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ANNUAL REPORT
OF THE
DIRECTOR OF EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS IN VIRGINIA

From

November 1, 1929

To

November 30, 1930

John E. Hutchison, Director

ANNUAL REPORT

EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

(December 1, 1929 to November 30, 1930)

Extension work in agriculture and home economics as carried on in Virginia is an enterprise in public education, financed jointly by the Federal, State and county governments. It has as its purpose the taking to rural people in their homes and on their farms information which will prove helpful in meeting the many problems with which they are confronted. This information is largely the result of actual investigations carried on by the State experiment stations and the United States Department of Agriculture.

The Virginia Extension Service maintains headquarters on the campus of the Virginia Polytechnic Institute at Blacksburg, Virginia, and is one of the three divisions of the State agricultural college. The extension work with negroes is conducted through the State college for negroes at Petersburg, where the negro district agents have their headquarters. However, this work is under the direct supervision of the Director of Extension and Board of Visitors of the Virginia Polytechnic Institute.

PERSONNEL

During the period covered by this report the work of this division was organized and conducted as follows:

The Administrative Department consisted of one director, one assistant director in charge of farm demonstration work and one state agent in charge of home demonstration work. The duties of the administrative officers are to make plans, select personnel, secure funds and see that the work of the various departments is so coordinated as to get maximum results.

The Supervisory Staff consisted of five white men district agents, four white women district agents, two negro men district agents and one negro woman district agent. These district agents have headquarters within their districts and their duties include supervising the activities of the county extension agents, helping these agents develop plans for effectively reaching the largest possible number of people, securing local finances, and seeing that the proper extension organization is maintained. Each district agent supervises the activities of from twelve to eighteen county workers.

The Specialist Staff consisted of a highly trained corps of technical field specialists with headquarters at the college. These specialists have their offices in connection with the experiment station workers of the institution and take to the farmers through the county agents the results of investigations along their particular subject matter line. The Virginia extension division maintains subject matter specialists in agronomy, dairy husbandry, poultry husbandry, vegetable gardening, horticulture, landscape gardening, animal husbandry, agricultural economics, agricultural engineering, rural sociology, farm forestry, clothing, feeds, home management, plant pathology and animal pathology.

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The Club Department consisted of a State boys' club agent, an assistant State boys' club agent, and a State girls' club agent. These club agents have their offices in the same building with the administrative offices and are in direct charge of all activities with Juniors. They are not classed as administrative officers, though they have some administrative duties. Their chief work is developing plans and methods for doing effective 4-H Club work.

The County Farm Demonstration Agents are located within the counties, usually at the county seat, and work particularly with farm men and boys. There were eighty-one white farm demonstration agents and twenty-one negro farm demonstration agents employed in Virginia during the period covered by this report. This is an increase of ten over the number of such agents employed in 1929. These agents do their work through meetings, demonstrations, tours, exhibits, visits, newspaper articles and circular letters.

The County Home Demonstration Agents are also located in the counties and often have their offices in the same building with the farm demonstration agents. These agents work largely with farm women and girls and give them information which will help them improve living standards. During the last year, fifty white home demonstration agents and six negro home demonstration agents were employed in Virginia. This is the largest number of such agents ever employed in this State in any year except the war years when a large number of emergency demonstration agents were engaged.

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EXTENSION WORK IN VIRGINIA IN 1930

Nineteen thirty will go down in Virginia's agricultural history as the year of "The Great Drought." During the period covered by this report the average rainfall in most of the State was less than fifty per cent of normal. The actual rainfall as reported by the weather station here at the college from December 1, 1929 to November 25, 1930 was 21.06 inches; whereas the average normal rainfall for this period is 42.25 inches. In many sections of the State the percentage shortage of rainfall was even greater.

Wheat, early potatoes and other crops that were harvested prior to August 1 made normal yields but the yields of most of the crops of this State were cut from thirty to sixty per cent. From 1924 to 1928, Virginia farmers produced an average of 1,220,000 tons of hay annually. The production for 1930 was 425,000 tons. The 1924-28 average production of corn for Virginia was approximately 42,000,000 bushels. The September first crop report indicated a production of less than 17,000,000 bushels in 1930. For the last five years, Virginia fruit growers have been producing around 13,000,000 bushels of apples annually. During 1930 they produced approximately 7,000,000 bushels. Similarly, the average production of sweet potatoes was cut from 6,000,000 bushels to approximately 3,000,000 bushels. Peanuts were cut from 146,000,000 pounds to 25,000,000 pounds, and tobacco from 127,000,000 pounds to less than 90,000,000 pounds. Add to this an almost total loss of gardens in fifty per cent of the counties of the State, the sixty per cent loss in the value of pastures, and the loss of practically all spring-seeded grasses and clovers, and we will begin to get some idea of what the crop losses alone amounted to.

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When it comes to estimating the losses in livestock values, this is more difficult, but we know that, due to the drought, the hens in this State laid fewer eggs, the cows gave less milk, and the hogs, beef cattle and sheep put on fewer pounds than in almost any year in our history.

The drought alone was bad enough but when there was added to this the extremely low prices occasioned by the severe business depression existing throughout the country during the latter part of 1930, we find that Virginia farmers sustained a net loss of at least \$100,000,000 in anticipated revenues. These are not paper profits but returns that might normally have been expected had there been no drought or depression.

These conditions, of course, seriously affected the whole extension program in this State and our extension agents, who normally give their time to well organized programs for teaching farmers how to lower costs of production, fit production to market demands, improve methods of marketing and improve standards of living. During the last half of 1930 gave practically their whole time to emergency and relief measures. Long before the President called the National drought conference, extension agents in Virginia realized something of the seriousness of the situation and were urging farmers to plant emergency feed and feed crops, and to conserve their resources.

When the State Drought Relief Committee was appointed by the Governor, the Director of Extension was made a member of this committee and later asked to serve as Vice-Chairman. In this position, he took an active part in helping to organize the counties and committees of the State for drought relief work. He also helped develop the National program, which was later unanimously adopted by the chairmen from the various drought stricken states and presented to the President and Congress.

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In each of the counties the county farm demonstration agents were members of the county drought relief committees and the county home demonstration agents cooperated with the welfare agencies. When it became apparent that livestock had to be moved from certain counties or starve the extension agents in Virginia communicated with extension agents in states not affected by the drought and developed markets for several hundred carloads of cattle and sheep at prices higher than were being paid on local markets. When the railroads announced the emergency reduced rates, Virginia extension agents not only issued the reduced rate certificates but developed plans with cooperatives, bankers, and dealers whereby Virginia farmers received greater benefits from the reduced rates than did the farmers in any other state. During the period that the emergency rates were in operation, more than ten thousand carloads of feedstuffs were brought into the State at an estimated saving to our farmers of more than \$750,000. More than twenty per cent of the total value of the emergency freight rate reductions for the country went to Virginia farmers.

When it was announced that the government would make loans to the needy farmers for the planting of fall grazing crops, the county agents immediately put this information into the hands of such farmers and in spite of continued dry weather, more than ten thousand acres of such crops were planted. The handling of these government loans gave the county agents and local loan committees valuable experience in dealing with the Federal Seed Loan Office and put them in position to handle effectively the production loans which will undoubtedly be made in the spring of 1931.

The home demonstration agents have been constantly on the job helping the Red Cross and other welfare agencies plan their work so as to reach the people in

greatest need. They put on a large number of food preservation demonstrations and a very intensive home garden campaign. The work which they did was of great value in preventing suffering and disease during the winter months.

The county farm and home demonstration agents perhaps did more than any other one group in practical drought relief work, and largely due to their efforts a smooth working organization has been set up in each county which is doing much to meet the emergency. In doing this emergency work, extension agents have had to somewhat neglect their regular extension programs. Many result demonstrations were complete failures on account of the drought and many other phases of extension work do not show up as well as in the past few years. However, in spite of these interruptions, extension work as a whole seems to be on a firmer foundation than ever before. The drought gave the county agents another opportunity to demonstrate their real value and most of the farmers and boards of supervisors now seem to realize that they cannot afford not to employ such agents.

