

UNIVERSITY OF KENTUCKY
COLLEGE OF AGRICULTURE

Extension Division

THOMAS P. COOPER, Dean and Director

CIRCULAR NO. 264

ANNUAL REPORT

FOR THE

YEAR ENDED DECEMBER 31, 1932



This club boy has developed a herd of purebred Hereford cattle. He owns the dams of these calves. His 4-H club work is making of him a real farmer who thinks while he works.

Lexington, Ky.

Published in connection with the agricultural extension work carried on by co-operation 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

Lexington, Kentucky.
January 4, 1933.

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, 1932. 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 P. COOPER, *Dean and Director*

Lexington, Kentucky.
January 11, 1933.

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, 1932.

Respectfully,

FRANK L. McVEY, *President*

CIRCULAR NO. 264

Annual Report of the Extension Division for 1932.

T. R. BRYANT, Assistant Director

The trying conditions brought upon farm people by the severe and prolonged economic depression, multiplied the problems facing the extension service during 1932. Despite this condition extension workers accomplished a larger service than in any previous year in the history of the service. The great drouth of 1930 increased the indebtedness of many farmers and entailed much additional borrowing from all possible sources of credit. The full effect of this financial situation of farm people came to be felt in 1931 when the continued decline in prices permitted only slight progress to be made toward discharging outstanding obligations. The same condition obtained largely thruout 1932.

At times in the extension program it is advisable and possible to shift emphasis from one phase of work to another, but economic conditions existing during the past year necessitated increased energy in every phase of extension work. The farm as a business enterprise was in great difficulty and methods of reducing production costs, improving farm management and raising the quality of products demanded attention. Farm people did not have money to find enjoyment in ways that cost money, hence the need for focusing attention to community affairs, home improvement, and homemade recreation. The lack of money brought out more clearly the need for making the farm provide a great share of the subsistence for the family. People who formerly were somewhat indifferent to the teachings of extension workers were often found to be ready listeners and faithful performers.

Leaders were recruited in greater numbers than in former years and were better trained, there being 100 more leader train-

ing meetings than in the previous year. The unselfish service of these leaders accounts in large measure for the volume and the quality of work accomplished. This is best exemplified in 4-H Club Work but likewise in other branches. For example, such practices as chicken culling were at first taught by specialists, then by county agents and now almost entirely by local leaders.

Kentucky like many other states has placed great emphasis upon the importance of making the farm provide more of the primary needs of the farm family. A majority of extension projects emphasize directly this live-at-home program. Such projects as gardening, canning and poultry production fit at once into such a program and there are others that are almost as immediately concerned, such as the proper cutting and curing of meats to reduce losses and improve cuts and quality. The canning of meats in times of surplus is also of importance.

A noticeable return of people to the open country from industrial centers occurred during this period. In many counties this created additional problems for extension workers.

The industrial depression revealed more clearly the value of extension work when the border zone between profit and loss became so narrow. For example the ton-litter method of swine feeding, showed profit and was also a good market for corn while ordinary feeding methods in many cases returned net losses. A similar situation was found in beef cattle feeding demonstrations and in many other branches of extension teaching. Trimmed lambs brought the top price and returned a profit. Buyers discriminated even more severely than usual against "bucky" lambs. Likewise, in the production and sale of field crops, horticultural products, eggs and cream; all tended to show possible profit to the alert farmer and grave danger of actual loss to the less careful.

In some communities agricultural enterprises new to the locality have been fostered for several years by the Extension Service, where conditions gave warrant, and such projects are now showing their value. An example is that of the strawberry enterprise in McCracken and adjacent counties where the 1932

crop brought in over \$600,000 which meant much to the welfare of the whole region.

In such ways the actual cash value of extension work is coming to be appreciated not only by farm people but also by the general public. This accounts in part for the small number of county workers who have been dropped by their counties. Depleted treasuries have entailed salary reduction in many counties but seldom has there been serious consideration of eliminating the agents.

The number of counties with agents decreased from 95 in 1931 to 88 in 1932, but the total volume of work accomplished in the State increased because of the better training of local leaders.

The opportunity for agents to redouble their efforts in all parts of a program was shown especially by the Home Demonstration Work. In each county where a home demonstration agent was employed there was a well-organized homemakers' club with subsidiary local groups. Such success was made possible by fixing responsibility upon trained leaders selected by the women, a full and definite program of work and complete records and reports.

Thru effective organization it was possible to adjust the programs of work to meet economic conditions and still report a full quota of accomplishment. Naturally, in 1932 more stress was put by home demonstration workers on projects of economic value and this was accomplished without any recession but with actual increase in such other work as interior and exterior beautifying of homes.

The enrollment and percent of completions in 4-H Club Work exceeded the record of any previous year, despite the dropping of agents by certain counties. The total enrollment was 22,577, an increase of 1,627 over the previous year. The percent of completions was 82.5 as compared with 77.7 in 1931. This is largely accounted for by the better training of volunteer local leaders.

The clubs for older boys and girls, known as Utopia Clubs, have grown rapidly. It is apparent that this interesting phase of extension work has long been needed and must be more gener-

ously provided for. In addition to performing their project work exceptionally well, these older boys and girls become excellent leaders, especially for 4-H Clubs, and assist in the social and recreational programs in their communities.

In most phases of extension work the financial situation has caused a shifting from those practices requiring considerable cash outlay, to those requiring little money. Some decrease, for example, was noticed in the use of liming materials but this occurred mostly in the use of pulverized limestone that had to be purchased while the use of marl was about the same as in the previous year and the use of home-burned lime actually increased.

Perhaps no part of agronomic extension work has been of greater cash value to farmers or has done more to demonstrate good farming practice than pasture improvement. Increasing the carrying capacity of pastures and devoting to improved pasture, land formerly tilled but which should not have been plowed has increased earnings, reduced production costs and labor. Recommended mixtures were sown on 375,000 acres. Korean lespedeza was sown alone on 115,000 acres while 254,000 acres came voluntarily as a result of previous sowings and approximately four million pounds of seed was saved, while 16,862 acres of new bluegrass pasture was sown with Korean lespedeza, not to mention a much wider use on old bluegrass pastures to increase their carrying capacity.

Since tobacco is the principal cash crop in Kentucky all possible was done to improve quality. Fertilizer demonstrations, the use of disease-resistant varieties and other means for preventing ravages of disease were popular projects. Demonstrations in proper curing methods were especially helpful and those following instructions received improved prices as a result.

A total of 3,525 farm buildings or structures were built or remodeled according to plans provided by the extension service. These ranged all the way from new dwelling houses to the brick brooder that proved cheap and satisfactory. The number of plans cited does not include those for terracing, drainage, water supply, sewage disposal, farm lighting and other such features.

The only limit to accomplishment in this field is the time and endurance of the extension engineers.

A part of extension work that has doubtless been stimulated by scarcity of money is landscape gardening or the beautifying of home grounds, schools and churches. When money is scarce and time at home is plentiful, improvement of home sites is the usual result. The wealth of native trees and shrubs may be used to advantage and without cash outlay. The demand for horticultural service has far exceeded the time at the disposal of the specialist but training schools for leaders and county agents have extended rapidly the volume of work.

Movable Schools and visual instruction have continued as important means of disseminating information and ideas. Equipment was sent to counties where projection apparatus and other facilities for effective instruction were not available, and the supply of films has been in heavy demand. The effectiveness of the radio is difficult to measure but correspondence and other indicators show that it is quite effective.

Information thru the press is constantly proving to be worth while. The press has an advantage over radio in that detailed directions and figures can be given. The cordial attitude of editors may be attributed to the material being free from propaganda. A wide and constant use by newspapers of the news provided by the College has been the result.

Dairy extension work, like that with poultry, has shown the savings of costs and the actual making of money in periods of depressed prices. This has been proved especially to members of dairy herd improvement associations.

Cream grading work has progressed under the stimulus of higher prices, which extension workers induced cream buyers to pay for premium cream. The salaries and expenses of grading-supervisors who work under the direction of the College were paid by the buyers. The cream grading service has developed a triple purpose, that of reducing losses, making money for farmers and putting the industry on a sounder basis.

Poultry extension work has made money for those who have followed recommended practices. Emphasis has been laid upon

the "healthy chick program." Following this program has enabled cooperators to reduce mortality to a minimum and to raise higher-producing pullets. Facilities for B. W. D. testing with the cooperation of the extension veterinarian have been developed at eight places in Kentucky. By this means the procuring of disease-free stock has aided those who took advantage of it to sell eggs to hatcheries at several cents per dozen above the ordinary market. As a result a number of counties have reported incomes increased by several thousand dollars each. Many growers have reported labor incomes as high as \$1.75 per hen, despite general low prices. The inability to procure brooder stoves has been overcome by the brick brooder designed by the College which is homemade, designed to burn wood, costs practically no money, saves operating cost and is entirely satisfactory. In a number of counties a "poultry consciousness" has developed which may bring about the development of superior products and the possibility of buying eggs by grade, so that the best producers will be properly rewarded.

Opportunity was presented in 1932 for the horticultural program both to serve the business of farming and sustain the farm family. Examples of accomplishment were displayed in four counties where "food festivals" were held. At least one of these counties had been compelled a year before to seek outside help in feeding the poor.

The use of certified seed potatoes gave convincing results. Taking the state as a whole, the yields were more than doubled by the use of such seed. All told, 31,924 bushels of certified seed were planted. This was made possible by the unusually low price of such seed. Half of this total was planted in mountain counties. Where seed treatment, fertilization and spraying were practiced, the results were even more striking.

Many owners of orchards who used the tank-mix cold oil emulsion declared that their spray costs were reduced to less than half. Bordeaux was used where necessary.

Work with small fruits was quite successful. For several years the Extension Service has emphasized the advantages of small acreage per farm, high quality and careful grad-

ing. This resulted in prices of berries well above the average on terminal markets in Kentucky. Tillage and fertilizing demonstrations had taught their lessons. The small units enabled the family to perform all work except picking. The result was good yields, high quality and good prices. The McCracken County association, for example, was composed of units of two acres, average size. The picking season of three weeks employed 30,000 at an average of \$1.00 per day. The whole enterprise was declared by business men and farmers to be a "life-saver" for their community and they credited their success largely to extension work.

The problem of coordination and management must be solved if profits are to accrue from different branches of farming. At times this work has appeared to move slowly because farmers are reached most effectively one by one. The cumulative effect of several years' work became apparent in 1932, partly because margins were so narrow that study of management was no longer a matter of choice but of necessity. Community surveys are still an assistance because they afford comparisons which help to solve individual cases. Even where farmers were not yet ready to keep full accounts, their inventories have been of assistance. Farm accounting has been found an admirable project for the older boys and girls of the Utopia Clubs.

Farm management schools, tours and the other methods usually employed gave better results than in previous years and individual cases of success following the guidance of extension workers have become numerous enough to spread their influence effectively and beneficially, and now promise more benefit with return of normal conditions.

Unsatisfactory prices of farm products which have caused unrest among farmers are a proof of the greater need for co-operation. More investigation and education are required. Outlook reports received more careful attention in Kentucky during 1932. One general report was issued in the late winter and a new feature consisted of three special reports on certain products. Assistance in handling organization problems and advice on marketing methods were in demand. Instruction in proper

grading of tobacco and fruit were especially sought. Market news service was provided regularly thru the press, radio and other mediums. During the tobacco marketing season the daily tobacco reports by radio were particularly welcome to the tobacco growers. Three new tobacco cooperatives and several of seeds, dairy products and fruit were organized. Meetings and conferences were held and survey reports were given out.

