
(13) Other .......... 155

Acres involved -
(20) Alfalfa .......... 943
(32) Soybeans .......... 7,035
(9) Sweet Clover .......... 220
(14) Crimson Clover .......... 1,401
(2) Vetch Hay .......... 55
(5) Clover (red, white & alsike) .......... 533
(12) Cowpeas .......... 1,061
(2) Bur Clover .......... 105
(19) Velvet Beans .......... 2,924
(1) Field Beans .......... 2
(11) Peanuts .......... 449
(22) Lespedeza .......... 793
Demonstrations in Potatoes, Cotton, Tobacco, and other Special Crops —

<table>
<thead>
<tr>
<th>Special Crops</th>
<th>Acres Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(14) Irish Potatoes</td>
<td>419</td>
</tr>
<tr>
<td>(20) Sweet Potatoes</td>
<td>376</td>
</tr>
<tr>
<td>(34) Cotton</td>
<td>18,564</td>
</tr>
<tr>
<td>(6) Tobacco</td>
<td>368</td>
</tr>
<tr>
<td>(3) Other</td>
<td>135</td>
</tr>
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</table>

Acres involved —

<table>
<thead>
<tr>
<th>Special Crops</th>
<th>Acres Involved</th>
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</thead>
<tbody>
<tr>
<td>(14) Irish Potatoes</td>
<td>67</td>
</tr>
<tr>
<td>(20) Sweet Potatoes</td>
<td>146</td>
</tr>
<tr>
<td>(34) Cotton</td>
<td>530</td>
</tr>
<tr>
<td>(6) Tobacco</td>
<td>93</td>
</tr>
<tr>
<td>(3) Other</td>
<td>5</td>
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</table>

Demonstrations in Horticulture —

<table>
<thead>
<tr>
<th>Horticulture</th>
<th>Acres Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(32) Tree Fruits</td>
<td>757</td>
</tr>
<tr>
<td>(12) Bush, Small Fruits</td>
<td>135</td>
</tr>
<tr>
<td>(21) Grapes</td>
<td>92</td>
</tr>
<tr>
<td>(15) Market, Gardening Truck Fruits</td>
<td>237</td>
</tr>
<tr>
<td>(1) Home Gardens</td>
<td>106</td>
</tr>
<tr>
<td>(9) Beautification of home grounds</td>
<td>50</td>
</tr>
</tbody>
</table>

Acres involved —

<table>
<thead>
<tr>
<th>Horticulture</th>
<th>Acres Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(33) Tree Fruits</td>
<td>5,913</td>
</tr>
<tr>
<td>(12) Bush, Small Fruits</td>
<td>166</td>
</tr>
<tr>
<td>(17) Grapes</td>
<td>310</td>
</tr>
<tr>
<td>(15) Market, Gardening Truck Fruits</td>
<td>751</td>
</tr>
</tbody>
</table>

Demonstrations in Forestry —

<table>
<thead>
<tr>
<th>Forestry</th>
<th>Acres Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10)</td>
<td>22</td>
</tr>
<tr>
<td>(7)</td>
<td>1,242</td>
</tr>
</tbody>
</table>

Demonstrations in Livestock —

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Number of Animals Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(25) Dairy Cattle</td>
<td>179</td>
</tr>
<tr>
<td>(3) Beef Cattle</td>
<td>35</td>
</tr>
<tr>
<td>(21) Swine</td>
<td>176</td>
</tr>
<tr>
<td>(22) Sheep</td>
<td>289</td>
</tr>
<tr>
<td>(31) Poultry</td>
<td>598</td>
</tr>
</tbody>
</table>

Number of animals involved —

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Number of Animals Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(25) Dairy Cattle</td>
<td>2,077</td>
</tr>
<tr>
<td>(10) Beef Cattle</td>
<td>729</td>
</tr>
<tr>
<td>(21) Swine</td>
<td>2,019</td>
</tr>
<tr>
<td>(21) Sheep</td>
<td>3,370</td>
</tr>
<tr>
<td>(29) Poultry</td>
<td>87,998</td>
</tr>
</tbody>
</table>

Rural Engineering —

Number of demonstrations under way (16) — 132
Number of farms installing drainage systems this year (12) — 33
Acres drained (12) — 1,069
Number of farms installing irrigation systems this year (37) — 7
Acres irrigated (35) — 7
Number of farms constructing terraces or soil
Acres on which soil erosion was so prevented (21) 3,909
Number of dwellings constructed this year according to plans furnished (4) 3
Number of dwellings remodelled this year according to plans furnished (9) 4
Number of sewage-disposal systems installed according to plans furnished (11) 25
Number of water systems installed this year according to plans furnished (10) 30
Number of heating systems installed this year according to plans furnished (2) 4
Number of lighting systems installed this year according to plans furnished (4) 10
Number of farms on which buildings other than dwellings were constructed or remodelled this year according to plans furnished (21) 357
(a) Barns (15) 50
(b) Hog houses (17) 25
(c) Poultry houses (32) 399
(d) Silos (8) 15
(e) Other (9) 26
Number of farms clearing land of stumps of boulders (18) 693
Acres of land so cleared (16) 2,877
Total number of different farms adopting improved practices relative to rural-engineering work reported on this page (24) 3,851

Agricultural Economics

Number of farmers keeping records in such account books throughout the year (15) 220
Number of farmers assisted in summarizing and interpreting their accounts (15) 189

Marketing

Supplies Purchased (usually cooperatively) with help of agents - Value 366,705.10
(24) Saving 8,939.70
Products sold - Value 636,463.07
(21) Profit 143,243.60

AGRONOMY

The outstanding agronomy problems for South Carolina which are continuing to receive the attention of the Extension Service are
the same as for 1925:

1. Increasing fertility and humus content of the soil
2. Use higher grade fertilizers
3. Introduction and development of cash crops to supplement cotton
4. Improvement of home-grown field crop seeds by field and bin inspection on the farm
5. Corn and cotton improvement by plant-to-row methods through rural community leaders
6. Production of cotton under boll weevil conditions:
   (a) Rotation practices
   (b) Early varieties
   (c) Length and strength of staple
   (d) Delinting cotton seed as a factor in earliness
   (e) Judicious use of commercial fertilizer
   (f) Approved cultural methods
7. Establishment of regular systems of forage crops for livestock
8. Improvement of farm pastures for small dairy herds.
9. Demonstrations to determine the value of new forage crops

Soils and Fertilizers

A series of well-attended fertilizer schools was arranged before the fertilizer season opened and much interest was shown in the use of higher analysis fertilizers. Another series of meetings was held in August at the various farms throughout the state where the South Carolina Experiment Station is conducting fertilizer and fertility experiments. With many new fertilizer materials coming on the market and readjustments taking place in the fertilizer industry, this whole subject is one of extreme importance to farmers and one in which they are in constant need of advice. Efforts made to coordinate all fertilizer demonstration work carried on by fertilizer manufacturers, railroads, etc., in South Carolina with the work of the Extension Service
have been fairly successful.

Hay Schools

In March, 1926, the forage crop specialist, assisted by the United States Bureau of Agricultural Economics, held hay-grading schools in Charleston, Florence, Aiken, Columbia, Greenville and Spartanburg. There were on display alfalfa and grass hay samples showing the standard United States grades. Those attending included hay dealers and brokers and a few farmers. Many brought along sample blocks of hay for classification. It is very evident that South Carolina is a "dumping ground" for low-grade hay. There is need for much education and probably for some laws to prevent losses from this source.

COTTON

Studies of cotton growing in Texas and Oklahoma and a survey of the cotton mill requirements in this state reveal that there are two major problems facing southeastern cotton growers; viz., the necessity of growing a superior staple, and of producing more economically.

In the late winter and spring of 1926 meetings were held all over the state, news articles were written, and every means to call attention to the probability of large production and lower prices for cotton.

To promote the more economical production of a better staple, a state-wide cotton contest on five acres was arranged and 758 farmers entered. These five-acre fields constituted in many cases fine demonstrations of the right way to grow cotton under conditions today. Fairly complete records were received from about 200 contestants, who
produced an average of 8,751 pounds of seed cotton and 3,043 pounds of lint on five acres, at a cost of 7.9 cents per pound of lint. Valuing the lint at 12.5 cents per pound, the average profit from the lint on the five acres would be $108.78, or $21.75 per acre. At 15 cents per pound for lint the average profit would be $215.24, or $43.05 per acre. These figures should be carefully distinguished from those of the average cotton farmers of the state, the average production of lint per acre during the five-year period from 1921-1925 being only 152 pounds, as compared with 608.6 pounds per acre as the average in the cotton contest.

An effort was made to have all contestants use varieties of cotton which would normally make a staple approximately one inch in length.

The contest is to be continued for 1927 and we hope for five years. It will require about this time to get the statewide results desired in the use of good seed and in adjustment of our methods of growing cotton to secure larger yields per acre. This will mean smaller acreage in cotton for most farmers but more profit in growing it. A complete report of the 1926 contest has been printed for distribution for those interested.

Community Seed Improvement

The work is devoted to cotton and corn, and has materially aided in awakening the average farmer to the reality and necessity of better seeds and greater yield with increased production per acre. With cotton it has stimulated increased knowledge leading to much more care in ginning to avoid mixing seed.