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FARM DEMONSTRATION WORK

December 1, 1929, the Virginia extension division was employing seventy farm demonstration agents and seven assistant agents working in seventy-four counties. Early in 1930, four additional counties made appropriations and four new agents were added. Just before the adjournment of Congress, a special Federal appropriation was made for the purpose of putting agents into additional counties and, as a result of this appropriation, eight new counties were added during July. However, since these eight counties were not making local appropriations, it was decided to have one agent work two counties until such time as local appropriations could be made. The boards of supervisors in these counties were told that if they did not make local appropriations within the fiscal year, these agents would be removed.

As a result of these special appropriations, farm demonstration work was carried on in more counties during 1930 than in any year in the history of extension work in this State, and these county agents were of great assistance in helping the farmers meet the many problems with which they were confronted on account of the drought. However, so far as successful demonstrations with crops and livestock are concerned, the results were meager because crops in many instances were totally destroyed from lack of rain.

General Activities:

During the period covered by this report, the farm demonstration agents developed extension programs in 410 communities with the assistance of the local people. Some 2,236 voluntary local leaders assisted in forwarding these programs with adults, and 667 with Juniors. Five hundred and eighty-seven 4-H clubs were

organized with 9,059 members. Forty-seven judging and 54 demonstration teams were trained. Seventy-one thousand, seven hundred and sixty-seven visits were made to 34,725 different farms. Forty-eight thousand, six hundred and twenty-eight office calls and 40,289 telephone calls were received. Five thousand, six hundred and seventy-nine news articles were published and 65,949 individual letters written. The total number of meetings of all kinds held during the year was 7,760, with a total attendance of 264,437 persons.

Definite demonstrations were conducted with every type of crop and form of livestock produced in Virginia, but no attempt will be made in this report to cover these demonstrations, since they are covered in detail in the statistical report of the State leader of farm demonstration work. However, it may not be wise to mention briefly some of the outstanding accomplishments.

Community Organization:

During last year definite progress was made in improving the extension organization for getting information to farmers. Under the direction of the organization specialist, county advisory boards were strengthened in at least one-third of the counties in the State. These county advisory boards not only helped the agent plan his work but helped set up community committees to put the program into operation. The members of these community committees acted as local leaders and conducted community demonstrations.

In commenting on this type of community and county organization for extension work, County Agent J. C. Miller, of Calpeper, says:

"After two years of this organization work the results have surpassed the expectations of the agent. Cooperation is coming from adults and 4-H club members who were absolutely opposed to the work before the organization started to function. Office

consultations have more than doubled during the past year and the agent has spent most of his time working with members of committees. These committees in turn, through demonstrations, have reached many people that the agent would never have reached. The difference in the attitude, however, is not confined to the farmers. The business men of the town are now realizing that Galper county has one real active agricultural board with definite goals in view."

Alfalfa-Clover Campaign:

During the early winter of 1929 the district agent in Southwest Virginia conceived the idea of putting on an alfalfa-clover campaign in that section of the State. After talking the matter over with the several specialists concerned, such a campaign was definitely mapped out and plans made to put it across.

The specialists in agronomy, dairying and animal husbandry each wrote a series of short articles on clover and alfalfa to be published in the local newspapers. The county agents sent out circular letters giving dates and places of meetings and 67 meetings were held during February and March with an attendance of 1,318 interested farmers.

This campaign resulted in an increase of some fifteen to twenty per cent in the acreage seeded to alfalfa and clover in these eight counties. It showed conclusively the results of careful planning and a definite program of cooperation between local leaders, county agents and specialists.

Sweet Potatoes:

Seven years ago the county agent in Princess Anne decided that the farmers of this county were not realizing as much profit from the sale of their sweet potatoes as they should. They were following the practices which had existed for many years and, as a result, were producing potatoes of poor

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quality with much disease. The county agent, therefore, secured a few demonstrators who carefully selected their certified seed stock and treated it for disease before bedding. These demonstrators used the fertilizers and cultural methods advocated by the experiment station. As a result they made good yields of excellent quality. Instead of marketing these potatoes at the time they were harvested, they were stored in a curing house and thoroughly cured and marketed later on at much better prices.

This demonstration proved so successful that additional curing houses were built from year to year and approximately 50,000 bushels of first class potatoes were cured and sold from 35 houses during 1930. A "brand name" has now been adopted and Princess Anne is making a reputation for producing the best sweet potatoes grown in Virginia.

Milk Marketing Organization:

For the last few years the dairymen supplying milk on the Richmond market have realized that the methods which they were using in marketing their milk were gradually reducing their profits. They had no control over either the production or marketing of their product and consequently more and more surplus was being produced, and prices were gradually being lowered.

Early in 1930 the Surrice county agent called on the extension division to help the local producers work out a better system of marketing. The dairy specialists got in touch with the managers of the Baltimore and Washington associations, which have been operating successfully for a number of years, and had these men address meetings of Richmond dairymen. As a result of several conferences and meetings, a definite basis and surplus plan was adopted

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to be put in operation through a cooperative milk producers association. Within a few months 130 producers, owning 7,795 cows, signed the cooperative marketing contract and employed a manager to deal with the distributors.

This organization controls practically seventy-five per cent of the milk going on the Richmond market and has made definite plans for procuring the surplus on an equitable basis. During the next few months, it hopes to work out new uses for the surplus through cooperation with the distributors.

Cooperation with The Farm Board:

A striking example of how the county agents in Virginia are cooperating with the Federal Farm Board along educational lines is illustrated by what has taken place in the tobacco belt of Virginia during the last year.

Owing to the low prices received for the 1929 tobacco crop, the Farm Board received many requests for assistance from Virginia growers. In order to find out just what these requests represented, the Director of Extension called a meeting of tobacco growers in Danville February 8, 1930, and invited Mr. James S. Stone of the Federal Farm Board to attend this meeting. More than 2,000 indignant tobacco growers met Mr. Stone in Danville but when he explained to them that the Farm Board could only help them if they organized cooperatively, their ardor was considerably cooled. Many of them wanted the other fellow to join the organization.

However, when it was found that at least half of the growers present really believed in cooperative marketing and were willing to work for a cooperative association, it was decided that the best thing to do under the circumstances would be for the extension division and the Farm Board to put on

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an educational campaign for the purpose of informing all the growers and business men in the tobacco belt of Virginia what cooperative marketing could and could not do. The Farm Board, therefore, employed a well trained man to direct the campaign and the county agents and vocational teachers arranged for a series of six meetings in 100 communities in the tobacco belt. The teachers of vocational agriculture, local bankers and leading farmers were gotten together in each county and trained to help with these meetings. The following subjects were presented and thoroughly discussed at each of the 100 meeting places:

- (1). What the Farm Board can do to help the tobacco farmer.
- (2). The 1930 outlook and the relation between price and production.
- (3). What is wrong with tobacco farming and what can be done about it.
- (4). How can a cooperative association help the tobacco farmer.
- (5). Lessons to be learned from the operation of the Tri-State Association.
- (6). A suggested marketing contract and by-laws for a new association.

At least 3,000 farmers attended these meetings each week and, as a result, there was a strong demand for an organization of Virginia growers to handle tobacco cooperatively. Such an organization is now in process of formation and will probably be operating in time to handle the 1931 crop.

HOME DEMONSTRATION WORK

Perhaps the most outstanding result of home demonstration work during the last year has been the increase in the number of people reached through organized clubs. In 1929 there were in Virginia 254 home demonstration clubs with 4,329 members, and 681 girls' demonstration clubs with 10,242 members; whereas in 1930 there were 340 home demonstration clubs with 7,149 members and 807 girls' demonstration clubs with 11,202 members. It is of interest to note that the largest increase appears in the number of farm women reached. The number of local leaders volunteering to help do this work increased over one hundred per cent.

This increase in the number of people reached is attributable to the following causes:

First, the increase in the number of counties in which home demonstration work was carried on. At the beginning of the year, six additional counties made appropriations for the employment of home demonstration agents and later on ten additional counties were added, due to the passage of the Federal emergency appropriation. In these latter counties, one agent worked two counties.

