

VIRGINIA

DIRECTOR

ANNUAL REPORT

1933

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**ANNUAL REPORT OF
EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS
IN
VIRGINIA**

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Director,

*P.S.
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December 1, 1932, to November 30, 1933

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Nineteen hundred and thirty-three was in many respects a better year for Virginia farmers than was 1932. Those receiving their income principally from cash crops were especially fortunate as there was an increase in both the production and price of most crops grown in this state. Crop yields were two percent above the ten year average and the total acreage in crops was three percent greater than in 1932. The average farm price of wheat rose from 56 cents per bushel in 1932 to 89 cents per bushel in 1933; corn rose from 41 cents to 56 cents; oats from 30 cents to 45 cents, and barley from 42 cents to 62 cents. Cotton, peanuts and flue-cured tobacco brought nearly twice as much per pound in 1933 as in 1932.

As a result of all these favorable factors there was an increase of 96 percent, or \$35,000,000, in the value of crops produced in this state in 1933 over the 1932 value. The total value of the 1933 crops is estimated to be approximately \$81,000,000 compared with \$46,000,000 for 1932, and \$76,000,000 for 1931.

However, the total farm income was not proportional to the increase in crop values as prices for livestock and livestock products, which usually supply about half of the farm income in Virginia, were generally lower than last year. The estimated value of livestock on farms with the exception of poultry was approximately \$42,000,000 compared with \$40,000,000 a year ago, and \$47,000,000 two years ago. The increase in value was largely due to the rise in prices for horses and

mules as average prices for cattle, milk cows and hogs were lower than a year ago.

The better prices for wheat, early potatoes, horses and mules can be largely accounted for by the scarcity of these commodities, but the better prices for other agricultural products in this state were largely the result of the United States going off the gold standard and the operation of the agricultural adjustment programs initiated by the federal government. Since these programs have played such an important part in improving agricultural conditions in this state a brief report is given herewith as to the activities of the extension agents in connection therewith.

ADJUSTMENT AND RELIEF PROGRAMS

Immediately after the passage of the Agricultural Adjustment Act, the Secretary of Agriculture notified the director of extension that all employees of the agricultural extension service would be drafted to help carry out the programs of the federal government for the relief of farmers. Since that date practically fifty percent of the time of all extension workers in Virginia has been devoted to agricultural adjustment campaigns. Many of the county agents and specialists have had to work from ten to eighteen hours a day on such programs for the past three months.

Cotton

Early in June the agricultural adjustment administration decided to put on a production control program with cotton which had for its purpose taking out of production at least 25 percent of the acreage planted to this crop in 1933. The plan was to pay farmers cash benefits for actually plowing up growing cotton. This was a very radical departure from anything that had ever been attempted in this state and a tremendous amount of educational work was necessary in order to convince cotton growers of the wisdom of such a program.

Virginia is not a large cotton producing state but a small amount of cotton is grown annually in each of eleven counties in southeastern Virginia. A very

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Intensive educational campaign was put on in each of our cotton counties and in a period of one month more than 5,000 Virginia growers signed acreage reduction contracts and actually took out of production 10,000 acres of cotton with an annual yield of 293 pounds of lint per acre. These growers have received cash benefit payments of \$130,000 and held options valued at nearly \$100,000.

The county agents and extension specialists directed the educational work in connection with this program and the distribution of the benefit payments. Partly as a result of this program the price of cotton rose more than four cents per pound. This first cotton program was of an emergency nature and is being followed by a permanent control program which will be inaugurated during the month of January.

Wheat

About the first of July it became apparent that there was little possibility of our regaining foreign markets for surplus wheat in time to improve prices for wheat grown in 1933. Therefore, the Secretary of Agriculture decided to put on an intensive production control campaign for the purpose of reducing the acreage planted to wheat during the next two years. Wheat growers throughout the country were asked to reduce their acreage by 15 percent. In order to get over to the farmers the necessity and importance of such reduction in the shortest possible time the extension service was called upon to do the educational work in connection with this campaign.

As less than half the counties in Virginia produce wheat for sale in commercial quantities, it was decided to confine the wheat production control campaign in this state to such counties. Beginning August 1, a very intensive campaign was put on in forty-two out of the hundred counties for the purpose of thoroughly acquainting wheat growers with the government's plan for production control. Some educational work was done with the larger growers in all the other counties. As a result of this

campaign approximately 8,000 Virginia wheat growers signed contracts covering approximately 250,000 acres and 4,000,000 bushels. This is about 40 percent of Virginia's average wheat production and from 50 to 85 percent of the wheat grown in the counties where an intensive campaign was put on. Thirty-six wheat production control associations were set up and through these associations the growers signing contracts will be paid benefit payments amounting to more than half a million dollars. In most cases the county agents are serving as secretaries of these associations.

The farm price of wheat in 1932 was approximately 50 cents a bushel. Partly as a result of the production control program our farmers were able to sell their 1933 wheat crop at around 90 cents per bushel.

Tobacco

Immediately after the passage of the agricultural adjustment act the leaders of the extension service in this state began working with people in the tobacco section of the agricultural adjustment administration on a plan for improving the prices of this crop. Until the market opened there was very little interest on the part of tobacco growers in the states south of Virginia. However, with the opening of the markets at very low prices a wave of indignation swept through the Carolinas and Georgia, and the governors of these states declared a holiday until a plan for bringing better prices could be developed. All warehouses in the flue cured tobacco belt were closed and a committee went to Washington to help work out some plan of immediate action. As a result an acreage reduction agreement was worked out and the extension service was called on to present this agreement to every flue cured tobacco grower in this state within a period of ten days.

This was a tremendous task and one that seemed almost impossible of accomplishment. However, due to the fact that the extension service had some form of organization

in every tobacco county more than 10,000 land owners representing 70,000 acres actually signed these agreements in one week. This sign-up represented more than 90 percent of the average production of flue cured tobacco in Virginia for the past three years.

As a result of the almost unanimous agreement of the flue cured tobacco growers in this and other states to reduce their production at least 50 percent during the next two years, the agricultural adjustment administration was able to work out with the manufacturers a marketing agreement which has resulted in the 1933 crop selling for almost three times as much as did the 1932 crop. In addition the flue cured tobacco growers signing permanent contracts will be made rental payments for the tobacco which they take out of production amounting to several hundred thousand dollars.

Representatives of the extension service also worked in close cooperation with the tobacco section of the agricultural adjustment administration in developing programs for dark fired, burley and sun cured tobaccos. These programs are now being presented to more than 20,000 growers and should result in substantial benefits.

Dairying

County agents and dairy specialists in counties surrounding our principal fluid milk markets have helped the dairymen supplying these markets work out marketing agreements which should materially improve prices. W. F. Badler, of our dairy extension staff, was loaned to the dairy section of the agricultural adjustment administration early in the fall to help with these agreements. Our other dairy specialists have been working almost constantly with the farmers in helping them get organized to properly take advantage of Federal relief plans.