The survey made early in the year to determine the kind of
cotton required by the South Carolina mills, showed that of the large number of mills in the state only eight were using all South Carolina grown cotton. Endeavoring to gain information by which a comprehensive and intelligent seed law might be reached, we obtained from every state in the Union copies of their laws, and suggestions, these comments indicating that their laws were inadequate, difficult to enforce, and that material changes were needed. This led to the appointment of two committees, one to draft resolutions relative to seed improvement, the other to take similar action on ginning to prevent mixing.

A meeting of gin manufacturers had been called during the early spring to confer regarding their helping to gin machinery so that the farmer desiring to improve seed, yet not owning a private gin, might get back his own seed 100 percent pure. The manufacturers were in entire sympathy with the proposal and consented to assist with the undertaking. In the meantime a bulletin was prepared incorporating the needs showing simple and inexpensive changes that were possible with the average custom gin, by which the present difficulties might be obviated. During 1927 it is the intention of Mr. Carbery to endeavor definitely to better conditions at public gins so that the average farmer, unable to secure service at a private gin, may have his own seed returned pure.

PASTURES

There were 448 pastures demonstrations listed by thirty-three county agents with an estimated acreage of 5,767 acres. This does not represent the total number of demonstrations. Fully as many more were started but failed because of dry weather.
The price of seed the past two years has been to a large extent the cause of many farmers being unable to start pasture improvement work. However, the price of the seed is now such that an increased number of pasture demonstrations will be started during the spring of 1927. Reports from two county farm agents will illustrate the success of pasture demonstrations:

Dorchester County - "Four carpet grass demonstrations were completed, 13 acres being involved. The average grazing period was ten months with one and one-half cows per acre. The grass stayed green all winter, and if it had been a little warmer in January and February the grazing period would have been twelve months."

Greenville County - "Five pasture demonstrations were included in my program this year. These comprised a total of 115 acres. Carpet grass, Lespedeza and Bermuda grass, with some Dallis grass and red top, were used in them. These demonstrations are proving very popular and clearly show that we can have excellent pastures if we will only do so."

Alfalfa

Alfalfa is grown in the Piedmont section on the red clay soils. The following extract from an agent's report gives an idea of the status of this crop:

Anderson County - "Alfalfa is not only proving satisfactory as a hay crop but is one of the most profitable crops grown in this county. It yields an average of 3½ tons of hay per acre, which has a value of $30.00 per ton. The cost of seeding an acre is $50.00. The average life of a seeding is five years."

Bur Clover

The reports of the county agents for 1926 indicate that on
the red clay soils of the Piedmont section bur clover is steadily
 gaining in popularity as a soil-improving crop and winter-grazing crop.
 Those farmers who have been growing bur clover for two or more years
 estimate 70 percent increase in cotton yield, 90 percent increase
 in corn yield, and 50 percent increase in small grain yield on land
 growing bur clover. The small-spotted variety is one of the most
 generally grown and is recommended especially for permanent pastures.
 It matures about the middle of May and gives the maximum amount of
 grazing. The large-spotted variety matures thirty to forty days
 earlier and is especially adapted to cultivated land since it enables
 the farmers to prepare their land for the spring crop.

 Soybeans

 The outstanding features of the soybean situation during
 1926 was the total absence of fraud in the sale of seed, whereas
 there were thousands of bushels of substituted inferior seed sold
 and planted in 1925. The elimination of this fraud was due to the
 drastic measure carried out against those guilty of fraud in 1925.
 The following report from Calhoun County is typical of the soybean
 situation:

 Calhoun County - "We have tried out a number of different
 varieties, but we have about settled on three that suit our climate
 and conditions, Otootan, Biloxi and Laredo, ranking in importance as
 named. The Otootan is more largely planted than either of the other
 two varieties, and will continue to be the largest planted for some
 time, as it is used for seed purposes, soil building and hay."

 Vetch, Clover, Rye, Oats and Barley

 Allendale County - "We have only a few winter legume
demonstrations and vetch has proved the best. Our demonstrations yielded 4,320 pounds of hay per acre. It was with oats and cut when oats were in dough stage.

Anderson County - "Hairy vetch and crimson clover are being used as the principal winter cover crops with rye on the poorer soils.

"One of the promising crops for this territory is winter beardless barley. This crop has been grown in an experimental way in the county for several years and is now becoming one of our regular crops. It is a heavy yielder of grain or when cut as hay at the right time yields three to five tons of hay about equal in feed value to Sudan grass or timothy."

Fairfield County - "We had some farmers in the county who made a very fine yield of hay from their oats and vetch. A. E. Davis cut and baled 11 acres of oats and vetch, 2½ tons of hay per acre."

McCormick County - "The largest crop of oats ever produced in McCormick County was harvested this year, many yields being as high as fifty bushels to the acre."

HORTICULTURE

Home Orchards

That the popularity of home orchard work is increasing yearly is evidenced by the fact that large cooperative orders for fruit trees are made each year. The people have begun to realize that the home orchard is a most valuable asset.

The chief problem in this line is to convince people that pruning, spraying, cultivation, fertilizing, etc., are worth while and necessary to success.
One of the first things we do to introduce this work in a county or community is to induce a hardware firm to put in a few barrel spray pumps and pruning tools. We then borrow one of these pumps, put it on the back of a Ford car, and go through the county holding demonstrations of pruning and spraying, and giving lectures on orchard management. In these lectures San Jose scale, brown rot, cultivation, etc., are taken up in detail, and farmers are taught to identify these pests at work in the orchard. They are also told of local men who have made a success of their home orchards. Where possible a tour is conducted to the successful orchards.

To make these demonstrations the most helpful, the spray materials are mixed right in the orchard, so all present can see just how it is done and how simple a matter it is. Demonstrators are then selected, and the county agent superintends the pruning, spraying, cultivation, worming, fertilizing, etc., of these orchards and in his travels about the county, advises all home orchardists to go and see these demonstrations.

Another method that has proven very successful is our "Orchard Week" campaign. One week during the winter is set aside by the county agent and designated as "Orchard Week", when practical field demonstrations in planting, pruning, spraying, mounding, worming, etc., are given by the county agent working jointly with the specialist. So far as possible, all meetings are held in demonstration orchards.

During January and February community meetings were held at which were shown lantern slides on "Orchard Care and Management." About 11,000 people attended these illustrated lectures.

Where the home orchard owners in a community live close
enough together and are willing to purchase cooperatively a
spraying outfit capable of caring for all the orchards of the
community, a "spray ring" is formed. One man employed to look
after the spraying for all with charge of the spraying gets informa-
tion when necessary and occasional assistance from agents and spec-
ialist. Sam J. Isbell, Walhalla, is manager of one of these spray
rings and is spraying twenty-five orchards.

Five years ago Sloan Childress of Easley, became very
much discouraged with his home orchard of thirty-seven trees. For
years he had harvested nothing but wormy, half-rotten fruit, and his
trees were beginning to die. One rainy day he mailed a postal card
to T. A. Bowen, his county agent, asking for help. Bowen came out
and explained to Mr. Childress his trouble and showed him how to
prune, spray, worm, fertilize and cultivate. Childress had 27 old
peach trees, 10 apple trees, and one plum tree. After following
instructions for one year he sold $195.00 worth of fruit, so he de-
cided after conferring with Bowen and the horticultural specialist to
put out some new trees. He has continued each year to plant a few new
trees and his success with his orchard has continued to increase.

Below are quotations from county agents' reports which show
results in other phases of home orchard work:

Fairfield County - "I have aided 25 farmers in getting trees
for home orchards, and also given them instructions as to how the
orchards should be properly set out and cared for."

Richland County - "We have now one hundred well balanced
home orchards in the county that are carrying out a system of pruning
and spraying, worming, etc. These orchards range from a few trees up
to several hundred trees and vines. Most of them contain peaches, apples, plums, pears, grapes, and some type of berries. Some of these orchards are very profitable and furnish, as well, fruits for family use."

Barnwell County - "Ten demonstration orchards are being supervised, thus giving farmers of the different communities an opportunity to see what the results are from proper care and attention of home orchards. In one community over twenty farmers have better home orchards as a result of one good demonstration in that community."

Cherokee County - "Near the close of last year a cooperative order for 86 farmers results in the distribution of approximately 6,000 peach, apple, cherry, plum, pear and apricot trees, mostly for home orchards. Since that time thirty farmers have either added to or started home orchards. During this year I have advised these farmers as to proper management of their trees, including the cultivation, fertilization and spraying of the trees."

Lexington County - "Sixteen pruning demonstrations were held in January, 148 interested farmers attending. In sections where pruning demonstrations were held last year good results have already been obtained. Forty percent of the farmers are now pruning their orchards scientifically, thirty percent prune in some fashion, and only thirty percent do not prune at all."

The orchard tour, another feature of horticultural extension work, provides a means whereby many of the growers of different communities are brought together in a way that enables them to make note of accomplishments in other orchards, to exchange worthwhile ideas, and discover weaknesses in orchard management. Such gatherings
might lead to the acceptance of wrong ideas, however, but for the 
fact that there are present the farm demonstration agent, the 
specialists and others in a position to bring new and helpful ideas 
from other states. Twelve such tours were arranged during the year.