Second, the adoption of a carefully planned long-time program which has made it possible to retain interest from year to year.

Third, the better use of the specialists' time in helping the agents. This year the specialists have made a special effort to train local leaders rather than do all the work themselves.

Fourth, the strengthening of the community and county organizations.

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Organizations on a definite community basis has made it possible to put more responsibility on the community people themselves. In several counties this has resulted in increasing the number of people reached by at least fifty per cent.

Virginia Homemakers Association:

An increased interest was noted in the State meeting at Blacksburg. Three hundred and eighty-six women delegates came in from the various counties to attend this meeting. This was almost a hundred per cent increase over last year's delegation.

Achievement Days:

Every county was asked to include an achievement day program for adults and for juniors in its plan of work. Thirty-five of the forty counties reported holding an "achievement day" for adults with an attendance of 8,798, while thirty counties held a 4-H achievement day with 8,841 present. This gave much wider publicity to the work being done, since a summary of results was presented at each such meeting.

Food and Nutrition:

Fourteen counties majored in this work with the 4-H clubs during the past year and sixteen counties selected foods as a major project for adults. Three thousand, two hundred and twenty-two 4-H club members conducted demonstrations, while 3,980 adults were enrolled. Though the drought affected Virginia severely, yet 41,979 containers were used by 4-H club girls in food preservation, while the women report 287,888 jars of canned products put up.

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Home Improvement:

This was a major interest elected by the girls in fourteen counties and by the women in nine counties. Three thousand, five hundred and sixty-three women enrolled in this work, while 5,171 girls studied this phase of homemaking.

Perhaps the outstanding accomplishment recorded in this line this year was the winning of first prize in Home Improvement Contest sponsored by the Southern Ruralist, a farm paper. This prize of \$500 was awarded to Mrs. J. B. Thompson in Albemarle county. The eighth prize of \$25 also came to Virginia and was won by Mrs. W. D. Mispin of the same county.

Clothing:

Seven counties majored in clothing in 4-H club work, while no county majored in this line in women's work. This was due to the fact that we had no clothing specialist until July 1, 1930. Four hundred and twenty women enrolled for clothing work, and 471 girls during last year. A large increase is expected during the coming year.

Household Management:

This project held major interest with the women in only four counties. Franklin county did outstanding work. Thirty-two kitchens there were practically made over, some of them with very little cost; and in one case a complete water system was the result. In six kitchens hot and cold water were installed.

Landscape Gardening:

This work was a major interest in four counties with 1,197 women

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enrolled, but twenty-three different counties had some help along this line.

Poultry:

This project is not so popular with the girls. During last year 564 boys, and 549 girls, carried on work with the home demonstration agent, while 522 women were enrolled in home poultry work. Beaham and Prince Edward counties did good pieces of home poultry work.

Garden:

This project is very closely tied up with the food work. Last year the home agents report 591 boys and 212 girls enrolled in this project, while 639 women enrolled in garden work.

Home Markets:

Some progress has been made along this line. Augusta county opened a market April 25 and the sales through November 22 had amounted to \$5,432.88, with a total of eighty women selling their products.

Blindfold county women opened a market in a tobacco warehouse in Petersburg in May. An average of thirty club women sold each market day, and by November 1 the sales had totaled \$4,500. One woman, who had to borrow one dollar to buy materials to bake the first cake, has sold \$260 worth of cakes and pies. She has supported her family, is sending her daughter to town to high school, and has paid for tonsil and adenoid operations for two of her children. Another woman has put running water in her house with money earned on market. These are only samples to prove the worthwhileness of the market project as developed by our home demonstration club women.

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ANIMAL HUSBANDRY

The severe drought and the marked drop in prices were very discouraging to all producers of livestock in Virginia during 1935. However, efforts were increased by all extension workers to help farmers improve their livestock through the use of better methods of breeding and feeding, and better care and management. A few outstanding accomplishments are mentioned below.

Beef Cattle:

Beef cattle work was largely confined to improvement through purebred bulls, and to baby beef club work. In connection with the former, one bull sale was held, twelve bulls averaging \$122 per head.

Nighty club members in twelve counties fed out 121 baby heaves. a total of \$284.25 was lost on the project, but prizes amounted to \$2791.88. Fifty-six calves were shown at Richmond and ninety-nine at Baltimore. At the latter show Virginia club members won sixteen out of thirty-six prizes in competition with four other states.

Two farmers carried on creep feeding demonstrations with calves; one of these came out with a small profit above all expenses.

Sheep:

Sheep work consisted of participation in the National Native Lamb Improvement Contest, ram sales and sheep club work.

Two counties entered the Native Lamb Improvement Contest. The basis of award was on the number of sheep owners who docked and castrated lambs

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in 1920, and did not do so in 1929. Four counties reporting showed sixty-eight farmers adopting the practice.

Ram sales were held at Marion and Staunton. A total of seventy-four rams averaged \$34.06. They were consigned by eleven breeders and were sold to farmers in twenty-four counties of Virginia.

There were 134 sheep club members in twenty-seven counties in 1920. Their total profit on 950 sheep was \$4651.94.

Hogs:

Work with hogs consisted of hog feeding demonstrations, control of parasites, the placement of purebred boars, and pig club work.

A total of fourteen feeding demonstrations were carried out in eight counties. Eight of the demonstrations were in the ten litter contest. In the fourteen demonstrations, 209 pigs showed a total profit of \$817.15. In practically all cases, small grain was the basis of the ration during about the last half of the feeding period.

Sanitation work in the control of parasites included a campaign in one county and demonstrations in three counties. There were 160 people in attendance at three meetings in Surry county. The eight demonstrations conducted showed a ten per cent increase in number of pigs raised, and the pigs averaged ten pounds heavier at four months of age. Round worm treatment demonstrations were carried out on 122 farms, with a total of 3,576 pigs involved. Results were described as being from "fairly good" in some cases to "remarkable" in others.

A plan was worked out to assist in placing purebred boars in a number of counties. As a result, 183 boars were placed in four counties. None of

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these counties were enrolled in the better sire project reported elsewhere.

Reports showed 1009 pig club members made a profit of \$11,502.08 which did not include price money, amounting to \$1,542.75.

General Livestock:

Eight counties in the better sire project reported 150 replacements of scrub or grade sires by registered ones, divided according to these classes: 54 beef bulls, 45 rams, 29 hogs.

Animal husbandry specialists assisted in the clover alfalfa campaign put on in Southwest Virginia. Newspaper articles were furnished and talks were given at 54 meetings, with an average attendance of 40 people.

In addition to supplying subject matter for club members, specialists assisted with four short courses; helped train five judging teams and five demonstration teams, conducted three judging contests, and judged club exhibits at twelve fairs.

Livestock exhibits were judged at 15 fairs and educational exhibits supplied for six.

The department prepared thirty-two newspaper articles, sixteen radio talks and twenty-three circular letters; and wrote 2,189 personal letters. Talks were made at ninety-nine meetings, with a total attendance of 2,707 people; and twenty-five demonstrations were given, with a total attendance of 206 people. A total of 222 visits were made to farmers, breeders and club members. Specialists worked a total of 254 days, 254 in the field and 170 in the office. Total travel amounted to 31,566 miles.

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HORTICULTURE

Virginia has upwards of 8,000,000 bearing apple trees with a potential annual yield of 4,000,000 barrels or more. If Virginia apples are to command attention in the markets, they must be free from blemishes. Spraying is important in the production of clean fruit.

Spray Service:

A reduced crop, restrictions on exports and drought, has made it necessary to devote more time to the spray service this year. The lack of rains made growers reluctant to spray because of the residue situation.

The spray service was extended to include peaches for the first time. This came in response to the many urgent requests from the peach growers of the State after the severe losses from worms and spray injury in 1929. Results have been excellent.

Detailed information was placed in the hands of all peach and apple growers on the spray mailing list. This included time of application, materials to use, dilutions, and the pests to be controlled.

