

# UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE

Extension Division

THOMAS P. COOPER, Dean and Director

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CIRCULAR NO. 278

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ANNUAL REPORT

FOR THE

YEAR ENDED DECEMBER 31, 1934



State Champion County Group of Jerseys owned and exhibited by Christian County 4-H club members, Kentucky State Fair, 1934.

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Lexington, Ky.

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Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture, and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

LETTERS OF TRANSMITTAL

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Lexington, Kentucky  
January 3, 1935.

President Frank L. McVey,  
University of Kentucky

My dear President McVey:

I have the honor to present the annual report of the Division of Agricultural Extension of the College of Agriculture, University of Kentucky, for the year ended December 31, 1934. In this report will be found a statement of the various activities of the past year, a list of publications and a financial statement of receipts and expenditures.

Respectfully,

Thomas Cooper, *Dean and Director*

Lexington, Kentucky  
January 10, 1935.

Honorable Ruby Laffoon,  
Governor of Kentucky.

Sir:

In accordance with an act of the Legislature of the State of Kentucky, approved March 15, 1916, I herewith submit the annual report of the Division of Agricultural Extension of the College of Agriculture, University of Kentucky, for the year ended December 31, 1934.

Respectfully,

Frank L. McVey, *President.*

CIRCULAR NO. 278

**Annual Report of the Extension Division for 1934**

T. R. BRYANT, Assistant Director

The task of putting into effect the Agricultural Adjustment Act of Congress was placed upon the Agricultural Extension Service of each State. The Extension Service in Kentucky devoted itself mainly to that work during the year. In addition an earnest effort was made to carry on a regular extension program. About 30 counties that had not previously employed agents were added. These counties, their agricultural agents and the multiplicity of duties with the addition of the AAA program increased the burden of supervision. Specialists in animal industry, agronomy, dairying and other branches were taken from their usual extension work to act as supervisory officers to assist the county agents with the adjustment program. In addition five specialists were detailed to serve as county agents when other properly trained men were not available. Even with this heavy draft upon the personnel of the Division and the difficult position in which county agents found themselves, a creditable program of extension work was accomplished.

The county agents were forced to lessen their activities in the 4-H club program, the field agents from the 4-H Club Department redoubled their efforts so that there was little diminution in the 4-H club program.

The home demonstration agents in their counties increased their labor in club work. As a result club membership for the year was 23,876 as compared with 24,720 the previous year. The net loss was only 844. The percentage of completions this year was 78.4 as compared with 81.4 in 1933. Thus by strenuous effort, the losses in Junior Club Work were held to very small proportions. The Utopia Clubs for

older boys and girls enrolled 740 members. The district club encampments were attended by 2,100 boys and girls, about the same as the preceding year.

The exhibit at the State Fair was perhaps the best that was ever made by the College of Agriculture and the attendance at Junior Week at the University had to be limited again by the dormitory facilities of the University. There were 28 carload entries in the State Baby Beef Show and five additional counties showed smaller numbers. This was fully equal to previous performance.

The women's work showed an increase in practically all lines of endeavor and the reports of project leaders at their annual meetings, indicated satisfaction and enthusiasm.

Tho the adjustment program made heavy demands upon extension workers, a number of indirect benefits accrued to the community, in addition to the accomplishment of the adjustment work itself. Not the least of these indirect benefits was the discovery, recruiting and training of local leaders. These leaders, in discharging the duties of committeemen, rendered diligent service and also learned to assume responsibility, to meet criticism and to understand the importance and difficulty of the county agents' work. The people in the counties have come to realize that capable leadership exists in their midst and that when it is properly trained it can accomplish any reasonable task.

The curtailment of production aided extension workers in showing the value of quality. This is illustrated by the quality of the tobacco produced the past season. Tobacco growers have always had a tendency to crowd their barns. Curtailed production enabled extension workers to demonstrate to the producers that the quality of the product brings a greater net return than heavy production. One grower in western Kentucky who had installed the improved ventilator system in his barn had over 300 visitors who came to observe his method and learn of his results.

The extension service was called upon to cooperate with various agencies of the Federal Government in undertakings ranging from farm loans and better land utilization to relief activities. The extension service gave effective help to each of these endeavors.

The economic situation gave impetus to the live-at-home program which the University has sponsored for a number of years. That the farm should feed the family and provide a greater proportion of the necessities of living has become so evident that the idea needs no further promulgation by the University. However, all agricultural agents, including those in home economics, were taxed to meet the calls of farmers and farm wives desiring to put into effect home subsistence plans. This work accomplished a welcome saving of the slender cash resources of farm families.

#### COUNTY AGENT WORK

County agents devoted themselves mainly to the Agricultural Adjustment Work. This work was of such volume that county agents and supervisors carried abnormally heavy loads during the entire year. Reports are made for 112 counties this year, a net increase of 29 counties over 1933, and all but two counties in the State had some county agent work during the year.

Statistical reports of results of the program other than adjustment work, show a surprisingly small decrease in the total figures for the year. Only in demonstration meetings and farm visits was a noticeable decrease found, whereas in office calls and letters written the increase was about 500 percent above 1933.

#### AAA TOBACCO ADJUSTMENT CAMPAIGN

The tobacco and the corn-hog programs were announced almost simultaneously in December, 1933. It was necessary in Kentucky to select the program that should be carried on

first and give it undivided attention for the time being. As tobacco is the main cash crop in Kentucky, it was decided to complete the tobacco reduction contracts first. There were 76,528 contracts signed by tobacco growers, who received payments amounting to \$5,681,865 in 1934. Of these contracts, 58,733 were for burley tobacco and the rest were about equally divided between air cured and fire cured tobacco.

#### AAA CORN-HOG ADJUSTMENT CAMPAIGN

Tho late in starting, the corn-hog campaign developed rapidly. The county agents had been overworked for several weeks by the exigencies of the tobacco program; however, the corn-hog sign-up campaign was rapid and satisfactory. The results were 23,283 corn-hog contracts with payments in 1934 amounting to approximately \$222,764.

Tho 76,528 tobacco contracts were signed as opposed to 23,283 corn-hog contracts, there is no way of indicating the time spent by agents in furtherance of the work. Because of the complications and many delays of the corn-hog program, it is estimated that the signing of the 23,283 corn-hog contracts actually consumed more time than did the tobacco contracts. The expenses of the committeemen and other overhead for the corn-hog program in Kentucky amounted to more than \$8.00 per contract, which is much greater than the corresponding expenses of the tobacco campaign.

In addition to the corn-hog and tobacco contracts, Kentucky carried on the wheat reduction campaign, with 4,035 signers, and a cotton campaign in the southwestern part of the State, with 291 signers, making a total of 104,137 AAA crop reduction signers in Kentucky.

Supervisors in 1934 were of two classes, the Assistant State Agents, and the special supervisors. Six special supervisors were taken from their usual activities as extension specialists. These special supervisors had from ten to twelve

counties assigned to each in connection with the AAA program.

The following figures show some of the accomplishments for 1934 as compared with 1933:

	1933	1934
Counties with Agents .....	83	112
County Extension organizations .....	73	70
Membership		
Men .....	5,180	7,942
Women .....	1,073	5,228
Committees that built Extension programs .....	801	857
Community leaders in community-built programs .....	9,476	7,655
Leader training meetings .....	1,027	1,679
Attendance of local leaders .....	17,225	22,365
Meetings held by local leaders, not participated in by County Agents .....	3,374	5,841
Attendance .....	82,453	46,516
Meetings held by AAA leaders .....		4,133
Method and result demonstration meetings .....	2,691	1,802
Attendance .....	72,181	51,859
Other Extension meetings .....	7,634	8,370
Attendance .....	395,084	420,539
Adult result demonstrations started or carried thru the year .....	46,645	
Farm visits made by County Agents .....	56,687	30,389
Farms visited by County Agents .....	26,189	18,239
Office calls relative to work		
Office .....	127,463	655,185
Phone .....	64,806	173,542
Individual letters written .....	65,424	280,959
Total all meetings held by County Agents, including demonstrations, short courses, leader training meetings, etc. ....	14,862	11,851
Attendance .....	606,428	494,080
Livestock projects in 4-H Club work completed .....		
Dairy .....	900	415
Poultry .....	78,474	2,220
Sheep .....	2,653	359
Swine .....	2,813	1,047
Beef .....	593	359

## LOCAL LEADERS

In club work and in a number of established agricultural extension projects unpaid leaders are still used. In contrast a large number of the leaders used in the AAA program are being paid. This threatens to make it harder to hold the unpaid leaders in the future.

## HOME DEMONSTRATION WORK

During 1934, homemakers in 28 Kentucky counties studied homemaking under the leadership of the home demonstration agents. There was brought to the farmer and his wife, information and inspiration to aid them in their daily tasks. The county organization of women, known as the County Homemakers' Association, is composed of study groups of women in the various communities, known as community homemakers' clubs. Three hundred and fourteen clubs, in as many communities, with an enrollment of over 6,000 women carried on an organized homemaking program.

Emphasis is placed on the development of leaders in each of the various phases of homemaking. The specialist from the University trains the local leader who is selected by her club because of her interest and ability. The leader who lives in the community becomes a permanent source of help and information not only to her club members but to other women in the community who are not club members. In many instances the same woman has served as leader in one Department of homemaking for a period of years. She disseminates and has at her disposal information, bulletins and leaflets for distribution. Leaders in foods and nutrition, clothing, home management, home furnishings, canning, landscape gardening and recreation, serve in their respective fields. During 1934, 428 leaders' training schools were held with an attendance of 6,120 of whom 2,644 gave their services as group officers or project leaders. Thru their efforts, 24,805 farm homes reported changes in practices as advocated by the home demonstration program.



PROGRAM OF WORK

The projects studied in a county during any given year are determined by the homemakers of the county thru their advisory council. The choice of a county-wide major project is based on the needs and desires of the community women. Leaders trained by the specialists maintain the project. County minor projects give variety to the program. Special projects desired by special groups in the county, and special activities such as fairs, exhibits, tours, homemakers' and 4-H camps, community recreation, community improvement projects, charity, relief and many activities of a cultural and educational nature complete the program.

The major activities are divided into five main groups as follows: Foods and nutrition, clothing and millinery, home improvement, child training and farm family relationship, and recreation and community improvement.

FOOD AND NUTRITION

There are 14 foods and nutrition projects, each consisting of four lessons or four months work. Consideration is given to the production of food on the farm for home consumption as a means of raising the standard of living of the farm family of limited means. The farm family which produces an adequate garden, dairy products, including cream, milk, butter and cheese; poultry products, home-produced meats, honey and sorghum and home-grown cereals may live and live abundantly on a minimum cash expenditure of food. As a result of the work in home gardening, 3,658 families reported growing 12 or more varieties of vegetables. Two thousand one hundred and seventy-six families raised one new vegetable.

Thru the cooperation of the Dairy Department, 33 demonstrations were given in making cream cheese. Four thousand three hundred and twenty pounds of cream cheese were made and that not kept for home consumption was sold.



Homemakers receiving some of the pressure cookers used in the 1934 canning project in Fulton and Hickman Counties.

Consideration was given to production of food for sale. There are seven homemakers' curb markets by which rural homemakers may contribute to the family income thru the sale of home-produced foods and the products of home crafts. Some of these markets are in small centers with only four or five sellers. Nearly \$8,000.00 worth of produce was sold by small markets during the year. Henderson which has the largest and oldest homemakers' curb market sold \$4,279.48 worth of produce. This money is a means by which the farm family may procure added comfort and educational opportunities.