**Commercial Orchards**

Summary of Commercial Orchards

<table>
<thead>
<tr>
<th>Orchard Type</th>
<th>Number</th>
<th>Total Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple orchards</td>
<td>30</td>
<td>61,127 trees</td>
</tr>
<tr>
<td>Peach orchards</td>
<td>291</td>
<td>830,620 &quot;&quot;</td>
</tr>
<tr>
<td>Pear orchards</td>
<td>40</td>
<td>17,150 &quot;&quot;</td>
</tr>
<tr>
<td>Pecan orchards</td>
<td>80</td>
<td>50,000 &quot;&quot;</td>
</tr>
</tbody>
</table>

The problem confronting the Extension Service in connection 
with commercial orcharding is: What place should fruit take in general 
diversification and to what extent should these crops be grown on the 
different farms. To solve this problem properly involves careful 
study and survey of the whole fruit-growing industry. Most of our 
growers are new in the game, therefore we must advise on all orchard 
management problems such as selecting varieties, selecting sites, 
pruning, spraying, disease and insect control, thinning, fertilizing, 
soil management, etc.

Work is being conducted in the following counties with 
good results. Peaches are being developed in Greenville, Laurens, 
Chesterfield, York, Marlboro, Aiken, Kershaw, Sumter, Fairfield, Saluda, 
Richland; apples in Pickens, Greenville, Spartanburg; grapes in Chester-
field, Fairfield, Richland, Laurens, Greenville, Spartanburg, Oconee, 
Pickens, and Anderson; dewberries in Chesterfield, Kershaw, Saluda, 
Sumter, Barnwell; pecans in Orangeburg, Dorchester, Florence, Darlington, 
Marion, Dillon, Charleston, Georgetown, Beaufort, Kershaw, Chesterfield, 
Richland and several others to more or less extent. The cumulative 
effect will in time help revolutionize our agriculture.
Apples

In 1920 we had four only commercial apple orchards of any importance. Now we have seventy-five following our instructions and growing ideal orchards. The following report illustrates the results being obtained:

Oconee County - "A demonstration was conducted by Sam J. Isbell, of Walhalla, with 2,000 trees, 400 of which are ten years old and bearing and produced 1,200 bushels of marketable fruit. The fruit sold at an average of $1.75 per bushel or a total of $2,100.00. Cider, vinegar, and cull fruit amounted to $125.00, bringing the total income to $2,200.00. The total cost of production, including the maintenance cost of 1,600 non-bearing trees, amount to $881.00 or $1,339.00 profit."

Pecans

For a number of years the county agents and the horticultural specialists have been working with pecans and this industry has continued to increase very rapidly. Each year additional plantings have been made and each year we have had more and more nuts to market. This year the pecan growers were organized into the South Carolina Pecan Growers Society. One of the first things that the society took up was the question of marketing. After investigating various systems of marketing, it was decided to affiliate with the Carolina Cooperatives Consolidated, and the society threw its influence behind this plan of marketing the 1926 crops.

The county agents and specialists are called on for help in selection of sites and varieties, laying out the orchard, planting the trees. The following statements from county agents' reports illustrate what is being done with this new industry.

York County - "Benjamin Lee, of Fort Mill, is making a
splendid yield of an exceptionally high quality of pecans on his small commercial pecan orchard this year, which demonstrates well the possibility of pecan growing in this section. Some trips were made with farmers to see Mr. Lee's orchard. He had a splendid exhibit at the county fair."

Anderson County - "Pecans have made a good yield this year and the small plantings made during the last five years have begun to bear while the old trees are proving highly profitable. Over 2,000 pecan trees were planted this season."

**Commercial Grape Growing**

Although our plantings of grapes are small at present, we are receiving numerous inquiries as to varieties, soils, etc. We now have a number of successful demonstrations that are creating a great deal of interest.

The following quotations from county agents' reports will illustrate:

Richland County - "There are several farmers making nice profits on the sale of grapes, chief among them being J. D. Derrick, selling $300.00 worth from one acre; E. W. Sheely sold $525.00 per acre from two acres; R. W. Hollis sold $100.00 worth from one-fourth acre, and W. J. Wilson sold $200.00 worth per acre from four acres."

Pickens County - "G. H. Hendricks realized a nice profit from his vineyard, selling $350.00 worth from one-half acre."

Spartanburg County - "Six demonstrations in semi-commercial grape growing are being conducted, having a total of twenty acres. About $200.00 per acre gross was realized from three of these demonstrations. The others have not yet come into bearing."
Home Vegetable Gardening

Vegetables can be grown in most sections of South Carolina throughout the year. Nevertheless, it is really pathetic that, according to census reports, there are thousands of farms in South Carolina which have no gardens at all, and there are still more which have a garden only a few months in the spring.

Vegetables and fruits furnish a large part of the essential mineral salts necessary to health, hence the value of vegetables in the diet is of even greater importance than the money value of the garden itself, although a well cared for garden will bring much larger returns than the same area planted to farm crops.

The goal is an all-year garden for every farm family, with canning and storage surplus to take care of the winter needs. The problem is to get people to realize the importance of the garden from the standpoint of health, economy, and income.

Trucking and Market Gardening

The main trucking counties of the state are Charleston, and Beaufort, with Georgetown, Hampton, Colleton, Allendale, Barnwell, Bamberg, Edgefield, Saluda, Calhoun, Dorchester following on a small scale. The chief truck crops grown are Irish potatoes, cabbage, lettuce, watermelons, snap beans, asparagus, cucumbers, cantaloupe, spinach, tomatoes, eggplants, green beans, bell peppers and dasheens.

Many farmers, because of the low price of cotton, are turning their attention to trucking in the lower part of the state, while in the Piedmont section many are turning their attention to market gardening. Especially in the vicinity of cities like Columbia, Spartanburg, Greenville and Anderson is market gardening a prosperous vocation when
properly conducted. The large cotton mill population in the Piedmont section provides an excellent all-year market for the market gardener.

The market gardener, unlike the average cotton grower, can grow some vegetables every month in the year and if he studies his market can by the proper methods make a good income on a plot of land small enough for the owner to do all the work himself.

Interest is increasing in the growing of vegetables in the fall for local, and in some instances, distant markets. Snap beans and tomatoes are the two most popular crops. Where irrigation can be practiced, returns are usually large. Our fall seasons are usually quite dry; therefore it takes irrigation or a type of management above the average to produce results.

In the old trucking districts we give advice on varieties and disease control. In the new trucking sections we are called on for advice along all lines of production.

We must also give advice as to what proportion truck should take in the general diversification program, what truck crops are suitable for various counties, and the extent to which these suitable crops should be grown.

**PUBLICATIONS**

**Extension Bulletins**

No. 69, Farm Poultry Houses
No. 70, Poultry Raising for Club Members, (Third Year)
No. 71, Equipment for Hogs
No. 72, Vegetable Gardening
No. 73, Poultry Production
No. 74, The Farm Orchard
No. 75, An Investigation of Cotton Growing in Texas
No. 76, Soybeans
No. 77, Pork for Carolina Farmers
No. 78, Judging Dairy Cattle

Extension Circulars
No. 69, Small Grains for South Carolina
No. 70, Winter Cover Crops
No. 71, Alfalfa for South Carolina
No. 72, Organized Agriculture Through Rural Communities
No. 73, Fertilizers for South Carolina
No. 74, Onion Culture
No. 75, Cotton Varieties
No. 76, Dusting Controls the Boll Weevil
No. 77, Forest Fires in South Carolina
No. 78, Cotton Spacing
No. 79, Side Applications of Ammonia for Cotton
No. 80, Emergency Hay Crops

Information Cards
No. 35, Cutworms

Reports
"A Year of Progress", Annual Report for 1925

Posters
No. 28, The Cotton Situation

News Letters
No. 878 to No. 939, inclusive, a total of 112 mimeographed agricultural news stories, mailed particularly to newspapers, and sent also to county farm agents and other workers for instructional purposes.
BOYS' CLUB WORK

Although the number of members enrolled in 4-H club work in South Carolina in 1926 did not surpass previous years to a very great extent, there being 4,129 as against 4,054 in 1925, progress was made in several features of the work, particularly in efficiency. Meetings were conducted more systematically; the programs at summer camps were better planned; more members were at the state short course; the state club boys' livestock judging contest was more efficient than in past years and more club members participated; county agents were assisted by local leaders to a greater degree than in the past, indicating that the public is more aware than ever of the importance of this work.

The organized club, with local leaders assisting, is an effective method of handling club work and practically all 4-H club work was conducted in this way during the past year.
Records of boys' club work in 36 counties show a total of 4,179 demonstrations enrolled, of which 1,880 were completed. The value of completed demonstrations was $81,097.25, the cost being $53,936.76, leaving a profit of $27,160.49 for the 1,880 completed demonstrations.