COUNTY AGENT WORK

At the close of the year there were 82 white and four negro county agents in Kentucky. There were four factors that tended to change their work from what it normally would have been. These factors were (1) The unusual shortage of money. (2) The necessity of assisting thousands of farmers to make out the forms necessary to secure the government crop production loans. (3) The unusual number of families returning to farms from industrial centers and (4) The necessity for putting extraordinary emphasis on the Live-at-Home program.

The Federal Crop Production Loan was a means of furnishing necessary cash to enable farmers to plant crops. County agents assisted farmers to fill out nearly all the farm loan application forms. The enormity of this task in Kentucky is shown by the 13,762 loans which amounted to \$843,180.00.

The back-to-the-farm movement has been growing for two years. In 26 counties in eastern Kentucky, 7,577 families moved from industrial centers back to farms. The majority of these families who settled in the mountains of Kentucky, produce little or no surplus and they have practically no funds with which to buy from surplus-producing farmers. They only affect the whole economic situation to the extent that they relieve the public somewhat of the necessity of providing for them. Much of the time of extension workers, whose primary function is that of giving information, is taken up in aiding these returned farmers. The immediate effect of this influx is to retard rural progress. These people taking their place as rural citizens present another burden on the community and another opportunity for the activities of the county agent.

In addition to the crop loans and back-to-the-land movement, the shortage of money has led to another project which has been given state-wide attention, namely, the Live-at-Home program. The purport of this program is to assist farmers so far as possible to live well at home on home-produced products, and to provide abundance of feed for the farm livestock. Extension agents have undertaken to show farm people how to do these things well.

The following table indicates some of the activities and accomplishments:

ACCOMPLISHMENTS OF COUNTY AGENTS

Counties with agents	88
County extension organizations	71
Membership { Men	6,762
{ Women	1,352
Communities that built extension programs	890
Community leaders in community-built programs	8,952
Leader training meetings	871
Attendance of local leaders	9,461
Meetings held by local leaders, not participated in by county agents	2,125
Attendance	41,993
Method and result demonstration meetings	3,398
Attendance	74,827
Other extension meetings	7,954
Attendance	406,453
Adult result demonstrations started or carried thru year	16,927
Farm visits made by county agents	63,909
Farms visited	26,493
Home visits made by county agents	3,095
Homes visited	1,653
Office calls relative to work { Office	109,652
{ Phone	59,049
Individual letters written	65,145
Total all meetings held, including demonstrations, short courses, leader training meetings, etc	14,348
Attendance	532,734

Animals in 4 H Club Work completed	{ Dairy	1,357
	{ Poultry	94,822
	{ Sheep	3,070
	{ Swine	2,941
	{ Beef	875



Volunteer leaders are the principal support of community improvement as undertaken by the Extension Service. Here a local leader demonstrates canning to members of the homemakers' club.

HOME DEMONSTRATION WORK

Home demonstration agents were employed in 29 counties. In addition to this special help was given to homemakers in 26 counties not having home demonstration agents. Junior home-making projects were carried on in 57 counties. The volume of work accomplished thru organization and with the help of local leaders was greater than in the previous year. Three hundred and twenty community groups of women, with an enrollment of 6,122, and 367 4-H groups, with an enrollment of 4,829 girls, carried on definitely outlined work. The number receiving definite help was 16,185 and there were 3,259 local leaders assisting.

Program of work. In addition to their major program, every county in the state having a home demonstration agent has engaged in a three-year program in beautifying the exterior of the home and in the state-wide "Live-at-Home" program.

Homemakers have also participated in fairs, exhibits, tours, junior and adult camps, community recreation, charity, relief work and many activities of an educational and cultural nature.



Homemakers at the Oak Island Community House in Kenton County canning vegetables for relief work.

Food and Nutrition. Food-preparation work was carried on in eight counties, and as a result 3,258 homemakers report better prepared and more attractively served meals. Nutrition work was undertaken in 12 counties. As a result, meals have been planned to include the foods needed for health and resistance to disease and to correct various nutritional conditions such as overweight, underweight, anemia, constipation and indigestion. Improved practices in food and nutrition work were reported by 19,397 people. The school-lunch work enabled 12,422 children to enjoy better school lunches.

Food preservation constituted a part of the "Live-at-Home" programs in all counties having home demonstration agents and in several counties not having a home demonstration agent. The use of a canning and storage budget in connection with a budget garden was stressed. Definite budgets were followed by 1,330 homemakers and 2,222 families reported improved home gardens. The counties with home demonstration agents canned or

preserved 847,618 quarts of fruits, vegetables and meats. With a minimum valuation of 15c per quart for fruits and vegetables and 40c per quart for meat, the canning work has an economic value of \$130,009.60.



A demonstration house in Clark County. A tenant house before being remodeled.

In addition to the work done in food preservation and storage, the "Live-at-Home" program included increased and improved use of home grown crops which help to provide the family with a healthy diet. The increased use of eggs, the use of dairy products by making better butter, cottage cheese, cream cheese and other milk dishes, the use of home-produced sorghum and honey, the making of hominy and the use of whole or cracked wheat in the family diet have been included in the program. As a result many families have produced practically all the family food supply. One family reported spending nine cents in six weeks and having plenty to eat. Another family reported producing all food products used with the exception of salt, soda and sugar.

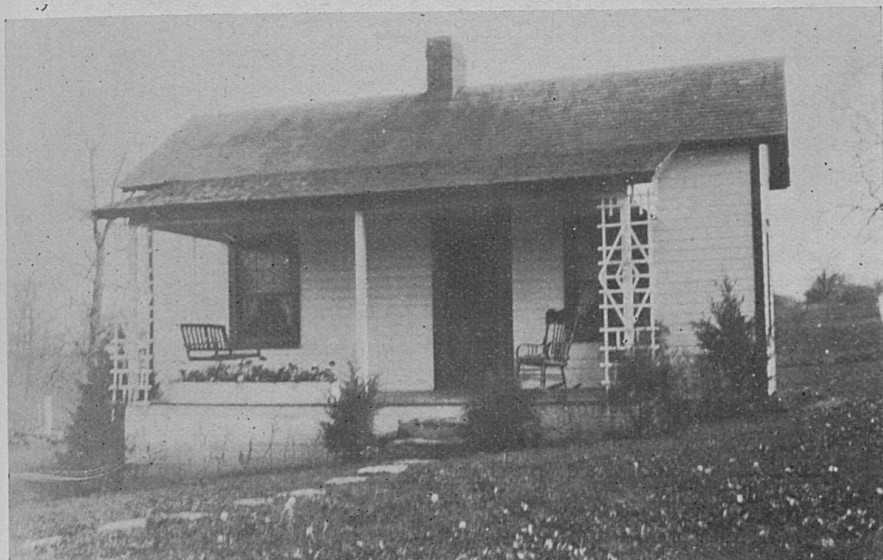
Relief Work. A great deal of food relief work has been done by homemakers under supervision of home demonstration agents. The various activities have included:

Packing and distributing Red Cross seed.

Giving food, both fresh and canned.
Giving information on gardening, canning and dairying.
Managing community canning kitchens.
Canning for schools, poor houses and other institutions.

Other results.

444 families planned and used a family food budget.
931 improved home-packed lunches.
1,361 homes improved feeding of children.



The same house shown on opposite page, after remodeling. Note foundation plantings, stepping stones, porch boxes, trellises and swing. Good tenants can be had where houses are thus improved at very slight cost.

Home Improvement. With little money available for new furnishings or equipment, but with enthusiasm and courage undampened, homemakers have spent time instead of money in improving their home equipment.

During the year 18 counties carried home improvement projects, including Wife-Saving Kitchens, Homemaking Time Savers, Sanitation, Successful Spending and Home Furnishing. The following figures show some of the results:

Kitchens rearranged for convenience, according to recommendations 430

Homes following recommendations in obtaining labor-saving equipment	833
Better storage facilities provided	695
Pieces labor saving equipment bought or made	3,516
Sewage disposal systems constructed according to recommendations	39



Campbell County homemakers learning to put new seats in old chairs.

Water systems constructed according to recommendations	59
Heating systems constructed according to recommendations	5
Outdoor toilets built according to recommendations	104
Individuals improving health habits according to recommendations	691
Pieces of furniture repaired, remodeled, refinished, upholstered, re-seated or slip-covered	6,725
Rooms with new or reconditioned draperies	1,900
New pieces of furniture added	1,089
Rooms rearranged	2,448
Floors finished or floor coverings added	2,642
Rooms painted or papered	2,164
Articles such as rugs, waste baskets, stools, etc., made by Homemakers	8,207
Estimated value of things made in home management project	\$9,376.00
Estimated value of work done in home furnishing project	\$28,373.75
Estimated value of work done in home craft work	\$8,588.10

The Better Homes exhibit in Graves County was awarded third place in the National Better Homes Exhibit.

Beautifying the Exterior of the Home. This was the second year of the three-year project carried on with homemakers in counties having home demonstration agents. The first year emphasis was placed on the lawn, walks, drives, fences, painting, whitewashing and repairing the building. To this was added in 1932 the setting of trees and shrubs and the improvement of the porch to make a comfortable and attractive out-of-door living room.

Results:

Premises cleaned up	3,014
Dwellings remodeled	440
Dwellings, outbuildings or fences painted or whitewashed	944
Porches remodeled	135
Porches painted	328
Porches rearranged	871
Improved porch furnishings	1,730
New lawns started	157
Old lawns improved	1,376
Shade trees set	5,195
Shrubs rearranged	2,043
New shrubs planted	7,024
Families reached in project for beautifying the Exterior of the home	9,996

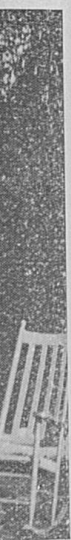
Clothing and Millinery. Clothing was carried as a major project in 10 counties and as part of the "Live-at-Home" program in every county having a home demonstration agent. Because of depleted finances, emphasis in clothing work was placed on the reconditioning of used clothing. Clothing renovation was given in 18 counties and millinery renovation in 18 counties. Emphasis has also been given to problems of buying both ready-made clothing and yard goods in an endeavor to help homemakers to get more from their clothing money.

Results:

Persons helped in clothing work	9,081
Sewing machines reconditioned	578
Garments constructed	162,405
Estimated value	\$52,798.77

833
605
3,516

39



chairs.

59
5
104

691

6,725
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2,443
2,642
2,164

8,207
9,376.00
8,373.75
8,588.10

Garments remodeled	11,633
Estimated value	\$21,523.03
Hats renovated or remodeled	2,512
Estimated value	\$2,731.60
Total value of garments constructed and reconditioned	\$77,053.40

Relief Work. Homemakers' clubs have done a great deal of sewing for needy families, remaking such used garments as they could secure and making new garments from materials furnished by relief organizations. They have also helped in the investigation of families asking relief and in the distribution of clothing to needy families.