As a result of these activities, a milk-marketing agreement has been put into operation in the Richmond area, and agreements are now under consideration for the Washington, Norfolk, Newport News, Lynchburg, Danville and Roanoke milk sheds.

Peanuts

Peanuts are not one of the basic commodities specifically named in the agricultural adjustment act but the county agents in the peanut area have helped growers work out an agreement with the processors which is proving very beneficial. The peanuts which brought Virginia growers from one to one and a half cent a pound last year are now selling at approximately three cents per pound.

A permanent control program for peanuts is now under consideration.

Beef Cattle

It became apparent early in the fall that beef cattle would sell for very low prices, the number of cattle having increased very rapidly during recent years and the per capita consumption of beef cattle having decreased. This situation was promptly called to the attention of the agricultural adjustment administration but due to the fact that beef cattle were left out of the adjustment act no effective measures of relief could be immediately developed. At the request of our senators and representatives in Congress the Federal Relief Administration was induced to spend \$10,000,000 for the purchase of low grade beef but this was of very little immediate assistance to Virginia growers.

Plans are now under way for having the agricultural adjustment act amended to include beef cattle. Our beef cattle growers have been organized to aggressively back this movement.

Corn and Hogs

A production control program for corn and hogs has been completed and plans worked out for paying growers 30 cents per bushel for corn and \$5 per head for hogs taken out of production. This program will prove of considerable interest to growers in about a third of the counties of Virginia and will be presented during the month

of January. There are some growers in every county in the state who will benefit from this program.

Adjustment of Farm Debts

When Mr. Morgenthau called on the Governor of Virginia to help set up a farm debt conciliation committee in this state, the Governor asked the director of extension to assist in this work. Representatives of all the principal farm organizations in the state met in the Governor's office and after giving careful consideration to local conditions asked the Governor to set up a state committee of eleven members.

The director of extension work was chosen chairman of this committee and Mr. C. Nelson Beck of Charlottesville secretary. During the last three months county debt conciliation committees have been set up in thirty counties and additional committees are being organized each week. These debt committees have as their principal purpose bringing together debtors and creditors and helping them work out equitable compositions of their debts.

Production Credit

County agents in all parts of the state are actively cooperating with representatives of the farm credit administration in setting up production credit associations to help supply the credit needs of farmers. The seed and fertilizer loans made in past years will eventually be discontinued and unless production credit associations can be established many of our farmers will not be able to get production credit with which to operate. Fifteen such associations have already been established and others will be set up within the next few weeks. The county agents are helping farmers with the application and loan forms.

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Dr. H. N. Young, head of the agricultural economics department of this institution, was given a leave of absence to assist the federal farm credit administration in working out more effective plans of supplying credit needs to the farmers of this state.

Civil Works

The extension service was recently called on by the Federal Civil Works Administration to supervise a farm housing survey which had for its principal purpose giving employment to farm people. Our home economics and agricultural engineering departments are supervising this project in Virginia and have made surveys in ten counties which have given employment to ten home economists, ten agricultural engineers and one hundred farm women. The information obtained through these surveys will be very helpful to the various departments of this institution.

Representatives of the extension division have also given considerable help in the plans being developed for subsistence homesteads and relief gardens.

Relief Work

While the farm demonstration agents were engaged in helping farmers with the adjustment programs the home demonstration agents spent considerable time in helping the various federal agencies with relief work. These agents trained 1,396 volunteer leaders to assist with the garden programs. From these gardens 1,560,000 quarts of food were canned and 161,000 pounds dried for winter use.

The help given with clothing problems by the home agents was another phase of relief work. Five thousand, six hundred and thirty-six families were directly aided along this line and more than 15,000 garments remodeled or made from inexpensive materials. In this work the agents laid emphasis on teaching the women methods of construction and remodeling in order that they might be better able to help themselves.

Future Progress

The activities mentioned thus far have to do entirely with work done in connection with the adjustment and relief programs of the federal government. It is becoming increasingly apparent that the extension service is the best agency for acquainting farmers with such programs. This is not only recognized by federal officials but by the farmers themselves. As evidence of this, during the past three months ten counties without extension agents have made appropriations for the employment of such agents. Ninety-one of the hundred counties now employ regular farm demonstration agents, and there are only five counties in the state that do not have an extension agent of some kind.

The final success of the agricultural adjustment program will depend on how well it is understood and how honestly and intelligently it is put into operation. Extension agents have received splendid assistance from teachers of vocational agriculture and local leaders in presenting the educational phases of the program.

Regular Activities of Extension Agents

Although the county extension agents in Virginia were called upon to give a considerable part of their time to the adjustment and relief programs of the federal government, they still found time to promote the long time extension program of lowering production costs, fitting production to market demands, improving methods of marketing, and raising living standards. The members of the county advisory boards and volunteer local leaders were of invaluable service in carrying out this program. During 1935, 6,976 farm men and women served as members of the advisory boards of extension agents, and 5,649 acted as local leaders. Had it not been for the splendid cooperation and assistance of this group of farm people it would have been impossible for extension agents to have carried out an effective program.

The most effective method of extension teaching is still through demonstrations on the farm and in the home. During the past year definite crop and livestock demonstrations were carried on in 8,113 communities in Virginia. Each of these demonstrations had for its purpose teaching some worthwhile practice. More than 15,000 method and result demonstrations were given by the home demonstration agents before groups of interested farm women. These demonstrations covered such subjects as food, clothing, poultry production, gardening, cheesemaking, home improvement and many other subjects of great interest to farm people. Detailed accounts of the results of these demonstrations are given in the annual reports of extension agents.

In order to give some indication of just how busy Virginia extension agents were during 1933, attention is called to the fact that they made 115,068 farm and home visits, wrote 115,937 individual letters and took part in 22,207 meetings of an extension nature with a total attendance of 568,550 people. In addition, these agents received 117,671 office calls and 66,493 telephone calls.

The farm people of Virginia are making use of the services of extension agents as never before in our history. Many of these agents have worked from ten to eighteen hours a day during the past six months.

The subject matter specialists have worked in close cooperation with the county agents in putting across definite projects. The remainder of this report deals with a few outstanding accomplishments of the Virginia county agents and specialists during 1933.

Agronomy

The agronomy specialists for the extension division again placed emphasis on the projects selected several years ago as a part of the long time program for the development of Virginia's agriculture. The only exception was the large amount of time and effort devoted to the production control programs of the federal government.

Soil Fertility.- Soil fertility through the use of legumes, fertilizers, lime and pastures was carried on in Nelson, Patrick, Buckingham, Culpeper, Orange, Halifax, Appomattox, Campbell, Mecklenburg, Scott, Pittsylvania, Amherst, Albemarle, Southampton and Alleghany counties. The educational work in connection with this project includes community meetings during the spring months, selection of demonstrators, field meetings and tours during the summer months and the publication of results of successful demonstrations.