Enrollments for Twelve Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Number enrolled</th>
<th>Number records completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915</td>
<td>1,069</td>
<td>479</td>
</tr>
<tr>
<td>1916</td>
<td>2,111</td>
<td>1,594</td>
</tr>
<tr>
<td>1917</td>
<td>2,355</td>
<td>3,600</td>
</tr>
<tr>
<td>1918</td>
<td>3,373</td>
<td>4,091</td>
</tr>
<tr>
<td>1919</td>
<td>2,373</td>
<td>4,054</td>
</tr>
<tr>
<td>1920</td>
<td>1,740</td>
<td>4,129</td>
</tr>
</tbody>
</table>

Results by Demonstrations

**Corn Club**

- Number enrolled: 999
- Number records completed: 479
- Yield (bushels): 15,892
- Value: $15,953.54
- Cost: $9,482.44
- Profit: $6,471.10

**Cotton Club**

- Number enrolled: 1,196
- Number records completed: 599
- Yield - seed cotton (pounds): 191.123
- Value: $26,710.53
- Cost: $20,410.97
- Profit: $6,299.81

**Peanut Club**

- Number enrolled: 92
- Number records completed: 23
- Yield (bushels): 438
- Value: $1,032.41
- Cost: $396.72
- Profit: $635.69
### Potato Club

- **Number enrolled**: 59
- **Number records completed**: 17
- **Yield (bushels)**: 302
- **Value**: $450.80
- **Cost**: $270.97
- **Profit**: $179.83

### Calf Club

- **Number enrolled**: 189
- **Number records completed**: 105
- **Pounds gained**: 15,214
- **Value**: $13,859.05
- **Cost**: $10,081.25
- **Profit**: $3,777.80

### Poultry Club

- **Number enrolled**: 758
- **Number records completed**: 307
- **Number eggs set**: 11,327
- **Number chicks hatched**: 8,942
- **Value**: $9,180.20
- **Cost**: $5,082.26
- **Profit**: $4,097.94

### Pig Club

- **Number enrolled**: 631
- **Number records completed**: 239
- **Value**: $10,856.48
- **Cost**: $6,633.32
- **Profit**: $4,213.16

### Miscellaneous Clubs

- **Number enrolled**: 145
- **Number records completed**: 56
- **Value**: $3,054.19
- **Cost**: $735.85
- **Profit**: $2,318.36

### Summary

- **Total number enrolled**: 4,129
- **Total records completed**: 1,980
- **Total value products**: $81,097.25
- **Total cost products**: $53,052.76
- **Total Profit**: $28,060.49
Organization

Every possible effort has been put forth to stimulate interest and attention to the organized 4-H community club as the best method of handling club work. While the demonstration is the aim and end in club work, the organized group furnishes the best method of assisting members in conducting their demonstrations. With regular meetings and frequent contacts the agent is able, with the help of local leaders, to secure much better results with the boys' demonstration than would otherwise be possible. To show just what can be accomplished, the Elim club in Florence county is cited.

The Elim club is composed of twenty-two members. Eight meetings were held during the year with a perfect attendance. All the members were boys and they were all in the pig club. Every member submitted his record of the year's work and every member exhibited his pig at the Florence County Fair. This is the second year of club work for the Elim Club, and last year's record was as good as the present year's - the club being 100 percent in every respect.

It might be stated that business men in the city of Florence have taken unusual interest in club work in the county as a result of the impression made upon them by the Elim youngsters in club work. One business man of Florence contributed a nice silver loving cup to the best club in the county. This was won by the Elim Club. The club organized and sponsored a marketing bureau for handling surplus eggs of the community which accomplished fine results. Two farmers living in the community act as local leader and assistant leader of the club. The people of the community are heart and soul for 4-H club work and one mother stated that club work does as much for
the elders as for the youngsters.

**Local Leaders**

This year around 250 adult local leaders have rendered assistance in developing 4-H club work. These leaders are teachers, leading farmers, Sunday School superintendents, college graduates, rural pastors, former club members, and other public-spirited persons. They have rendered service at club meetings, camps, short courses, rallies, fairs, etc., and thirteen local leaders attended the state short course at Clemson College, July 13-18, and received special leadership training.

**The State Short Course**

The state short course for club boys, at Clemson College July 13-18, was attended by 102 boys from 32 counties, as compared with 97 boys from 24 counties in 1925, and 13 local leaders from 11 counties.

The purpose of the short course is (1) to give the county prize winners opportunity for gaining further knowledge and information relative to farm life and leadership; (2) to show them their state agricultural college; (3) to help give them a good time; (4) to give them training in the principles of club leadership; and (5) and to help train adult local leaders. The college gives four scholarships, which include meals and lodging, to the four best members from each county.

**Club Shows, Rallies and Achievement Days**

Twenty-three club shows were held this year. The quality of the exhibits has improved although seasons for the past two years have been very unfavorable. Corn clubsters from 25 counties exhibited at the State Fair, with more than two hundred entries. Calves and pigs
were also exhibited from several counties.

In some of the counties the club members put on and had charge of the exhibits, the county agents serving only in an advisory capacity.

Several counties have held rally achievement days during the year. Some of the counties make achievement day an annual affair. On achievement day awards for the year are made and usually a large number of visitors are present. Rally days are scheduled throughout the year as needed to keep up interest.

**Camps and Short Courses**

Twenty-nine club encampments and short courses were held in twenty-eight counties, with an attendance of 2,188 members, including the state short course. York County held two camps. The striking feature of these events this year was the improvement in the programs. The camps lasted two to four days, usually three days. The biggest camp was in Pickens, where around 600 members were in attendance.

The group camp at Clemson College was attended by about 450 members from five counties near the college, Laurens, Anderson, Oconee, Pickens and Greenville. Several other counties combined to hold encampments. Many camps were attended by a large number of visitors, usually parents and friends of the members. Local leaders of the 4-H clubs gave much valuable assistance to county agents with the camps.

**The Carolina Club Boy**

Nine issues of the club paper were mailed monthly to club members, there being no publication in January, February and March. The club paper is a monthly contact that could hardly be spared with-
out sacrificing considerable opportunity to reach the membership on matters of general interest and importance.

State Judging Contest

The annual 4-H club boys’ livestock judging contest was held at the State Fair on Wednesday, October 20. Three teams, consisting of three boys from each district, competed. These members were chosen in preliminary contests, first in their own counties, then in tri-county groups, and finally at district meets. They remained at the State Fair from Tuesday through Friday, their expenses being paid by the State Fair Association.

The Piedmont district, A. A. McKeown, District Agent, won first honor for the third consecutive year. Ferry Hammond of Lancaster County, who won highest placement in the contest, was together with his county agent, W. F. Howell, entitled to a free trip to the National Club Congress in Chicago.

Annual Banquet for State Prize Winners

For more than ten years the state prize winners in boys’ club work have met at some city in the state for a short period of entertainment and a dinner at which the prizes were awarded.

Rock Hill invited the state winners to hold the 1926 meeting there. The thirteen members were all on hand, together with their county agents, April 29 - May 1, to enjoy the event.

State Fair Exhibits

Club boys exhibited corn, calves and pigs at the State Fair, Columbia, October 18-23. The State Fair Association contributed $1,105.00 for premiums, etc., in addition to other accommodations and courtesies shown the members. No doubt 4-H club members will be future State Fair exhibitors for they are making a good beginning in
Eighty-two purebred Jersey and Guernsey club calves constituted one of the season's singular calf club exhibits in America, according to W. J. Keegan, Extension Dairy Specialist. These calves took more than $200.00 in open class prizes from experienced dairymen and exhibitors, who count these young farmers as keen competitors. Seventy-five calf club members attended the fair and won $420.00 in the 4-H club department.

Club members from six counties exhibited seventy-four purebred pigs, which were superior to former pig club exhibits and won $285.00 in prizes.

Although the 1926 season was adverse to corn growing, 18 exhibits were made by club boys from twenty-five counties, and this corn was of such superior quality that the young farmers won out over the adults for the sweepstakes exhibit, J. G. Grant, Jr., of Chester County, being the fortunate winner.

SUMMARY OF 4-H NEGRO CLUB WORK

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of counties involved</td>
<td>8</td>
</tr>
<tr>
<td>Number of local leaders</td>
<td>73</td>
</tr>
<tr>
<td>Number of community clubs</td>
<td>47</td>
</tr>
<tr>
<td>Number of club members</td>
<td>599</td>
</tr>
<tr>
<td>Number of records completed</td>
<td>370</td>
</tr>
<tr>
<td>Number of members enrolled 4 or more years</td>
<td>58</td>
</tr>
<tr>
<td>Number of judging teams trained</td>
<td>9</td>
</tr>
<tr>
<td>Number of demonstration teams trained</td>
<td>12</td>
</tr>
<tr>
<td>Number of members entering college first time</td>
<td>55</td>
</tr>
<tr>
<td>Number of local leaders' training meetings</td>
<td>3</td>
</tr>
<tr>
<td>Attendance of leaders' training meetings</td>
<td>65</td>
</tr>
<tr>
<td>Number of camps held</td>
<td>6</td>
</tr>
<tr>
<td>Attendance at camps and short courses</td>
<td>204</td>
</tr>
</tbody>
</table>
DAIRYING

The calf club work was our outstanding accomplishment for the year. When it is realized that from year to year for a long time many agencies have endeavored to establish a livestock industry in the cotton country without success, it is evident that there is some fundamental sociological and psychological, as well as economic, question involved. This seems to be a lack of livestock-mindedness among our adult farmers. The calf club work offers an opportunity to work this principle into a great many young lives at the formative period and this, with the economic pressure developing on account of the one-crop system, will surely help put the industry on a basis from which independence can be gained. With calf clubs we are not so much working with dairy animals as with human lives.