Recreation. Recreation, which has always been an important part of the home demonstration program, is of added importance in times of depression if a high morale in the home and community is to be maintained. Homemakers' clubs were given ideas for music and recreation for the home, club and community. As a result they held 862 social programs for the entire community, 59 county-wide plays or pageants and developed five county choruses, two dramatic clubs and three orchestras, and 2,107 recreational programs have been given at club meetings.

Homemakers' camps are part of the recreational program. Four district camps and one county camp were held, with a total enrollment of 246 regular campers and 390 visitors or part-time campers. Twenty-one counties participated. The purpose of the camp is to make possible to rural homemakers a pleasant and profitable vacation at small cost. The program is divided between rest, recreation, handicraft, music and lectures, with only a small part of the program of a serious nature.

Community Activities. Every homemakers' club engages in some activity of benefit to the entire community. Two hundred and fifty-three communities reported activity in connection with community or country life work. The activities are varied and include buying supplies or equipment for schools, cleaning and landscaping public buildings and parks, beautifying highways and establishing community centers and rest rooms. Forty-nine

communities made surveys and 15 club houses or rest rooms were established.

Farm and Home Convention. The homemakers' section of the annual Farm and Home Convention at the University of Kentucky had the largest attendance of any year. Five hundred and twenty-eight women from 41 counties, representing all sections of the state, were in attendance. Most of these were delegates sent by their clubs. These delegates, in turn, repeat to their local clubs as much as they can remember and put down in their note books, thus making the program of the week far-reaching.

Statistical Summary.

Training meetings held for local leaders	466
Attendance	6,949
Demonstration and judging teams trained	147
Farm and home visits made by home demonstration agents	6,891
Individual letters written	15,369
Different circular letters	823
News stories about home demonstration work published	2,315
Office and telephone calls relative to home demonstration work	22,572
Tours conducted	22
Attendance	782
Achievement days held for women and girls	97
Attendance	10,809
Total meetings held in relation to home demonstration work....	17,462
Total attendance	373,685

Clothing. Seven thousand seven hundred and eighteen girls were enrolled in clothing projects. A girl who finishes the four units of clothing has constructed nearly all types of garments, worked with all types of material, learned something about the selection of material, color and design to suit her needs, how to care for her clothing and to groom herself. The 4-H clothing projects teach a girl how to be well dressed on a minimum amount of money. 4-H club girls made 18,674 garments.

Because of lack of money many girls were unable to buy material for their garments. They were taught how to bleach, dye and use flour sacks. Attractive garments of all kinds were

made of the humble sack which at one time was considered good only for dish towels or cleaning rags.

Foods. Three projects in foods are offered to 4-H club girls, Family Breakfasts, Family Dinners and Family Suppers. One thousand and eighty-seven girls were enrolled in food projects in 1932.

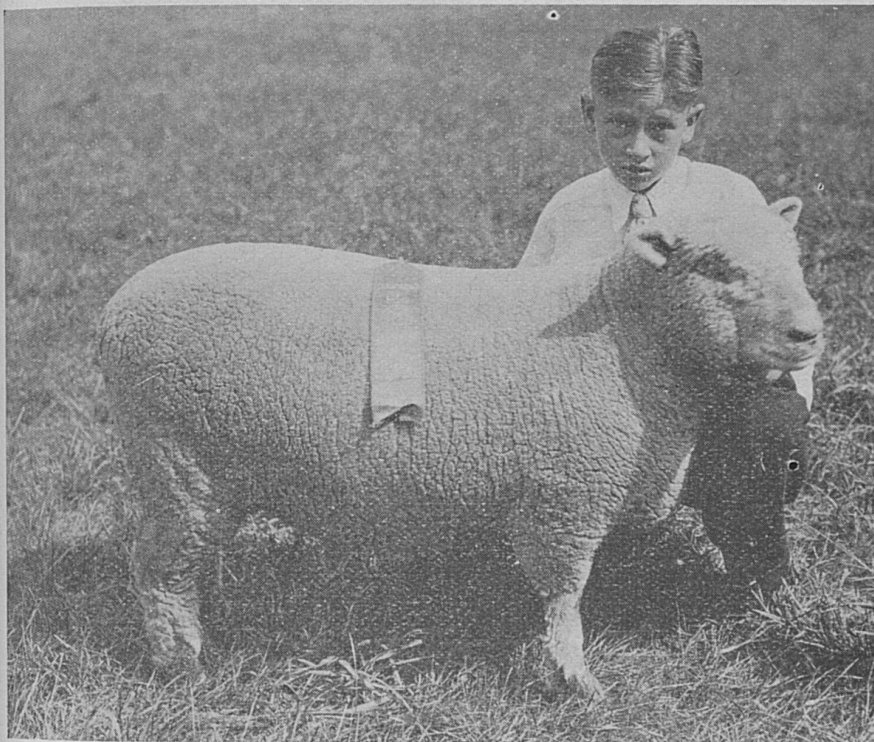
Canning. This project appeals to young girls. There are three projects in canning in which the club girl learns to can fruit, fruit juices, vegetables, to make jelly, preserves, jam and pickles and, lastly, to can meat. Nine hundred and ten girls canned 24,293 jars valued at \$5,367.94.

Room Improvement. The improvement of her own room is a project planned for older girls who have gained some knowledge in color and design in clothing work and who have had experience in handling various textile fabrics. The project gives the girl the opportunity to beautify, her own room and make it convenient and comfortable while learning both the art and the skill of home decoration. The project requires a good deal of work, some outlay of money, and considerable supervision. Forty-four girls were enrolled in 1932.

4-H CLUB WORK

Twenty-two thousand five hundred and seventy-seven rural boys and girls were enrolled in 4-H club work and 18,734 or 82.5 per cent completed their projects. The enrollment was 1,627 more than in 1931 and the percent of completions was 4.8 per cent higher. Twenty-four thousand nine hundred and fifty projects were started and 20,950 or 82.4 percent were completed. There were also 653 young men and women enrolled in Utopia Clubs. This makes a total of 23,230 boys and girls carrying on club work. There were 2,284 local leaders who helped 1,269 junior community clubs to carry on their work. Two or more training schools were held for leaders in each county doing 4-H club work. Two district conferences for local leaders were held, one at Princeton Substation and one at Quicksand Substation. The Princeton Conference was attended by 74 leaders from 20 counties. Sixty-five local leaders from 20 counties attended the

Quicksand conference. The purpose of these conferences was to give the leaders a broader vision of club work and get from them their ideas for improvement of 4-H club work.



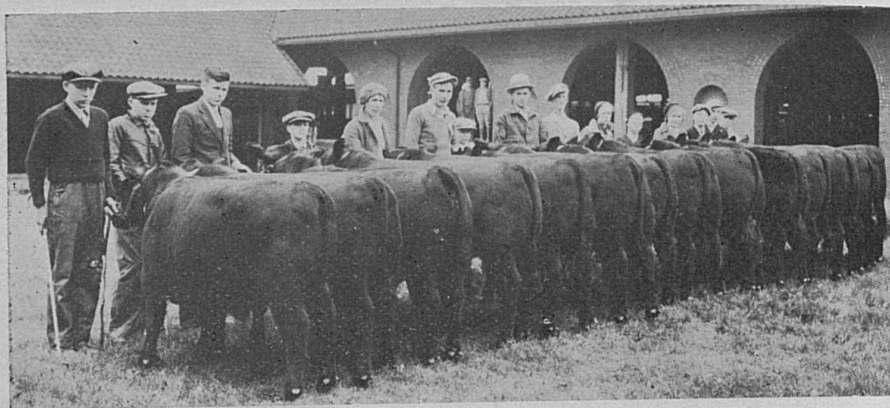
An Owen County boy showing his champion 4-H Club Southdown ram.

The state achievement radio program reached 18,570 club members, leaders and others interested in 4-H club work, in 59 counties.

Junior Week was attended by 508 4-H club members, and 47 local leaders, from 83 counties. This is about the average attendance for the past eight years and represents the capacity of the University for housing and feeding visitors. Sixty-five county champion teams participated in the state demonstration contests. Fifty-one county health champion boys and girls entered the health contest.

District 4-H Club Camps. Twelve district 4-H club camps were attended by 1,943 club members, 278 local leaders and

12,450 visitors, from 81 counties. This is the largest attendance on record at district camps. The State Y. M. C. A. representatives assisted with nine of the camps.



The carlot of baby beeves, fed by Garrard County 4-H club members won the grand championship in competition with adult feeders.

State Fair. The premium money awarded on 4-H club exhibits at the Kentucky State Fair was very much reduced. This caused a reduction in the number of livestock exhibits from the more distant parts of the State. A very creditable show, however, was made in all divisions of the Club Department. In the Home Economics Division, there were 455 jars of fruits and vegetables, 721 articles of clothing, 40 articles in room improvement exhibit and 138 in foods. There were 52 county champion 4-H club judging teams in the State Contest.

Baby Beef Show. Seven hundred and forty baby beeves were fed by club members and exhibited in the Eleventh Annual Baby Beef Show and Sale, held at the Bourbon Stock Yards in Louisville. The sale price was fairly satisfactory and the club members are already planning for a show in 1933.

Tobacco Shows. Three district tobacco shows were held for club members. It was believed that the shows would help to carry out the purposes of the tobacco project which are to teach club members to produce a finer quality of tobacco and market it in a better condition. The buyers and warehousemen gave excellent cooperation in conducting these shows. One was held at

Shelbyville, with 32,715 pounds; one at Carrollton, with 72,000 pounds, and one at Lexington with 71,000 pounds. Several county tobacco shows were held in addition to district tobacco shows.



Membership in 4-H clubs gives country boys and girls useful work and wholesome recreation. These bright youngsters are not seeking a chance to escape to the cities. They will stay in the country and will make country life more satisfying.

National 4-H Club Camp. Kentucky sent two boys and two girls and one leader to the National 4-H club camp in Washington in June.

National 4-H Club Congress. Twenty-six club members and leaders from Kentucky attended the National 4-H Club Congress held in Chicago, including a livestock judging team an entrant in the Style Dress Revue and a girl entrant in the National Health Contest. There were also entries in canning, clothing and room improvement. The exhibit of canning from Boyle County won first prize in the Hazel-Atlas exhibit and the club was awarded \$100. The entrant from Kentucky in the Style Dress Revue placed fourth in her division and one of the room improvement exhibits was placed seventh.

Utopia Club Work. The work with young men and young women above club age made excellent progress. The enrollment



These 4-H club girls have learned to make their own clothing of excellent quality and style. The cost is only a fraction of what such clothing would cost if purchased ready made.

almost doubled and the interest and enthusiasm has increased as the work of this organization is better understood by the older

boys and girls of the State. There were 347 young men and 306 young women enrolled in the 23 county Utopia Clubs.

There are many young people who have gone back to the farm. Many of these are potential leaders and are anxious to learn how to get the greatest income from the farm as well as a more satisfying farm life. Thru the Utopia Club organizations many rural problems are being studied and an attempt is being made to reach a satisfactory solution.



4-H club girls demonstrating the preservation of eggs in water glass.

PUBLIC INFORMATION

In order that the largest possible number of farm people may have access to results of experiments, demonstrations and other work of the College of Agriculture, a weekly release containing 10 to 25 articles was mailed to all newspapers in Kentucky and to many newspapers in territory adjoining the State, as well as to farm journals and other publications circulating in Kentucky. A series of garden articles was again circulated, and found wide use among newspapers. Training and other assistance was given county agents and home demonstration agents, Utopia and 4-H club members and leaders in order that agriculture might be properly represented in the press.