A spray bulletin was prepared and put in the hands of growers two months earlier than in 1929. Seven thousand copies were distributed. Twenty-two conferences were held to determine proper spraying dates. Six apple spray notice cards and three peach spray notice cards were prepared. Thirty-five thousand spray notice cards were sent out.

Spray information was also sent out by radio in order to supply our growers with timely spray information.

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Pruning

Proper tree training and pruning are necessary for profitable yields. Each year there seems to be more interest in this project. The building of a tree to carry heavy loads over a long period is of the first importance. Realizing this, and that growers soon lose the picture given at a demonstration, long time pruning demonstrations were started in two fruit counties. Demonstrations will be conducted on the same trees each year for a five-year period. In this way growers will have an opportunity to study the building of a strong tree.

One hundred and four apple pruning demonstrations were given with an attendance of 947 farmers, and thirty-nine peach pruning demonstrations were given with an attendance of 588.

Stationary Spray Plant:

The stationary spray plant, a rather new development in spraying in Virginia, is attracting considerable attention among orchard owners of the State because of the possibilities it offers for getting the sprays on in time and what is more important, lowering production costs. It is especially adapted to orchards located on rough sites.

Eight orchard surveys and cost figures were given, and three plants installed.

Cultural Methods:

The last year has demonstrated to our growers that one of the most important needs in their orchards today is organic matter. Organic matter means more food and water for the trees, which in turn means larger annual crops.

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Growers are realizing this as never before, as shown by the number of requests received for orchard visits and surveys. When such visits are made, the orchard is gone over in detail. Definite recommendations are made for each orchard, as every orchard presents a different problem.

One hundred and sixty-two advisory visits and surveys were made and plans of work with recommendations to fit each problem worked out.

Fertilizer Demonstrations:

The use of fertilizer in orchards is increasing rapidly, largely because results from demonstrations have been so outstanding. Nitrogen is the element used most. Phosphate is also recommended, especially where orchards are in sod. Nitrate of soda is the form of nitrogen most commonly used; sulphate of ammonia next. During the last year the use of cyanamid has greatly increased. The fertilizer demonstrations were conducted in cooperation with the educational bureau of the Wilson Nitrate of Soda Company and the American Cyanamid Company.

Thirty-two nitrate of soda demonstrations and nine cyanamid demonstrations were given. Although the season was very dry the fertilized trees in most cases out-yielded the check trees. Summer meetings were held in connection with several of these demonstrations.

Irrigation:

While we think of orchard irrigation as belonging to the Northwest, there are certain orchards in Virginia where irrigation offers opportunities for increasing production at a reasonable outlay, where the water supply is convenient.

Three orchards are now testing out irrigation. Two of these orchards

were put in irrigation this year. All are enthusiastic as to the results obtained.

Pollination:

The pollination project suffered considerably because of frosts at blooming time. It has also been impossible to give the project the effort it should receive because of lack of funds and department man-power.

Several topworking demonstrations were given. Trees in three orchards were topworked to pollinizers. Ten orchardists were persuaded to put bees in their orchards. One orchard owner bought thirty packages of bees.

Pruning:

Due to the small crop in both apples and peaches, little time was given to this project. Peaches were almost a total failure. Two peach demonstrations were given and ten farmers attended. Eight apple demonstrations were given with an attendance of 115.

Standardization:

This is one of our most important projects, since successful selling depends largely on how well the product is standardized. Foreign restrictions on the shipments of low grades emphasized very forcibly the need for more progress in the field of better grading and packing. Considerable time was spent in the field visiting packing houses and aiding packing house managers to become more familiar with changes in the packing and grading regulations. In cooperation with the Bureau of Markets, meetings were held in all of the important fruit counties just previous to the picking season. At these meetings the grading and packing rules were explained.

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Thirty-two meetings were held in this connection with a total attendance of 1,500. Twelve conferences were held with growers and marketing officials.

Several radio talks were given on this subject, one of these over a National hook-up of forty-five stations.

Expert Marketing:

Meetings were held in the most important fruit sections. At these meetings, F. A. Mtn, Foreign Marketing Specialist, spoke on the expert situation and pointed out to growers what they must do in order to hold these markets.

Four thousand notices were mailed to growers, and twelve meetings held with a total attendance of 1,100.

Packing Houses:

A number of growers who had contemplated building packing houses early in the season were not able to carry out these plans because of the reduction in their crops.

However, three community houses and four individual houses were built. The specialists made thirteen visits to advise with growers on sites and packing house equipment.

Storage Houses:

As a result of this project, two common storages were built, and four demonstrations on operating were given. The specialists made fourteen advisory visits.

One grower who built his common storage this year was able to sell

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the low grade apples for \$1.48 per bushel by holding until December and January. This same fruit at harvest time was only bringing him twenty-five cents a bushel.

Spray Residue:

This was an emergency project made necessary by the drought. The accomplishments were outstanding. Though the horticultural department had from time to time called attention to the seriousness of the residue situation, up to July 18 growers were not giving the matter very much thought. It was not until the first of August that growers became alarmed. The situation was discussed at the marketing meetings.

The residue situation was discussed at thirty-two meetings by representatives of the U.S.D.A. Food and Drug Division, Division of Markets, and V.P.I. Horticultural Department. There was a total attendance of 1,200 growers at these meetings.

Twenty commercial washing machines were installed, fifty home made washers put into operation, and four laboratories established for analyzing samples. The plan and bills of material were furnished for making home made washers.

A specialist was in the field continuously visiting packing houses, aiding in the installation of machines, testing washing solutions, and taking samples. This, perhaps, was the most outstanding piece of work of the year.

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VEGETABLE GARDENING

Virginia is one of the leading commercial truck and vegetable states and the demands for assistance with both production and marketing problems are increasing rapidly.

Home Gardens:

Due to an increasing realization on the part of the farm people of this State of the importance of vegetables in the diet and the amount of food that may be secured from a good garden, the attention given to this project was nearly double that given in 1923. One hundred and twenty-eight meetings with those interested in gardens were held during the year, with an average attendance of thirty-four persons. Basic instruction in gardening was given to the home demonstration agents and local leaders in thirteen counties. Garden contests were held in nine counties and 330 gardens scored.

In order to get farm people to use vegetables which they were not in the habit of growing, 918 families were furnished with free seed to plant spinach, kale, carrots and other leafy vegetables.

A special garden circular was prepared giving plans, quantities and varieties, and ten thousand copies distributed to Virginia farmers. More than 20,000 circular letters on fall gardens were distributed in the fall garden drought relief campaign.

Potatoes:

The specialists in vegetable gardening cooperated actively with the Interstate Early Potato Committee in giving potato growers information as to

existing supplies and possible market demands. The potato growers of this State in larger numbers each year are realizing the value of such information. During 1930 every grower, banker and potato dealer on the Eastern Shore was supplied with all available outlook information.

The source of seed demonstrations which have now been carried on for eight years were continued in 1930. The average increase in yield in Virginia of certified seed over home-grown was 31.8 bushels per acre on these plots. A potato tour was arranged in order to call the attention of a large number of people to the results secured on these demonstrations. More than three hundred growers, dealers and seedsmen went on this tour.

The vegetable specialists of the extension division assisted in having grown for certification 750 bushels of V.P.I. Green Mountain potatoes.

Sweet Potatoes:

The principal work with sweet potato growers consists in showing them how to produce good seed and healthy plants, and to take care of the potatoes after they are produced. One thousand, six hundred and eighty-five bushels of seed were bedded by growers under the direction of extension agents during 1930, and 581,000 draws sold by growers of certified seed. These growers produced 145 acres of sweet potatoes for inspection, and 11,516 bushels were certified.

The storage house work was continued and five new storage houses erected. This brings the total number of storage houses erected during the last six years up to fifty with a total capacity of 120,000 bushels.

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Tomatoes:

Sixteen tomato planting beds served as demonstrations to scores of growers on proper cultural practices for producing good plants. More than three-quarters of a million plants were produced in these beds. Considerable educational work was done on the buying of tomatoes on grade. Demonstrations brought out the fact that the grower secures 20.3 No. 2 cans from a bushel of U.S. #1 fruit, 24.7 cans from a bushel of U.S. #2 fruit, and only 13.6 cans from a bushel of culls. The returns to the grower from each grade, figured at seventy-five per cent per dozen, would be \$2.40, \$1.67 and 64¢ respectively.