A total of 394 demonstrations were carried on under this project, - twenty-six with clover, 315 with lespedeza, four with alfalfa, thirty-five with pastures, six with sweet clover, six with fertilizers and eight in soil testing. The county agents report that as a result of these demonstrations 175 farmers seeded clover, 28 alfalfa, 16 sweet clover, 331 lespedeza and 98 soybeans and cowpeas. In addition, 29 farmers carried out pasture improvement practices, 144 used lime for the first time and 17 adopted better fertilizer practices.

Use of Better Seed.- The good seed project consisted of supervising the certification of seed produced by members of the Virginia Crop Improvement Association and in sponsoring good seed demonstrations. As a result of this work 3,093 bushels of corn, soybeans, cotton, and lespedeza, 12,507 bushels of sweet potatoes and 6,765 bushels of small grains were certified.

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Two bushels of certified seed corn was furnished 17 county agents for demonstration purposes in the spring of 1933. Reports received from 34 demonstrations on which accurate data were kept indicate that this certified seed produced an average of 6.1 bushels of corn more per acre than was produced from other seed on similar land on nearby fields.

Tobacco Improvement.- The work begun a few years ago for the improvement of the quality of tobacco produced in this state was continued. Sixteen meetings with an attendance of 543 farmers were held in the flue cured tobacco territory for the purpose of stressing the value of planting tobacco on proper soils, using adapted varieties, proper fertilizers and improved methods of harvesting. A number of demonstrations were carried out which have resulted in the rapid adoption of the priming method of harvesting. Very little tobacco was harvested by this method in 1931 but at present more than 50 percent of tobacco in some sections is being primed. Those who carried out the recommended practices averaged about \$60 per acre more for their tobacco crops.

Two meetings with an attendance of 208 farmers were held by specialists in dark fired tobacco counties. The use of the right varieties and the proper methods of fertilization were stressed at these meetings.

Miscellaneous Activities.- A large part of the time of the agronomy specialists during 1933 was devoted to projects not planned at the beginning of the year. For instance, the two members of the department spent 160 days in helping with production control programs. One hundred and thirty-one days were devoted to the wheat campaign, 21 days to tobacco and 8 days to cotton. From present indications the work on these adjustment programs will increase during the coming year.

Outlook reports on tobacco, cotton, peanuts and other field crops were prepared and disseminated to farmers through county agents. Considerable time was also given to helping with 4-H club short courses and exhibits at fairs.

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Vegetable Gardening

Work in vegetable extension during 1933 was limited largely to four main projects - Irish potatoes, sweet potatoes, tomatoes and home gardens. Three hundred and sixty-six days, or over 70 percent of the specialists' time, was devoted to field work, in 67 counties, 194 visits were made to agents and 309 meetings were held with a total attendance of 17,131 people. Seven hundred and ninety-four method demonstrations were given and 63 press articles and radio talks prepared.

Potatoes.- The Early Potato Committee conducted 65 outlook meetings in Virginia with a total attendance of 1,491. Mr. A. E. Marcker, secretary of the committee, had charge of these meetings. This office secured valuable information from time to time from Mr. Marcker, government "Intentions-to-Plant" reports, market reports, etc., which was passed on to agents and growers.

Five source-of-seed demonstrations were conducted, comparing 24 sources of commercial seed. The plots again demonstrated the superiority of certified seed over home-grown seed and the dependability of the recommended strains. The average yield per acre of certified seed was 20.7 bushels of primes per acre higher than the average yield of home-grown seed. For an 8-year period, the difference in favor of certified seed has averaged 38 bushels of primes per acre. The 5 highest yielding strains showed an increase of 22 percent over the Eastern Shore yield while the ten highest strains showed an 18 percent increase. The information gained from the plots is presented to growers, dealers, seedsmen and others. Over 300 people from 11 states attended the Eleventh Annual Potato Hour and inspected the plots.

Considerable work was done with 61 4-H potato club members in Alleghany county. The club members secured an average yield of 100 bushels per acre, 42 percent above the state average for late potatoes.

Fifteen acres of Green Mountain and Rural New Yorker potatoes were grown

for certification and approximately 900 bushels of potatoes will be certified.

Sweet Potatoes.- Good seed is fundamental to high production per acre. The certified seed project has been of untold value in making a supply of such seed available. During the past 11 years a total of 123,767 bushels of sweet potatoes have been certified, or an average of 11,251 bushels annually. At a conservative estimate of only \$1.50 per bushel, certification of sweet potatoes has returned to the growers of the state over \$185,650. This figure does not take into consideration the benefits of increased production per acre secured by growers using the seed nor does it take into account the cash return from the sale of plants. In addition, there is definite need for considerable expansion of the project. Even if all the seed certified were sold in Virginia, less than 7 percent of the state's bedding requirements would have been supplied.

In 1935 certification work was done with 30 growers in 5 counties. One hundred and eleven and six-tenths acres were grown for inspection. Twelve thousand eight hundred and sixty-two bushels of sweet potatoes were eligible for inspection and of this number 12,507 bushels were certified.

The certification project affords an opportunity to evaluate one phase of the vegetable extension program. The primary value of the project naturally lies in the increased production per acre for users of the seed. Aside from increased production per acre, however, there are two sources of income open to the grower - the sale of slip seed and the sale of plants. In 1935, growers produced 12,507 bushels of certified seed which even at the very low estimate of \$1 per bushel would total \$12,507. Incomplete reports also show returns of \$998.82 from the sale of plants, bringing the total income from certified seed and plants to approximately \$13,405.82.

Of even greater importance, however, is the fact that the growers bedded 1,666 bushels of certified seed and used over 1,940,700 plants for their own plantings.

The use of such improved seed by the certified growers themselves together with the sale of such seed and plants to their neighbors cannot help but improve the yields in Virginia.

Including both new and remodeled buildings, 12 storage houses were constructed during the past year in 8 counties with a combined total capacity of 10,800 bushels. Of this total capacity, 62½ percent is being utilized for the storage of 7,273 bushels of sweet potatoes with a premium value over field marketed stock of over \$3,600.

The 12 houses constructed this year bring the total to 86 houses constructed during the last 9 years. These houses are located in 21 counties and have a total capacity of 189,400 bushels or an average capacity of slightly over 5,200 bushels. A check-up on 69 of these houses shows a total of 97,172 bushels stored in them. House-grown sweet potatoes are selling at a premium of over 50 cents a bushel above the average price received in the field. The premium value alone, therefore, of these potatoes should net the growers over \$45,500.

Tomatoes.— Twenty-two plant bed demonstrations were conducted in 1933. Scores of growers are now following the practices demonstrated in such beds. The beds have strikingly increased the use of tomato dust. When extension work began in Lancaster and Westmoreland counties no tomato dust was used, now it is the common practice. In 1933 over 500 pounds were used on the demonstration beds alone. In addition, several thousand pounds were sold in this area. This one change in practice has meant thousands of dollars to the growers in the Northern Neck. In addition, a total of 1,069,000 plants were used from the 22 beds, sufficient to set 393 acres or over 2½ percent of the state's total acreage planted in canning tomatoes.