This service of the College of Agriculture is highly appreciated by editors. It has contributed to the cause of agriculture by helping to keep farmers informed and by bringing before all the people a greater realization of the importance of the welfare of farmers.

RADIO, EXHIBITS, VISUAL INSTRUCTION AND MOVABLE SCHOOLS

Thru a cooperative arrangement with Radio Station WHAS of Louisville, a 15-minute program of agricultural and home economics information is broadcast daily, except Saturday and Sunday, at 12:45 p. m. During 1932 this program included 356 talks, 50 quarter-hour periods of questions and answers, 57 complete tobacco market quotations and one special one-hour program devoted to 4-H Club Work.

Exhibits. An educational exhibit prepared and displayed at the State Fair at Louisville, was visited by 18,286 persons during the week, while 754 persons registered requests for publications or special information. A special educational exhibit of 20 booths was prepared and displayed at the Convention of the Kentucky Bankers Association at Lexington on June 22. One session of the Bankers' Convention was held in connection with this exhibit, to acquaint bankers more fully with farm problems and correct methods for solving them.

Movable Schools. The movable school has come to be regarded as highly effective. Experience has shown that a school of one day, and certainly not over two, is best. Each school is devoted primarily to one line of work. They offer opportunity for the use of illustrative material and for instructors to establish close contact with those attending.

Farm and Home Convention. The annual Farm and Home Convention is the most extensive meeting held during the year by the College of Agriculture and it has come to be regarded as a public forum for the discussion of Kentucky's problems affecting rural life. The 1932 convention had a registered attendance of 1,057 persons from 68 different counties, while the estimated unregistered attendance was 300 additional persons.

Visual Education. Motion picture equipment was loaned to 24 county agents in 1932, while 19 others used personally-owned equipment. One hundred and forty films owned by the College of Agriculture were loaned to agents. Stereopticon equipment was loaned to five agents and film strip projection equipment to 20 agents.

AGRONOMY

Many Kentucky farmers continued to use lime and fertilizers during 1932, despite the continued decline in price of most farm products. Farmers learned thru experience in cultivating poor land, that even when prices are low, there is a better chance to make a profit by giving soils the proper treatment. Treating land with lime and phosphate and growing legumes in crop rotations, often doubles the yield of grain and legume crops. Finally, when this land is seeded to a pasture mixture of clovers and grasses, one acre of treated land yields as much pasture as four or five acres of untreated land.

During 1932, ground limestone, marl or burned lime, were used in all the 81 counties having county agents. Ground limestone was used on 7,064 farms in 80 counties, marl on 532 farms in 35 counties, and burned lime on 694 farms in 26 counties.

One hundred and nine portable crushers were used in 44 counties and 33 lime sheds were used in 13 counties. Lime demonstrations were conducted on 1,182 farms in 62 counties. Forty-eight names from 13 counties were added to the Lime Honor Roll during 1932, Taylor County leading with 10.

Approximately 120,000 tons of ground limestone were used in 80 counties having county agents. Due to the cheap by-product ground limestone that is now being produced by an increasing number of county and State road quarries and by the large commercial quarries, and the lower prices of that produced by portable crushers, limestone is now available in many localities at very low prices. The prices range from 10 cents to one dollar per ton at the quarries.

Refuse mussel shells from the button factories at Paducah,

furnished a new source of agricultural lime. A State lime pulverizer ground 500 tons of these shells and sold the ground product to farmers at one dollar per ton.

Ground Limestone, Marl and Burned Lime Used from 1925 to 1932.

Years	No. Men Using Ground Limestone	No. Tons Ground Limestone Used	Number Counties	No. Men Using Marl	No. Tons Marl Used	Number Counties	No. Men Using Burned Lime	No. Tons Used	Number Counties
1925	3,500	91,000	69	437	9,311	24	106	1,141	21
1926	4,615	102,000	61	317	9,317	26	1,077	3,677	16
1927	4,500	132,000	69	233	10,873	35	667	6,657	25
1928	6,892	198,629	86	293	17,220	38	456	6,906	22
1929	8,714	247,405	91	472	24,377	40	648	5,103	26
1930	10,036	225,192	88	390	26,280	37	853	3,300	29
1931	8,480	159,824	86	453	23,716	37	343	2,708	25
1932	7,113	119,643	81	535	22,204	35	694	4,352	26
	53,850	1,275,693		3,140	143,298		4,844	33,844	

This means that in counties having county agents, enough lime material has been used during the past eight years, to lime 600,000 acres of land. Granting that the lime lasts only six years and that the return would be only \$2.50 per year, per acre, the gross return would be \$9,000,000. Results from outlying experiment fields during the past eight years, show profits much greater than this.

While no new counties have been added to the marl territory, many new beds have been found in the old territory, and 403 samples were sent to the Experiment Station for analysis.

There were 167 marl demonstrations in 27 counties, to show the value of marl on legumes and other crops. Fifteen marl loading and spreading demonstrations were carried on in eight counties.

There are probably 30,000 farms in Kentucky on which there is marl. The owners of these, by making use of their own labor and equipment or by cooperating with their neighbors in the use of labor and equipment, can lime their land with marl without the expenditure of money. During 1932, County Agent J.

E. Summers, of Marion County, induced farmers to cooperate in spreading marl thru the "Marl Ring." He says: "In three communities in the county, marl-spreading rings have been organized and put into operation. The rings are cooperative arrangements which enable six farmers to work together on an exchange of labor basis. The ring has an advantage over individual effort, in that the labor, machinery and work stock necessary for the marl spreading operation, can be utilized more economically." Marion County ranked first in 1932 in the amount of marl used. The amount used was 4,223 tons.

Legumes. Interest in sweet clover production is falling off in favor of lespedeza. The total acreage of sweet clover in 1932 was 36,000 acres, three-fourths of which was sown in mixtures with other grasses and clovers. The common mixture with sweet clover is orchard grass and Korean lespedeza.

Alfalfa is sown with successful stands in all portions of the State. The price of alfalfa hay continues to be high in comparison with other farm products, in most sections; however, the acreage has not increased, there being an estimated total of 44,000 acres sown in the entire State. Six hundred and seventy-five men are reported sowing alfalfa mixed with clover on 15,330 acres. This alfalfa-clover mixture has been used for the past ten years, as a means of discovering whether or not certain fields will grow alfalfa and also to inoculate the land.

Pasture. There is great need for pasture improvement on the average Kentucky farm. Fortunately pasture responds to soil treatment better than any other crops, especially when the proper mixture of grasses and clovers is seeded. Most farmers who used lime, also used phosphate, and the 600,000 acres, in county agent counties, that were limed during the past eight years, became potential pasture and hay land.

The use of pasture mixtures continues to increase, especially since the advent of Korean lespedeza has given almost absolute assurance of a stand, when it is sown in mixtures with grasses or clovers. Sixteen hundred men are known to have sowed Korean lespedeza with Kentucky bluegrass seed in establishing new bluegrass pastures. More than a third of the new sowings

the pul-
ground
n 1925

	Number Counties
1	21
7	16
7	25
6	22
3	26
0	29
8	25
2	26
4	

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of orchard grass have Korean lespedeza mixed with the orchard grass. Seventeen hundred bluegrass farmers are reported to have sown Korean seed broadcast on old bluegrass pastures without stirring the soil in preparation of a seed bed. Fifty-five hundred farmers are reported to have sown Korean lespedeza broadcast on other kinds of old pastures. Along with a greater use of Korean lespedeza there is developing a greater use of orchard grass in pasture mixtures, because it is making stands where, but few years ago, it was thought to be impossible to make it succeed. It supplies early and late grazing. This success may be due to the combination with lespedeza which may make nitrogen available to the grass. One factor of great importance which is stimulating interest in pasture mixture sowing, is the high quality of Kentucky bluegrass and orchard grass seed, which can be had now at reasonable prices.

Common lespedeza has declined in prominence as Korean takes its place. Slightly more than 10,000 bushels of common lespedeza seed are reported sown in 40 counties, 17 counties reporting 1,816 men cutting common lespedeza hay, and eight counties saving the seed. Kobe lespedeza was cut for hay in nine counties and for seed in ten. Korean lespedeza was cut for hay in 67 counties, and for seed in 58.

Five demonstrations were established in Grayson County in 1928. The five men sowed one pound each. Five men sowed 100 pounds in 1929, one of whom saved 1,016 pounds of seed from two and one-half acres. Ninety-seven men sowed 1,300 pounds in 1930, one saving 3,600 pounds of seed. One hundred and forty-three men sowed 5,000 pounds in 1931, in meadow and pasture mixtures. No one had failed to get a stand of Korean during the four years, because of its short growth, most growers considered it a pasture plant, not producing growth sufficient for hay production. Two-hundred and fifty men sowed 25,000 pounds in 1932, the average rate of seeding being about five pounds per acre. Many could obtain Korean seed on credit or exchange from neighbors and the result was that no grass was sown on many farms, but Korean lespedeza was seeded at the rate of 10 pounds per acre. It produced

pasture on waste land and showed less difference in height in relation to soil fertility than any other crop. It produced pasture thruout the summer and hay at the rate of one ton per acre for each six inches in height.



Lespedeza sericea is a new forage crop in America. It is a perennial legume and grows on poor soil without liming.

Lespedeza seed production in Kentucky in 1932 amounted to approximately 160,000 pounds of Kobe; 112,000 of Common or Jap, and 3,000,000 pounds Korean. The quality of seed produced under the standards of certification is the highest that has ever been known. This work has done much to improve the quality of seed offered for sale within the State.

Lespedeza sericea, a new lespedeza, has begun to assume prominence. One hundred and ninety-two men sowed lespedeza sericea in rows, and seven broadcast. One hundred and fifty-four harvested seed. The principal interest was in seed production. Twenty-one of these growers are certifying their crops in the Kentucky Seed Improvement Association.

Tobacco. Curing demonstrations constituted the most important phase of tobacco extension work in 1932. Of particular interest and value to growers were the demonstrations showing

the advantage of using an hygrometer to indicate the temperature and humidity of the air during the curing period. Successful curing of tobacco leaf is largely dependent upon the maintenance of proper temperature and humidity. High temperature combined with high humidity over a 24 to 48 hour period, may cause houseburn, while a low temperature or very low humidity may retard the yellowing process and cause the leaf to cure green.

Curing demonstrations in which hygrometers were used were conducted in the dark-fired, dark air-cured and Burley districts. The College of Agriculture furnished the hygrometers for demonstrators. The results obtained by these men constitute the foundation for further work. The agents in western Kentucky conducted approximately 80 curing demonstrations in which hygrometers were used in ventilated barns. The tobacco from these barns was sold at the barn at prices of \$15.00 to \$20.00 per hundred as compared with price of \$4.00 to \$6.00 per hundred for tobacco cured in unventilated barns and sold on the open market.

In the Burley area 45 curing demonstrations were conducted. One grower in Bourbon County, using an hygrometer, found the humidity in his barn in excess of 95 percent for a period of three days, with a temperature of 80 degrees Fahrenheit, and was advised by the county agent to dry his barn with coke fires. The advice was ignored, and the tobacco was severely damaged by houseburn, while a neighbor who fired when similar conditions existed in his barn, produced excellent bright tobacco. The selling price of tobacco cured in barns in which hygrometers were used has averaged from \$3.00 to \$8.00 more per hundred than other tobaccos.