Preservation and storage of home-produced food for the non-productive months is always emphasized. Canning work was given in every county having a home demonstration agent and in 18 non-agent counties. Demonstrations were also given by the extension specialists in cooperation with the Kentucky

Emergency Relief Administration. In home demonstration counties members of homemakers' clubs canned 1,392,482 jars of fruits, vegetables and meats. Assistance was given to 14,684 families in their canning problems. One thousand one hundred and twenty-eight families actually produced and preserved their food supply through the guidance of an annual food supply budget. The value to the farm families of these canned products based on a minimum price was \$286,366.45. Better storage facilities for fall crops was emphasized as in previous years. One thousand and eighty-three families followed recommendations in constructing storage facilities, while 64 cellars were built and 992 storage mounds were constructed.

A new project known as "The Homemakers' Market Basket" is proving a boon to homemakers in the purchasing of food. Information as to standards of products, merchandising practices, sizes and weights of cans and containers, interpretation of labels, good marketing practices, all are means by which homemakers spend the food dollar more wisely. Five hundred and twenty-three families reported improvement in food buying.

The proper preparation and attractive serving of food is an art whereas the genial enjoyment of food around the family dining table is a social grace. Over 4,769 homemakers have reported improved practices in food preparation.

Keeping the family physically fit on a well planned diet and the correction of physical defects due to improper food is a popular project. Homemakers in Kentucky are exceedingly interested in the science of nutrition. Many families have reported improved health, fewer colds, greater resistance to disease, a general feeling of well-being and decrease in doctor bills thru better dietary habits. Such conditions as indigestion, chronic constipation, anemia, obesity and malnutrition have been overcome in many cases thru diet. Many homemakers

plan their meals with the planning of their gardens, their poultry and dairy projects and the home-produced meat supply. Meals are planned in advance to include the various food elements, minerals and vitamins to provide for growth, resistance to disease and general well-being. Special problems of child feeding and school lunches have been considered in several counties. Two thousand nine hundred and fifty families report serving balanced meals for the first time; 1,009 families report improving child feeding; 1,309 individuals report correcting such conditions as anemia, pellagra, obesity and constipation, thru diet; 19,463 families were helped in the food and nutrition project.



Homemakers Market, Christian County

#### CLOTHING AND MILLINERY

The clothing and millinery project has lightened the strain on the family purse. The homemaker is eager for information which will help her conserve the clothing dollar and enable her to be well dressed and well groomed. Homemakers welcome information in clothing construction because by this means better clothing at lower cost may be had. Making clothing at home necessitates information on selection of ma-

materials and patterns, the use and alteration of patterns, easy and accurate constructive processes, construction techniques, methods of fitting, etc. As a result of the clothing construction work carried on in counties having homemakers' organizations, 31,677 garments were made having a value of \$38,161.55.

The problem of utilizing used clothing is present in almost every family. Projects were offered in renovation and remodeling of clothing and millinery. Clothing was cleaned, dyed, pressed, mended, combined with other materials to reappear as the season's latest. Likewise hats were cleaned, dyed, reblocked and retrimmed at practically no expense. This past year 9,583 hats were remodeled and 1,046 new ones were made, both valued at \$6,425.70. Six thousand, eight hundred and three garments valued at \$12,146 were remodeled.

Women were taught to dry-clean silk and woolen garments at home. Three thousand eight hundred and sixty-four dollars worth of dry cleaning was done at home. The total estimated saving of the clothing work to the homemakers in Kentucky participating in the home demonstration program was \$37,793.50.

Homemakers were shown how to clean and keep in good condition their sewing machines. Three hundred and ninety-six machines were cleaned at a saving of \$1,192.

The problem of selecting line, design, color and material presents itself to every woman who buys clothing. The selection of ready-to-wear clothing is also a problem for the family purchaser. Four hundred and fifty-nine homemakers followed recommendations in clothing selection.

Homemakers in Kentucky have been much interested in the project dealing with grooming. It is a worthy desire to want to look one's best for one's family. A well-kept skin, well kept and attractively arranged hair, clean, soft hands

with well cared for finger nails are essentials of a well dressed, well groomed woman. Women were taught how to give a home manicure, a good shampoo, a simple home facial, how to arrange hair, something about the use and abuse of cosmetics, how to make some inexpensive, effective cosmetics such as hand lotion and dentrifices. Many reported that they could not keep a sufficient supply of the home-made hand lotion because the men and children found it so useful, particularly in cold weather. One thousand four hundred and sixty-three women reported improved practices in personal grooming.

#### HOME IMPROVEMENT

The home-improvement project includes home furnishing, home management and the improvement of the exterior of the home. Kitchen improvement is an important feature. Many women do not realize that they have inconvenient, unattractive kitchens. By the use of a score card for convenient, healthful, attractive kitchens, the homemaker can find wherein her own kitchen is deficient. The aim is that homemakers may have labor saving and attractive and well-equipped kitchens. Home-made equipment, its arrangements, and inexpensive home water systems were given major emphasis. In the year, 914 kitchens were improved and 1,101 families obtained labor-saving equipment. Homemakers, like others, often fail to appreciate the value of time. By a study of time-saving and energy-saving equipment, tools and methods, homemakers are beginning to consider time in its relation to housekeeping and the economic value of equipment which in turn bears upon the health, happiness and comfort of the family. Homemakers have learned that efficient methods of washing dishes, making beds, cleaning rooms and correct laundering save time for the enjoyment of the family, reading, self-improvement, community activities, etc. There were 752 homemakers with more time for rest and leisure pursuits; 373 homemakers who achieved greater

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cooperation among members of their families, 201 families followed schedules; 2,604 homemakers adopted improved methods of accomplishing household tasks or made time-saving equipment. Sanitary home improvements for the benefit of family health were made by 799 families. A project was based on the whole science of household economy. The homemaker was taught to maintain a business center, to keep her records



Out-of-door living room at home of Mrs. Will McLeod, Hopkins County.

of household business in orderly businesslike manner, and to keep accounts of her expenditures as a means of making future improvements in her spending practices. One hundred and eleven families kept home accounts; 712 families followed recommendations in buying and 47 budgeted expenditures.

#### HOME FURNISHING

The home-furnishing program gives consideration to the problems of the homemaker in making her home attractive,

comfortable and convenient for her family. The treatment of walls, floors and windows, selection and arrangement of furniture, refinishing and renovating of old furniture, selection and hanging of pictures, choice and making of accessories and certain home crafts were included in the home-furnishing program. The project develops in the women an appreciation of art, of line, color and design as applied to home furnishing, an appreciation of the need of beauty in the environment and an ability to utilize available resources to create beauty. Eight hundred and thirty rugs were either braided, hooked, woven or crocheted, most of them from old material; 5,428 accessories were made or renovated. These include lamp shades, fire screens, pillows, scarfs, dyed articles, partitions for dresser drawers, etc. Three thousand four hundred and eight pictures were rehung, reframed or reconditioned; 877 closets were made or improved; 6,604 pieces of furniture were improved by refinishing, upholstering, seating or slip covering, 5,412 windows were recurtained, 2,116 rooms were rearranged; 3,000 rooms were painted or papered; 2,022 floors were improved by refinishing.

Exterior home beautification has not been neglected. Improvements included painting, whitewashing, porch improving, providing out-of-door living rooms, improvement of lawns, walks, drives, cleaning up the premises, landscaping with shrubs, trees, flowers and vines. Results show 324 houses remodeled, 1,331 buildings painted; 1,901 porches remodeled, repaired, painted or refinished; 417 out-of-door living rooms provided; 1,721 lawns either made or improved; 4,606 premises cleaned up; 2,644 new shade trees set; 23,474 new shrubs set; 96 public grounds improved; 4,665 families growing annual flowers; 4,087 families growing perennial flowers.

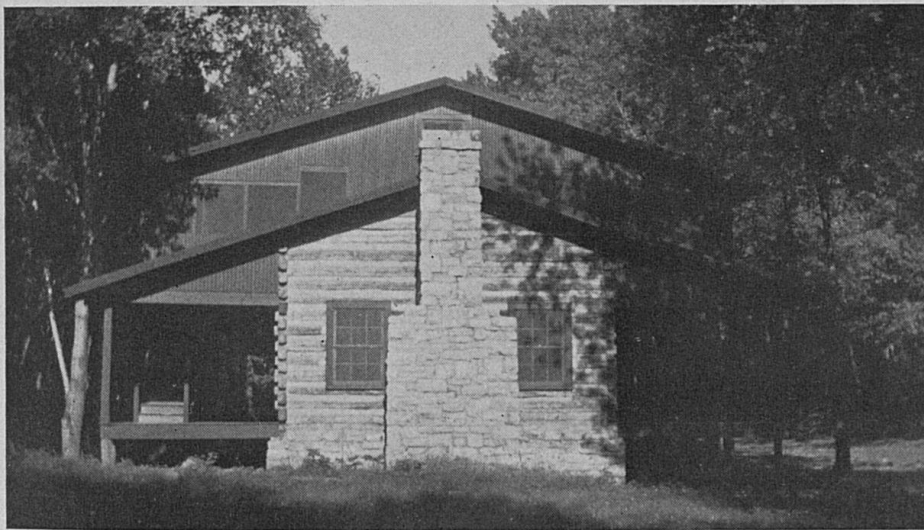
Child Training and Family Relationships were offered as special projects for parents. Altho this project did not reach a large number of people no other was of more interest to



those participating. The physical care of the child as a basis for emotional control is emphasized. Problems of habit formation, discipline, punishment and play were discussed in the first unit of work. Later the study was of the child's emotional reactions and the control of jealousy, anger, tantrums, shyness, fear and physical habits. Two hundred and thirty-eight parents reported their ability to improve the habits of their children thru the study of this project.

RECREATION AND COMMUNITY IMPROVEMENT

Leisure-time activity is part of the national recovery program, an endeavor parallel in aim with the leisure-time activities encouraged by the College of Agriculture among homemakers. Homemakers' clubs were encouraged and helped to provide short recreational programs at regular meetings and



Fahoma Camp, the homemakers camp built by the Fayette County Homemakers Association.

to sponsor other activities for the entire community. Dramatic clubs, choruses and music groups were encouraged. Help was given to provide inexpensive games for the home and community. A state-wide minor project in reading in the home

was launched. As a result, 522 social programs were held by homemakers' clubs for their communities and 2,027 social programs were conducted at club meetings. Nine homemakers' choruses and eight dramatic clubs were developed; 733 families improved home recreation; 110 families provided play equipment for the year; 288 families report creating a desire to read; 380 individuals report developing hobby for the first time or encouraging a member of the family to do so.

The homemakers' camp is part of the recreational program and provides for the homemaker a short vacation at small cost. Four district camps and one county camp were held with 369 full time campers from 19 counties in attendance. Camp offers the homemaker creative expression thru the handicraft



Welsh Choir. Part of the "Pageant of Other Lands" presented as a recreational program at Homemakers Camp.

program, recreation in the form of games, folk dances, stunts, music, camp fire and thru rest and relaxation. Entertainment is afforded by local talent while information and inspiration permeate the whole program.

Some community improvement project is a part of every well rounded club program. Much has been done to improve

public grounds, buy needed school equipment, provide community centers and rest rooms. Two hundred and forty-two communities carried on community improvement work.

Farm and Home Convention was attended by about 400 women who were sent as delegates from their respective clubs and who in turn reported the convention's program to their clubs. The event is a source of inspiration to the homemaker and becomes very far-reaching in its effect thru the reports of delegates.

#### KENTUCKY FEDERATION OF HOMEMAKERS

Members of homemaker's clubs in Kentucky have formed themselves into a state federation for the purpose of gaining greater recognition for the profession of homemaking and to foster the home demonstration program. The annual meeting of this group was held as a part of the Farm and Home Convention. District meetings were held in each of the five districts last spring, with an attendance of over 1,100 women.

#### JUNIOR HOME ECONOMICS

As a part of the home demonstration program, home-making projects for girls from the ages of 10 to 18 were carried on in organized groups. The junior projects include work in clothing, canning, foods and room improvement.