Specific information has been given growers and canners as to sources of reliable tomato seed. The results of the 1933 seed source trials were distributed to

both groups. It is interesting to note that of over 140 growers in the Northern Neck-keeping cost account record books, at least 90 percent of them were using seed in 1933 from firms whose seed showed a high record performance in the 1932 tests.

Six sources of seed plots were conducted as a part of the better seed program, comparing Manglobe seed from 13 different sources. Truthness to type ranged from as high as 99.5 percent to as low as 67.5 percent. Such a difference means dollars and cents to the grower selling on grade. Wilt index ranged from 8.6 percent to as high as 92.2 percent, thus emphasizing the value of good seed.

One hundred ounce packages of high grade tomato seed were distributed to tomato growers in several counties as part of the better seed program. Both the county agents and the specialists checked up on the performance of much of this seed.

Seed saving was stressed where the growers started with a high producing strain.

Two hundred and twenty-eight cost account records were started in cooperation with the agricultural economics department with tomato growers in 7 counties. It is felt that information gained from such accounts will be of untold value to tomato growers of the state. In 1932 cost account records were summarized and the data presented to advantage at all the tomato meetings.

Home Gardens.- Two hundred and twenty-four meetings, an increase of 38 meetings, or 32 percent over 1932, were held with a total attendance of 8,565. Total attendance in 1933 increased over 45 percent above 1932 attendance. Thirty-two 4-H garden clubs and 43 adult garden clubs were met with a combined total attendance of 2,422.

Fifteen leader trainer groups were met with a total attendance of 227. Average attendance at the adult garden clubs met was 23. Provided each of the 227 leaders who attended the leader trainer meetings justified her selection as a leader,

the leader trainer work succeeded in reaching 3,221 people in clubs throughout the counties in which leader trainer work was conducted.

Several canning contests were conducted throughout the state by the home economics department in cooperation with commercial concerns. Considerable aid was given contestants in Nelson, Northampton, Prince William, Fairfax and Madison counties.

Eight hundred and seventy-five packages of kale, spinach and mustard seed were distributed free to garden members and others. An effort was made to distribute the seed primarily to families who had not previously grown these greens. At least 400 families benefited from the distribution this year. At an average of 4 members to the family, 1,600 persons were directly affected by this service.

Practically every county in the state benefited from garden information in the form of bulletins and letters. Circular 2-263, Vegetable Gardening Suggestions for Virginia Farmers, was revised and reprinted. To date, over 60,000 copies of this circular have been distributed.

Sixteen circular letters were prepared on seasonal and timely phases of gardening, and 95,363 copies were distributed through the agents.

Twenty-eight press articles on the home garden were prepared and 12 radio talks on the home garden were given.

This department cooperated with the garden relief work conducted throughout the state, particularly in the counties having extension agents. A check-up in fifty-six such counties shows that 41,444 families received garden seed. The smallest number of families receiving seed in any one county was 17 while the largest number was 2,575 with an average of 740 families per county. The cost of the seed per family ranged from as low as 30 cents to as high as \$5 with an unweighted average per county of \$1.73 per family. In addition to seed, 12 counties furnished fertilizer

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and two counties furnished spray material. Thirty-two counties gave the seed outright; 21 counties required either partial or full payment for the seed at a cost in the form of work; and three counties sold the seed for cash at cost. Forty-five counties secured their seed from Virginia seedsmen while 11 secured their seed from out-of-state seedsmen. Twenty-eight vegetables were listed in the packages distributed. The number of vegetables per county ranged from as low as 4 to as high as 21 with an average of 12. Extension agents in counties feel that the garden relief work has been well worthwhile.

Horticulture

Unfavorable weather conditions and epidemics of disease and insect infestations required a concentration by extension specialists in horticulture on projects that would contribute most to solutions of these problems and to economic production of better quality fruit.

Spraying.- The demand for the spray information service, started several years ago, has continued to grow with an increase from the 40,000 spray cards sent out last year to 46,000 this year. In advance of the spraying season, an improved spray bulletin was prepared and distributed to 8,000 growers.

Emphasis was placed on the control of scab, rosy aphid and codling moth. The program included 5 one-day schools, 16 spray meetings and 81 method or result demonstrations. The attendance for the spray work was 1,250.

A concrete example of the growers' interest in the spray project is shown by the organization of a fruit growing committee in Roanoke county. The committee is permanent, meets regularly, and discusses mutual problems and latest information. It has arranged a number of method and result demonstrations. In August it organized a tour to visit and inspect the demonstrations and 150 people attended. The work has helped growers save from one-fourth to one-half on the cost of spray material. They now buy the most effective materials and save, along with other growers in the state, thousands of dollars each season. Oil emulsions in the Roanoke area formerly cost from 21 to 28 cents a gallon; they are now as low as 10 cents.

The outstanding individual accomplishment in the spray program was the assistance given by extension workers in determining a best method for equipping with spraying facilities a run down, neglected orchard of 250 acres located on a rough site. A stationary plant was recommended, requiring seven miles of pipe and an outlay of \$5,000. Of the 25,000 bushels of fruit harvested, more than 80 percent

was No. 1 and in a year when scab and aphid were at their worst.

Orchard Management.- The result demonstration orchards which have been established in the different fruit sections of the state are proving more valuable each year. Where good covers were turned under before 1929 and the orchards have been handled according to extension recommendations, crops have been more regular, yields have been higher and the trees have suffered little in recent drouth years. For example, a demonstration orchard near Woodstock produced for its owner more than 3,000 barrels of apples in 1930, 4,200 in 1931, more than 6,000 in 1932, and more than 4,000 last year.

These demonstration orchards are visited by growers from considerable distances. The extension service recommendations used in them call for a complete management program including spraying, pruning, fertilization.

During 1933, 354 advisory visits were made, 54 orchards were surveyed and 84 management plans made out. More than 90 orchards were seeded to cover crops for the first time. Fertilizer demonstrations totaled 85.

Pruning.- There has been a renewed interest in pruning as a result of the permanent pruning demonstration blocks established in a number of fruit sections.

Though only 200 demonstrations were held, the same number as last year, attendance increased from 1,200 to nearly 3,000

Thinning practices were helpful in combating a very serious rosy aphid infestation which caused some orchards to produce less than 5 percent No. 1 fruit. The county agent in Smyth county arranged a tour which took 25 growers to most of the commercial orchards in that section. Individual orchard conditions were discussed. The crop seemed doomed. On examination it was found, however, that if the injured apples were thinned off, enough would be left for a fair crop. Fifty-two thinning demonstrations were given with an attendance of 556. The growers started thinning immediately; recommendations were carried out. The cost to the growers was great; but every orchard which had been thinned packed out 75 percent or more No. 1 fruit.