There was a strong demand for grading demonstrations.

Definite results were obtained from the field work in "No. 5" root-rot resistant tobacco. In the spring of 1932, approximately 1,600 packets of seed were distributed to Kentucky farmers and the results these men report indicate in general that No. 5 White Burley is suited to the conditions found in Kentucky. From reports obtained, the average return per acre from No. 5

tobacco was approximately \$130 as compared with \$120 for other varieties grown alongside.

Improved seed production. A sustained effort is made to demonstrate the importance and economy of buying good seeds, to show how the real cost of seeds may be estimated from information on the state tag, and to point out the more harmful weeds and suggest methods for their control. During the first six months of 1932, 19 meetings were held in 11 counties, and 55 conferences with agricultural leaders were held in 27 counties. The total attendance at meetings and conferences was 1,046.

Thirteen small weed seed exhibits were prepared for county agents. One large exhibit was prepared and shown at the State Bankers Convention and another at the Kentucky State Fair and three county fairs.

The seed situation as it really exists and the methods of improving the situation command great attention from farmers and seedmen. The folly of sowing poor seed is readily understood when properly explained or demonstrated. Since this work has been carried on, sentiment concerning it has changed from an unfavorable attitude, as shown by repeated failures of attempts to enact a seed law, to one so favorable that no objections were offered in the 1932 session of the General Assembly.

AGRICULTURAL ENGINEERING

Agricultural Engineering work dealt with farm buildings, drainage, erosion and sanitation.

Farm Buildings. Farmers in 91 counties in the State were given assistance with their farm building problems. On 1,604 farms 3,525 buildings were constructed or remodeled, according to plans furnished. Twenty-three new plans were prepared making a total of 175 plans of all kinds of buildings and equipment now available for distribution.

In cooperation with the county agents, the milk division of the Louisville Board of Health, and the Falls Cities Milk Producers Cooperative Association, eight meetings were held in three counties in regard to milk house construction and cooling equipment. The total attendance was 244. Six tours were con-

ducted in five counties, on the subject of dairy-barn construction and remodeling, with a total attendance of 211. In the area that supplies milk to Louisville, 2,584 dairy buildings were built or remodeled, according to plans furnished by the Extension Service.

Fruit and Vegetable Storage Structures. In response to the general demand for information on fruit and vegetable storage structures in connection with the Live-at-Home program, plans, specifications and bills of materials for erecting mounds, simple storage devices and several types of storage cellars were prepared and distributed. Thirty-seven leader-training and general meetings were held, on storage structures, in 25 counties, with a total attendance of 815. As a result of this program 185 storage cellars and 498 storage mounds were constructed.

Brick Brooders. To supply the requested information regarding brick brooders this department first prepared a blue-print plan and a form letter. The demand increased to such proportions, however, that a circular was prepared embodying a plan for a brick brooder and suggestions concerning its construction and operation. The brick brooder is inexpensive and easy to build and with either coal or wood, is cheap to operate. Many farmers who used them feel that brick brooders are a greater help to poultry men than anything else which has been introduced in many years. More people using brick brooders reported 100 percent of chicks raised than had ever been reported from the use of manufactured brooders. Most of the brooders were built with no cash outlay, and those which required purchased material cost no more than \$2.00.

In McCracken County 60 brick brooders were constructed. In Barren County 200 were built at a cost of \$1.25 each. For the entire State the county agents reported 410 brick brooders built. Assuming a \$2.00 cash outlay for each brick brooder and an average cost of \$15.00 for commercial brooder stoves, farmers of this State have already saved \$5,330 by building brick brooders.

Sanitation. Sanitation surveys were conducted in three counties thru the assistance of the home demonstration agents

and the homemakers' clubs. This year 169 home sewage systems and 142 water systems were installed. Only one out of 50 farm houses in Kentucky is equipped with running water. Proper sanitation contributes more to the health and comfort of the farm family than any other single factor. In 80 percent of the 172 homes reporting thru a survey made in Graves County the conditions were suitable for the installation of pitcher pumps inside the kitchen and 90 percent of all reporting were drawing water by hand. The most dangerous fact uncovered, however, is that 15 of the families had no toilet facilities.

Erosion. Kentucky has about two and a half million acres of land that is seriously affected by erosion. In no section of the State is there in common use a satisfactory system of controlling erosion thruout a crop rotation. Terracing work has been conducted strictly on a community basis. Sixteen terracing leader training meetings were conducted in 11 counties. Work was done in 34 counties and on 157 farms with 2,395 acres terraced. In many counties there is an increased interest in terracing. Local leaders are beginning to function and an increase in acres terraced will follow. One 20-acre field which has been terraced for four years was declared by farmers present at a field meeting to be worth more now for crop production than the entire 211 acre farm, of which it is a part, was worth five years ago. The work was done during spare time and without cash outlay.

Drainage. The lack of fertile tillable land is the chief handicap to profitable farming in Eastern Kentucky. The use of box drains which may be constructed without great cash outlay and the removal of brush from creek banks and dams from streams will improve many acres needed for crop production. In that section 1,554 acres of land were tile drained and in addition 16 miles of stream drainage were improved.

In Rockcastle County, seven farmers drained their lands by clearing the creek banks on their farms and getting others to do so. This has opened up the possibilities of getting three creeks in three communities straightened, which would benefit

hundreds of farms and thousands of acres of land without cash outlay.

In Knox County, agricultural engineering work was carried on in nine communities by 19 committeemen. As a result, seven acres were tile drained and 11 miles of stream beds were cleared by 39 farmers. Result demonstrations consisted of two clover demonstrations on 14 acres of land, with an average yield of 1.8 tons per acre, and two corn demonstrations on 23 acres of land, with an average yield of 46 bushels per acre. Two and three years ago these demonstration fields produced only bulrush and swamp grass. In Clay County, five miles of creek banks were cleared of brush and dams were removed from stream channels by community effort to improve stream drainage.

ANIMAL HUSBANDRY

Beef cattle work embraced: (1) the establishment and development of beef-producing herds using grade or purebred females bred to purebred beef bulls; (2) demonstrations in feeding beef cattle, with special emphasis upon feeding grain to cattle fattened on pasture; (3) remodeling beef cattle barns, where feasible, so that the cattle might have more room, air and light, thereby making larger and cheaper gains possible.

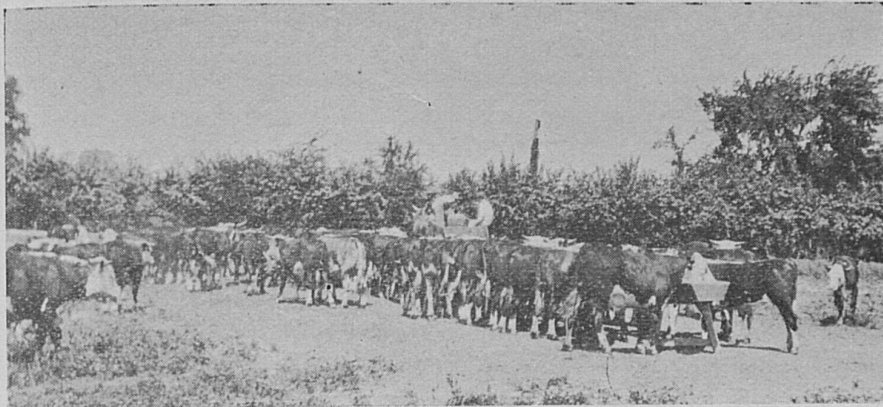
Many new beef-breeding herds were established for producing feeders and baby beeves. Fifty farmers in one county are now producing beef calves and all herds are headed by purebred bulls. The same plan is being followed in many other counties.

The feeding of grain to calves while nursing their dams was urged. Demonstrations showed that where grain was fed to calves the average income over feed cost of cow and calf was \$18.01, while in herds where no grain was fed to nursing calves the income over feed was only \$4.54.

Twenty-six field meetings were held, with an attendance of 3,338, and 459 farm visits were made to demonstrators and co-operators.

Sheep. The value of the purebred ram in the production of top market lambs, has been emphasized for a number of years. The demand for such rams was so strong this year that they

sold at a higher average price in Kentucky than in any other State. Kentucky breeders are now using twice as many purebreds as they did 10 years ago.



Demonstration steers in Western Kentucky. These 88 steers made a net return of \$1,046.98 above all feed costs.

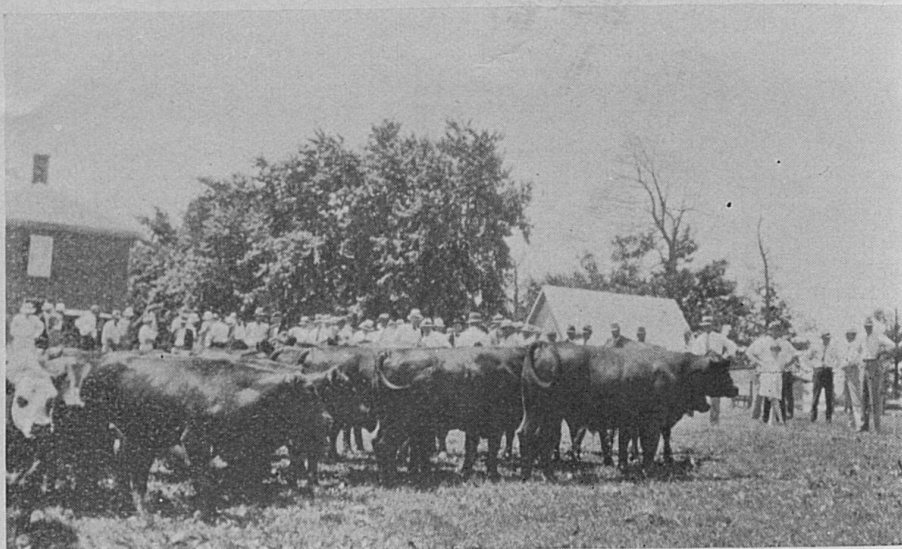
Kentucky has made pronounced improvement in her purebred flocks. She now has approximately 40 percent of all the registered Southdown sheep in the United States. Kentucky ranks next to Idaho in the number of purebred flocks of Hampshire sheep. The extension work has been responsible for the establishment of more than one-half of these purebred flocks. Eighteen new flocks of purebred sheep were established during the year. Eighty-four demonstrations were given in culling and judging purebred sheep. Assistance was given in the selection of stud rams for 41 flocks. Sheep schools featuring the importance of purebred rams, breed type and managerial problems were held during the late summer. Approximately 2,100 sheepmen attended these schools.

Several carloads of purebred sheep as well as many individual shipments were sent to out of State breeders. The shipments consisted mainly of purebred rams to head purebred flocks for breeders in States from Pennsylvania to California.

Docking, castrating and control of internal parasites, as well as the feeding and management of flocks, were emphasized.