##### Clothing

The clothing work included four units of project work as follows: The home costume, the school costume, the afternoon or party costume, and the street or travel costume. In each unit the club girls learned to select the materials and to make the garments that they needed. All girls were required to keep a record of the cost of their garments, and the older girls were also required to make a budget for their year's expenditures.

There were 7,400 girls enrolled in 4-H clothing projects and 5,543 of this number completed the requirements. The garments made were valued at \$9,547.45. Much stress was placed on the negligible cost of making attractive and practical garments.

#### Canning

The canning for 4-H club girls is divided into four units—Unit I, Fruits and Tomatoes; Unit II, Fruits, Tomatoes and Vegetables; Unit III, Fruits, Tomatoes, Vegetables, Jellies and Marmalades; Unit IV, The Canning Budget and Canning for the Family's Needs. There were 1,835 girls enrolled in canning projects and 1,229 of this number completed the work started.

#### Foods

This project is divided into three units, breakfasts, suppers and luncheons or dinners. The interest in this work has increased from year to year and many of the agents are now regularly including this project in their 4-H program. There were 1,986 girls enrolled in foods work and 1,618 of this number completed the work.

In the foods project girls study not only food preparation but the serving of foods, something of table etiquette and the art of entertaining. They also study the food needs of the body and thru this project better food habits are developed.

#### Room Improvement

In the 4-H room project there are two units of work. Beginners may select certain units and in the second year, girls are required to complete the plans made for the improvement of the entire room. One hundred and forty-six girls were enrolled in room improvement this year and 89 girls completed their project work. The girls were encouraged to make improvements that cost very little. Many girls concentrated on

storage space and closets, as suitable and convenient places for clothing are the things most generally needed.

Home demonstration agents held 7,450 meetings with an attendance of 340,965 people. Local leaders held 2,678 meetings attended by 46,230 homemakers and 2,363 meetings for girls attended by 29,491 girls. The total estimated value of the productive activities in canning, sewing and home improvement was \$341,363.70.

#### 4-H CLUB WORK

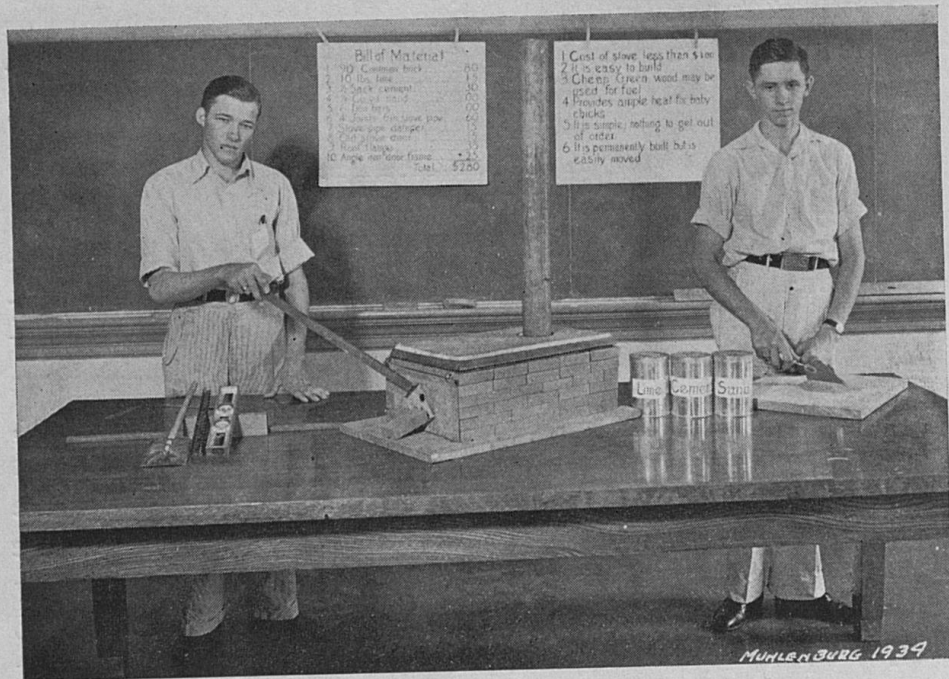
This year Kentucky's 4-H Club Work was in certain respects the largest it has ever been. The Agricultural Adjustment program required so much of the time of the county agents that it was impossible for them to give club work more than a fraction of the usual time. This situation, however, was anticipated and many county agents organized their clubs during the previous autumn and built their programs for the new year before the tobacco and corn-hog programs were launched. Where this was done, club work was satisfactory and up to the standard. The staff of the State 4-H Club Department undertook to supplement the work of the county agents with 4-H clubs. The members of the staff did a great deal of work that is usually done by county agents, such as assisting with the building of community 4-H club programs, training demonstration and judging teams, conferences with 4-H club leaders and officers and other details of club activities. The net result was that the enrollment was 23,876 and completion 18,729.

#### LOCAL LEADERS

Two thousand two hundred and seventeen adult local leaders and 442 junior leaders assisted with the 4-H club program. In this group of leaders there were 864 men and older boys and 1,795 women and older girls.

## JUNIOR WEEK

Five hundred and forty-six boys and girls from 84 counties attended Junior Week, June 4-9. This was an increase of 80 over last year. There were also 11 additional counties represented.



A 4-H club team demonstrating the construction of a brick brooder.

## DEMONSTRATIONS

Sixty-three county champion demonstration teams entered the state contest; 33 demonstrated in the Home Economics section and 30 in the agricultural section. These teams were selected from 280 teams that were trained in the counties.

## HEALTH CONTEST

The State Health Contest, held at Junior Week, continued to create a great deal of interest in health improvement among 4-H club members. This year 56 boys and girls entered the state contest. The champions Norvel Colbert and Elizabeth

Price, represented Kentucky in the National 4-H Health Contest held in Chicago.

BABY BEEF SHOW

Five hundred and twenty-seven baby beeves were put on feed by 4-H club members in Kentucky in the spring. As prices improved during the summer and feed went up in price, a number of these calves were sold. However, 469 were shown and sold in the State Show held November 15th. These 469 calves were fed and shown by 225 club members. The selling price was good and most of the club members made money. The 4-H boys again won the state championship on carlot exhibit in competition with the best adult feeders in Kentucky and Tennessee.



Entries in 4-H Style Dress Review, Junior Week, 1934.

TOBACCO SHOWS

Five district tobacco shows were held in addition to a number of county shows. The district shows were held at Shelbyville, Covington, Lexington, Bowling Green and Carrollton. The largest district show was held in Lexington. Ap-

proximately 125,000 pounds of 4-H club tobacco was exhibited and sold by 202 4-H members. The tobacco sold at an average price of \$18.63 per hundred. These shows are sponsored by the warehousemen and the tobacco boards of trade. The warehousemen state that they can see improvement in the quality and condition of the tobacco, from year to year.



Elizabeth Burton Cox, Madison County, 1934 Style Show winner.

#### DISTRICT 4-H CLUB CAMPS

Twelve District 4-H Club Camps were held. Two thousand one hundred club members, 252 local leaders and 7,785

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visitors from 90 counties attended these camps. This is the second largest attendance on record at District Camps and only 51 less than attended in 1933 which was at that time the banner year for attendance.

The camp program was similar to those of former years, except that all of the instruction was given by county and home demonstration agents, a plan started in 1933. Formerly specialists were employed to give much of the instruction, especially nature study and handicraft. The agents did this extra work cheerfully and many stated that they really enjoyed the closer fellowship with the boys and girls.

#### NATIONAL 4-H CLUB CONGRESS

Twenty-seven club members attended the National 4-H Club Congress, December 1-7. Kentucky had entries in the style dress revue, the canned foods judging contest, the non-collegiate livestock judging contest and two entries in the health contest. Norvel Colbert was placed in the top group in the Health Contest.

#### UTOPIA CLUB WORK

The number of older boys and girls engaged in Utopia Club projects was about the same as in 1933. The county agents could not give the usual amount of time to this activity and the field agent in charge of this work for the State was required to give part of his time to 4-H Club Work. The reduction in the acreage of crops and the number of livestock that could be grown on farms caused many older boys to seek work in town and on public work. They felt that the father and younger members of the family could do the work on the farm and they could add to the family income by other work. In one county club 26 of the 28 members got work in towns or in public work. Many Utopia Club members assisted the county agents in the administration of the Agricultural Adjustment program. Despite all of these obstacles, membership in the Utopia Clubs of the State held its own.

RADIO, SHORT COURSES, EXHIBITS AND  
VISUAL EDUCATION

The daily educational radio program was presented through the facilities of Station WHAS of Louisville, from extension studios on the campus of the University of Kentucky. Three hundred and eighty-six talks, 53 periods of questions and answers, a complete report on tobacco prices during the marketing season and one special program for 4-H club members were radiocast during the year. A gratifying response from the listening public indicates that these programs have a popular reception.

The twenty-second annual Farm and Home Convention held during the week of January 23, 1934, attracted a registered attendance of 1,175 persons from 73 counties. Excellent programs dealing with current problems affecting Kentucky farm and home life, were presented during the four days and were received with intense interest.

Short courses, varying in length from one day to a week of intensive training, were conducted on the following subjects: Turkey Raising, Dairy Manufacturing, Poultry Production, Cooperative Marketing, Landscape Gardening and AAA Compliance. For western Kentucky farm people a two-day short course was held on February 8-9, at the Western Kentucky Substation at Princeton, and a one-day summer field meeting, with a special separate session for women, was conducted at the same place on August 16.

The annual educational exhibit was made at the 1934 Kentucky State Fair. This exhibit which consisted of 12 booths, each illustrating the work of one department, and an extensive display of 4-H club products, was visited by 21,125 persons during the week of the fair.

PUBLIC INFORMATION

Information about the activities of the Extension Service, the Agricultural Adjustment Act, and the Agricultural Experiment Station, was supplied in the form of news stories to all newspapers published in Kentucky or having wide circulation in the State. News of the regular extension activities was supplied in a weekly news release, as in previous years, and was supplemented with such information about the Agricultural Adjustment programs as would be of help to all cooperating farmers. Rulings and interpretations in the various adjustment programs were given to the press, whenever they could be disseminated to advantage thru newspapers. The principal features of all programs were kept before newspaper readers. The press of the State gave full support in the work.

Approximately 225 newspapers received the weekly news releases, and most of them were used. Daily newspapers and press services were supplied with the spot news from day to day. A large number of newspaper mats and cuts also were supplied to newspapers.

AGRONOMY

SOILS

Figures compiled by the National Lime Association show that Kentucky ranked second among the States in the consumption of lime materials on farms during both 1932 and 1933. Pennsylvania ranked first in 1932, with approximately 187,000 tons of lime materials; Kentucky second with 175,000 tons. In 1933, Illinois ranked first, with approximately 185,000 tons used; Kentucky second with approximately 175,000 tons. Many Kentucky farmers continued to use lime materials during 1934. County agents' reports from 76 counties show that approximately 5,500 farmers used ground limestone, marl or burned lime during the year. These farmers used approximately 116,000 tons of ground limestone, 13,000

tons of marl and 3,300 tons of burned lime, or a total of 132,300 tons of lime materials. While this is less than was used in about the same number of counties in 1932 and 1933, yet many of the county agents have been so busy with the AAA work that, apparently they have not obtained as accurate data on the amounts of lime materials used during this year. The indications are that if accurate information had been obtained for the entire State the reports of the amount of these materials used in 1934 would have been equal to, if not greater than that for 1933.

Kentucky farmers have, no doubt, continued to use ground limestone during the depression years because ground limestone was cheap. Ground limestone is cheap because of a large accumulation of by-product limestone resulting from the large production of road material, and also because the small portable crushers are producing cheap ground limestone. The by-product limestone is now quoted at prices ranging from 20 to 50 cents per ton, at the plants and it is being given away at a few places.

Again, Kentucky farmers are using liming materials because they have found that liming their land enables them to get much more economical crop and pasture production. The State Department of Agriculture, with its portable crushers, produces considerable ground limestone in several counties.