DAIRYING

During the early part of 1930 the dairy industry of Virginia began to feel the effect of the general economic depression which existed throughout the country. For a number of years dairying had proved one of the most profitable farm enterprises conducted in this State and, as a result, there had been a rapid increase in the production of dairy products. This same condition existed throughout the United States, and, as a result of this increased production, coupled with decreased demand on account of the general business depression, there was a surplus of dairy products on practically all of our markets. By the end of the year the price of manufactured dairy products had dropped to the lowest level in twenty-five years and there was increasing unrest on the fluid milk markets. This was particularly noticeable on those markets which were not organized cooperatively for the control of production and distribution.

In addition to these serious economic factors, Virginia was visited during the summer and fall of 1930 with the most serious drought ever recorded in its history. The hay and corn crops were cut more than fifty per cent and, in many sections, farmers were not able to fill their silos. Some dairymen had to begin buying hay by the middle of August.

Due to these unusual conditions, the dairy extension workers of this State had to give a large part of their time to teaching farmers how to produce emergency crops and in helping them meet their marketing problems. However, the long-time program of better feeding, better breeding and the production of quality products, was continued. As a matter of fact, this long-time program was considerably strengthened by receiving the endorsement of the state dairymen's and state dairy products associations.

Dairy Herd Improvement Associations:

Extension workers actively promoted the dairy herd improvement associations as the best method of improving feeding and breeding practices. The table given herewith shows in a condensed form the results of this work:

RESULTS OF DAIRY HERD IMPROVEMENT WORK

Herd on test October 1930 -----	283
Cows on test October 1930 -----	11,972
New herds -----	22
Cows in new herds -----	2,420
Average number of herds for 12 months-----	419
Number of cow years -----	12,414
Average milk per cow year -----	4,925
Average fat per cow year -----	222.9
Total number of unprofitable cows sold in 1929 -----	60
Number of purebred bulls bought -----	70

Dairy Manufacturing Project:

The production of quality cream was the principal work done on this project. Twenty-one creameries in seventeen counties were visited and farm visits were made to 570 patrons of these creameries in an effort to show them how to secure a better product.

Another important line of dairy manufacturing work was the assistance given creameries in making a higher score butter. Twenty-six creameries cooperated in this project and 264 samples of butter were analyzed. As a result of this work, the average score of the butter produced by these creameries was increased .5 per cent.

Better Dairy Sires:

In addition to the regular work done by all county agents in getting farmers to use purebred sires, a special better sires project was put on in

eight counties and sixty-five scrub dairy bulls were replaced with registered purebreds with high production records.

Cooperative Milk Marketing Associations:

Two new cooperative milk marketing associations were organized during the year. One of these was at Norfolk and the other at Richmond. Our dairy extension workers helped work out plans for these organizations and present them to the producers.

The dairy specialists and county agents continued to give assistance along educational lines to the Maryland-Virginia Milk Producers' Association and the Valley of Virginia Milk Producers' Association, which have been operating successfully for a number of years. Both of these associations made splendid records in 1930 in spite of depressed business conditions. They are proving to the dairymen of this State that cooperation is necessary all the way from the producer to the consumer, and that in order to bring about such cooperation, dairymen must be thoroughly organized.

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AGRICULTURAL ENGINEERING

The extension projects in agricultural engineering emphasized during 1930 were terracing to control soil erosion, farm water supply, farm buildings and rural electrification.

Agricultural engineering instruction was given at the State club short course to 210 boys. Thirty-three meetings were attended by the extension agricultural engineer and talks given at 84 of these, which were attended by 2,400 people.

In the matter of publicity, 30 articles were written for the agricultural press, 25 talks were given over the radio, 4,500 personal letters were written, and 2,800 circular letters were sent out. Fifteen thousand one hundred and ninety bulletins were distributed.

Terracing Project:

Work on the terracing project was late in starting, due to the drought, and therefore continued later into the winter after the end of the fiscal reporting year. Nine demonstrations were held in four counties, from two to three days being spent in each county. Three hundred and one farmers and farmers' sons attended the meetings. Four thousand one hundred and seventy-five feet of terraces were constructed, and 20,715 feet were surveyed. Fifteen blue prints of a home-made terracer and ten prints of a home-made level were distributed. Plans were made to start some terracing clubs and to date clubs have been organized in five counties with a total attendance of 115 boys. Each month through July one week will be given to this work in 1931.

Farm Water Supply Project:

Work on the farm water supply project was handled as follows: From April 1, to September 1, water supply campaigns were conducted in nine counties. Suggestions and recommendations were made after a complete survey of the conditions. Many of these surveys resulted in installations but with the return of prosperous times a majority of the jobs will be completed. The service given will hold good. Many farmers were forced to make installations because of the failure of regular supplies. At most of the above farms sewage disposal information was given also. In addition to the above, 81 surveys were made in counties not having campaigns. Sixteen visits were made to 24 different counties to make these 81 surveys. One thousand two hundred and eighty bulletins on farm water supply were mailed out.

Farm Building Project:

The most outstanding work during the year was accomplished in handling the farm building project. As a result of the endeavors of the farm building specialist, relations with State Dairy and Food Division were most cordial and cooperation all that could be asked for. As the regulatory duties of the Dairy and Food Division increase, they are gradually turning over their educational work and plan service to us, and frequently request help on planning projects. A check-up of work by the two departments showed very few duplications of effort and 170 plans furnished by the Dairy and Food Division as compared with 675 by our department. Twenty-four new plans requiring 40 loadings were prepared last year by this department.

Cooperation with Maryland and Virginia Milk Producers' Association continued and broadened. A letter from the secretary says our cooperation has

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been extremely valuable in that the dairymen are now assured of plans meeting all inspection requirements of the health department, and the service they have been able to render as a result of our cooperation has been a great aid in increasing membership. As a result of this cooperation, the Maryland extension service requested the privilege of duplicating our plans for the Maryland dairymen including the Baltimore market. This was gladly granted and is a step toward sectional planning.

Another feature of our work during the year was help rendered to the small milk producers supplying Philadelphia. Plans were prepared showing steps required to secure best price at a very low cost, and the Philadelphia inspector liked them so well he requested the privilege of using them all over the Philadelphia territory. These were very helpful around Stanton and on the Eastern Shore.

Several remodeling plans were prepared resulting in a saving of several thousand dollars to dairymen.

Plans for a proposed district 4-H club camp were prepared and help in choosing site given. The success of the project now appears assured.

An interesting feature of our work was the preparation of proposed county office plans for Chesterfield county which resulted in a \$15,000 office building through the county agent's efforts. Our proposed plan was used as presented.

Considerable work was done on apple packing houses and common storage in cooperation with the horticultural department. A study of common storages has resulted in a very satisfactory design, and splendid results in operation and increased profit on stored fruit.

Milk cooling is becoming a big problem. To meet this problem, a careful study is being made and the information secured will be given to the dairymen.

In handling the farm building project, Mr. Gordon made 151 visits to 301 farmers in 47 counties, working with 43 agents and 3 home agents. Ninety other men were visited by him in the interest of various projects. A total of 8,570 farm building plans were sent out as compared with 875 two years ago, and 1,400 last year.

Forty stock plans, 25 special plans, three remodeling plans, and 122 tracings were prepared during the year.

Rural Electrification Project:

Considerable progress was made in the rural electrification project. The State plan for rural line extensions which was worked out by the special joint committee appointed by Governor Byrd, has resulted in 1,324 miles of rural lines being constructed during 1930, and about 2,500 additional farmers securing electric service. This makes a total of about 4,100 miles of rural electric line in the State and about 9,000 farmers receiving electric service. When it is realized that only 500 farms were connected to high lines in 1925 and there were only about 250 miles of rural electric line, it is evident that progress is being made.

Considerable time was devoted on the project to organize an educational program for the power companies. During the year two additional agricultural engineers were placed with companies for farm service work. Two men were also placed with the General Electric Company and two with the Westinghouse Company for training in rural electrification.