Swine. The field agent gave 31 pork trimming and curing

demonstrations, with the attendance of 1,016 people, six lamb-cutting demonstrations, with an attendance of 1,636, and four beef-cutting demonstrations with an attendance of 99. County agents, and trained local leaders gave 50 pork demonstrations. As



The methods of successful feeders are studied by organized "tours" in many counties. Careful management makes the difference between profit and loss.

a direct result of using recommended methods of trimming and curing pork, an Eastern Kentucky farmer who sells hams, reports an increase in the price received of from three to five cents a pound. Ten thousand, or more farm families will adopt better methods, which improve quality and decrease loss incident to the use of old methods.

Farmers generally have responded well to suggestions in regard to the proper trimming of lamb and beef.

Despite the low price-level of corn, hogs still are a profitable medium thru which corn may be marketed. A summary of the cost records received on 39 of the 41 litters fed in the ton-litter contest showed that the corn, returned more than 50 cents a bushel, after charging for pasture and labor. The profit, per litter, of a fraction under 10 pigs, was \$22.39, above feed, pasture and labor. Ton litter demonstrations influence numer-

ous localities to continue profitable methods despite price drops. In Union County, 16 complete cost records are being kept on entire herds of market hogs. These records will be of great value in effecting the adoption of improved methods of feeding and management in that section of the State.

Efforts in swine sanitation are being rewarded annually by a saving to hog producers of more than 40,000 bushels of corn, since sanitation-methods solve a large majority of the ills of the hog. Producers find that quack remedies, powders, and a majority of the commercial mineral mixtures are unnecessary expense. In 1924 one mineral-and-remedy concern stated that their sales for that year in Kentucky amounted to \$160,000. They anticipated that sales would amount to a quarter million dollars the succeeding year. Now there are scarcely any of these products sold in the State.

DAIRYING

Dairying as a source of farm income in Kentucky ranks second only to the tobacco industry. In a considerable portion of the State, dairy cows provided a fair cash income where home-grown grains together with abundant pastures and legume hay crops were marketed thru good cows. In some sections dairying can be only a side line because of the inability of the farmer to raise enough suitable feed. There exists a general lack of true appreciation of the food value of dairy products in the farm and urban homes.

A fairly true conception of the status of dairying as it exists in Kentucky may be gained from the following figures: During the year 1931, the latest for which complete figures are available, 492,000 cows in Kentucky, according to estimates by the Bureau of Agricultural Economics, produced 1,742 million pounds of milk. The uses to which this milk was put were about as follows:

	Million Lbs.	Percent of Total
Used as milk and cream in farm homes.....	421	24
Fed to calves	33	2
Used in making farm butter	446	26
Sold as butterfat to creameries	522	30
Whole milk retailed by producers	126	7
Whole milk wholesaled to dealers	194	11

These figures show that more than one-half of the milk produced by cows in Kentucky is either consumed on the farm where it is produced or is made into farm butter. These data also seem to indicate that more than one-half of milk produced by the cow population in the State finds its way to the consumer in the form of butter. These figures also show that the average cow in the State produces only 3,540 pounds of milk which, figured at an average of 4.3 percent butterfat, credits her with only 152 pounds of butterfat. Hence many inferior cows or cows which are not properly fed are being retained in the herds.

Thru feeding and breeding schools, quality milk meetings, dairy leaders training conferences, demonstration herds, dairy herd improvement associations, 4-H dairy calf clubs, bull clubs and associations, organized and located in all parts of the State, an increasing number of farmers are reached each year. Because so much progress can be made in a short time thru improved feeding methods the dairy feeding school has proved an excellent introductory plan. Breeding schools have been found very effective in sections where records of individual cows were available for use in proving sires. This is based on comparisons of the production of dams and daughters.

During the year, 2,776 cows, in 103 herds, completed a year's test in dairy herd improvement associations. Proper methods of selection, feeding and breeding are being practiced by the farmers whose cows are being tested in these associations. A summary of the average butterfat production per cow in

Kentucky Dairy Herd Improvement Associations indicates that very satisfactory progress has been made.

Year	Average Butterfat Production per cow. Lbs.
1928-1929	256
1929-1930	270
1930-1931	288
1931-1932	312

The increased efficiency shows that herds have really improved in communities served by dairy herd improvement associations. Twenty-six per cent of the cows in these associations were registered and during the year 14.2 percent of the cows tested were sold as culls. It is interesting to note that 17 percent of the cows were culled in the association where the average production per cow was the highest. Non-legume hay was fed in only five percent of the herds on test and 93 percent of the herds on test received grain while on pasture. These are only a few of the approved practices which have been generally adopted by dairy farmers who keep individual cow records. The same lessons are taught in the demonstration herd project but the method employed is necessarily different, where a farmer is taught to keep his own records. Five bull associations made up of 117 members owning 23 sires and 592 cows successfully functioned during 1932. Such organizations give a farmer the use of a better bull for slight cost.

For the first time the quality milk project was emphasized. The effects of the fourteen quality milk schools which were held among dairymen who supply Louisville will be far-reaching. Probably the greatest result, but one which is difficult to measure, has been the change in attitude of the people attending these schools. Milk ordinances have been adopted which call for better barns, milk houses, cooling tanks, etc.

During 1932, 1,438 club animals were owned by 979 boys and girls. Records were kept, county and district shows were held and demonstration teams were trained to demonstrate practices needed. Many adults learned from the 4-H club demon-

stration teams that sweet cream would churn and make a very choice butter for home use. This and other demonstrations which were particularly adapted to the "Live-at-Home" program were given in various counties.



Marion County 4-H club girls demonstrating the proper methods of making country butter.

Cream Improvement. The four-day delivery plan of selling cream at cream buying stations was in effect at 450 stations in 55 counties in Kentucky during 1932. "Premium Cream" which is delivered by the farmer to the buying station within four days or less of his previous consignment has enjoyed a higher price than "Regular Cream" which is delivered at less frequent intervals. More than four and one half million pounds of butterfat was marketed at cream stations in the grading territory, of which 71.7 percent was "Premium Cream."

During the year a decrease of 650,000 pounds of butterfat sold to cream stations occurred but there was a gain of 200,000 pounds of "premium butterfat" or butterfat sold to the station in cream not more than four days old. The undergrade butterfat is probably being absorbed by truck routes or direct shipper creameries which are not grading on the time delivery plan. It is difficult to state accurately the economic value of the plan to farmers who sell cream at cream stations. Producers of

“premium cream,” however, received a much larger return than would have been possible had not the four-day plan been in operation.

The following table indicates the progress which was made during 1932:

	Year Ending Nov. 30, 1929	Year Ending Nov. 30, 1930	Year Ending Nov. 30, 1931	Year Ending Nov. 30, 1932
Pounds butterfat purchased	5,817,129	6,306,981	5,146,070	4,532,202
Pounds premium butterfat purchased.....	2,929,933	3,420,486	3,068,661	3,250,089
Percent premium butterfat purchased.....	50.4%	54.2%	59.6%	71.7%
Pounds regular butterfat purchased.....	2,884,705	2,845,714	2,033,167	1,273,616
Percent regular butterfat purchased.....	48.7%	45.1%	39.5%	28.1%
Pounds onion butterfat purchased	52,491	74,081	44,242	8,497
Percent onion butterfat purchased9%	.7%	.9%	.2%

POULTRY

An effort is being made in certain sections of the State to develop poultry raising to be one of the major sources of income on the farm. In addition, farm flock owners are kept informed on improved methods of management. The production of quality poultry and eggs and the use of poultry as a source of food for the farm family have been stressed.

Replacement of hens which have died or have been culled has been one of the biggest problems confronting the flock owner. Good pullets, laying in the fall and winter, are necessary if the flock is to be profitable.

The Clean Chick project, which embodies: (1) clean chicks from B. W. D. tested flocks, (2) clean, waste-proof equipment, (3) clean ground as pullet range, (4) feeding balanced rations, and (5) clean management practices, has produced excellent results, as the following figures show: Forty-five demonstrators started 20,913 chicks and raised 19,187 or 91.7 percent. In studying the cost of producing pullets, it is shown that 33 flock owners started 11,759 chicks, raised 10,967 or 93 percent, and produced 4,271 pullets at a net cost of \$68.68 or 1.6 cents per pullet, exclusive of labor and overhead. The net cost represents

the difference between cost of chicks plus the cost of feed plus the cost of fuel, and the income from broilers sold plus the cull pullets sold plus the income from eggs from the pullet flock to 26 weeks of age plus the value of male birds raised with the pullet flock to 26 weeks of age.

In 1932, 110 demonstration flocks produced an average of 158 eggs per hen and a labor income of \$1.19 per hen after feed cost, loss in inventory depreciation, taxes and insurance had been deducted.

A total of 290 meetings and demonstrations were held, with an attendance of 8,250 persons.

The Annual Poultry Short Course and Turkey Field Day were held at the University.

Poultry improvement work is carried on thru an organization of 1,100 hatcherymen and poultry flock owners. Added interest has been shown by the increased number of pedigreed male birds used, there being approximately 700 males from dams of 200 eggs or more used on certified flocks this year. Two hatcherymen are hatching eggs from flocks mated only with pedigreed male birds. This organization and the extension poultrymen correlate their aims and programs.

VETERINARY SCIENCE

Interest of livestock owners in disease prevention programs increases each year. Livestock owners realize more fully the worthless nature of the majority of patent cures and are looking for more effective methods of dealing with losses from animal diseases.

There are certain diseases for which there is no known method of treatment or cure. These are such as tuberculosis, Johne's disease, contagious abortion, pullorum disease of poultry and glanders in horses. There are, fortunately definite and reliable methods of diagnosis and the Extension Service seeks to show the fact and outline methods of prevention and eradication. In the case of other stubborn diseases, the effective use of vaccines and serums is taught. This class includes such diseases

as hog cholera, blackleg, anthrax, rabies, chicken pox, forage poisoning, tetanus and distemper. The Extension Service also disseminates useful information on the treatment of diseases that respond to drugs and nursing as well as those that arise from nutritional disturbances.

It is important that both livestock owners and practicing veterinarians cooperate fully in a disease prevention program. The Extension Service in its system of lectures and demonstrations considered both stockmen and veterinarians. Farmers are taught the great value of correct and early diagnosis and the effectiveness of efforts directed along correct lines. The elimination of disease adds profit and pleasure to the livestock business which cannot be had if animals are sick or unthrifty.

SUMMARY

Farm visits	334
Consultations with veterinarians and county agents	193
Post mortem demonstrations, to determine cause of death and to give control measures	32
Demonstrations of drenching, bleeding, vaccinating, caponizing, etc.	30
Persons attending demonstrations	915
Meetings	95
Attendance	2,703
Counties visited in regard to hog cholera	14
Counties visited in regard to Pullorum disease control	42
Hatchery sanitation visits	47
Cattle abortion disease visits	38

HORTICULTURE

Commercial Berry Production. In the commercial strawberry centers, extension workers emphasized the importance of small acreage and high yield for profitable strawberry growing. The principal features stressed were selection of site and soil, early spring planting, use of fertilizers, control of crown borer, and mulching. In McCracken County 2,600 growers grew 5,000 acres, or less than two acres per farm.

Because of the favorable position of strawberry growing in

contrast to some other farm enterprises, demands were made on the College of Agriculture for assistance in establishing new strawberry-growing centers. Meetings were held in 10 counties. The general outlook for strawberry production was discussed frankly and the requirements for the establishment of a sound strawberry business were presented. In spite of discouraging prospects, three centers, comprising several counties each, planted a commercial acreage.