Small Fruits.- Work in small fruit production, of itself becoming more popular with farmers, gained in importance with the possibility of using acres taken out of

basic production for growing small fruits. This work is also gaining favor among 4-H club members; one project netted \$60 from a quarter-acre plot of strawberries last season. Raspberries have brought good returns; a half acre in Lancaster county brought a profit of \$150 and two-thirds of an acre in Frederick county \$125. Twenty-one new plantings of raspberries were made in Fluvanna county in 1933; in the state a total of 19,000 new plants were put in.

Farm Forestry

Economic readjustments within the state placed the forestry extension work entirely under the extension division as of July 1, 1933, whereas it formerly was half-time under a state commission. A continuation of abnormal weather conditions, the limited market for forest products, and uncertainty as to how much the lumber and timber products ~~goods~~ would affect farmers have also had their effects.

The State forester offered to supply seedlings free of cost for 4-H club planting projects in five counties, and the offer was taken. Twenty-one boys in Campbell county each planted 1,000 trees. Halifax county planted 15,000. Charles City, New Kent and Nelson counties were the other three.

Reforestation as a step in the planned use of land was adopted on two large farms, one in Halifax and one in Loudoun county. Ten to fifteen acres were planted to trees on both farms last year, with plans to continue this rate until all waste land is reclaimed.

Forest improvement is being carried out as a county project on a 300-acre tract owned by Lancaster county. Diseased, crippled and inferior trees are being turned into fuel wood for relief purposes. Two other counties are considering similar projects.

A pulpwood project in Halifax county was completed to the satisfaction of all parties concerned. Contracts between farmers and a pulpwood plant had been made at \$6.00 a carload. Before one-fourth of the contracted wood had been shipped the plant shut down in the spring of 1932 for an extended period. It reopened in 1933 to offer \$4.00 for pulpwood, a price unfair to those who had not had opportunity to ship under the contract. A compromise was effected whereby those who had shipped a first car at \$6.00 were given \$4.00 for the second. Others were given \$5.00 straight through. The contract was fulfilled late in the fall of 1933. Negotiations for a second contract in Halifax and a trial order in Pittsylvania are under way.

Educational work through the office of the extension forester is being conducted with a view to the development of farm woodlands in this state along this five-point plan:

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1. Reforesting areas which should never have been cleared and areas which have deteriorated under improper farming until they are no longer profitable.

2. Rebuilding existing woodlands by seeding and culling.

3. Regulating the harvest of the forest crop so that approximately equal amounts are removed annually, or periodically, and indefinitely, resulting in sustained production and regular income.

4. Harvesting the matured crop in such a manner as to insure prompt and complete renewal of the forest.

5. Studying the market for forest products in order to foster better correlation between the requirements of those markets and the products of properly handled farm forests.

Animal Husbandry

Extension work in animal husbandry was largely confined to four projects: better sires, market lamb improvement, livestock marketing and meat work. Better sires and market lamb improvement projects have raised the quality of farm animals produced for market. The marketing project has aided producers selling their products more efficiently. The better utilization of meat on the farm has been handled through the meat project.

Better Sires.- The better sires project has for its object the replacement of sires of inferior breeding and individuality with good purebreds. Twenty-four counties enrolled in the project with twenty-three reporting. A total of 640 sires were replaced: 189 beef bulls, 389 rams, 62 bears.

To aid in the replacement of sires three bull sales were held with a total of 37 bulls sold; 7 bulls were sold at two breeders' sales. A total of 16 ram sales of various kinds were held, 289 rams being sold; 20 were also handled through exchanges. Three bear sales were held in two counties; 23 bears were sold.

Perhaps the most outstanding work in this project was done in Scott and Tazewell counties. J. E. Delp came to Scott county several years ago and at the time of his arrival there were very few registered sires in the county. Every year he has placed from 40 to 80 sires, the latter figure being the number for 1933. George Litton came to Tazewell county at the beginning of 1933 and placed 131 sires, the largest number ever placed in any one county in one year.

The placing of 640 sires in 1933 establishes a new record in this project which was started over ten years ago. A total of 436 placed in 1932 was the previous record.

Market Lamb Improvement.- The market lamb improvement project included the docking and castration of lambs, stomach worm treatment and creep feeding. There were 142,690 lambs docked and castrated in the twenty-three counties reporting in 1933, an increase of 39,341 over 1932. The value of the practice, conservatively estimated at 50 cents per head, was \$71,440, an increase of \$16,620 over 1932.

The same counties reported 134,004 sheep treated for stomach worms. Estimating the value of the practice at \$1 per head gives a value of \$134,000, an increase over 1933 of \$31,095. Very few sheep were treated until the practice was demonstrated by animal husbandry specialists and county agents about ten years ago. It has now become a part of every good sheepman's program. During the grazing season a total of 3,375 cards were mailed each month to growers advising them in regard to sheep treatment.

Creeper feeding is recommended in counties producing early market lambs. Due to this practice lambs reach market weight at an earlier age and in higher condition. Creeper feeding greatly increases the number of "red circles" (good to choice) lambs. Counties enrolled in the project creper fed 36,861 lambs. A conservative estimate of the increased value through creper feeding is 50 cents per head or \$18,431.

The total value of the three projects is \$257,575.

Cooperative Livestock Marketing.- The marketing project has not only proven a means of increasing to producers returns from livestock products but it has also become the basis of a sound production program. Producers become much more interested in quality production when they are paid what their products actually bring on the terminal market less expenses.

Assistance was given the United Wool Growers Association in its marketing program and to some pools not in this organization. A total of 941,027 pounds of wool was marketed through wool pools in Virginia in 1933, which netted growers \$272,239.77. The country price of wool was never over 20 cents before the pools started and probably would not have averaged over that figure had there been no pools. It is estimated that the wool pools increased the returns to Virginia growers a total of \$64,754.37. The total tonnage represented about one-half the wool produced in Virginia. Four lamb pools operated in 1933 and handled a total of 10,065 lambs. Based on what other lambs sold for in the country, the pools benefited producers to the extent of \$5,329.23.

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The department cooperated with the Division of Markets in the lamb grading program. During the 1933 season 14,015 "red circle" (good to choice) lambs were shipped to the terminal markets. The average price on the terminal market was \$9.62. In the same shipment there were 12,461 lambs below "red circle" standard. Grading is helping to establish a reputation for Virginia lambs, is keeping many unfinished lambs off the market and is particularly effective in teaching producers the market demand.

Assistance was given the Eastern Cooperative Livestock Marketing Association throughout the season. Virginia furnished 20.6 percent of the lambs received by the Eastern, 70 percent of the cattle, 17 percent of the calves and 6 percent of the hogs.

Virginia producers as a whole have been well pleased with sales and services of the Eastern agency. It has been instrumental in getting reduced freight rates, lower minimum weights on lamb shipments and a feeder and transit rate on cattle.