A bulletin on rural electrification was written and is now being published. Assistance was rendered several rural communities in securing electric service. Several orchardists were rendered assistance in planning orchard stationary spray systems and irrigation systems. Twenty-four farm water power surveys were made in 18 different counties, and 200 bulletins mailed out on this subject.

In addition to the four major projects as above outlined, urgent requests for help were answered as follows:

Ten drainage surveys were made of 718 acres of farm land and 500 bulletins on drainage mailed out. Three hundred bulletins on land clearing were sent out.

As a result of the drought, there was considerable demand for help and information on irrigation. Eighteen irrigation surveys were made of 940 acres, and 500 irrigation bulletins mailed out. Several orchardists were given advice on the installation of the irrigation systems.

Demand for engineering assistance from the various departments, farmers and organizations was even greater than usual in spite of the drought, or as a result of it. Some of the miscellaneous work handled was: preparation of plans and specifications for home-made apple washing machine, plans for dairy refrigeration, apple cold storage, surveys for wheat yield contest in Albemarle county, special plans for college poultry department, power survey for bulletin on "Industrial Development of Virginia," plans for agricultural engineering building, wiring plans and specifications for proposed home economics building, survey for college farm.

ABSTRACT

Extension work in agency may be considered under the three main headings - Soil Improvement, Good Seed, and Miscellaneous.

The phases of soil improvement stressed in 1930 were: seeding clover and other legumes, and more efficient use of fertilizer.

The good seed project was stressed largely through the Virginia Crop Improvement Association.

Under miscellaneous, pasture improvement, fairs, short courses, and special requests for assistance were given attention.

Clover Campaign:

The seeding of clover and other legumes was stressed in the form of a clover campaign in cooperation with the dairy and animal husbandry departments in Southwest Virginia. In this connection a representative of this department attended 54 meetings with an average attendance of 40 farmers. Twenty-seven articles were prepared and published in the county papers in this area. Since the drought killed practically all of the clover which was seeded, and retarded the growth of the annual legumes seeded, a summary of the amount of the different legumes seeded and amount of lime used as a result of the campaign was not attempted. However, District Agent E. A. Warriner, estimates from his county agents' reports that 25 per cent more legumes were seeded in his territory in 1930 than during any previous year.

Fertilizer Demonstrations:

Ten demonstrations in fertilizing mixed hay were conducted with an average increase of 1,308 pounds of hay in favor of recommended fertilizer.

Fifty-two demonstrations on small grain were conducted. Reports on forty-five of these show an average increase of 5-3/4 bushels in favor of the fertilizer recommended.

Thirty-three farmers started fertilizer corn demonstrations, but due to the drought only 20 completed the demonstration. Because of unfavorable weather there was only an average of about two bushels increase due to the fertilizer.

Nine fertilizer tobacco demonstrations were started but because of the drought only a few were completed and no reports were received.

Sixteen cotton fertilizer demonstrations were started and fifteen completed. While the fertilizer recommended gave a large increase where there was moisture, some of the demonstrations were complete failures. The average results, therefore, are of no value.

One hundred and twelve boys took part in a contest in side dressing corn. The average increase was small, due to the dry weather.

Fertilizer was discussed during field meetings at a number of the adult demonstrations. In addition, fertilizer meetings were held in the following counties: Halifax, Appomattox, Pamunkey, Prince William, Buckingham, James City and Gasbell.

Seed Seed:

As this work is sponsored largely through the Virginia Crop Improvement Association, a summary of the seed certified and distributed by association members will indicate to some extent our efforts with the project.

During the spring of 1930, 15,802 bushels of corn, cotton and soybeans were certified and distributed; 10,541 bushels of wheat, rye, barley and oats

were certified during the summer, and 1,449.5 acres of corn, soybeans, cotton and peanuts were field inspected in the fall of 1930. These crops will be bin inspected in the spring of 1931, previous to being certified. During the spring of 1930, 15,504 bushels of sweet potatoes were certified, and 147 acres field inspected in the fall of 1930. Four hundred bushels of Irish potatoes were certified during 1930. Over 85 per cent of the field crop seeds certified passed through the regular seed channels. One seedman handled over sixty per cent of the total small grain.

Our department assisted the Virginia Crop Improvement Association in putting on the annual grain show. Eight hundred and eighty exhibits were shown. One hundred and seventeen boys and 77 farmers took part in the junior and adult grain judging contests which were held during the show. A program stressing good seed was sponsored. A "Corn Show Special" featuring good seed was published and widely distributed by the local paper where the show was held. It contained twenty-two articles prepared by members of this department.

A series of good seed meetings were held in Buckingham. County Agent Cox reports that as a direct result of these meetings sixty bushels of improved seed corn were brought into his county.

Cooperating with County Agent Curtis in Orange we discussed good seed during a meeting of twenty-five of the seed dealers in his county.

County Agent Scott was assisted with "A more wheat per acre contest" in Albemarle. Our part consisted in examining the wheat in the field and bin.

assistance was rendered in conducting grain judging contests at several county corn shows, as well as furnishing out-lines for grain judging teams. A grain judging contest was conducted here at the college for 300 vocational agricultural students.

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POULTRY SUBSIDENCY

From December 1, 1929, through November 3, 1930, the three extension workers in the poultry department attended a total of 259 meetings at which there were 8,088 people. In addition, 106 demonstrations, explaining some improved method of poultry management, were given. A total of 1,901 personal letters were written, 3,870 circular letters were sent out, and 1,000 blue prints for different poultry buildings were distributed. Forty-seven publicity articles were written and 21 radio talks were made.

The work carried on during the year may be divided into eight major projects. The first one was the improvement of the standard bred and the production bred poultry. Thirty or more demonstrations were given in the selection of breeding stock and culling the poor producers. The attendance at the demonstrations ranged from eight to thirty people. Most of the accredited hatcheries and some of the non-accredited ones have cooperated in the improvement of the stock.

Breeding was the second project, and it was emphasized at all meetings the first part of the year. Publicity articles and radio talks were prepared giving the correct methods of breeding. Three hundred and fifty-three breeder house plans were furnished poultry men.

The proper housing of poultry has always been an important extension project, and it received due consideration during the year. Housing was discussed at each of the poultry institutes held in January and February. It was the project adopted by eight of the counties having community organizations. In two counties that carried the farm flock improvement work, fifteen new houses were built and thirty-two old ones were remodeled.

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Feeding is a subject that everyone interested in poultry is anxious to learn more about. There were very few feeding records kept last year, so it is impossible to measure the results of the work done. The importance of proper feeding was stressed in the club work, the flock improvement work, and at most of the poultry meetings.

The farm flock improvement project was carried on in five counties and there were ninety-six flocks participating. As the contest does not close until January the records are not complete. A partial report from two counties gives the following improvements: fifteen new houses built, thirty-two remodeled; twenty-six contestants put in new equipment; and forty-four adopted better practices. One county held a contest in connection with poultry work as a major project with the home demonstration clubs. These clubs had six poultry demonstrations during the year and all members kept records. The financial report given at the Achievement Day for the year's work gave a net profit to the county of \$4,906.09. Several counties have already sent in requests for improvement contests for next year.

The organization work has consisted of organizing county poultry associations in Buckingham, Lancaster and Accomac counties. Assistance has been rendered the old association in working out interesting monthly programs and some specialist has attended nearly every meeting of these associations. The necessary time has been given to the work of the State federation to help put its program over.

There were only four breeders to start the "Breed Record of Performance" work last year, and one of these dropped out before the year was up. In these three flocks there were about 175 birds qualified to receive the certificates.

All of the specialists have assisted in the 4-H club poultry work. This has consisted of visiting club members in their homes, attending club meetings, writing up demonstrations, and helping to train demonstration and judging teams. In one county, eight demonstration teams were trained, and each of these teams gave three public demonstrations. There were eight judging teams taking part in the judging contest at the State fair. The team representing the State at the Madison Square Contest at New York won second place with seven teams competing.