Many farmers who do not have marl on their farms and who do not have money with which to buy ground limestone are burning lime. County agents' reports show that 513 men in 24 counties used 3,326 tons of burned lime and that 106 lime kilns were burned in 16 counties.

More than three-fourths of the land now being farmed in Kentucky is lacking in phosphate, as well as lime. Even the phosphates and other fertilizers have been high in price as compared with the price of farm crops, many farmers continue to find their use profitable. There were 350 superphos-

phate demonstrations carried on in 22 counties and 396 lime and superphosphate demonstrations in 28 counties this year.

Reports show that of the habitual users of the light applications of the lime-superphosphate mixture, 617 men in 26 counties used the mixture this year. Definite demonstrations of the value of light applications of lime and superphosphate were made by 254 persons in 16 different counties.

#### PASTURE IMPROVEMENT

Pasture work was given as much emphasis during the year as any other part of soils work if not more. It was a part of every county agent's program since pasture improvement and the sowing of lespedeza on poor land are inter-related. Pasture improvement was given great impetus because of the AAA program. Much of the estimated 350,000 acres that was retired from the cultivation of corn, wheat, tobacco and cotton, was seeded to pasture. A number of agents carried on demonstrations making use of limestone marl, burned lime and other fertilizers, used alone and in combination, on pasture. There were 451 pasture demonstrations made with soil amendments in 26 counties.

There are thousands of fields in the State on which more than 2,000,000 tons of lime materials have been used during the past 12 years. These fields have been seeded to sweet clover, alfalfa, red and alsike clovers, lespedezas, or clovers and grasses mixed, for pasture.

#### CROPS

Extensive sowing of land to legumes, encouraged in recent years by the extension field agents, was continued this year. There was a smaller sowing of red clover, alfalfa, sweet clover and soybeans but a much larger sowing of lespedeza than heretofore. In 1930 only two counties used as much as 100,000 pounds of Korean lespedeza seed. Six others used between

10,000 and 50,000 pounds, while others sowed 10,000 pounds or less.

The popularity of Korean lespedeza grew so rapidly that in 1934 approximately 8,000,000 pounds were sown. Most of the sowings stand three years or more. The primary purpose in sowing this crop is soil improvement. On land that previously produced from 15 to 25 bushels of corn per acre, corn yields are often doubled, following two or three years growth of lespedeza.

The second purpose in sowing lespedeza is pasture improvement. In all the more productive land areas and where lespedeza is best known, 90 to 95 percent of all lespedeza is sown in mixtures with grass. In the less fertile areas and likewise where cash for grass seed is not so readily taken from the farm income, only 15 to 25 percent of lespedeza is sown in mixture with grass.

The third purpose in sowing lespedeza is for hay and seed production. The lespedeza hay crop this year was approximately 1,500,000 tons. Harvest was stimulated by the prospect of good prices because of the drouth in other States. The farm value of the seed crop is perhaps less than three percent of the combined value of hay and pasture this year.

In 18 counties, 2,696 men harvested common lespedeza hay, 1,749 in 27 counties harvested Kobe lespedeza hay while 29,809 in 76 counties harvested Korean lespedeza for hay. These figures are from 79 counties. They report 582,948 tons of all lespedeza hay for home use and 544,530 tons for sale. All but six counties in Kentucky harvested Korean lespedeza seed. The total harvest amounted to 12,579,614 pounds. The pasture value of lespedeza is estimated at \$3,118,700. Sericea seed amounting to 106,531 pounds was harvested by 348 farmers. Two hundred and five men sowed 8,534 pounds of Sericea broadcast. Old stands of Sericea were used for hay and for pasture with satisfying results.

A very large lespedeza hay crop entered the market this year for the first time from Kentucky. Much of this hay was harvested by men of short experience with the crop. Hay was cut at stages varying from the time of early bloom until dead ripe. Many of the fields had weeds that could have been removed during the season or could have been prevented from growing. The results is that much of the hay is of low grades. The difference of one grade on the market lowers the price from \$1.00 to \$2.00 per ton. With better care of future crops, the quality of this hay will be raised. Proper care consists of cutting the hay at the early bloom stage, growing small grain in the lespedeza to prevent weed growth or mowing off the weeds in midsummer where small grain was not used, and proper storage after baling.

TOBACCO

The tobacco program followed the same general plan as in preceding years, and included projects in production, introduction of root-rot resistant varieties, curing, sorting and grading as well as tobacco barn improvement. Because of the stress of other activities very few agents were able to devote sufficient time to the program to obtain the most satisfactory results, yet reports indicated definitely increased interest in improved tobacco production practices by cooperators and also by growers who previously had not been interested. This interest no doubt was the result of well planned and executed demonstrations.

In one community, a modern ventilated tobacco barn was constructed in 1933 according to plans furnished by the College of Agriculture. Eight ventilated barns were constructed there this year. Some of these were new barns, others old barns repaired and ventilated. One large insurance company owning extensive farm lands built or repaired and ventilated over 40 tobacco barns according to plans provided by the College of Agriculture.

In another community, a grower who produced and cured a fancy crop of fire-cured tobacco in 1933, that sold for an average of \$20.00 per hundred, kept a register of farmers who visited him during the past curing season. Over 300 growers from eight counties registered. These visitors studied the barn and its construction and the method of tobacco curing. The number of ventilated barns in use in Kentucky is at least double the number in use one year ago. The organization of community and county control committees under the tobacco reduction programs has provided an excellent medium by which educational work may be conducted in the future. It is hoped the present advisory committees will function indefinitely, and that they, with the experience of the past to guide them, may provide the means of further improving tobacco production.

#### AGRICULTURAL ENGINEERING

The Agricultural Engineering Department continued to demonstrate the possibility of reducing production costs by draining wet land and by straightening natural drainage channels. Soil conservation may be achieved by proper soil management, by terracing cultivated land, by filling or checking gullies, by use of cover crops, grasses and other suitable crops. Adequate shelter for animals, machinery and crops continued to be emphasized as well as the proper adaptation of mechanical equipment to the kind and amount of work to be done. Farmers were also encouraged to build better farm houses and to equip them with sanitary conveniences and household aids.

During the year the Department worked on the regular agricultural engineering projects of drainage, erosion control, farm buildings, sanitation and 4-H club work, and assisted with federal projects as follows: CWA rural housing survey, CWA rural electrification survey, sample tobacco base acreage survey, rehabilitation work, tobacco, corn-hog and wheat compliance.



CWA FARM HOUSING SURVEY

The agricultural engineers assisted in setting up the organization for conducting the CWA rural farm housing survey which started December 18, 1933, and was completed on April 28, 1934. They also had charge of engineering work in connection with supervising the farm engineers who made the cost estimates of the improvements needed. Twelve counties were surveyed in connection with the farm housing project: Bourbon, Boyle, Calloway, Fayette, Fleming, Hardin, Hickman, Knott, Ohio, Oldham, Shelby and Simpson.

"The house is the center of family life, the meeting place of friends, and many productive activities are carried on there. The beauty, comfort, convenience, privacy and spaciousness of a house and its facilities contribute much to the joy of living and to the economic, social and religious development of people who inhabit it, and from which come the leaders in the community, State and Nation." The need for a program on rural housing in Kentucky is shown by data collected thru the surveys. Some of the outstanding facts revealed are: only 6.3 percent of the farmhouses have bathrooms; about 9 percent have kitchen sinks and drains; water has to be carried into 90 percent of the homes; only 3 percent have sewage disposal systems; 2.7 percent reported having a furnace and over 63 percent use fireplaces for heating. The average number of bedrooms per home was 2.6 and the average number of occupants 4.7. Twelve and three tenths percent of the houses were made of logs, and 47 percent were unpainted frame structures.

RURAL ELECTRIFICATION SURVEY

As a continuation of the CWA rural housing survey, a rural electrification survey was conducted in Fayette, Shelby and Hardin Counties. A final report finished in June consisted of the survey data, a map of the State of Kentucky showing the location of all the power stations and distribution

lines, and economic data which would be of assistance in formulating a rural electrification program. During October, another report was prepared on rural electrification conditions in Kentucky at the request of the chairman of the U. S. power commission.

There is no other vocation in which electrical service is more needed than in that of homemaking on the farm. Electrical service reduces the time required for household operations which may be spent in family activities, for recreation, for self-improvement, for church and community service or for carrying on enterprises from which an income is derived.

At present, of the 246,499 farms in Kentucky, approximately 3.4 percent are served by power lines and 2 percent by individual plants. The use of electricity will continue to grow as new hydroelectric plants are developed. As advantage is taken of such development so will farm life be made more attractive.

#### DRAINAGE

Thru better drainage practices 5,620 acres of land in Kentucky were redeemed. The major portion of the work was accomplished by the improvement of stream drainage channels. In Knox County 1,050 acres of land was made fit for cultivation by doing 23.9 miles of streamchannel work. Production may be doubled on an additional 900 acres that heretofore were too wet for maximum production. Drainage has improved not only the land, but also the morale of the people who own the land. With better surface drainage, underdrainage may be accomplished where needed. Sixty percent of the landowners whose lands were thus improved were on relief at one time or another since November, 1932. The lack of fertile tillable land is the chief cause of poverty among farmers in Knox County.



The productive capacity of farm land is often more than doubled by proper drainage. The tile drainage on this Knox County farm was possible only after a stream bed had been cleared and deepened.

#### EROSION CONTROL

The Department of the Interior, Soil Erosion Service, Washington, D. C., has placed all of Kentucky in a class, either with those areas where erosion losses are "most serious" or with those where erosion is "harmful and widespread." Thru the cooperation of the Emergency Conservation Work of the CCC and cooperating extension agencies, farmers of Kentucky have become more cognizant of their soil erosion problems. Greater emphasis has been placed on the need of land terracing, permanent pastures, contour cultivation, the protection of terrace outlets, reforestation and other factors. Twenty-eight thousand bushels of rye were seeded as a winter cover crop on sloped gully banks to prevent erosion until the trees become effective. County agents report a 50 percent increase in the number of farmers who terraced land and used other erosion control measures in 1934 and 1933.

## FARM BUILDINGS

The Extension Farm Building Plan service started in 1919, continues to be of valuable assistance to farmers. Upon request, 307 sets of building and equipment plans were sent to persons in 73 counties in Kentucky and 46 sets to farmers in other States. Six new plans were prepared and 104 tracings of exchange plans were obtained thru the U. S. Bureau of Agricultural Engineering, thus making 300 plans available for Kentucky farmers. Circular No. 111, which is a catalogue of these plans, was revised during the year. From it farmers may select plans suitable for any farm.



Eight modern, ventilated tobacco barns resulted from the construction of this tobacco barn in Caldwell County. Note the ridge ventilator.

Building information was furnished also thru correspondence, thru county agents and specialists, and thru 13 different extension circulars. Over 2,060 buildings and articles of equipment were improved by this cooperative service.

AAA WORK

In cooperation with the State Compliance Office, the Agricultural Engineering Division conducted a sample tobacco base acreage survey on 111 farms in six counties. The Agricultural Engineering Department supervised the measuring of areas seeded to wheat and the contracted acreages for 3,987 production control contracts covering 139,390 acres and supervised the training and checking of field work of approximately 1,200 supervisors, from 110 counties, who made the field measurements for the certification of compliance of acreage in connection with 76,528 tobacco and 23,283 corn-hog production control contracts. Methods for making field measurements so that the work might be sufficiently accurate and yet reduce the cost to a minimum, were prepared in cooperation with the State Compliance Office and the tobacco and corn-hog section of the AAA. Both tobacco acreage and corn acreage surveys were made by supervisors on only one visit to farms where both contracts had been signed.

One hundred and seventy-seven simple survey instruments for surveys of tobacco, wheat and corn fields were supplied county control associations thru the Agricultural Engineering Department at a cost of only \$1.72 each.