The work with dairy organizations accounts for a large volume of the dairy specialists' time during this year. This work has been especially effective with the creameries of the state and the State Guernsey Cattle Club, and of course, as mentioned above, the calf club members.

Another severe drought in the Piedmont section and the severe drop in cotton prices has made for a temporary slowing up of dairy progress. On the other hand, these very conditions have stimulated an interest in dairying and as soon as means for financing can be arranged, there will develop more dairying than has ever been in this section and it promises to be on a more permanent basis.

Dairy farming is being expanded only on the cream production plan. This is advocated only with small land owners who live on their farms and supervise operations personally.
Plans to get more good purebred bulls in service in the state are being worked on. Our farmers cannot afford to go to dairy sections of other states to buy cows in carlots because in these sections the animals are so high priced; therefore, our best way to get the cows needed is to raise them.

Bull associations are doing good in every community and in Chesterfield County especially the bulls in the association are doing more to create and advance dairy-mindedness than all other agencies put together. In addition to the work with these associations, there were placed with individual farmers 113 good dairy bulls during 1926. We still need hundreds of well selected dairy bulls to insure the calf crops at least a half chance of becoming profitable milk cows.

During the last five years of good cotton prices the number of milk cows in the state has gradually dwindled to where we now have less than 160,000 against 316,000, the largest number owned several years ago. At the present time there is a large demand for milk cows and none to fill this demand. Cows in Tennessee and Virginia are priced so high $100.00 to $200.00 each for good grades, that it prohibits our purchasing anything like the number needed to put some communities on a commercial basis.

Calf Clubs

Calf club work has so far proved very successful in this state. Calf clubs should be limited to counties that are especially adapted to dairying and should be introduced on a small scale and developed from year to year. Calf club work has been done in Greenville, Spartanburg, Saluda, Greenwood, Fairfield, Chester, Chesterfield and Lancaster counties.
The calf club exhibit at the State Fair included eighty-four head of the best fitted heifers from Chester, Chesterfield, Greenville, Fairfield, Richland, Saluda, Lancaster and Spartanburg counties.

**Dairy Cattle Feeding and Management**

Feeding and management includes the feeding of calves, heifers, dry cows, cows in milk, test cows, bulls, as well as culling, testing and keeping of herd records, the growing of home-grown feeds, pastures and soilng crops. All of these subjects have been kept in mind at all times during the year in working with our cooperators.

As was the case in 1925, the extremely dry weather in 1926 has handicapped livestock work, but it has still further encouraged culling of undesirable animals because of a shortage of feed, especially in the Piedmont section.

Farm visits, meetings, and our monthly publication, "The Extension Dairyman", have all been important factors in the improvement in feeding and management in this state in 1926 and calf club and shows are continuing to give farmers of the state a good idea of how young dairy animals should be grown out.

Assistance in the way of plans or supervision was given in the construction of the following dairy buildings:

- Silos built ........... 14
- Barns remodeled ....... 4
- Barns built ............ 17
- Milk houses built ....... 7

**Dairy organizations**

The following is a list of all dairy organizations in the state which were given assistance in carrying out programs for 1926:
Name  
State Guernsey Breeders  
State Jersey Breeders  
State Dairyman's Association  
State Creamerymen's Association  
Chesterfield County Guernsey Breeders  
Richland County Dairy Association  
Newberry County Dairy Association  
Spartanburg County Jersey Breeders  
Coastal Milk Producers Association  

Helped by Dairy Division  
Annual sale and annual meeting  
Annual jubilee and proposed sale  
Annual meeting  
Annual meeting and educational butter scoring  
Selecting and showing county herd at Pee Dee Fair  
Four-day school and organization  
Organization  
Promotion of county calf club  
Organization  

The above organizations have given us contact with groups of farmers which has helped us to advance our program with the farmers.

Establishment and Development of Creameries

There is an unlimited market for cream for buttermaking in this territory. In the South Atlantic states there were 13,624,000 pounds of butter made in 1925. In this territory there were consumed 155,470,000 pounds of butter, which means that 141,746,000 pounds were imported from other states, worth $56,731,200.00, figured on a basis of 40 cents per pound. There are 15 pounds imported to the South Atlantic states for every pound made in this territory. Thus we can see that there is room for a wide expansion of the dairy industry at home. The consumption of butter in the South Atlantic states is estimated at ten pounds annually per person while the average for the United States is 17 pounds per person. This fact also indicates room for further development.

We still have enough creameries in the state to handle satisfactorily all the cream that can be produced. Any additional creameries would most certainly fail and would weaken those already in operation. What is needed is more people producing cream for sale to those plants already in operation so as to give a volume sufficient to operate on. This in turn depends on larger acreages in feed crops
for cows so farms can produce butterfat for sale at butter prices. Dairying is as much a question of crop averages as of cows.

We must base all or nearly all of our future expansion of the dairy industry on the cream production plan, because we do not have the large cities necessary to furnish a market for great quantities of whole milk.

The following is a list of creameries now in operation:

Community Creamery, Chester
Greenwood Creamery, Greenwood
Union Canning & Products Company, Union
Newberry Creamery, Newberry
Saluda Creamery, Saluda
Sumter Creamery, Sumter
Standard Creamery, Sumter
Colonial Creamery, Florence
West End Dairy, Charleston
Summerland Creamery, Batesburg

Animals bought and sold with assistance of dairy specialists included 124 bulls, 148 heifers, and 154 cows.

"The Extension Dairyman"

This monthly publication, prepared by the extension staff of the dairy division consists of current and seasonable topics on dairying, has a circulation of 2,500 names. It is sent to all creamery patrons and others interested in dairying. Ten monthly issues were prepared in 1926.

LIVESTOCK

Beef Cattle

There has been practically no interest in the production of purebred beef cattle, but quite a number of prominent farmers are very much interested in fattening steers in the feed lot. This interest is due, first, to the utilization of cottonseed meal and hulls, which are home-grown products; second, to the reduction of the fertilizer
bill by the use of barnyard manure. There has been moderate
interest in the production of stocker cattle on the Coastal Plain.
This interest has been stimulated somewhat by a larger area being
made tick-free.

There are at least 25 carloads of steers being fattened
in the state and in all cases this is being done under the suggestions
and partial supervision of the specialists and county agents.

Sheep

During the past year the farmers of South Carolina have
probably taken more interest in sheep raising than at any time since
the Civil War. Practically every farmer that owns sheep has kept
his ewe lambs and many of them have purchased additional ewes. Many
new farmers have purchased small foundation flocks and will grow into
the business by keeping ewe lambs and by making purchases of grade ewes.

Breeding

In 1926 about forty-five purebred rams and fourteen purebred
ewes were placed with growers in the state. The purebred lambs from
these were kept this year for use with other sheep growers. In
addition to these thirty rams have been placed this year. Probably
three-fourths of the growers in the state are now using purebred rams
or have made arrangements to secure them before the next breeding
season. The increase in lamb prices received by those using good rams
has fully convinced the growers that good breeding is worth while.

J. S. Stark, Abbeville, has a flock of three hundred ewes
that is one of the best examples of the value of good sires. Mr. Stark
purchased cheap native ewes five years ago. These ewes were small,
leggy, light-bodied, and had very poor fleeces. He has used purebred
Shropshire rams and at the present time has a flock of good grade ewes that are making very profitable returns. Many other men are gradually establishing good flocks by the same methods.

Improved feeding methods have come with the increased interest in sheep. A few years ago practically no winter feed was used and no pastures, other than abandoned fields and woods, were considered necessary. At the present time practically every sheep grower, with the exception of some of those in eastern swamps, is doing winter feeding. Cottonseed meal and hulls are still the standard ration, but some men are using some corn and oats in the grain ration and soybean hay for roughage.

Last year in the cooperative carlot shipments of lambs it was noted by the shippers that those men who had used some grain and forage for their ewes and lambs were selling the heaviest, highest-finished lambs and that these men got three to six cents more per pound for their lambs.

Demonstrations in docking and castrating have been given in practically every community that had enough sheep to warrant them. The majority of the growers now know how to do this work. Shearing demonstrations have been given in practically every community.

The two enemies of sheep in this state are dogs and stomach worms. Some of the growers are putting dog-proof fences around small acreages and keeping their sheep in at night. Other men keep their sheep in lots.

Practically every sheep grower has seen a demonstration in treating sheep for stomach worms.

The majority of lambs still find a place on a good local market and consequently very few carlot shipments have been made.
Local markets pay twenty to thirty cents per pound for dressed lambs.

Swine

South Carolina farmers have shown more interest in hogs during the past year than at any time since the high prices of the war. This increased interest has been due to a poor cotton crop that is selling for a low price, a good feed crop, and high prices for hogs. Many farmers are convinced that they can no longer depend on cotton for their entire income. Most of these men are profiting by mistakes made during the war and are starting with a few animals. We are making result demonstrators out of many of these men, and hope to get them so thoroughly convinced that hogs can be grown at a profit that even a year of high-priced cotton will not cause them to go back to the old one-crop system.