In the early part of the year poultry institutes were held in six counties. A total of 250 people attended the three day institute in Lancaster, Pittsylvania and Buckingham each held a one day institute and more than one hundred people attended. Three other counties held a combined institute and egg show, and the attendance at these was over 200.

The members of the department gave poultry instruction at twelve 4-H club short courses during the year. A poultry short course for adults was held at the college for a week in January, and nineteen people attended. In cooperation with the dairy department, a short course for feedmen was held with an attendance of twenty-five.

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AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

During last year the demand for assistance in agricultural economics and rural sociology has more than doubled. This is due partly to the organization of the Farm Board and partly to a realization on the part of farmers that they must have up-to-date economic information on which to base their production plans and business operations.

In order to help meet these increasing demands for assistance along economic lines, Congress made an appropriation of \$10,000 to each state for the employment of economic specialists. In Virginia, this money was put into immediate use in employing three well trained field specialists.

A few of the activities and accomplishments in this work during the past year are given here:

Marketing:

The field specialists in this department assisted in preparing contracts and getting out charters and by-laws for the Augusta Cooperative Milk Producers' Association, the Richmond Cooperative Milk Producers' Association, the Norfolk Cooperative Milk Producers' Association and the Montgomery Dairymen's Cooperative Exchange. All of these associations were given considerable assistance in explaining to producers the cooperative plan of operation.

Another important piece of marketing work was the educational campaign among the tobacco growers which led to the preparation of plans for the organization of the Virginia Bright Tobacco Growers' Association and the Virginia

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Dark Tobacco Growers' Association. This work was done in cooperation with the Farm Board and has been discussed elsewhere in this report.

Assistance was also given the Farm Board in setting up a unit of the National Wool Marketing Association in Virginia. Over three hundred thousand pounds of wool were marketed through this organization in 1930.

Considerable time was devoted to giving existing organizations information which would help them in promoting marketing efficiency. One of the most helpful accomplishments was changing the State cooperative marketing act so as to have cooperative purchasing associations come within its terms. Another very helpful undertaking was the holding of a cooperative marketing short course for county agents and managers of cooperatives. More than one hundred and fifty people attended this short course. In addition five cooperative schools were held in Rockingham.

Farm Management:

Under the head of farm management, perhaps the outstanding accomplishment was the widespread distribution of outlook information. A State outlook report was issued early in the year and fifty thousand copies distributed to Virginia farmers. Assistance was given in holding five district and twenty-five local outlook meetings. The district meetings were attended by leading farmers, bankers and county agents. Very intensive outlook information was distributed throughout the early potato and tobacco counties. This work was done in cooperation with the interstate committee working on these commodities. The Interstate Early Potato Committee, the plans for which were worked out in Virginia, has proven so successful that similar regional committees are being set up in other states with other commodities.

Farm account work was continued and twenty farm accounting demonstrations held. Three hundred and forty-two farm account books were distributed to individual farmers and assistance given these farmers in keeping and auditing these books. The work of reorganization of tobacco farms in Charlotte county was continued and similar work begun with a few dairy farms around Richmond.

Rural Sociology:

The principal activities under this head consisted of the reorganization and strengthening of county agricultural advisory boards, the setting up of standard community clubs, and the holding of a rural ministers' short course.

The advisory boards are the county extension organizations. These boards were reorganized in twenty-six counties during the year and community extension committees were set up in two hundred and fifty-six communities to cooperate in the planning and conducting of extension projects. This work has led to an increased use of local leaders and resulted in more than doubling the number of people reached.

The ten standard community organizations started as demonstrations in 1929 were continued with varying degrees of success. Each organization has carried on a complete community building program. In three communities this work has been done in connection with the local granges and has resulted in greatly increasing the usefulness of these organizations.

The specialists in rural sociology devoted considerable time to organizing and helping to conduct a ten day rural ministers' short course. Sixty-two rural ministers from all parts of Virginia attended this meeting.

All leading denominations were represented and the results obtained were exceedingly favorable. The rural ministers who attended this short course are now cooperating effectively with the county agents and other agricultural workers in promoting rural life work. They seem to have gotten a new conception of how to reach rural people effectively.

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FARM FORESTRY

Approximately three-fifths of the land area of Virginia is either occupied by tree growth or is lying idle for the lack of such cover. Much census report since 1900 has shown a diminished area under cultivation and a larger area of idle land. The smaller area under cultivation is thoroughly in line with modern agricultural thought, but the increasing idle land is out of line with everything. Idle land not only increases the tax burden on productive land but it deteriorates rapidly, rendering it permanently valueless without the expenditure of considerable sums. Formerly such areas seeded in very promptly to young timber, but with the removal of most of the large old pine trees that supplied the seed, many of these areas remain bare, or grow up to valueless brush growth. Erosion and control of stream flow and water supply constitute major problems and both are intensified by these increasing areas of idle land.

Generations of "topping" have left the average farm forest (other than old field stands of pine and poplar) little better than a wood patch of worthless species and cull individuals. And just as a depleted soil must be rebuilt before it can be profitable, so must these depleted forests be rebuilt before they can be profitable. Much of the low grade material that should be removed in thinning and wood operations (as a step in this rebuilding process) is fit for nothing but fuelwood. Some of it is acceptable for pulpwood, stove bolts and other products calling for small sized pieces, but farm requirements for fuelwood, and such amounts as may be sold at nearby

towns, must furnish the outlet for most of it. Because the curing of bright tobacco calls for relatively large quantities of fuelwood, those counties in which bright tobacco is raised offer the best opportunity for these improvement cuttings. Eighteen demonstrations in improvement cutting were conducted in six different counties.

Two pulp mills have adopted the policy of securing their wood requirements directly from the farmer, or from small contractors. These, under normal conditions, afford a profitable outlet for a portion of the wood taken out as thinnings. Due to the business depression on the one hand and the drought on the other, the market has been so diminished and the supply so increased that the effort this year has been to discourage cutting, at least until a market was assured. There are many thousands of cords of pulpwood cut and stacked along railroads, highways and in the woods that will never be sold. Every man who cuts pulpwood under present conditions without having contracted for it to a reliable purchaser, stands a very good chance of losing both his timber and the labor of converting it into pulpwood.

A fair exhibit featuring a concrete example of good forestry practice extending over a period of thirty years was shown at the State fair and three county fairs. It seemed to be well received. Twelve forestry talks were broadcast from the V.P.N. studio and one from the Mount Vernon Station in Alexandria. A slip sheet of timely notes on forestry and forest practices was sent out to all county agents each month except during the busy seasons of planting and harvesting crops.

The drought and business depression interfered considerably with the carrying out of the regular program of work and will probably interfere

still more during the coming year. Such weather as we had last year cannot avoid having serious consequences as regards the health and vigor of forest trees. Having no similar experiences on which to base a prediction, we can only await developments and take such action as the emergency seems to demand. It is to be expected, however, that there will be an unusual amount of inquiry regarding the mysterious death of trees, insect attacks, and markets for all sorts of products, those intended to help out serious financial stringencies and those intended to salvage dead and dying timber. Such calls, under the circumstances, must take precedence over routine work.

NOTES ON CLUB WORK

The 4-H clubs in Virginia were most successful in practically all activities this year. Club members, parents and leaders showed greater interest than ever before in 4-H club meetings, rallies, short courses, recreational institutes and achievement day programs. Although many of the individual demonstrations (especially in crop and livestock projects) were financial failures, due to drought conditions, the interest of the members and leaders did not lag, and we completed the most successful year in the history of 4-H club work in the State.

Sixty-eight of the 76 farm agents in the State did club work. The only counties with no club work were, Gloucester, Lee, Loudoun and Madison. Lee county started club work but no enrollment or reports were received in the State office. The 68 counties reported a total enrollment of 8,822 members conducting 8,729 demonstrations. The twenty-one negro agents enrolled 3,170 members and they conducted 3,170 demonstrations. The total enrollment for county and local agents in the State was 11,992 members conducting 12,009 demonstrations. This was 17.16 per cent greater than any previous year. Complete reports were received from 9,386 club members, or 77.87 per cent of the total State enrollment. The financial summary of these 9,386 club members showed a gross earning of \$244,088.34 at a cost of \$221,786.17 and a profit or labor return of \$122,302.17, and cash prices amounting to \$12,136.76.