The "200-Crates Per Acre" Club, established by extension workers in 1929, had no qualifying members that year. In 1930 only two growers produced over 200 crates per acre. In 1932, 18 growers qualified. The highest yield was 320 crates on 1.26 acres. The practices used by these growers serve as effective demonstrations. Prizes and certificates are awarded each year.

A special extension program for the control of crown borer has practically eliminated this pest from the southwestern Kentucky strawberry district.

The Latham red raspberry was introduced into the Paducah district in 1929 as a 4-H Club project. In 1932 the crop in this district brought the farmers approximately \$40,000. Meetings and field demonstrations were held in the Paducah, Louisville and Covington districts. The success of this enterprise has resulted in rapid expansion in acreage. Considerable time has been given to an effort to establish sound practice and prevent too rapid expansion.

Orchard Management. Meetings were held in 10 counties, demonstrating tank-mixed oil emulsions for use as the dormant spray. It is estimated that the use of this spray saved the orchardists in one county more than \$1,000 as compared with spraying costs in previous years. The results from the use of this spray have been so successful that most of the larger orchardists will use it in 1933.

Because of the failure of the peach crop in the spring of 1932, due to the cold wave in March, a revision of pruning recommendations was made necessary. Pruning demonstrations were held in all of the peach-growing districts.

Timely spray information was sent from time to time to

apple growers thru the spray season. Field observations were made in the orchard districts as a basis for the preparation of spray recommendations.

The use of sprays for the control of fire blight when the trees were in full bloom was demonstrated by 125 men. The demonstrators who had susceptible varieties were pleased with the results, and reported that they would continue to use this spray. Orchard tours and summer meetings were held in eight counties.

Potatoes. Extension of potato growing into the mountain sections was carried on in six counties, with 121 cooperators putting on 524 demonstrations. The use of improved practices increased the yields in all cases. In every case the use of certified seed gave an increase over the yield from common seed. The increase varied from 66 to 152 bushels per acre. The seed treatment demonstrations resulted in increased yields ranging from 31 to 65 bushels per acre. The spraying demonstrations using Bordeaux mixture for the control of blight showed increases in yield from spraying of 29 to 44 bushels per acre. It should be pointed out that the results from these demonstrations are not comparable because some were gardens and some were field plots.

Certified seed potatoes were introduced into 12 new counties and the general use of certified seed was increased thru a cooperative arrangement with county agents and seed dealers. About 14,700 bushels of "certified" potato seed were planted. The assistance of the Federal Trade Commission was obtained for the suppression of spurious brands of certified seed.

The new "French" potato was introduced thru 42 demonstrations in 36 counties. The yields were greater than those from ordinary seed, and the quality was better.

Sweetpotatoes. The work with sweetpotatoes was directed chiefly toward seed treatment. Twelve demonstrations were held, with an attendance of 182 men. Stress was laid on the importance of holding the acreage at a point which would permit proper curing and storing.

Canning Crops. Six "tomato school" meetings were held.

Demonstrations with tomato growers showed an increase in yield of one to one and one-half tons per acre thru the use of legume sod and superphosphate fertilizer.

Home Gardens. The "Live-at-Home" garden project was given special emphasis. Every county agent and home demonstration agent was supplied with literature giving instructions for raising a large share of the year's food supply from the garden. Sixty-one meetings were held in 22 counties, with a total attendance of 1,148. Eleven counties were organized on a "leader" basis and a leaders' training meeting was held in each county. Total attendance at these meetings was 152. Later, seven meetings were held with county leaders. Seven garden contest meetings were held. More than 2,000 gardens were entered in garden contests. Thirty-five garden articles were released to the press, weekly, from January to October. More than 135 Kentucky newspapers used the articles.

Commercial Gardens. Thirty-three meetings were held with commercial garden clubs in six counties.

Landscape. There has been a marked increase in the interest shown in the improvement of home and public property. The requests for information and assistance taxed heavily the facilities available for rendering this service. This work fitted well into the general "Live-at-Home" program of the Extension Division by making farm life satisfying, thru improvement of the home surroundings. Home demonstration agents in 28 counties selected landscape as a minor project, and with the assistance of a specialist, held leaders' training meetings in their counties, assisted by the Homemakers' Clubs. In addition, 30 meetings were held in 16 counties, in cooperation with county agents. The work resulting dealt with home grounds, school grounds and with public buildings. At the request of public school officials meetings were held on 112 school grounds in 32 counties. Every meeting resulted in some improvement being made and in many instances all the improvements suggested were carried out. Utopia Club members in 17 counties adopted landscape projects consisting chiefly of lawn improvement and foundation plantings.

Two communities in Boyle County established improvement clubs for the purpose of improving the general appearance of the community. Four field meetings were held. In general the program involved a clean-up of rubbish and unsightly areas in the community and focused attention to improving the attractiveness of highways, churches, schools and home grounds.

Consultations were held with the State Park Commission, relative to the development of the state parks, and with the State Highway Commission.

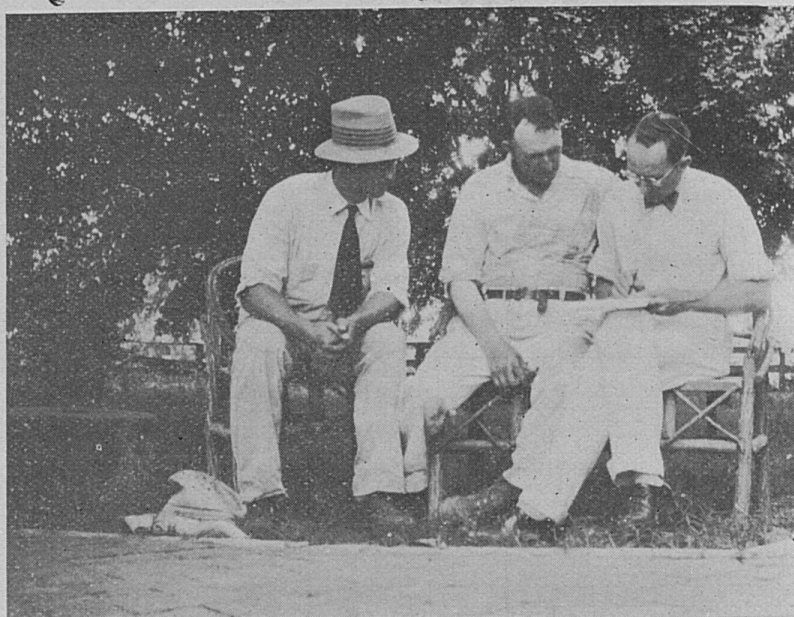
FARM ECONOMICS

Farmers handicapped by low prices and greatly reduced buying power were shown the possibilities in the selection of farm enterprises which would best fit their conditions. Under the circumstances it seemed that the best method to increase incomes was to show methods of reducing cost of production.

Five hundred and seventy five farmers cooperated in making farm business analyses thru accounts. Each received a farm account book and was instructed in its use. In the greater number of cases these farms were so located that the individual farmer's analysis could be grouped with those of his neighbors' so as to contribute to a group average and to a sorting of factors which showed the causes why some of the farmers made more money than others. There were 13 such groups comprising 298 farm operators. A group report was made in each case and an analysis of the business of each farmer. These individual reports were returned during the year at which time the business set-up was discussed with the farm operator in the light of his record. Definite plans were recommended for future operations. A new and improved farm account book was prepared.

Enterprise Cost Surveys. As a means of demonstrating ways of reducing unit costs and increasing net profits, 70 enterprise survey cost records were procured. One group comprised 40 records on the cost of producing strawberries. The other 30 records related to the cost of producing dark tobacco. Upon the request of the Board of Directors of the Milk Cooperative in the Cincinnati area, a survey was made on the cost of producing

milk in each of 30 dairy herds in Boone County. These records were analyzed and tabulations were made showing the most important factors in low cost production per unit of product. For



This farmer is intensely interested in his farm account book summary which shows the strong and the weak points in his farm business.

each survey the results were presented to farmers at special community meetings.

During the year 24 sheep enterprise records were started in three counties and will be summarized at the end of the farm year.

Community Surveys. Community surveys were made in seven communities in seven counties. Each cooperating farmer received a copy of the community summary and a summary of his individual farm business to assist the cooperators in locating the strong and the weak points in their farming. Meetings were then held for the purpose of discussing the summary of the survey and pointing out means by which farmers could increase their income. A total of 15 community farm management schools were held, with an attendance of 521.

Farm Budgeting. Twenty-five farmers were assisted in

working out detailed plans of organization that appeared most likely to give the largest net returns for the farmer's available resources, taking into account prices, the amount and kind of land available and other factors. The farms are watched closely during the season. The budget demonstrations have benefited the cooperating farmers and their neighbors to a marked degree, according to their own statements.

Farm Business Education. The main purpose in Farm Management extension work is to educate farmers in those principles which underlie the profitable organization and operation of their farming business. Forty-six meetings were held for discussing basic principles of farm management, these being attended by 704 farmers. In addition to these meetings were 12 special outlook meetings, attended by 300 farmers, at which the principles of profitable farm organization and management were discussed. There were also 13 special county Farm Economic leader training meetings. Each leader was selected by the county agricultural agent and furnished with a detailed outline of his duties as leader.

A special farm inventory campaign was conducted at the end of 1932. A farm inventory booklet was prepared, including a credit statement prepared in cooperation with the State Bankers Association which organization also cooperated in executing the inventory campaign. Thirty-eight hundred inventory books were furnished to county agents and project leaders who undertook the responsibility of distributing books and assisting farmers in taking their inventories.

Three Farm Management tours were conducted in three counties. Farmers demonstrating outstanding accomplishment in cost control, the selection of most profitable enterprises, economical farm layout, etc., were visited on these tours and their methods were studied.

Rural Life Improvement. Three Rural Life Conferences were held. In preparation for each conference a survey was made. An important feature of each of the conferences was a report of this survey. On the basis of this report, committees

were constituted and plans were made for needed projects in community betterment for the ensuing year.

In one community a community council was organized to serve as a clearing house in which leaders in the organizations of the community were brought together for the purpose of coordinating efforts. The conference held late in the year attracted community-wide attendance made up of both men and women and also including the younger people. Reports were made by committee chairmen including Education, Homemakers, Home Beautification, Cemetery Association, Committee for Joint Thanksgiving Services, Dairy Committee, Junior Club Committee, Raspberry Cooperative Association and Poultry.

The report of the community survey proved to be of particular interest. The committee found that the idea that rural churches no longer attract rural people is erroneous. It found that the main problem facing community organizations is the non-participation of the large group of persons who attend no public gatherings.

The observance of Rural Life Sunday, May 1, 1932, was sponsored by the University. Newspaper articles were prepared explaining the purposes of the special observance of that day, and these articles were used very generally by newspapers throughout the State. Editorials endorsing the movement appeared in several of the chief daily newspapers. A bulletin, "Helps for Rural Life Sunday," was prepared and upon request was sent out to ministers of many rural churches.

For the use of Utopia Clubs in 18 counties, two study bulletins were prepared, also one on two important economic problems, taxation and agricultural adjustment.

Assistance was given to the Louisville Family Service Organization in its project to assist unemployed persons in the city to make contacts by which they could settle on farms. County agents in Eastern Kentucky were aided in the problem of the migration of large numbers of coal miners now out of employment, back to farms.