The Extension agents have placed 112 purebred boars and 195 purebred sows and gilts during the year. This number is small in comparison with the needs, but most of the work was accomplished in the last few months of the year. There was also a large number of grade sows and gilts that were not reported. Most of the breeding stock has been furnished by breeders in the state, who have been helped, and in some cases, kept in business by the Extension agents.

The two feeding projects that have been given most attention are the feeding of properly balanced rations and the more liberal use of forage. It is hard to make the Southern farmer believe that the use of a good protein supplement with corn is economical. Wheat shorts is the easiest feed to secure, consequently more use it, if not urged to get animal protein. It is not unusual to find a farmer feeding weanling pigs a ration of one-half corn and one-half shorts in a dark, dirty pen, or in many cases feeding corn alone to such hogs. At practically
every meeting and on many farm visits the value of the balanced ration has been emphasized.

A balanced ration fed in dry lot is not profitable to South Carolina farmers under all conditions. Corn is relatively high in this state and consequently low-priced hogs make it unprofitable to feed large amounts of it in dry lot. However, the ability to grow food forage the entire year offsets the disadvantage of high-priced corn, and makes it possible for farmers to grow hogs profitably every year. We have, therefore, urged the farmers to grow such forage crops as alfalfa, rape, soybeans, rye, oats, and barley. Farmers that have followed our advice regarding the use of forage are highly pleased with results and are in the hog business to stay. A number of men report that good feeding and management has enabled them to make more from their hogs than any other thing on the farm.

The shortage of hogs at the beginning of the year and the increased interest during the year have caused all available purebred and high grade gilts and sows to be marketed locally. Also the greater number of the pork hogs have found good local markets. About 30 acres of hogs have been handled through cooperative shipments.

This year we attempted for the first time to have a ton-litter contest. Seventeen entries were made, but only one, Mr. Charles Long, Prosperity, with ten purebred Poland Chinas, finished above the ton weight. Loss of pigs, sickness, poor feeding and breeding caused the others to fall out.

The problem of improving the meat supply of the country has been approached, first, by the preparation of a bulletin which would show the most approved method of cutting to eliminate waste and prevent
the cuts from loss while curing and in storage; second, by the preparation of articles for publication relative to the curing and keeping of meat; and, third, by demonstrations showing the most approved method of cutting the carcass and salting down the cuts.

At the State Fair in Columbia and at the Orangeburg County Fair a meat exhibit was arranged with the hope of establishing recognition for quality in meat in the mind of the public. The cured meat show held in connection with this display was decidedly successful and aroused considerable interest and favorable comment.

**Livestock Summary**

<table>
<thead>
<tr>
<th>Description</th>
<th>Beef Cattle</th>
<th>Swine</th>
<th>Sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number demonstrations started or under way</td>
<td>20</td>
<td>179</td>
<td>106</td>
</tr>
<tr>
<td>Number demonstrations completed or carried through the year</td>
<td>31</td>
<td>182</td>
<td>238</td>
</tr>
<tr>
<td>Number animals involved in these completed demonstrations</td>
<td>1,269</td>
<td>3,289</td>
<td>3,170</td>
</tr>
<tr>
<td>Total profit or saving on demonstrations</td>
<td>1,600</td>
<td>6,183</td>
<td>2,783</td>
</tr>
<tr>
<td>Number farms assisted in obtaining pure-bred sires</td>
<td>9</td>
<td>112</td>
<td>25</td>
</tr>
<tr>
<td>Number farms assisted in obtaining high-grade or purebred females</td>
<td>3</td>
<td>164</td>
<td>36</td>
</tr>
<tr>
<td>Number farms culling herds or flocks first time</td>
<td>1</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Number animals in such herds or flocks</td>
<td>1</td>
<td>122</td>
<td>746</td>
</tr>
<tr>
<td>Number animals discarded</td>
<td>0</td>
<td>150</td>
<td>623</td>
</tr>
<tr>
<td>Number farmers feeding better balanced rations for the first time</td>
<td>10</td>
<td>135</td>
<td>22</td>
</tr>
<tr>
<td>Number farmers controlling insect pests first time</td>
<td>7</td>
<td>62</td>
<td>6</td>
</tr>
<tr>
<td>Total number different farms adopting improved practices relative to the livestock work</td>
<td>54</td>
<td>470</td>
<td>77</td>
</tr>
</tbody>
</table>
POULTRY

It is significant to note that farmers keeping poultry are among the most prosperous in their respective communities. In McCormick County on thirteen demonstration flocks ranging from less than fifty to approximately five hundred birds an average of $4.46 per bird was returned over feed costs. The general satisfaction of farmers with their poultry enterprise is sufficient evidence that poultry is a paying proposition and serving its place of importance on our farms.

At the present time the size of flocks averages approximately twenty-five birds per farm. This number should be doubled to meet satisfactorily the needs of our population, including towns and cities, and provide a small surplus, based on the average per capita consumption of poultry and poultry products of the country.

Considerable progress has been made in increasing the number and quality of birds. To illustrate, M. P. Hazel, Manager of Summerland Creamery Company at Batesburg, writes in regard to the increase in eggs in his community: "Our egg production has made a wonderful growth in the past year. This county, Saluda, attained the distinction of growing and shipping the state's first solid car of early broilers."

The increase in number of cars of live poultry shipped in 1926 also indicates the substantial growth of the poultry industry, 104, with 60 in 1925.

The culling program is making itself felt in increasing the quality of the birds kept. In one county 29 flocks, totaling 3,500 birds, were culled for the first time as a demonstration. About
700 birds were removed as culls; from these demonstrations numbers of others were influenced to cull their flocks.

Hatcheries have increased at a rapid rate during the year. At the present time there is an incubator capacity of over 400,000 eggs in the state, counting only hatcheries of 1000-egg capacity and above. During the coming season this will be increased to a considerable extent. During the year the South Carolina Hatcherymen's Association was organized to promote the production of better baby chicks.

During the past year the testing of chickens for bacillary white diarrhea was started for the first time in an extensive way. Approximately 9,000 birds were tested. The actual testing work has been done by the State Veterinary Department, but the Extension Service has cooperated in every phase of the work.

It can be justly stated that the new poultry plant now under construction at Clemson College is a result of the increased interest in the poultry industry in the state. The college is constructing a new plant costing $25,000 which will take care of approximately 2,000 mature birds. This plant will serve as a demonstration in all phases of poultry production, as well as a laboratory for solving many poultry problems.

Demonstrations in the proper methods of production are leading the way toward success and profit for beginners. The lack of marketing machinery to take care of surplus eggs at the season of heavy production is a handicap in the business at present but this is largely a matter of adjustment in a relatively new and rapidly expanding enterprise.
The use of commercial feeds is too general at the present time, but an interest is being manifested in the production of home-grown feeds for poultry, and the coming year will find many farmers producing a large percentage of the feed needed by their flocks, thus enabling them to obtain a greater profit from the poultry business.

FORESTRY

Our chief aims in Extension forestry work are (1) reduction of forest fire damage, (2) reforestation (mainly natural), (3) better forest management.

Forest Fires

There is still an amazing amount of careless or wilful forest fire damage and it is going to take persistent hammering to crack this nut. But consistent use of the press, lectures, personal correspondence, and farm visits are producing a visible change of sentiment. There are many land-owners who today are actively working to keep fire out of their woods. Many of these holdings are small. The outstanding examples on a big scale are the South Carolina Tuxbury Lumber Company, and the Graniteville Manufacturing Company, a cotton mill.

Reforestation

Concerning reforestation there are several good, sound nursery projects under way, mainly the seedbed type. The leading one is the Wicker property in Newberry County, where 1,000 black locust and 1,000 yellow poplar seedlings have just been set out, a bed of 12 pounds of loblolly pine will be set shortly; and 35 bushels of black walnuts have been spotted in.
Forest Management

The system of forest management suitable to this region is so simple, so easily explained, works so little hardship on the operator, and withal the returns are so obvious that this phase of forestry work is one of the easiest to start.

For example, the Prettyman Lumber Company in Berkeley County has worked out what thus far appears to be a marvelously simple and profitable cutting plan, and on the McLean lands in Saluda County we have applied a combined shelterwood system and diameter limit system which bids fair to be our chief example here of "eating the cake and having it too."

The Wicker lands have offered an odd opportunity. This property is bordered by several negro farmers who own no timber. The Wicker lands need both thinning and cleaning and our plan is to see all these abutting neighbors, and explain that they are to operate under the following regulations:

(1) Only marked timber is to be taken, but they may have all they want of that.

(2) A nominal annual fee (not over $5.00) is to be paid to Mr. Wicker.

We expect this schedule to give thinning and cleaning virtually free of charge.

Marketing Timber

Putting owners of farm timber in contact with markets has always seemed to me an important side of Extension work; and with the present condition of the cotton market, the need for prompt, accurate service along these lines has been greatly accentuated. Hence, a directory of wood-using plants has been prepared, giving species used,
the various plants making forest products other than lumber. A number of sales have already been put through.

**State Forest Service - Taxation**

There is no need to detail here the results which would accrue to this commonwealth through the establishment of a state forest service together with a proper system of timber taxation. Suffice it to say that there is a growing sentiment for definite policies along these lines on the part of the state government.