The non agents reported on 422 community 4-H clubs. These clubs raised \$4,507 and paid the expenses of 411 club members to short courses.

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They held 315 rallies and achievement day programs, trained 99 judging and 158 demonstration teams. The local leaders throughout the State played an important part in the development of the community 4-H clubs. At no time in the history of club work in the State have we received better cooperation from the parents and leaders. The community interest and the civic activities of the 4-H clubs has been most gratifying.

Short Courses and Camps:

The short courses and camps also played an important part in our State club program. We had last year one State, six district and nine county camps or short courses. There was also one State short course held for the negro club members at Hampton Institute. The total attendance at all short courses was 2,665. The short courses were held in cooperation with both the county and home demonstration agents. At most of these short courses special training was given to leaders in addition to the 4-H club program.

Thirty-one club boys and girls were given out-of-state trips. Two boys and two girls went to the National Camp, Washington, D. C., a dairy judging team of three boys and one girl went to the National Dairy Show at St. Louis, Missouri; four boys and four girls to Camp Vail, Springfield, Massachusetts; one boy and one girl to the International Leader Training School, Springfield, Massachusetts; two boys and five girls to the National Club Congress, Chicago; a livestock judging team of three boys to the International Livestock Exposition, Chicago; and a poultry judging team of four boys to the National Poultry Show at Madison Square Garden, New York City.

Contests:

Virginia club members were highly successful in the National contests

and carried off many honors over contestants from other States. The two outstanding accomplishments of the boys on out-of-state trips were: winning second place by the Virginia poultry judging team in the National contest at Madison Square Garden, New York, and the election of Lewis J. Turner as Governor of the State of Service by the International Training School, Springfield, Massachusetts. Turner will return this year with expenses paid by the training school, and will have charge of the International Training School Group.

The outstanding feature of 4-H club members at the state fair this year was the livestock exhibits, especially in baby beef and dairy. Many of the club members won first places, competing against the leading livestock breeders of the State. The grand championship in the baby beef show was won by A. G. Green, Jr., Fauquier county, with his Angus calf. The winning entitles him to the \$200 V.F.I. Scholarship given by the State fair.

Elizabeth Gills, Henrico, won the grand championship in the dairy show with a Holstein calf, which entitles her to a \$200 scholarship to V.F.I.

The above are only a few of the outstanding results of club work in the State.

SIXTH GRADE WORK

Last year the home economics projects for girls were completely reorganized. The change was very far reaching and necessitated a complete reorganization of the local-project groups of training and using local leaders, and of revising and securing new literature for both leaders and members. The new program has been well established and encouraging progress made.

In place of the former plan, which consisted of a number of short time projects covering a very limited field, we now have a long time program which covers the three big fields of home economics work - clothing, food and nutrition, and home improvement. Each project in turn embraces several phases of work, each organized on a twelve months basis with a definite subject work and discussion outlined for each month. This gives an eight year program which, when completed, will give the girl some training along almost every line of home work. Each girl is encouraged to take some work in garden and poultry in order that she may know something of the management of the home garden and home flock.

Enrollment and Results:

There were 11,308 4-H club girls who made a serious study of these home-making problems in different projects. These were enrolled in 607 community 4-H clubs in the 44 counties in which there are home demonstration agents. This does not include the ten counties beginning work for the first time September 15. Comparison with last year's records shows an increase of six counties, a twenty per cent increase of numbers, and 65.53 per cent project completions.

<u>Project</u>	<u>Number Enrolled</u>	<u>Number Completing</u>
Clothing	5471	1888
Food and Nutrition	4797	5486
Home Improvement	3381	2147
Garden	798	411
Poultry	712	288
Total - - - - -	12106	7908

4-H Club Leaders:

Much progress has been made in securing and training project and organization leaders. Leader training meetings are held every two months where instructions are given for the next two months. Seven hundred and sixty-three leaders were given this special training; of this number 491 were women, 229 were other club girls, and 43 were men and boys.

The county program for 4-H club work are made by the county 4-H Club Council, composed of all officers of each local club. Twenty-three counties reported councils. Plans are under way to have an active council in every county for 1951.

Project Activities:

From the nature of the work it is rather hard to present in figures all of the work which the girls accomplished. However, the accompanying figures may give an idea of the trend of the work.

In the clothing project, 12,565 garments and articles were made; 10,206 garments and articles were remodeled and cleaned, 287 girls kept clothing accounts, 286 helped with the family sewing, and 1622 did part or all of their own sewing.

56

The food and nutrition work was made a personal problem with every member. Better food habits and improved food practices were emphasized. Three thousand, eight hundred and fifteen girls worked along the lines of food selection and preparation, and 528 in food preservation.

In a special nutrition project 1579 homes were reached in which 787 members stopped drinking tea and coffee, and 725 made a definite gain in weight.

The home improvement project made a strong appeal and much fine work was done - 1654 rooms were improved and refinished, 6540 pieces of furniture and articles were refinished and made, 227 new pieces bought, and 1478 girls provided better storage space for clothes.

The results of the garden project are rather discouraging due to the drought and also to the fact that it is hard to interest the girls in this work. A total of 53-1.3 acres were planted. Most of the members cooperated with their parents in laying a better home garden, rather than separate projects.

Like the garden project, the poultry work has not made a strong appeal. However, efforts will be redoubled to get more members interested, and to provide for the personal visits required. These members raised 5167 birds at a net profit of \$9,570. Twenty houses were built and sixty-four renovated.

Contests:

Increased attention is being given to the various contests as a method of clinching subject matter and increasing the interest and enthusiasm of the members. The major emphasis is given to the local

club contests, the other contests being planned merely to stimulate the interest of the local contests.

Two State demonstration team contests were held in which fifty-two county teams competed. A State style dress contest was held in which the seven counties majoring in clothing had contestants. In the State poultry judging contest, fourteen counties entered teams, three of the four highest scoring members who formed the State team were trained by home demonstration agents.

The National contests attracted more members than ever before. The total results show the following placings won in canning by Virginia girls:

8 firsts	2 sevenths
3 seconds	1 eighth
1 fourth	1 ninth
4 fifths	

In the National style dress revue, first place was won in the cotton dress class. In 4-H club scenario contest a first place was won.

Trips and Scholarships:

Realizing the value of educational trips and scholarships it is our policy to encourage those interested in offering prizes to club members to make these offers in the form of scholarships or trips. During the year, fourteen trips out-of-state and fifteen trips within the State were given as scholarships.

Realizing the need of new social and recreational features in club work, special effort was made to give this training to older club members and leaders. Through the cooperation of the U.S. Children's Bureau and

American Playground and Recreation Association, fourteen training schools were held. As a result, the recreation at practically all of our camps was largely conducted by club members and much progress was made in the developing of richer social programs by the members in more clubs.

OUTLOOK FOR 1931

The Virginia extension division is confronted in 1931 with the most difficult task in its history. Due to the drought and depression, a large majority of the farmers lost money in 1930. Many of them do not have sufficient money and cannot get from local sources sufficient credit to operate their farms another year. Many who were employed as farm laborers will necessarily be faced with a discontinuation of such employment during 1931. Quite a number will suffer from actual hunger and cold if definite provision is not made to take care of them.

All of these conditions present a real challenge to the extension service of this State. Extension workers recognize this challenge and have definite plans for helping our farm people meet the situation. The administrative officers and specialists are in close touch with all State and Federal relief plans. The county farm demonstration agents are members of county drought relief committees and are taking the leading part in making plans to provide employment, credit and food for farmers. The county home demonstration agents are cooperating with the welfare agencies and have definite plans for preventing hunger and disease.

In addition to these plans for meeting the emergency, the extension division is developing careful plans for permanent agricultural rehabilitation. The need for a long time program of balanced farming, lowering the cost of production, fitting production to market demands, and improving methods of marketing, are more evident than ever before. The extension division will cooperate with the farm organizations in meeting these needs.