Meat Demonstrations.- Extension work in meat included demonstrations in cutting and canning beef and pork and in cutting and cooking lamb. Pork and beef demonstrations became of particular importance with low livestock prices and relatively high retail prices.

Pork demonstrations held in eight counties numbered 16 with a total attendance of 909. One beef demonstration was held with an attendance of 26. Practically all of the demonstrations included canning as well as cutting and curing methods.

Demonstrations showing the various cuts of lamb and cooking methods were put on in nine counties with a total attendance of 607. One object of the demonstrations has been to increase consumption through better utilization of the carcass and greater knowledge of cuts. Definite figures are not available but reports indicate as much as 100 percent increase in lamb consumption following the lamb demonstrations in some towns.

Dairy herd improvement through associations for advanced registry testing and through better sires and breeding was the aim of dairy extension work in 1933 as in years past. Because prices declined sharply and dairying in Virginia continued to expand, the lowering of production costs became more important than ever.

Dairy Herd Improvement Associations.- Economic conditions made further expansion of dairy herd improvement associations difficult, especially in those sections where milk was sold for manufacture. In fluid milk areas there was a tendency for testing work to expand, but this was not great enough to offset losses suffered in other sections. About one thousand less cows were on test this year, a decrease of approximately seven percent.

The association records were collected and analyzed each month and from these analyses specific recommendations were made to persons concerned. These records were especially useful in organizing the Virginia dairy markets under the Agricultural Adjustment Act. Valuable information from the records was given general press distribution for the benefit of all dairymen.

Herd culling was not practiced so rigidly in 1933 by Virginia dairymen. Low beef prices and the fact that milk and butterfat are the only source of cash income on many farms are regarded as the causes of this condition.

Better Breeding.- Increasing productive ability through breeding is regarded by dairy extension workers as one of the greatest problems on Virginia dairy farms. Consequently a long-time breeding and bull improvement project has been inaugurated and is operating to distribute good purebred bulls to displace inferior bulls, to organize and promote the Virginia Dairy Bull Improvement Registry, to conduct two-day dairy cattle breeding schools, and to encourage the construction of safety bull pens.

In 1933, 161 purebred dairy bulls were placed in herds in 25 counties, and 30 carefully selected bulls were found for herds needing better breeding. A cooperative bull association and breeding program has been started in Isle of Wight county.

The Virginia Dairy Bull Improvement Registry is a new venture which listed 50 bulls from seven counties in the first month. The registry is limited to dairy herd improvement associations where annual production records are available. It consists of five steps: entry of the bull, official inspection and rating as to type, official analysis and classification of pedigree, official proving by testing five or more unselected daughters in the dairy herd improvement association, and recommendation of proved sires to Virginia Dairymen's Association so that their owners may receive certificates of proficiency in developing meritiorially proved bulls.

Nineteen two-day dairy cattle breeding schools were held in 1935 and 678 dairymen representing 30 counties attended. Changes in dairy practices have been particularly noticeable in these counties.

The safety bull pen project was continued and 25 more pens added to those already built. Through this project the slaughter of bulls before they are proved has been greatly curtailed and it is felt that the dairy industry in Virginia will profit greatly from this work.

Results of herd improvement and better breeding work in Virginia are reflected in the report that 28 purebred dairy bulls were proved in Virginia in 1935. All but 5 of these increased production of their daughters over the production of the daughters' dams. Fifty-nine other bulls were partly proved, indicating that good breeding is gaining a foothold in Virginia dairying.

Dairy Manufacturing.- This project includes the improvement of the quality of cream, the standardization of dairy products and the construction and operation of dairy manufacturing plants.

Because of low prices and competition, creameries have discontinued the general policy of buying cream according to grade, which action means a setback to five years of efforts toward improving the standard of Virginia butter and a loss of thousands of dollars annually to both producers and creamerymen. On the other hand, quality cream continued to be emphasized by the extension workers, mainly through 15 cream producers' field days.

Lectures, illustrations, demonstrations, cream exhibits and cream judging contests reached 1,785 people through the program of these field days.

In the standardization work 170 samples of dairy products from 26 plants were analyzed, giving plant operators in some cases a check on their own analyses, in others a laboratory service lacking in smaller plants, and in still others instruction in analytical methods.

Assistance was given during the year in many plant organization and manufacturing problems with at least 25 plants benefiting from this work. Blue prints, cost estimates and direct help and advice were given in the construction and equipping of several plants.

Special attention was given this year to cooperation with three dairy breed associations in the state. Definite long-time programs were made out and adopted and a renewed interest in the associations has been found among the membership.

Poultry Husbandry

Poultry extension work in 1933 consisted largely of three major projects: the Calendar Farn Flock Demonstration, the Poultry Improvement Contest, and the Grow Healthy Chick project.

Calendar Flocks.- This work was put on in 30 counties with 110 cooperators who were enrolled as key men for their respective communities. All of these key men were visited by the county agent and most of them by a poultry specialist. Public demonstrations were held in 16 of the counties. Each month all records were collected, summarized and returned with timely suggestions to every cooperator. The annual summary of the whole project was likewise treated. This summary shows that 47 flock owners kept the 12-month record on 5,999 hens. The average production per hen was 141.63 eggs. Many of the cooperators have written expressing their desire to continue the work.

Improvement Contest.- This was carried on in seven counties. The first of the year the flocks enrolled were visited and scored and suggestions for improvement were made. Two other visits, one in the spring and one in the fall, were made to each contestant. At the end of the year the flocks were again scored and all improvements noted. Timely suggestions were sent to each flock owner each month. Many owners improved their flocks decidedly by using breeder pens and through the purchase at low cost of good male birds. High feed prices and low poultry and egg prices induced a close following of records. Of the 147 contestants, 75 increased egg production and made an average profit per bird of \$1.15. Twenty-two new houses were built and 50 remodeled.

Healthy Chicks.- Work on this project was done in 14 counties. Eight suggestions were provided cooperating poultrymen, of which the one calling for clean ground was the hardest to follow. At the end of the first eight weeks specialists visited as many cooperators as possible. In one county where 20 cooperators were visited it was found that most of them had a much lower percentage of chick losses

than usual. For the whole project accurate records on more than 12,000 chicks show a mortality rate below six percent.

Poultry institutes of one or two days duration were held in 15 counties. Some time was also given to educational work in marketing eggs and poultry. A state cooperative egg and poultry marketing association was organized in November.

Agricultural Engineering

Prevention of Soil Erosion. The Virginia extension division made application for funds from the \$10,000,000 appropriated by the Federal government for soil erosion control work under Public Works. It was planned to set up control units in some 30 counties of the state. Though this application was not approved, provisions have been made for a demonstration area of about 200,000 acres, on which all methods of erosion control will be practiced.