ANIMAL HUSBANDRY

The specialists in beef cattle and in swine production were assigned to Agricultural Adjustment work this year, but all the spare time possible was given to animal husbandry.

BEEF CATTLE

This was a favorable year for the cattle feeders of Kentucky. Those who had cattle of good quality and who fed them grain on grass during the summer made a substantial profit. These profits often exceeded \$20 per head above feed costs even tho the value of manure and pork was not included.

High quality paid better than in the past several years because there was a wider margin in the price paid for finished cattle of good quality than in that paid for plain cattle.

Cow-and-calf herds are still being kept and are increasing in number each year. There was a larger number of home-produced beef cattle in Kentucky last year than in any year during the past decade. Feeding grain to calves before they are placed on market is becoming a common practice. This practice has paid in each county where it has been tried.

Partial or complete records on about 80 of the demonstration herds which have been started in the last few years will be obtained. Records kept on 23 of these herds in Union County led to the following conclusions in regard to calves which are dropped in the early spring and are sold in the fall or winter. Herds of breeding cows maintained largely on unmarketable roughage and pasture are uniformly profitable. Grain feeding to suckling calves increases the returns from the calves. In Union County it was found more profitable to market calves at weaning time, as heavy fat calves, than to let them run as stockers during the winter and fatten on grass the following summer. In the Central Bluegrass Region calves with their dams, sold from \$5.50 to \$7.00 per cwt. These calves weighed from 575 to 750 pounds.

The practice of feeding grain to beef cattle fattening on pasture is on the increase in Kentucky. In Montgomery County, about 80 percent of the cattle feeders fed grain to cattle on grass. Three years ago very little grain was fed to cattle on grass. This change was brought about by extension demonstrations.

The purebred bull law which was passed in 1932 has increased use of purebred bulls and effected the improvement.

#### SWINE

Assistance was given in planning and holding a fat-hog show of about 700 animals, entered by both 4-H club mem-

bers and adult producers. The field agent helped in the judging. The show, now an annual affair participated in by entrants from three States, had its inception in Union County, when the county agent planned a county show. While arranging the local show, the county agent and the field agent, in consultation with stockyards officials at Evansville, Indiana, decided to hold the show at the stockyards, where the plan was much expanded. This show is a constant incentive to club members and adults, alike, to improve breeding, feeding and management practices.

The home-pork improvement program went forward this season. Twelve demonstrations with an attendance of 353 were given by the field agent. The work was taken into seven new counties. A large increase in the cash value of pork prepared for home consumption by the improved method was effected.

At the Kentucky State Fair a new contest proposed by the College was provided. The new classification was called, "Packer Type Specials." In these rings were exhibited breeding animals of the type most desired by packers, instead of the highly fitted animals usually exhibited. Extreme fitting frequently injures breeding animals. A packer acted as judge in order to acquaint exhibitors more perfectly with the types desired. This innovation will perhaps modify purebred swine shows of the future and increase their usefulness, as producers were enthusiastic in their approval.

At the State Fair methods of sausage-making and preservation were demonstrated.

#### SHEEP

The follow-up work on factors that affect the quality and price of lambs was carried on thruout the market season. This supplemented work done the year before, when 100,000 lambs on several Kentucky markets were observed. This work sup-

plied a large amount of first-hand information which will be invaluable in furthering the sheep improvement campaign. It also provided further evidence of the importance of selling lambs strictly by grade. With these results in hand, a special effort will be made to bring about improvement in the method of grading on some of the markets. Nine hundred and ninety-six purebred rams were placed with Kentucky farmers. Many of these replaced grade and scrub rams.

Twenty-eight purebred flocks of the Southdown, Dorset and Shropshire breeds were established. Two hundred and three of the ewes in these flocks were obtained from prominent breeders outside Kentucky, mostly from Ontario, Indiana and Ohio. The remainder were purchased from breeders in Kentucky.

The control of internal parasites of sheep, stomach worms in particular, was continued this year. Thru meetings and demonstrations, directions were given to many farmers as to the best methods of controlling parasites in their flocks. This is a work that will need to be continued in a systematic way for many years if this menace to the sheep-growing industry is to be kept under control.

Castration of ram lambs was strongly advocated again this year. While the majority of male lambs now go to market as wethers, there are still many farmers who do not castrate their lambs and who suffer a penalty in lower grade and lower price for their lambs. During the year the importance of these operations was emphasized thru news and magazine articles, radio talks, meetings and demonstrations citing the differential in price shown by study of market lambs on various markets during the past two summers. The failure of a few markets to provide a good system of grading has done much to retard the program. If these markets can be induced to cooperate, it will be only a few years until practically all male lambs marketed in Kentucky will be sold as wethers.



## DAIRYING

One-half of the product of Kentucky's half million cows is consumed as milk on farms or is made into farm butter. The half which is sold is second in value to no other agricultural product in Kentucky except tobacco. During the first half of the year conditions facing the dairy industry in the State were most depressing. Depressed prices because of uncontrolled overproduction during the growing season caused many farmers who were milking cows, to lose interest in their herds. A bumper hay crop in western Kentucky and prices forced up later in the year by the widespread drouth in other States revived the interest of dairy farmers.

Dairy extension work consisted largely of maintaining projects already under way without the assistance which ordinarily would be given by county agents to such educational projects. Particular emphasis was placed on obtaining and disseminating information on economical feeding, utilization of roughage and emergency rations. Farmers were reached thru demonstration herds, dairy herd improvement associations, general meetings, the radio and monthly news letters.

## DAIRY DEMONSTRATION HERDS

Thirteen demonstration herds completed records during the year. The herds were small and were located in marginal dairy sections. One hundred and four cows, tested in these herds, averaged 5,720 pounds of milk and 271 pounds of butterfat. The feed cost of the average cow in these herds was 67.60 and she produced an income above feed cost of \$55.18. Many more demonstration herds were started but because the county agent's time was taken up with AAA work, it was impossible to do the necessary follow-up work to complete the records.

## DAIRY HERD IMPROVEMENT ASSOCIATIONS

Membership in dairy herd improvement associations was satisfactorily maintained this year. The responsibility for hold-

ing reorganization meetings and signing up members for 1934-35 rested almost entirely upon the testers. During the year one bi-monthly association failed to reorganize completely but a new association was formed in Warren, Simpson and Logan Counties. At the close of the year 120 herds and 2,350 cows were on test compared with 77 herds and 1,994 cows on December 1, 1933. The following figures give a composite picture of herds on test in Kentucky dairy herd improvement associations:

SUMMARY OF ASSOCIATIONS, 1929-1934

Association	Avg.	Avg.	Avg. Lbs. of Butterfat Per Cow				
	No. of Cows	Pounds of Milk	1933-34	1932-33	1931-32	1930-31	1929-30
Oldham—							
Jefferson .....	354	9,040	344	339	328	313	273
Northern							
Kentucky .....	67	5,792	342	288	281	280	275
Shelby—Boone—							
Carroll .....	464	7,247	335	318	325	301	294
Bluegrass .....	395	7,349	310	289	301	290	289
Purchase .....	364	5,621	260	292	320	269	255
Dix River .....	424	5,175	255	338	305	273	-----
Average of all Associations		6,949	303	305	310	288	270

All associations considered, the average production of butterfat per cow in 1933-34 approximated closely the average for the preceeding year, i. e., 303 as compared with 305. In the Purchase and Dix River Associations, however, there is noted a rather marked lowering of average butterfat production in 1933-34 as compared with 1932-33. The reason is that new herds were placed on test in these two associations. In 1932-33 the Purchase Association was made up of 15 herds with 191 cows on test, while in 1933-34 the membership in the association was increased to 23 herds with 364 cows on test. The Dix River Association in 1932-33 had but 14 herds

and 276 cows on test while in 1933-34 this association was expanded to include 27 herds with 424 cows on test.

The expansion of these two associations brought in new herds which had not previously been on test and whose owners had not profited by the experience to be gained through dairy herd improvement associations. Many of these new herds were, therefore, low-producing herds which tended to lower the average production of all cows in these two associations.

Three more sires were proved with unselected dam-and-daughter comparisons during the year, making in all 16 such sires in the State. More dairymen and breeders showed an interest in proved sires than ever before. There is a real need for more breeding schools and an enlivened interest in the cooperative ownership of bulls. Arranging for exchange of promising sires among association members saved many members money and at the same time assured these herds the use of better sires. Several of the larger breeders are for the first time, taking an active interest in this program.

#### GENERAL DAIRY PRODUCTION

Milk schools, leaders training meetings, dairy marketing meetings, radio talks, fair exhibits, news stories and the monthly news letter were used to teach improved dairy practices.

At the urgent request of the local dairymen who furnish milk to Lexington, the College of Agriculture helped to effect a permanent cooperative bargaining association called the Lexington Graded Milk Producers Association and in the effort to solve local milk marketing problems assisted in conducting a survey of two milk-producing areas.

#### CREAM QUALITY IMPROVEMENT

Three phases of this project have developed during the year. First, the four-day delivery plan of buying cream in stations was continued in 35 counties in western Kentucky. In

this territory cream sold within four days of the producer's previous shipment and free from objectionable flavors and odors, commanded a higher price because of better quality as compared with cream sold at intervals of more than four days. One is known as "premium cream" and the other as "regular cream." The following summary indicates that real progress has been made in improving the quality cream at stations in western Kentucky:

	Percentage of "Premium Cream"
1929 .....	46.9
1930 .....	51.0
1931 .....	57.5
1932 .....	70.6
1933 .....	75.6
1934 .....	70.2

Second, for a short time during the year, creameries buying cream in the four-day territory tried grading all cream purchased, on the basis of time delivery. However, because some creameries which bought in the same territory refused to cooperate, the attempt to raise the cream standard was ineffectual and was given up.

Third, to acquaint cream station operators, merchants, haulers, field men and other handlers of cream with the nationwide movement to improve the quality of cream used for butter manufacture, 26 meetings were held. Practically every person in the State who deals with cream after it leaves the producers attended one or more of these meetings. In the group were 840 cream station operators and much was accomplished to clean up stations.

#### FARM CHEESEMAKING

Farm homes were reached thru the home demonstration agents and their local leaders. Local leaders in a given county attended the demonstration of the field agent in dairying and in turn each gave a demonstration before her local club. Thirty-

three demonstrations were given by the leaders in six counties. Reports show that 4,320 pounds of cheese was made in farm homes in these counties. Much interest was reported in this work.

POULTRY

The development of poultry as a principal source of farm income in certain favorable sections of the State and the development of more efficient production among all farm flocks was the Department's goal, this year as in former years. The replacement problem continues to be one of the major considerations in profitable poultry production. Demonstration flock reports show that the average mortality among layers for the years 1933 and 1934 was 20.7 percent. Therefore, the Clean Chick Program, the salvation of the flock owner, was much emphasized. The five points of this program are (1) chicks from pullorum-free flocks, (2) clean, waste-proof equipment, (3) clean range for the growing flock, (4) balanced rations and (5) sanitary management practices.

A summary of the uniformly gratifying results obtained in the clean chick program and of the results which were obtained during the two previous years is interesting.

	1934	1933	1932
Total number chicks started .....	12,059	4,919	6,417
Total number chicks lost .....	807	307	330
Percent of chicks raised .....	93	94	95
Pounds of feed per chick .....	6.9	6.67	6.2
Cost per chick* .....	20.1c	17.5c	19.1c

\*Does not include the cost for labor, interest on money invested in chicks, buildings, equipment, depreciation, insurance, taxes and the like.

It should be noted that the cost per chick this year was greater than in the previous years because feed was much higher. The 1932 cost per chick was greater than in 1933 largely because of greater fuel costs. More brick brooders were used in 1933 and wood from the farm was used as fuel with vir-

tually no cash outlay. The use of green hardwood as fuel in homemade brooders did much to cut the cost.