### Summary of Demonstrations

<table>
<thead>
<tr>
<th>Teaching Methods</th>
<th>Under way</th>
<th>Results completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reforestation</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Utilization</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td>57</td>
</tr>
<tr>
<td>Cruising</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

### MARKETING

The Division of Markets is composed of those activities of the Extension Service which are designed to assist the growers in bringing about better marketing of farm products in South Carolina.

First, by standardization, or the introduction of definite grades and containers.

Second, by demonstrating the established grades, time of harvesting, proper methods of packing and of loading the products in car.

Third, through an inspection service in cooperation with the Bureau of Agricultural Economics, United States Department of Agriculture, which aids standardization by showing the growers and shippers its benefits and protects their interest in receiving markets.

Fourth, through publication of marketing information to keep
the growers informed as to changes in production, demand, and methods of marketing.

Fifth, by helping growers to find buyers for their surplus.

Sixth, by assisting in the formation of cooperative associations and local marketing bureaus.

Seventh, by educating farmers in proper methods of storing commodities.

Eighth, by assisting growers and shippers in solving their transportation problems.

Ninth, by gathering and distributing pertinent information to aid in the intelligent distribution and profitable disposition of the surplus of farm products.

With the large crops produced in 1926, it is only natural that returns should be relatively lower. This may offset to a certain extent the results of our work as shown in dollars and cents, but without the work of this division, financial returns to the growers would no doubt have been much lower.

Shipping Point Inspection of Irish Potatoes

The deal was very unsatisfactory financially because of the small tonnage, 34 cars, and was a losing proposition. It is recommended that inspections should not be attempted next season unless sufficient tonnage is signed up to make the work self-supporting.

More attention should be given to the grading and packing and this is being brought to the attention of the growers and shippers. South Carolina seems to be losing the enviable reputation once enjoyed in the Eastern markets.

The inspection service seemed to meet with the approval of all parties concerned and some tonnage could not be handled this season.
for lack of time.

Shipping Point Inspection of String Beans

Although the crop was very short this season, the shippers seemed to be highly pleased with the service and it was used by all firms operating at Lake City. Twenty-seven cars were inspected. The service will no doubt be requested another season and with a favorable season will probably include peas and potatoes.

Shipping Point Inspection of Dewberries

Although the dewberry deal is a small one, 16 carloads, the growers are strongly in favor of the inspection service and insist that they cannot do without it. They state that it aids them in maintaining a proper pack and also assists them materially in making returns. Each car contains berries from a number of growers and returns are made according to grade shown on the certificate, each lot being inspected.

Shipping Point Inspection of Peaches

Because of the short shipping season, the deal was very successful from a financial standpoint, but under normal conditions it is rather difficult to make all inspections because of scattered tonnage. Two hundred and ninety-two carloads were inspected.

Only two factors were concerned in the marketing of the peach crop this year. The American Fruit Growers handled the fruit at Lugoff and Cheraw and efforts were made to inspect this stock also. However, they stated that they were having most of the cars inspected at division points and did not care for inspection at shipping points. The growers were rather anxious for the service.

The South Carolina Peach Growers Association will no doubt
request the service again next season. They seemed to be pleased and stated that we were of great assistance in securing the shipment of only high quality fruit. The growers made every effort to carry out our instructions and cooperated to the fullest extent.

**Marketing Asparagus**

The year 1926 marked the first time in which the Division of Markets played an important part in the marketing of asparagus, though for several years some assistance has been given to new growers expressing a desire for such help as proper methods of harvesting and grading.

This work, while being undertaken as a form of inspection, was not federal-state inspection, but merely inspection given by the marketing agents for the purpose of building up the standard of the "Dixie Brand" pack. The work was purely demonstrational.

This inspection proved beyond a doubt that the asparagus growers needed such a service. The good effect on the quality of the product being packed was almost instantaneous and the cooperation received from the growers and the association directors deserves high praise. No one will doubt the statement that the effort made by the asparagus growers to ship only "green" asparagus played a prominent part in holding up the price of asparagus to a nice profit during the entire shipping season.

Carlot shipments during the season totaled 358 cars, of which 225 cars were moved under supervision of inspectors, the value of these 225 cars being $372,960.00.

The results obtained from the inspection of asparagus this season were so apparent that the association has decided to have inspection on all stock moved in 1927.
Marketing Pecans

With a large crop of pecans in the state this year, and the generally heavy production over the entire South, the growers were not able to dispose of their nuts as readily.

After considering several plans of marketing, the Carolina Cooperatives Consolidated were asked by the growers to handle the pecans as they had handled the peaches and sweet potatoes for the state associations. Grading machines were secured and assembling plants established at Darlington, Orangeburg, Charleston and Johnston, under the supervision of this division.

The nuts were marketed in packages bearing the Palmetto brand, the same brand as used for several other commodities moving from South Carolina and handled by the Carolina Cooperatives Consolidated. The deal was very satisfactory for the growers, considering the circumstances, and many nuts were marketed that otherwise would not have reached the markets. It also kept the local markets from becoming glutted. The prices received by the growers compared very favorably to those received in other states, and they feel that they have made a step in the right direction, for South Carolina nuts have been established in many markets.

Marketing Poultry

Three cars of poultry were shipped from the state in 1923, 23 cars in 1924, 68 cars in 1925, and 104 cars in 1926.

Growth in the industry has been steady but not as rapid as should be in view of our favorable market position. There is no reason why this state should not load 500 cars each year. This can be done by increasing the average farm flocks so as to ship thirty hens
each. The car movement has been pushed to advance poultry production in the state and to build up a steady outlet to take care of the surplus, to help farmers financially and as an important link in diversified farming.

As a usual thing from 300 to 500 farmers participate in each of these shipments, from the poorest tenants to the highly specialized commercial producers. This shows the scope of service rendered. With an average of 350 farmers for each car we have combined 36,400 different lots of poultry for cooperative shipment in 1926. This means that we have served 18,000 to 20,000 different farmers.

We believe that the average price received will run from 5 to 6 cents per pound more than the local market, which, if the cars had not been operated, would no doubt have been much lower. Savings to South Carolina poultry growers as a result of the car movement are, therefore, $77,000.00 to $93,000.00.

Marketing Sweet Potatoes

South Carolina sweet potatoes are widely known on the markets and practically every car leaving the state is handled through the South Carolina Sweet Potato Growers Association. During the past year 177 cars were handled through the association.

Marketing Corn

In view of the fact that a few of the counties in the lower part of the state had a surplus of corn, while the crop in the western counties was cut by drought in 1925, efforts were made successfully whereby the growers of these two sections were brought together and sales of 44 cars were made.
Marketing Other Farm Products

Although the time of the marketing agents is largely taken up with the more important crops, attention is also given to the surplus crops for sale in small quantities. The greatest handicaps in this work are (a) lack of standardization, (b) the fact that it is usually necessary to sell on samples, and (c) the small quantities offered. Much good has been accomplished by assembling the small lots into carlots and by sponsoring cooperation among the small shippers. Farm products handled in this manner during the past season consists of hay, straw, oats, peanuts, farm seed and meat products.

Storage and Packing House Construction

With the large number of sweet potato houses already in operation, only five new houses were built, although many plans were supplied in response to requests received.

With the growth of the peach industry, more interest is being taken in packing houses and plans are being made to construct a few of these houses next season.

Plans for a central packing house for asparagus have been submitted to the growers at Ridge Springs and they are ready to start work on this plant. Central packing houses will assist materially in our program of standardization.

Grades and Containers

The United States grades which have been accepted as South Carolina grades in all cases so far have been used in our standardization and demonstrational work. The growers are rapidly realizing the necessity for such grades in putting their products on the open market. A close study is made of the needs and recommendations are made to the Bureau of Agricultural Economics as to formulating grades
on commodities moved from the state. At present we have federal grades on 37 commodities, against only 24 last season.

The standardization of containers is another important work and is closely allied with grading and packing. Specifications of standard containers and names of dealers are furnished the growers and shippers. Recommendations of the Bureau of Agricultural Economics are followed in this work.

**Estimated Value of Commodities Shipped Under Supervision of Division Of Markets**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Quantity</th>
<th>Price</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus</td>
<td>225 Cars</td>
<td>$1,662.00</td>
<td>$372,960.00</td>
</tr>
<tr>
<td>Peaches</td>
<td>328 &quot;</td>
<td>225.00 &quot;</td>
<td>95,480.00</td>
</tr>
<tr>
<td>Sweet Potatoes</td>
<td>177 &quot;</td>
<td>735.00 &quot;</td>
<td>130,095.00</td>
</tr>
<tr>
<td>Irish Potatoes</td>
<td>70 &quot;</td>
<td>800.00 &quot;</td>
<td>56,000.00</td>
</tr>
<tr>
<td>Beans</td>
<td>32 &quot;</td>
<td>1,125.00 &quot;</td>
<td>36,000.00</td>
</tr>
<tr>
<td>Poultry</td>
<td>1,550,000 Pounds</td>
<td>25 1/5¢ per lb.</td>
<td>390,700.00</td>
</tr>
<tr>
<td>Pecans</td>
<td>237,000 &quot;</td>
<td>28¢ &quot;</td>
<td>66,560.00</td>
</tr>
<tr>
<td>Dewberries</td>
<td>16 Cars</td>
<td>480.00 &quot;</td>
<td>7,680.00</td>
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<tr>
<td>Corn</td>
<td>44 &quot;</td>
<td>500.00 &quot;</td>
<td>22,000.00</td>
</tr>
<tr>
<td>Straw</td>
<td>10 &quot;</td>
<td>100.00 &quot;</td>
<td>6,000.00</td>
</tr>
<tr>
<td>Oats</td>
<td>8 &quot;</td>
<td>600.00 &quot;</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Peanuts</td>
<td>8 &quot;</td>
<td>1,000.00 &quot;</td>
<td>8,000.00</td>
</tr>
<tr>
<td>Hogs</td>
<td>6 &quot;</td>
<td>1,600.00 &quot;</td>
<td>9,600.00</td>
</tr>
<tr>
<td>Cattle</td>
<td>2 &quot;</td>
<td>600.00 &quot;</td>
<td>1,200.00</td>
</tr>
<tr>
<td>Hay</td>
<td>160 Tons</td>
<td>20.00 &quot; Ton</td>
<td>3,200.00</td>
</tr>
</tbody>
</table>

Total $1,204,075.00

The figures used are approximate but conservative and represent prices received by the growers. They cover only actual shipments made in which marketing specialists rendered assistance, and do not include all marketing work of the Extension Service.