Terracing demonstrations were conducted in ten counties last year; 515 acres were terraced and 234 farmers instructed in this work. Two county schools and a 4-H club short course in terracing were also held. On the general assumption that terracing increases the value of land about \$5.00 an acre, the value of this service in 1933 would be about \$4,120. County agents report 7,391 acres terraced on 1,149 farms, or an additional value increase of \$59,128.

Farm Building Plans. Though cash on farms continued low in 1933 the demand for farm building plans continued heavy. More than 2,400 plans were requested and supplied as compared to more than 2,600 in 1932. More stringent dairy regulations caused an unusual demand in that year. Even at present low costs the value of buildings erected from plans furnished by the agricultural engineering department would be at least \$1,000,000. Planning services are generally figured at 10 percent, placing the value of this work to Virginia farmers at \$100,000. County agents have reported their services on 534 constructions and valued them at nearly \$19,000.

Plans and suggestions for using old buildings such as unused tobacco barns for poultry houses were offered last year and proved popular. Excellent quarters can often be provided in this way for 200 laying hens. Construction details for homemade brick brooders using farm-grown fuel were also widely accepted.

Interest in small cold storage plants and air cooled storage units is increasing, the latter providing economical but successful storage for fruits and vegetables with a view to extending the marketing season.

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Back-to-the-farm and other movements are creating a demand for small house construction. Much time and thought is being given to the preparation of carefully worked out plans which will provide inexpensive homes of attractive design to replace present slip-shod constructions. Special attention is being given to units which may be suitably and easily enlarged as more room is needed.

Farm Development Project.- Results obtained in the farm development project on 17 farms in Central, Piedmont and Eastern Virginia, together with the interest in the Tennessee Valley project, led to the selection of eight additional farms for this project in the Tennessee Valley watershed of Virginia. Farms typical of the section were selected and carefully mapped. Soil surveys of the individual farms are being made by the agronomy department. The agricultural economics department is making a farm management survey of each farm to determine the strong and weak points of the farming businesses and the proper relations of individual units to the whole project.

The primary purpose of this project is to improve the farm income by strengthening those phases which result in profit and eliminating those resulting in loss. Careful planning, cost reductions, proper use of labor saving equipment and the prevention of soil erosion are other features of the project. Results from the farms already cooperating in this project justify the belief that it may become an effective part of the extension program. The project is being conducted through the cooperation of the local departments already mentioned and the Bureau of Agricultural Engineering of the U.S.D.A.

Miscellaneous Activities.- In cooperation with the horticultural department demonstration work with stationary spray plants has been continued. Results show this type of spray system to be very economical and satisfactory in many cases and many requests for help in this matter have been received. A number of plants were designed for individual orchards this year and the demand for this service is constantly growing.

Orchardists are also becoming increasingly interested in irrigation and its value yearly becomes more apparent. For example, a system installed last year at a cost

of \$116 was estimated by its owner to have increased the value of the crop by \$360.

Some attention has been given to rural electrification and the use of electrical equipment, most of which is done in cooperation with public utility companies. In addition, 27 surveys for farm water power development were made; several of these projects are under construction.

Extension 4-H Club Work

Four-H club work in Virginia for the year 1933 has shown progress over previous years in almost every line of activity. In spite of the great demand on the agents' time in meeting the rapid changes in agricultural policies, club work has held its own and in many cases made substantial gains. At no time in the history of extension work has the attitude of the public been more favorable and its support to club work greater than during the past year.

The progress in club work has been remarkable and could not have been accomplished had it not been for the loyal cooperation of the local volunteer leaders. The demand for club work continues to grow with a bright outlook limited only by lack of finances necessary to employ enough workers to meet the demand.

In 1933, 4-H clubs were organized in 76 counties where farm or home or both farm and home agents were employed. These counties reported 1,085 community clubs with a total enrollment of 27,129 members conducting 31,689 demonstrations in agriculture and home economics. Reports were made on 24,326 demonstrations. This means that 76.6 percent of all demonstrations begun were followed through to completion and reports made to the county farm and home agents. The reports show a gross earning of \$414,344 from projects.

Of the 1,085 community clubs that were organized, 955 made complete reports of their activities, which reports show that the clubs averaged ten meetings each during the year. They raised \$3,803.43 and paid the expenses of 516 delegates to short courses. They trained 907 judging teams and 1,044 demonstration teams, held 342 leader training meetings and 62 achievement day programs, made 5,187 exhibits at fairs and won \$5,148 in cash prizes.

These statements give some of the more tangible activities of the community clubs. Many of the most important phases of the club work cannot be shown in dollars and cents. Through the 4-H clubs the members are taught program building, parliamentary practice, leadership, cooperation and many other things that tend to develop

a higher type of citizenship. As an evidence of the leadership training, there were this year 793 former club members acting as project and community leaders.

The 4-H short courses and camps were an important part of the summer activities. The total attendance at the short courses was 1,572 club members and 213 leaders. The state short course at Virginia Polytechnic Institute was the most important of these. Fifty-six counties were represented with a total attendance of 710.

Another important feature of 4-H club work was the excellent exhibits made by club members at community, county, district and state fairs, especially the exhibit at the Virginia state fair this year. For the first time in the history of the State Fair the entire competitive exhibit in crops and livestock was put on by 4-H club members. At the close of the fair the exhibit of baby beeves was shipped to the Baltimore Livestock Show, where the Virginia club members exhibited 68 calves and won 18 of the 30 prizes offered in the baby beef class. These awards included the nine highest prizes, three of which were breed championships and one the grand championship of the club show.

Agricultural Economics

A total of 149 enterprise accounts were started on potato farms in Eastern Virginia in 1933. Of these records 100 were closed, summarized and returned to farmers, as compared with 69 last year. These records are used to aid individual farmers in adjusting their business practices, as well as in outlook work, for which they have been used to good advantage.

A total of 226 tomato records were started in seven counties in 1933 and 165 records completed, compared with 90 records in two counties in 1932 and 63 completed. Individual farmers find these records valuable in helping them to adjust their business practices. The results of these records are also utilized by the horticultural department.

Poultry Accounts.- The extension division and the experiment station cooperated in distributing results of 246 records obtained on poultry farms during the period from September 1932 to March 1933. The cost summary of the poultry record and the labor income summary of the entire year's business were returned to each farmer. Average results were obtained and individual accomplishments compared with them.

Farm Inventories.- Requests were filled for 3,000 copies of farm inventory and credit statement forms which were distributed in 28 counties. These forms enable a farmer to arrive at an estimate of his capital investment and worth and to determine whether or not his business is paying dividends.

Farm Development Project.- In the fall of 1931 a cooperative farm management project was started on 17 farms located in eight Virginia counties. (This project is cooperative between the division of farm engineering and drainage of the U.S.D.A. and the local departments of agricultural engineering, agronomy and agricultural economics.) A visit is made to each farm each year and recommendations and future plans are fully discussed with the cooperating farmer. Each year a farm management record is obtained and thoroughly analyzed as a check on the results of the recommendations as they are being carried out. The farms are widely scattered and

serve as demonstration farms in typical areas of the state. During the past year eight new farms in five Southwest Virginia counties have been added to this project.