Twelve cooperators continued to keep records of the production of their pullets from the twelfth to the twenty-sixth week of age. A summary and comparison of this year with the two previous years follows:

	1934	1933	1932
Total number of chicks started .....	4,083	2,806	4,139
Percent raised .....	93	90	91
Number of pullets at end of 26th week ...	1,277	714	1,314
Pounds of feed per pullet .....	20.9	23	25
Income from broilers and culls, dollars ...	2,080.07	613.09	1,064.24
Expenses for feed only, dollars .....	1,278.30	669.26	1,049.77

In 1932, 1,314 pullets were carried to 26 weeks of age and all feed costs were offset by receipts from the sale of cockerels and surplus pullets as broilers. The net feed cost per pullet (at 6 months) was nearly eight cents in 1933 and approximately 15.5 cents in 1934, a difference in cost which was not compensated by the price of poultry meat.

The demonstration flocks showed a fair labor income despite the low selling price of poultry and eggs. The following is a summary of demonstration flock records for the past 14 years.

Year	No. Hens	No. Flocks	Eggs Per Hen	Feed Cost Per Hen	Labor Income Per Hen
1920-1928	65,000	700	135	3.45	\$2.00
1928-1929	8,979	87	149	3.53	2.45
1929-1930	14,364	126	143	2.85	1.47
1930-1931	11,978	127	146	2.24	1.19
1931-1932	10,560	110	158	1.52	1.19
1932-1933	7,767	80	148	1.79	1.09
1933-1934	10,107	74	164.8	2.09	1.21

During the last two years there was a considerable increase in feed cost over 1932. Despite this, the labor income per hen was increased from \$1.91 in 1933 to \$1.21 in 1934. Throughout this period of 14 years chickens have never failed to return

a fair income to their owners, not even during lean years, if the flock was cared for properly.

Economical production was advocated in all demonstrations and meetings thruout the year. The use of homemade appliances such as the brick and double barrel brooders which burn green hardwood, and the home mixing of poultry feeds resulted in the saving of thousands of dollars to Kentucky poultry raisers during these difficult times. The place of chickens in the Live-at-Home program was kept constantly foremost. Flock owners were encouraged to use and save for home use, the smaller eggs and the types of poultry that would not command the best price on the market.

Hatcherymen were saved several thousand dollars by learning thru the extension program how to tell the sex of chicks. Commercial sexing schools being conducted at that time charged a fee of \$75 to \$100 for each person attending.

During the year 167 meetings were held, with a total attendance of 4,915. Poultry talks were given during the Farm and Home Convention and at the Annual Poultry Short Course. The field agents in poultry judged the poultry 4-H Club demonstration contest during Junior Week, conducted judging contests of the poultry 4-H Club members at the State Fair and judged 20 poultry shows. Approximately 200 farmers attended the Poultry Field Day at the Experiment Station. A total of 612 visits were made to demonstration farms and 306 visits were made to other farms. Visits were made during the year to 85 hatcheries.

Poultry improvement work was carried on thru the Kentucky Poultry Improvement Association. The 1934 membership in this association was divided as follows: 1,500 accredited flock owners, 15 accredited hatchery owners, three certified hatchery owners and 68 certified flock owners. The accreditation work was largely done by the 50 inspectors licensed by the Experiment Station. Certification work was done by the

field agent in poultry improvement, who also supervises the hatcheries and the 50 licensed inspectors. Approximately 1,000 males from dams of 200 eggs or more were used by association members during the past hatching season. The three certified hatcheries used hatching eggs from flocks mated only with pedigreed males and three or four others intend to adopt the same plan in the near future. Fifteen flocks were taken under the Record of Performance supervision. The association and the extension service correlate their aims and programs for the mutual benefit of all concerned. The field agent of the Kentucky Poultry Improvement Association is appointed by the University and is a member of the staff. Two of the poultry agents were assigned to AAA work.

#### VETERINARY SCIENCE

Poultry diseases and the control of various animal parasites continue to be pressing problems. Educational work in this branch is based more upon sanitation and management as means of preventing disease, than upon the treatment of animals already sick. Cooperation with practicing veterinarians and hatchery men and the members of the University veterinary staff was very close. The counsel and advice of the extension veterinarian was sought by practicing veterinarians and hatchery men with increasing frequency. All certified hatcheries now require the slow tube agglutination test for pullorum disease. The extension veterinarian was able to get an agreement upon a uniform price for agglutination testing by laboratories and by this means removed the cause for much dissatisfaction among poultrymen. Tests during 1934 showed less than five percent of diseased hens as compared with 20 percent a few years ago.

Cooperation was given the AAA program of testing for Bang abortion disease. It is notable that in certain counties where educational work was done by the extension veterinarian, scarcely any reactors were discovered.



The work undertaken dealt with diseases of all classes of livestock and poultry and was conducted according to four principal projects:

1. Prevention and eradication of transmissible diseases.
2. Prevention and eradication of animal parasites.
3. Farm sanitation and herd management.
4. Sanitation and eradication of parasites and disease among poultry.

SUMMARY

Farm visits .....	379
Consultations with veterinarians and county agents .....	208
Visits to laboratories testing for pullorum disease .....	9
Hatchery sanitation visits .....	58
Counties visited .....	53
Postmortem and other demonstrations held for the purpose of diagnosing disease .....	95
Persons attending demonstrations .....	624
Meetings held .....	74
Total attendance .....	2441

HORTICULTURE

LANDSCAPE

Half the time of one field agent is devoted to extension work, the other half to resident teaching. Part of his extension time in 1934 was devoted to the Agricultural Adjustment program. The landscape project so far as adults were concerned had to do with the improvement of property, private and public. The goal is to have the home grounds on every farm so arranged as to give the greatest possible satisfaction.

Gradual increase in the number of demonstrators and expansion of work to at least two new counties was the goal for the year. Each part of the work was conducted in 39 counties. The junior work was concerned with Utopia Clubs in

all sections and with 4-H Clubs in eastern Kentucky. This was continued because of the increasing interest among the young peoples' clubs both Utopia and 4-H. Work with the home demonstration agents was carried on by local leaders who took the information to local homemakers clubs, by result demonstrations. Tours were conducted in five counties.

The major portion of the landscape work is reported under the Home Demonstration section, but assistance was also given thru county agricultural agents. In 17 counties 188 Utopia Club members worked on landscape projects. The work was particularly successful in Henderson, Daviess, Boyle, Oldham and Jefferson Counties. All counties that have carried the project desired to have it continued and many new counties have requested it. New territory will be added as fast as facilities permit. Five radio talks, nine special meetings and 12 news articles supplemented the work.

#### POMOLOGY

Work in Pomology was carried on chiefly with adults and was confined to the commercial small-fruit growers and orchardists.

#### SMALL FRUIT

Educational programs on variety selection, cultural methods, spraying, harvesting, grading, packing and marketing were conducted thru cooperative marketing associations. The work was carried on in 25 counties.

Six thousand strawberry and raspberry growers were helped and since the demonstrators obtained superior results, the extension service is said by the growers to be indispensable. Seven field strawberry grading demonstrations were held and 12 demonstrators used a legume rotation with strawberries. One hundred and twenty-five tons of grapes grown in Jeffer-

son County were packed and marketed in an orderly manner for the first time, largely due to the efforts of the College of Agriculture.

#### ORCHARDS

This work was conducted in 28 counties. The program included orchard management, codling moth control, grading, washing, packing, air-cooled storage houses, rodent control and a campaign for scab control. The factors that determined the nature of this project were the need for improved practices and need for cooperation. One hundred and twenty orchardists in five counties followed recommendations. Monthly meetings were held and timely service letters were sent, from time to time. Because of the practical failure of the peach and apple crops, no records are available. Orchard work in 23 counties consisted of field demonstrations on pruning, spraying and use of fertilizers. The ultimate goal is to make fruit growing a stable and profitable industry in Kentucky, and the immediate objective is to establish the use of at least one improved practice in each fruit section.

Where cooperative marketing associations existed, they were used to facilitate the work. There were 10 incorporated associations this year. Demonstration leaders were selected and leaders' meetings were held. Later a tour was conducted to observe and discuss the results obtained by the demonstration. In connection with each tour a general meeting was held.

#### TRUCK CROPS

The production of potatoes was continued as a major project, both in the recognized centers about Louisville and Lexington and also in the mountain counties where potatoes for supplying local markets have become an important side crop. In the larger producing centers, stress was placed on using high-nitrogen fertilizers to promote earliness and enable

early marketing so as to avoid the price drop that always occurs in August. Eight demonstrations in Jefferson, Oldham and Fayette Counties showed an average gain in earliness of eight days. In 12 mountain counties, 38 meetings were held, which 894 men attended. In four counties where plantings were made on a commercial scale, 35,100 bushels moved thru regular channels, and realized \$31,596. In the rest of the mountain territory, merely enough potatoes were sold to defray cost of seed and fertilizer for home-supply plantings.

Wider planting of the "French" potato for home winter supply was advocated. Over 1,200 farmers used this variety, and 610 reported that the yield was from 21 to 47 bushels per bushel of seed. Storing experiments showed that a cellar is not needed, but that merely "greening" them in farm buildings is sufficient.

In Jefferson County, 65½ acres of seed potatoes were certified, with a yield of 9,110 bushels.

Four sweetpotato seed treating demonstrations were held which 420 men attended. Wider use of commercial fertilizer was recommended.

The growers of tomatoes for canning were met in eight "tomato schools" which 447 men attended. Twenty-six demonstrations of proper mixing and application of sprays were held in which 341 men participated. Eight fertilizer demonstrations with canning tomatoes returned a net profit of \$3.24 for each dollar expended for fertilizers.

The work with home gardens was merged with the State Relief Program. Assistance was given in organization, administration and in preparing incidental literature, also in instructing groups of FERA workers of all kinds. Three series of group meetings were held, 58 meetings, with a total attendance of 19,399 persons. The cash investment on the part of the FERA was \$1.10 per garden and the average re-

turn per garden was \$20.00. Thirty-eight weekly garden news articles were released to the Press, and nine talks made over the radio.

#### FARM ECONOMICS

The central objective of the extension work in Farm Economics was the education of farmers in business organization and practice to the end that they might achieve better net profits and a more satisfactory standard of living for their families. To attain that objective, five main projects were started namely, farm accounting, farm inventories, group business analysis surveys, enterprise accounts, farm reorganization and budgeting.

#### FARM ACCOUNTS

In conformity with the program of the National Agricultural Adjustment Administration, 30,000 copies of a special record book prepared by the AAA for the purpose of recording data necessary in the crop and livestock adjustment programs were distributed to contract signers with full directions for use.

In the detailed farm accounts project, the records of 251 farmers who kept detailed financial records of their business, under supervision, in 1933, were summarized and interpreted by the field agent in farm management who made recommendations to each farmer concerning steps for the improvement of the farm business. A group analysis and report of detailed financial records was made for each of 10 groups of farm record cooperators. These were made in Kenton, Owen, Taylor, Jefferson, Washington, Todd, Simpson, Union, Graves and in Fayette and contiguous counties. Every farmer in this project had an opportunity to compare his organization and efficiency with that of the most successful operators in the locality, of his type of farming, and this comparison showed

the strong and the weak parts of his business and the changes which were needed. During the year 500 Kentucky Farm Account Books were placed in the hands of farmers keeping detailed financial records and these books were closely supervised.

#### FARM INVENTORIES

During the first week in January, designated as Farm Inventory Week, radio talks were made daily on the subject of farm inventory and its relation to the farm business. Approximately 2,000 farmers received specially prepared books for the purpose of taking their inventories.