**PLANT DISEASES**

**Plant Disease Survey**

Records are made of all disease outbreaks in order to have all available information as to disease losses throughout the state. The survey records show that:

1. Corn smut, causing greater losses in 1926 than ever
before, is now a serious problem with us.

2. Oat smut was very serious throughout the state, reaching as high as 25 percent loss in many cases.

3. Dewberry anthracnose seriously damaged the quality of berries at practically every shipping point, causing the growers to receive a very poor price.

4. Pecan mildew, scab, and anthracnose were present in destructive form in many groves.

5. Early blight, Southern blight, and rhizoctonia continue to cause some losses on potatoes, although these troubles are better cared for than most parasitic diseases.

6. Wilt and root knot caused heavier losses to the tomato crop than ever before, running as high as 90 percent on some farms.

7. Spinach mildew was very severe in Beaufort County and seems to be rapidly approaching the role of "limiting factor" in the production of this crop.

8. Tobacco root knot, wildfire, blackfire and mosaic caused severe losses in some sections.

9. Because of the dry season the cucumber crop suffered but little from the usual diseases, but anthracnose was severe on watermelons in some places.

Oat Smut Control

There was a larger percentage of seed oats treated this year than ever before. For example, in Fairfield County only one man treated his seed in 1925 while in 1926 there were 30. County agent Johnson announced that the treatment in York County was the most marked in his experience. Orangeburg County suffered a loss of over 50,000 bushels of oats from smut in 1926, which was an influential factor in
the treatment of a large percentage of the 10,000 acres planted for 1927. Marlboro County treated more than 1,000 acres for 1926, while Greenwood and Allendale have 200 farms each that treated seed. It is apparent that fully 50 percent of the oat seed sown in South Carolina for 1926 was treated for smut.

**Orchard Disease Control**

The control of diseases on both home and commercial orchards continues to gain in efficiency. About 245 demonstrations were conducted throughout the state during the year. The counties in the Piedmont are notably prominent in the matter of procuring spray pumps for home orchards. Anderson County has 50 pumps in operation. Other counties are making similar strides in this direction. Considerable divergence of opinion exists among the commercial growers as to the relative advantages of dusts and sprays, but fairly good control is being secured in practically all cases regardless of the form of fungicide used.

**Tobacco Disease Control**

More interest was demonstrated in 1926 than ever before in tobacco diseases. Many farmers experience heavy losses from blackfire, wildfire, and root knot. In Williamsburg County 68 farmers treated seed for the 1926 crop. The results from this work have greatly stimulated interest for 1927.

**Irish Potato Disease Control**

The planting of certified potatoes, as a means of disease control, now practically dominates the potato section. In 1923 practically no certified seed was planted while at the present time more than 90 percent of the seed is certified. Only a few tests were run in 1926 but these were of such outstanding results that all growers
are taking a more active interest in seed treatment.

**Cotton Wilt Control**

Demonstrations with wilt-resistant seed are rapidly decreasing losses from cotton wilt. Seven demonstrations were conducted in Dillon County in 1926 with outstanding results.

**Outlook for 1927**

While there is a general depression throughout the state resulting in a lack of operating capital in some cases, there will be more plant disease work done in the state this year than ever before. This is particularly true of all truck crops, tobacco, and the various small grains. Farmers everywhere are appreciating more and more the futility of operating with the old haphazard unscientific methods.

**ENTOMOLOGY**

Few people understand either the damage done by insects or the importance of control measures. It is hard to find a crop or material thing on the farm that is not subject to injury by some insect.

Among the insects that were less destructive in 1926 than usual are the boll weevil, plum curculio, Mexican bean beetle, cotton leaf aphid, melon and pickle worms, and soybean insects. Among those that have been more destructive are the corn ear worm or cotton boll worm, dodling moth, San Jose scale on peaches, cotton flea hopper, chinch bugs on corn, larger and lesser corn stalk borer, bill bugs, Harlequin cabbage bug and cutworms.

**The Boll Weevil**

The weather conditions played a great part in holding the boll weevil and the Mexican bean beetle in check. There were very few weevils in the Piedmont section at any time during the year, and
it was very late in the season when the infestation increased in the Coastal plain section.

The Mexican Bean Beetle

The Mexican bean beetle has been increasing rapidly until toward the middle of the summer when apparently the extreme hot, dry weather condition killed a large percentage of immature stages.

The Boll Worm

Early in the season, this insect became abundant in the alfalfa fields of Oconee County principally, and in a very short time began to migrate into adjoining fields of cotton and corn that had just come up and started growing. These two crops were attacked and almost destroyed before control measures could be put into effect. It then showed up on corn and tomatoes and was quite abundant, and then on cotton and soybeans, being unusually abundant in cotton fields. However, when dusting was started to control the cotton leaf worm, the boll worm was checked considerably.

This insect was also found and reported a number of times as seriously injuring the green pods of garden string beans.

The Flea Hopper

This insect caused an enormous amount of injury in the cotton fields of the upper Piedmont section. Many cotton fields were inspected and control measures recommended.

The Cotton Leaf Worm

This insect occurred in the Piedmont section the latter part of August and began its ravages in the cotton fields. Because cotton in this section was unusually late it was subject to considerable injury by the pest. However, practically every field that was heavily infested was dusted with calcium arsenate with excellent results.
The Chinch Bug

This insect was injurious on corn, especially where corn fields and small grain adjoined one another. It was also found injuring grass lawns in a few places. The control on corn has not been entirely successful, but excellent control has been obtained on grass lawns.

The Codling Moth

An unusually heavy infestation of this insect occurred on apples in the state because the weather during the time for calyx sprays was very unfavorable for spraying.

San Jose Scale

During the early winter an unusual number of inquiries have been received in regard to this insect on peach trees and a number of peach orchards have been found to be infested by scale more than usual.

The majority of our commercial apple and peach growers follow a systematic and definite spray program against insects. This enables our fruit growers to produce an excellent quality of fruit.

Cutworms

These insects (probably several species) have been abundant most of the year, being found very early in the spring in alfalfa fields. They also practically destroyed every tomato plant, just after being transplanted to the field, on seven hundred acres in Beaufort County, but poison bran bait placed around new plants on these fields gave full control. They were present also in many gardens in various parts of the state.

Harlequin Cabbage Bug

A larger number of complaints have been received in regard to this insect on many kinds of gardens than usual. The only successful
control method found was handpicking the eggs and adults.

**Corn Stalk Borers**

The larger corn stalk borer was present in practically every corn field in the state, and many fields in the middle and lower part of the state had one hundred percent infestation. The lesser corn stalk borer was more prevalent in the lower part of the state than in the upper and western parts. Most farmers never observe or recognize such injury because of the habits of these borers in their work.

**Other Insects**

Other insects that were considered injurious during the year were corn billbugs, grasshoppers, mold crickets, household and greenhouse insects, red spiders, wireworm, twelve-spotted and striped cucumber beetles, and stored product insects including grain weevils and moths and cigarette beetles.

Many demonstrations were given over the state by agents and specialists in control measures of insects mentioned in this report.

**Beekeeping**

A number of beekeepers had to feed bees for the first time during July and August. However, bees went into the winter in good shape.

American foul brood showed up in five yards of one to twenty colonies. With the assistance of J. A. Berly from the State Crop Pest Commission we were able to clean these diseased hives up by burning the hives. We made inspection of all bees in a radius of three miles of these infected yards.

In Dillon, Marion and Horry Counties four yards were affected with European foul brood. These yards were treated by condensing and
and then requeening.

In the yards that had loose frame hives our treatment was very satisfactory, but in the yards where hollow logs and box hives were used it was impossible to treat them and the death rate was practically 100 percent.

The queen breeders in this state have reported good business especially to beekeepers of this state. But queen breeders had a very bad year, as they had to feed very heavy to get good queens raised.

The county beekeepers associations have held monthly meetings regularly and are buying queens, honey containers, and other bee supplies cooperatively through their associations, thereby saving a good deal for the members.

Respectfully submitted,

W. W. Long, Director