Livestock Marketing.- Members of the agricultural economics department gave educational assistance in organizing producers of livestock into a state-wide unit composed of an association based on community and county units, and in establishing more extensive and adequate producer-owned and -controlled livestock marketing facilities at the principal markets where Virginia livestock is sold.

Results of a research project previously conducted in cooperation with the Norfolk and Western railway were used by the marketing specialist in obtaining reduced rates for shipment of Southwest Virginia and Shenandoah Valley livestock.

Cooperative Purchasing Associations.- Considerable advisory assistance was given in the development of an integrated system of retail and wholesale cooperative purchasing associations which will be able to supply Virginia farmers with quality materials at minimum cost. The following organizations have been assisted: The Pulaski Cooperative Exchange, the Southern States Cooperative Exchange, the Pittsylvania Purchasing Association, the Augusta Cooperative Farm Bureau, the Virginia Truck Growers' Manufacturing Corporation, the Halifax Purchasing Association, the Hockingham Cooperative Farm Bureau, the Farmers' Cooperative Fertilizer Purchasers of Kenbridge, and the Planters Trading Company of Newport News.

Since the passage of the Farm Credit Act in 1933, much assistance has been given farmers in planning their production credit operations.

Dairying, Tobacco, Fruit and Vegetables.- An agricultural economist has spent more than one day a month of the past year in assisting the Norfolk Cooperative Milk Producers' Association, especially with membership problems. Every other milk marketing organization in the state has been given assistance in increasing the efficiency of its business organization.

The Virginia dark fire-cured tobacco cooperative marketing association was given considerable assistance during the past fiscal year.

The various fruit and vegetable cooperatives were aided in increasing the effectiveness of their program and in enhancing their business efficiency, especially the Southwest Virginia Cooperative Exchange, the produce markets at Williamsburg and Charlottesville, the apple orchardists in the vicinity of Harrisonburg, the tomato producers of Montgomery county and the strawberry growers of Northampton county.

Food and Nutrition

The production and preservation of foods that will make nutritious diets has been stressed. Three times more farms this year than last reported growing all food possible. Nearly 6,000 families planted a vegetable garden in 1933 for the first time.

Canned foods in 1933 were four times as great as in 1932: 5,000,000 quarts stood on rural shelves, representing a money value of \$1,144,640. Quantity was supplemented with well-balanced variety for 8,000 families having canning budgets.

Lack of cash to buy canning equipment has encouraged drying of fruits and vegetables. Consequently 237,600 pounds of fruits and approximately 235,000 pounds of vegetables were dried as a result of home demonstration work.

Through volunteer leaders this food preservation program was also extended into relief channels and nearly 15,000 relief families were helped with gardening and canning problems. More than 2,805,000 quarts of canned foods valued at more than \$547,490, and 151,608 pounds of dried foods were prepared by relief families.

Using Virginia Wheat.- Following the processing tax on wheat it was imperative that Virginia producers use their own wheat; but it was erroneously believed that local soft wheat could not be used to make good bread. A "use Virginia wheat" campaign was carried out in nearly every county. Demonstrations were given to show that excellent bread can be made from soft wheat flour. "Baking Day" is returning in Virginia.

Cheese Making.- During the past year 344 demonstrations were given on homemade American cheese. As a result 1,084 homes adopted the practice and 10,065 pounds of cheese were made.

Marketing Farm Produce.- Selling farm produce locally to increase farm income was practiced by 354 women and girls in 17 counties. Poultry and eggs, fruits and vegetables, flowers and baked goods were the main products marketed. The income from this work in 1933 doubled that of 1932. Homemakers cooperative markets the past year took in \$62,435, an average cash return of \$157 for each marketer.

Home Improvement

A larger number of people in more communities of more counties than ever before participated in home improvement work during the past year. This was true of both management and furnishing activities and the tremendous jump this work has taken is indicated by enrollment figures for 1930 and 1933. In 1930, 918 were enrolled in home management projects and 3,563 in home furnishing projects; in 1933 5,418 in home management and 5,336 in home furnishings. The percentage of project completions has also increased from an average of 80 to 85.

Home Management. - This work has developed the more rapidly of the two and has a new meaning and bigger possibilities for many women. The present enrollment represents 25 counties. Of the major projects adopted, home kitchens, good house-keeping, and saving and spending head the list. The past year 686 kitchens were improved, 108 sinks installed and 79 kitchens supplied with running water. Sixteen hundred homes replaced or added labor-saving equipment and 764 increased convenience through better arrangement. Along lines of economy 515 women kept household accounts, 1,408 used better buying methods, 5,918 found ways of cutting food costs, 3,651 cut clothing costs and 2,082 saved on operation costs. Improved housework schedules gave 1,221 women more time for leisure, recreation and to spend with their families.

Home Furnishings. - In this work 589 living rooms, 415 dining rooms, 625 bedrooms, 591 porches and 222 bathrooms were made more comfortable and attractive. Two thousand women treated windows, refinished walls, woodwork or floors. More than 3,400 pieces of furniture were reconditioned, 6,000 articles of furnishings were made and 2,000 bought for making the home more comfortable.

Approximately 1,600 of 15,500 4-H club girls enrolled last year chose home improvement as their project. These girls rivaled their mothers in learning to do much with little. Together, it is estimated that Virginia women and girls made a saving of approximately \$100,000 through home improvement achievements.

Clothing

The clothing program for the past year has been rearranged to fit the needs and conditions of the continued economic depression. Particular stress has been placed on renovation, remodeling and refurbishing. With little or no money to buy new clothes the women and girls have felt an urgent need of utilizing garments and articles on hand.

Making clothing budgets and wise buying have also had their share in the clothing work.

Twenty counties selected clothing as their major project for girls. There were 7,729 girls enrolled in the clothing work and while they carried on the regular program, they substituted remodeled clothes and garments made from feed bags for the new garments they had heretofore been making. There was a total saving of \$4,015 from this work. There were 849 who did all of their dry cleaning, thereby saving \$1,339.

Dress revues featuring dresses made from feed bags and sacks have been outstanding this year. "Barn your own dress" contests have been held in many counties.

The counties majoring in clothing for women have been few this year, but the need of special information on renovation and remodeling has been evidenced by the great number of calls for clothing clinics throughout the state. From March 2 to October 31 there were 23 general clothing clinics held by the clothing specialist. There were 493 women present and a total of 309 garments were remodeled. At these general clinics the women learned how to carry on clinics in their home communities. As a result a total of 7,155 garments were remodeled, representing a saving of \$14,497.37.

During 1935 many Virginia women and girls learned to buy less and more wisely, to do their own sewing and to renovate and dry clean clothes by inexpensive home methods. The aim of the clothing work for 1934 will be to help them to be well groomed and look up to date in remodeled clothes at a small cost.

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