#### COMMUNITY FARM BUSINESS ANALYSIS SURVEYS

In addition to 10 area reports, farm business analysis surveys were made in 10 communities and included a detailed analysis of the businesses of 333 farm operators. For each of these operators a summary of his own business and a community summary was furnished. This project showed for the individual farmer and for the group the most important factors of profitable farm management. One hundred and three of these businesses analyses were made in Taylor, Green and Adair Counties on farms upon which the first analyses were made in 1926, and from this group analysis a circular was prepared showing the changes which had occurred in the business of these farms and the value of accounts to their operators during the seven-year period.

#### ENTERPRISE ACCOUNTS

In an enterprise-accounting project with the owners of 81 flocks of sheep, each owner kept a detailed record of costs and returns for the sheep enterprise. A summary was made and returned to each cooperating farmer, showing the important factors which affected the net returns from the flocks in the project and for the flock of each individual operator. The

sheep enterprise records are being continued and will be summarized again, and the summaries returned to the cooperating farmers.

Continuing the assistance in dairy enterprise costs analyses which had been given to dairy farmers in Boone and contiguous counties in the Cincinnati area, a special analysis was made of the feed cost in milk production. This showed that the cost of the feed used in producing 100 pounds of milk had increased 58 cents during the past year and a half.

In the farm budgeting and reorganization project, 20 budget demonstrators were supervised and three new budget demonstrations were put under way. In connection with the budgeting project, data were prepared for a subsistence farming program for eastern Kentucky and one for western Kentucky. In each case there were included the acreages of crops grown and the estimated receipts and expenses of the farm set-up.

Twelve special meetings were held during the year at which the principles underlying profitable farm management were discussed. One hundred and ninety farmers attended these meetings. Seven talks on farm management were made over the radio.

#### RURAL SOCIOLOGY

The projects receiving most attention in Rural Sociology were those dealing with readjustments in land utilization and rehabilitation of families living on submarginal land and work with rural ministers and lay religious leaders in rural communities.

The work done with families on submarginal land during the previous year was largely instrumental in bringing about a decision on the part of federal agencies to undertake a program of rehabilitation in such areas. The Federal Govern-

ment in the spring of this year undertook a project involving the purchase of the holdings of several hundred families living on rough submarginal land and the acquisition of productive land for the resettlement by these families. The Dean of the College of Agriculture was asked to name a land utilization committee to cooperate with the Land Planning and Land Policy Sections of the Federal Government in this work. The field agent in rural sociology was designated to act as chairman of this advisory committee.

During the early part of the year the Federal Emergency Relief Commission instituted a rural rehabilitation project to set up and carry out a constructive plan for rehabilitating rural families on relief or which were about to be placed on relief rolls. The field agent in rural sociology was asked to serve on the 12-person advisory committee appointed by the Kentucky Relief Commission and on the Executive Committee of four persons selected to act in a special advisory capacity to outline projects in connection with a state program for rural rehabilitation.

Services rendered in connection with the rural rehabilitation and submarginal land project included surveys of the resources of farm families in representative under-privileged areas, surveys of opportunities on farms and in villages in the better agricultural areas which might furnish improved living conditions to persons who wished to migrate from under-privileged areas, surveys of opportunities near Kentucky towns and cities for persons who wanted to settle on small plats of land to engage in food production for their families and in such industrial work as might be available, and service and guidance to persons seeking help in these and similar problems.

One of these surveys included 270 representative families living on submarginal land. Another included 238 families who during the past 20 years had migrated from the mountains of eastern Kentucky to areas of good land in central



Kentucky. A survey of 434 families living on small acreages and engaged in subsistence production and part-time work for wages was made in Fayette, Woodford, Madison, Jefferson and in the area contiguous to Corbin and Barbourville. The data on these surveys are being analyzed and will answer important questions in connection with the problem of rehabilitating rural families.

The field agent in rural sociology has served in an advisory capacity and assisted actively in the project set up and carried on by the Kentucky State Planning Board which was appointed by the Governor of Kentucky during the early part of the year.

Work in rural sociology was carried on with several hundred rural pastors and active lay religious leaders in an organized effort to bring about an improvement in community life. The heartiest response and cooperation was accorded this project by religious leaders of all denominations. More than 200 participated in the program of Rural Pastors Day during the annual Farm and Home Week. On this occasion an organization was formed and an executive committee was appointed which represented all the principal religious denominations. The purpose of this executive committee was to plan and execute a program by which the church might be made a more vital factor in the life of the rural community. The field agent in rural sociology was chosen to serve as secretary.

Besides the state meeting, three regional conferences were held during the year, at Bowling Green for western Kentucky, North Middletown for central Kentucky and Quicksand for eastern Kentucky. A total of 1,485 community leaders participated in these three conferences.

## MARKETS AND RURAL FINANCE

The large number of inquiries from farmers for information on the various federal programs for control of production and marketing heavily taxed extension workers.

Despite the large amount of time which field agents devoted to the agricultural adjustment programs many of the goals for the year were achieved. Farmers were kept informed on current market situations. Notes on the Kentucky agricultural situation were prepared monthly, and distributed to about 400 agricultural leaders. An agricultural outlook report for Kentucky this year was prepared and presented to the public thru the radio and the press. The number of inquiries on marketing, farm finance, taxation and related subjects was larger than in previous years.

An exhibit was prepared for the State Fair featuring the status of the agricultural adjustment programs in Kentucky.

## AGRICULTURAL CREDIT

Field agents cooperated with the Farm Credit Administration to develop production credit associations and to perfect the reorganization of Federal agricultural credit in Kentucky. Production credit offered by the Farm Credit Administration to develop production credit associations and to perfect the reorganization of Federal agricultural credit in Kentucky. Production credit offered by the Farm Credit Administration required particular attention because of the almost complete lack of experience of farmers with agricultural credit corporations. This promotional work necessitated much publicity and educational work and thoro presentation of the plans of the Farm Credit Administration for intermediate credit. Many inquiries were received from farmers, attorneys and persons interested in the administration of the various amendments to the Federal Bankruptcy Act.

Field agents in agricultural marketing exercised a guiding hand in cooperative marketing. Two milk producers associations, one at Paducah, and one at Lexington, were established. The extension service worked in an advisory capacity to these associations as well as to those in Louisville and Cincinnati and assisted them to adjust methods of operation to marketing agreements between their associations and the Agricultural Adjustment Administration. A conference to discuss marketing agreements for 1934 was held on April 10 by cooperative strawberry growers associations. Altho no agreement was reached for the 1934 crop there was better cooperation and understanding of selling policies among the various associations. Several conferences was held with fruit and vegetable growers in the vicinity of Louisville to consider a reorganization of the local fruit and vegetable market in that city. Conditions are becoming increasingly favorable for reorganizing this market on a basis more satisfactory to local growers. Producers of sorghum molasses, particularly in Meade and Breckinridge Counties, were advised on several occasions regarding their proposals for cooperative marketing of sorghum molasses. There is an opportunity to do much constructive work with growers in these and other counties toward developing a better system of marketing sorghum molasses. Present methods are primitive and inefficient. Cooperation among farmers could do much to standardize the product and to provide more effective methods and distribution.

A conference of agricultural cooperatives has been planned. The conference is to be held at a much later date than in previous years because many cooperative leaders have been pre-occupied with work in the AAA programs. Interest among cooperative leaders in the conference is very good, however, and present prospects for perfecting a State Council for Cooperatives at the conference are excellent.

## PUBLICATIONS ISSUED DURING THE YEAR 1934

- Circular No. 82, Revised, Corn Project, 4-H Clubs.  
 Circular No. 98, Revised, Small Fruit Project for 4-H Clubs.  
 Circular No. 111, Revised, List of Farm Building Plans.  
 Circular No. 157, Revised, Brooding Chicks Artificially.  
 Circular No. 181, Revised, Outlines for 4-H Club Canning — Units I, II, III, and IV.  
 Circular No. 190, Revised, 4-H Food Manual.  
 Circular No. 220, Revised, Home Canning.  
 Circular No. 222, Revised, Garden Project, 4-H Clubs.  
 Circular No. 252, Clothing — Unit I. The 4-H Club Girl's Home Costume.  
 Circular No. 253, Clothing — Unit II. The 4-H Club Girl's School Costume.  
 Circular No. 255, Clothing — Unit IV. The 4-H Club Girl's Street or Travel Costume.  
 Circular No. 272, Soil Management for Kentucky.  
 Circular No. 273, Annual Report for Year Ended December 31, 1933.

## EXTENSION WORKERS

January 1st to December 31st, 1934

## ADMINISTRATION

Thomas P. Cooper, Dean and Director  
 T. R. Bryant, Asst. Director  
 D. H. Peak, Business Agent  
 S. K. Slaughter, Secretary

## AGRONOMY

George Roberts, Head of Department  
 Ralph Kenney, Field Agent in Crops  
 S. C. Jones, Field Agent in Soils  
 Russell Hunt, Field Agent in Tobacco

## AGRICULTURAL ENGINEERING

J. B. Kelley, Field Agent in Agricultural Engineering  
 Earl G. Welch, Field Agent in Agricultural Engineering

## ANIMAL HUSBANDRY

E. S. Good, Head of Department  
 Wayland Rhoads, Field Agent in Animal Husbandry (Beef Cattle)  
 R. C. Miller, Field Agent in Animal Husbandry (Sheep)  
 Grady Sellards, Field Agent in Animal Husbandry (Swine)

CLOTHING

†Iris Davenport, Field Agent in Clothing  
Edith Lacy, Field Agent in Home Economics

DAIRY

J. O. Barkman, Field Agent in Dairying  
Ted S. Besh, Field Agent in Dairying  
†George Harris, Field Agent in Dairying

FARM MANAGEMENT

R. E. Proctor, Field Agent in Farm Management

†Appointed

FOODS

Florence Imlay, Field Agent in Foods

HOME MANAGEMENT

Ida Hagman, Field Agent in Home Economics

HORTICULTURE

W. W. Magill, Field Agent in Horticulture (Orcharding)  
J. S. Gardner, Field Agent in Horticulture (Truck Crops)  
N. R. Elliott, Field Agent in Horticulture (Landscape)

JUNIOR CLUBS

J. W. Whitehouse, State Leader of 4-H Club Work  
J. M. Feltner, Field Agent in 4-H Club Work  
M. S. Garside, Field Agent in 4-H Club Work  
Anita Burnam, Field Agent in 4-H Club Work  
G. J. McKenny, Field Agent in 4-H Club Work  
E. E. Fish, Field Agent in 4-H Club Work  
Carl W. Jones, Field Agent in 4-H Club Work

MARKETS

L. A. Vennes, Field Agent in Markets  
E. A. Johnson, Field Agent in Markets

MOVABLE SCHOOLS

L. C. Brewer, Asst. in Short Courses and Exhibits

PUBLIC INFORMATION

C. A. Lewis, Editor

POULTRY

J. Holmes Martin, Field Agent in Poultry  
J. E. Humphrey, Field Agent in Poultry  
C. E. Harris, Field Agent in Poultry  
Stanley Caton, Field Agent in Poultry

## RURAL SOCIOLOGY

W. D. Nicholls, Head of Department

## VETERINARY SCIENCE

T. P. Polk, Field Agent in Veterinary Science

## HOME DEMONSTRATION WORK

Myrtle Weldon, State Leader Home Demonstration Agents  
 Lulie Logan, Asst. State Leader Home Demonstration Agents  
 Zelma Monroe, Asst. State Leader Home Demonstration Agents  
 \*Bernice Bonar Bottorff, Home Demonstration Agent, Oldham County  
 \*Zilpha F. Bruce, Home Demonstration Agent, Warren County  
 Florence Cobb Bennett, Home Demonstration Agent, Graves County  
 Zelma Byerly, Home Demonstration Agent, Kenton County  
 \*Mary Clopton, Home Demonstration Agent, Breathitt County  
 Sunshine Colley, Home Demonstration Agent, Bell County  
 \*Dora M. Duncan, Home Demonstration Agent, Hopkins County  
 †Jane Dyer, Home Demonstration Agent, Simpson County  
 Ruth Etheridge, Home Demonstration Agent, Hopkins County  
 Frances W. Fleming, Home Demonstration Agent, Christian County  
 Hazel Graves, Home Demonstration Agent, Madison County  
 Jennie Grubbs, Home Demonstration Agent, Boyle County  
 Pearl Haak, Home Demonstration Agent, Henderson County  
 Alda Henning, Home Demonstration Agent, McCracken County  
 May Hutchison, Home Demonstration Agent, Garrard County  
 Lois Husebo, Home Demonstration Agent, Boyd County  
 Catherine T. Johnson, Home Demonstration Agent, Jefferson County  
 Miriam J. Kelley Asst. Home Demonstration Agent, Warren County  
 †Dorris L. Kirkman, Home Demonstration Agent, Pike County  
 Dicksie Lee Lewis, Home Demonstration Agent, Union County  
 M. Alma Moore, Home Demonstration Agent, Muhlenberg County  
 Roxie C. Perkins, Home Demonstration Agent, Harlan County  
 Irene Piedalue, Home Demonstration Agent, Clark County  
 Elizabeth A. Porter, Home Demonstration Agent, Campbell County  
 †Mary Louise Scott, Home Demonstration Agent, Breathitt County  
 Ritchie Stevenson, Home Demonstration Agent, Franklin County  
 Dorothy Threlkeld, Home Demonstration Agent, Fayette County  
 Anna Culton Thompson, Home Demonstration Agent, Fulton-Hickman  
 County  
 †Sarah Trumbo, Home Demonstration Agent, S. Madison and Rock-  
 castle Counties  
 Helen M. White, Home Demonstration Agent, Daviess County  
 Sadie Wilgus, Home Demonstration Agent, Calloway County

\*Resigned

†Appointed

COUNTY AGENT WORK

- C. A. Mahan, State Agent  
I. C. Graddy, Assistant State Agent  
E. J. Kilpatrick, Assistant State Agent  
H. F. Link, Assistant State Agent  
W. C. Wilson, Assistant State Agent  
A. C. Burnette, Agent in Charge of Negro Work  
John C. Acree, County Agent, Calhoun, McLean County  
W. B. Adair, County Agent, Brownsville, Edmonson County  
S. W. Anderson, County Agent, Louisville, Room 18, Fed. Bldg., Jefferson County  
J. H. Atkerson, County Agent, Scottsville, Allen County  
John Bach, County Agent, Salyersville, Magoffin County  
H. A. Berge, County Agent, Warsaw, Gallatin County  
J. W. Blue III, County Agent, Eddyville, Lyon County  
C. O. Bondurant, County Agent, Gwenton, Owen County  
Stuart Brabant, County Agent, Elkton, Todd County  
H. C. Brown, Asst. County Agent, Louisville, Room 18, Fed. Bldg., Jefferson County  
John C. Brown, County Agent, Danville, Boyle County  
W. L. Browning, County Agent, Stanton, Powell County  
C. V. Bryan, County Agent, Campbellsville, Taylor County  
John T. Cochran, County Agent, Murray, Calloway County  
J. V. Coleman, Asst. County Agent, Owensboro, Daviess County  
J. L. Collins, County Agent, Maysville, Mason County  
John R. Collins, County Agent, Versailles, Woodford County  
W. B. Collins, County Agent, Brooksville, Bracken County  
H. B. Cravens, County Agent, Jackson, Breathitt County  
Carl B. Day, County Agent, Louisa, Lawrence County  
H. H. Dickerson, County Agent, Greensburg, Green County  
R. S. Dunn, County Agent, Taylorsville, Spencer County  
C. B. Elston, County Agent, Bardstown, Nelson County  
A. E. Ewan, County Agent, Bowling Green, Warren County  
F. C. Ewen, County Agent, Smithland, Livingston  
R. T. Faulkner, County Agent, Leitchfield, Grayson County  
J. H. Finch, (Colored), County Agent, Bowling Green, 7th College Sts., Warren County  
J. B. Flege, County Agent, Columbia, Adair County  
H. R. Forkner, County Agent, Burlington, Boone County  
B. W. Fortenbery, County Agent, Lancaster, Garrard County  
C. E. Gabbard, County Agent, Frenchburg, Menifee County  
H. K. Gayle, County Agent, Morganfield, Union County  
Raymond H. Gilbert, County Agent, Hartford, Ohio County

N. L. Goebel, Asst. County Agent, Mayfield, Graves County  
 C. L. Goff, County Agent, Morehead, Rowan County  
 J. F. Graham, County Agent, Princeton, Caldwell County  
 Wilford Graves, Asst. County Agent, Bowling Green, Warren County  
 Fred C. Hafer, County Agent, Brandenburg, Meade County  
 A. M. Harris, County Agent, Wickliffe, Ballard-Carlisle Counties  
 H. J. Hayes, County Agent, Monticello, Wayne County  
 R. M. Heath, County Agent, Frankfort, Franklin County  
 C. L. Hill, County Agent, Russellville, Logan County  
 J. W. Holland, County Agent, Shelbyville, Shelby County  
 Ray C. Hopper, County Agent, Munfordville, Hart County  
 J. O. Horning, County Agent, Glasgow, Barren County  
 W. B. Howell, County Agent, LaGrange, Oldham County  
 Joe Hurt, County Agent, Catlettsburg, Boyd County  
 George F. Insko, County Agent, Lawrenceburg, Anderson County  
 S. L. Isbell, County Agent, Prestonsburg, Floyd County  
 H. R. Jackson, County Agent, Henderson, Henderson County  
 W. C. Johnstone, County Agent, Paducah, McCracken County  
 T. H. Jones, County Agent, Beattyville, Lee County  
 J. L. Karnes, Asst. County Agent, Shelbyville, Shelby County  
 G. H. Karnes, County Agent, Tompkinsville, Monroe County  
 Samuel B. Kent, County Agent, Morgantown, Butler County  
 Jack S. Kidd, County Agent, Albany, Clinton County  
 J. R. Killinger, County Agent, Stanford, Lincoln County  
 R. H. King, County Agent, Grayson, Carter County  
 H. A. Laine, (Colored), County Agent, Nicholasville, Jessamine County  
 Orem LaMaster, County Agent, Bedford, Trimble County  
 E. E. Lambert, County Agent, Pikeville, Pike County  
 R. H. Lickert, County Agent, Flemingsburg, Fleming County  
 H. S. Long, County Agent, Winchester, Clark County  
 J. E. McClure, County Agent, Owensboro, Court House, Daviess County  
 J. R. McCord, County Agent, Shepherdsville, Bullitt County  
 Floyd McDaniel, County Agent, Mt. Sterling, Montgomery County  
 R. J. Matson, County Agent, Carlisle, Nicholas County  
 George F. Mayo, County Agent, London, Laurel County  
 Frank Melton, County Agent, Hodgenville, LaRue County  
 J. W. Michael, County Agent, Hindman, Knott County  
 J. L. Miller, County Agent, Richmond, Madison County  
 James F. Moore, County Agent, Barbourville, Knox County  
 Thomas W. Morgan, County Agent, Cadiz, Trigg County  
 M. P. Nichols, County Agent, Greenville, Muhlenberg County  
 L. M. Northington, County Agent, Clinton, Hickman County  
 C. F. Park, County Agent, Harrodsburg, Mercer County  
 J. Ed Parker, County Agent, Lexington, Court House, Fayette County



John E. Parsons, County Agent, Williamsburg, Whitley County  
J. L. Pidcock, County Agent, Paintsville, Johnson County  
S. A. Porter, County Agent, Alexandria, Campbell County  
H. A. Quisenberry, County Agent, Vanceburg, Lewis County  
T. M. Quisenberry, County Agent, Mt. Olivet, Robertson County  
R. B. Rankin, County Agent, Edmonton, Metcalfe County  
Wm. B. Ray, County Agent, Hardinsburg, Breckinridge County  
O. B. Redd, Asst. County Agent, Russellville, Logan County  
Robert S. Reed, County Agent, Benton, Marshall County  
W. R. Reynolds, County Agent, Tyner, Jackson County  
Edgar Rice, County Agent, Sandy Hook, Elliott County  
Harry D. Rice, County Agent, New Castle, Henry County  
R. D. Ridley, County Agent, Dixon, Webster County  
G. C. Routt, County Agent, Mayfield, Graves County  
M. H. Sasser, County Agent, Liberty, Casey County  
C. C. Shade, County Agent, Nicholasville, Jessamine County  
O. M. Shelby, County Agent, Hawesville, Hancock County  
E. R. Sparks, County Agent, Manchester, Clay County  
Robert F. Spence, County Agent, Berea, Rockcastle County  
Runyon Story, (Colored) County Agent, Hopkinsville, 408½ S. Main St.,  
Christian County  
J. E. Summers, County Agent, Lebanon, Marion County  
W. D. Sutton, County Agent, Madisonville, Hopkins County  
A. J. Thaxton, County Agent, Elizabethtown, Hardin County  
H. H. Thompson, County Agent, Cynthiana, Harrison County  
Joe R. Thompson, County Agent Owingsville, Bath County  
E. P. Tichenor, County Agent, Marion, Crittenden County  
O. B. Travis, County Agent, Jamestown, Russell County  
R. V. Trosper, County Agent, Pineville, Bell County  
C. M. Wade, County Agent, Georgetown, Scott County  
F. C. Walker, County Agent, Burkesville, Cumberland County  
P. R. Watlington, County Agent, Paris, Bourbon County  
Clyde Watts, County Agent, Carrollton, Carroll County  
Robert White, County Agent, Falmouth, Pendleton County  
H. W. Whittenburg, County Agent, Franklin, Simpson County  
C. A. Wicklund, County Agent, Independence, Kenton County  
W. E. Wiedeburg, County Agent, Hopkinsville, Christian County  
Robert Wigginton, County Agent, Greenup, Greenup County  
Gray H. Williams, County Agent, Harlan, Harlan County  
J. B. Williams, County Agent, Hickman, Fulton County  
Troll Young, County Agent, Springfield, Washington County

## RECEIPTS AND DISBURSEMENTS

For the Fiscal Year Ended June 30, 1934

## RECEIPTS

Federal Smith-Lever and Supplementary .....	\$201,399.81
Federal Capper-Ketcham .....	36,800.97
Additional Cooperative .....	31,000.00
State Smith-Lever and State Capper-Ketcham .....	120,000.00
Total .....	\$389,200.78

## DISBURSEMENTS

PROJECTS	FEDERAL FUNDS			STATE FUNDS
	Smith-Lever Supplementary	Capper-Ketcham	Additional Cooperative	Smith-Lever Capper- Ketcham
Administration .....	12,602.21			7,161.50
Publications .....	4,031.32			488.00
County Agent Work .....	126,436.76	17,480.30	31,000.00	14,012.83
Home Demonstration Work .....	6,038.64	19,320.67		34,263.50
Clothing .....	3,198.67			3,205.00
Foods .....	1,946.86			1,800.00
Movable Schools .....	815.66			2,142.00
Junior Clubs .....	15,582.38			15,098.00
Agronomy .....	3,141.92			5,076.00
Dairying .....	4,074.32			3,107.89
Animal Husbandry .....	2,734.78			6,204.00
Markets .....	1,004.56			3,060.33
Farm Management .....	2,259.43			3,240.00
Poultry Extension .....	4,004.47			5,180.00
Horticulture .....	4,343.00			6,262.50
Veterinary Science .....	1,770.58			1,920.00
Rural Engineering .....	2,856.32			3,006.45
Public Information .....	1,672.31			2,608.00
Farm and Home Week .....	647.46			
Home Management .....	1,671.13			1,624.00
Rural Sociology .....	567.03			540.00
Totals .....	201,399.81	36,800.97	31,000.00	120,000.00

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