MARKETS AND RURAL FINANCE

Continued low prices during 1932 made many farmers realize that marketing is as much a farm problem as production and that greater efficiency in both production and marketing is



Directly from producer to consumer. The curb markets conducted by the homemakers clubs in several counties, have been quite successful, a convenience to consumers and a source of cash to the farm women.

imperative if the farm business is to be adjusted to the lower price level. Low prices for farm products, as compared with prices paid for consumers' goods and costs of distributive services, called for changes in the kinds and quality of goods that could be sold to the best advantage, and likewise for changes in marketing methods and practices.

Many calls were received from farmers desiring information relative to how, when and where to market their products. Tobacco growers in particular, were given a great amount of assistance in formulating plans for the marketing of their crop. Numerous meetings were held at which the possibilities and limitations of tobacco marketing were discussed, as well as advantages and disadvantages of different types of organizations for marketing tobacco. Numerous calls for assistance were

also received from marketing associations for assistance in analyzing and adjusting their operations to enable them to carry on their operations more efficiently. Approximately 200 meetings were held. About 9,500 farmers attended these meetings.

With the object in view of coordinating the activities of the various cooperatives in the State, the department sponsored a cooperative marketing conference at Lexington. This conference was enthusiastically received by cooperative leaders of the State. Approximately 100 interested farmers attended a two-day conference. Those in attendance the second day voted to organize a permanent cooperative council and to make the two-day conference an annual affair.

Adult education in the principles of marketing is of major importance in Kentucky. Marketing schools were held in seven counties in the State. Each school consisted of four sessions, on consecutive weeks. At these meetings the various kinds of marketing, including cooperative marketing were discussed.

Grading and packing demonstrations were continued. Special emphasis was given to this type of work with tobacco. Tobacco grading demonstrations were held in 56 communities and were attended by 1,220 farmers. Demands for this work were so great that only a fraction of the requests could be met.

As farmers have become more familiar with the information that is available in the agricultural outlook, there has been a growing interest in these reports. During February and March, 27 leader training meetings were held. These meetings were attended by about 400 leaders. These men in turn held meetings with a total attendance of nearly 5,000 persons. In addition to the meetings that were held, 2,000 copies of a printed outlook statement were distributed to agricultural leaders. This work was further supplemented by the use of the radio and the press. In order to keep interested farmers posted with the most recent market developments, timely outlook statements were prepared for the various commodities. A summary of the market situation was published monthly.

PUBLICATIONS ISSUED DURING THE YEAR 1932

- Circular No. 56, Revised, Lessons on Farm Crops.
- Circular No. 77, Revised, Management of Tobacco Plant-Beds.
- Circular No. 86, Revised, Tobacco Project, Junior 4-H Clubs.
- Circular No. 88, Revised, Ewe and Lamb Project, Junior 4-H Clubs.
- Circular No. 106, Revised, Baby Beef Project, Junior 4 H Clubs.
- Circular No. 118, Revised, Orchardring.
- Circular No. 187, Revised, Bound Buttonholes, Pockets and Neck Openings.
- Circular No. 202, Revised, Potato Growing in Kentucky.
- Circular No. 210, Revised, A Manual for Officers and Members of Homemakers' Clubs.
- Circular No. 225, Revised, Food for the Preschool Child.
- Circular No. 231, Revised, One-Dish Meals.
- Circular No. 244, Chicken Pox.
- Circular No. 246, The Hydraulic Ram.
- Circular No. 247, Burning Limestone for Agricultural Use.
- Circular No. 248, Renovation of Millinery
- Circular No. 249, Producing Milk of Good Quality.
- Circular No. 250, Dairy Project, Junior 4-H Clubs.
- Circular No. 251, Variation in the Butterfat Content of Milk and Cream.
- 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. 254, Clothing, Unit III, The 4-H Club Girl's Afternoon or Party Costume.
- Circular No. 255, Clothing, Unit IV, The 4-H Club Girl's Street or Travel Costume.
- Circular No. 256, The Lawn.
- Circular No. 257, The Mexican Bean Beetle.
- Circular No. 259, Annual Report for the Year Ended December 31, 1931.
- Has Your County a Home Demonstration Agent?
- How to Take A Farm Inventory.

EXTENSION WORKERS

January 1st to December 31st, 1932

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
Howard Matson, 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

Edith Lacy, Field Agent in Home Economics
Mary Purcell, Field Agent in Clothing

DAIRY

J. O. Barkman, Field Agent in Dairying
Ted S. Besh, Field Agent in Dairying
Jesse Collins, Field Agent in Dairying

FARM MANAGEMENT

R. E. Proctor, Field Agent in Farm Management
John H. Bondurant, Field Agent in Farm Management

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 Junior Club Work.
J. M. Feltner, Field Agent in Junior Club Work
M. S. Garside, Field Agent in Junior Club Work
Anita Burnam, Field Agent in Junior Club Work
G. J. McKenney, Field Agent in Junior Club Work
E. E. Fish, Field Agent in Junior Club Work
Carl W. Jones, Field Agent in Junior 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. H. 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

Cattle)

RURAL SOCIOLOGY

W. D. Nicholls, Head of Department

VETERINARY SCIENCE

T. P. Polk, Field Agent in Veterinary Science

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
 S. W. Anderson, County Agent, Jefferson County
 W. J. Ashbrook, County Agent, Butler County
 J. H. Atkerson, County Agent, Allen County
 John C. Bach, County Agent, Magoffin County
 H. A. Berge, County Agent, Gallatin County
 C. O. Bondurant, County Agent, Owen County
 Stuart Brabant County Agent, Todd County
 W. L. Browning, County Agent, Powell County
 H. C. Brown, County Agent, Fulton County
 *John C. Brown, County Agent, Warren County
 C. V. Bryan, County Agent, Taylor County
 H. B. Cravens, County Agent, Breathitt County
 Carl B. Day, County Agent, Martin County
 *C. O. Dickey, County Agent, Calloway County
 R. S. Dunn, County Agent, Spencer County
 C. B. Elston, County Agent, Nelson County
 F. C. Ewen, County Agent, Laurel County
 Robt. T. Faulkner, County Agent, Johnson County
 John H. Finch (Colored), County Agent, Warren County
 B. W. Fortenbery, County Agent, Pike County
 T. E. Ford, County Agent, Hardin County
 H. R. Forkner, County Agent, Boone County
 C. E. Gabbard, County Agent, Morgan County
 H. K. Gayle, County Agent, Union County
 C. L. Goff, County Agent, Rowan County
 M. F. Goff, County Agent, Pulaski County
 J. F. Graham, County Agent, Caldwell County
 D. S. Green, County Agent, Leslie County

*Resigned during the year.

Robert T. Harrison, County Agent, Harlan County
H. J. Hayes, County Agent, Wayne County
R. M. Heath, County Agent, Franklin County
C. L. Hill, County Agent, Logan County
J. W. Holland, County Agent, Shelby County
Ray C. Hopper, County Agent, Meade County
J. O. Horning, County Agent, Barren County
Wm. B. Howell, County Agent, Oldham County
Joe Hurt, County Agent, Boyd County
S. L. Isbell, County Agent, Floyd County
H. R. Jackson, County Agent, Crittenden County
Wm. C. Johnstone, County Agent, McCracken County
T. H. Jones, County Agent, Lee County
G. H. Karnes, County Agent, Monroe County
R. H. King, County Agent, Carter County
H. A. Laine (Colored), County Agent, Jessamine County
Orem LaMaster, County Agent, Trimble County
E. E. Lambert, County Agent, Menifee County
Harry B. Lane, Asst. County Agent, Jefferson County
R. H. Lickert, County Agent, Fleming County
H. S. Long, County Agent, Clark County
*J. S. Loyd, County Agent, Knox County
J. E. McClure, County Agent, Daviess County
R. B. McClure, County Agent, Garrard County
Floyd McDaniel, County Agent, Montgomery County
R. J. Matson, County Agent, Nicholas County
Earl Mayhew, County Agent, Knox County
J. W. Michael, County Agent, Knott County
C. E. Miller, County Agent, Boyle County
J. L. Miller, County Agent, Madison County
Thos. W. Morgan, County Agent, Trigg County
M. P. Nichols, County Agent, Ohio County
J. Ed. Parker, County Agent, Fayette County
John E. Parsons, County Agent, Lawrence County
H. S. Patterson, County Agent, Grayson County
S. A. Porter, County Agent, Campbell County
W. R. Reynolds, County Agent, Jackson County
Edgar Rice, County Agent, Elliott County
Harry D. Rice, County Agent, Henry County
G. C. Routt, County Agent, Graves County
M. H. Sasser, County Agent, Casey County
C. C. Shade, County Agent, Jessamine County
E. R. Sparks, County Agent, Clay County

*Resigned during the year.

Robt. F. Spence, County Agent, Madison County
 Runyon Story (Colored), County Agent, Christian County
 J. E. Summers, County Agent, Marion County
 W. D. Sutton, County Agent, Hopkins County
 Joe Thompson, County Agent, Bath County
 H. H. Thompson, County Agent, Harrison County
 E. P. Tichenor, County Agent, Marshall County
 R. V. Trosper, County Agent, Bell County
 C. M. Wade, County Agent, Scott County
 P. R. Watlington, County Agent, Bourbon County
 Clyde Watts, County Agent, Carroll County
 O. R. Wheeler, County Agent, Whitley County
 H. W. Whittenburg, County Agent, Simpson County
 C. A. Wicklund, County Agent, Kenton County
 W. E. Wiedeberg, County Agent, Christian County
 G. H. Williams, County Agent, Letcher County
 J. B. Williams, County Agent, Edmonson County
 J. E. Wilson, County Agent, Grant County
 Troll Young, County Agent, Washington County

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
 *Christine Blakeman, Asst. Home Demonstration Agent
 Bernice Bonar Bottorff, Home Demonstration Agent, Oldham County
 Zilpha F. Bruce, Home Demonstration Agent, Warren County
 Zelma Byerly, Home Demonstration Agent, Kenton County
 Mary Clopton, Home Demonstration Agent, Breathitt County
 Florence Cobb, Home Demonstration Agent, Graves County
 Anna Culton, Asst. Home Demonstration Agent, McCracken County
 *Louise M. Craig, Home Demonstration Agent, Hickman County
 Dora M. Duncan, Home Demonstration Agent, Hopkins County
 Marie Elmore Fortenbery, Home Demonstration Agent, Pike County
 Ruth Etheridge, Home Demonstration Agent, Bell County
 Hazel Graves, Home Demonstration Agent, Madison County
 Jennie C. Grubbs, Home Demonstration Agent, Boyle County
 Pearl Haak, Home Demonstration Agent, Henderson County
 *Mildred Hall, Home Demonstration Agent, Leslie County
 Alda Henning, Home Demonstration Agent, Fulton County
 May Hutchison, Home Demonstration Agent, Garrard County
 Lois Husebo, Home Demonstration Agent, Boyd County

*Resigned during the year.

Miriam Jay Kelley, Home Demonstration Agent, Ohio County
Catherine T. Johnson, Home Demonstration Agent, Jefferson County
Dicksie Lee Lewis, Home Demonstration Agent, Union County
*Mabel McKinsey, Home Demonstration Agent, Ballard 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
Frances Stallard, Home Demonstration Agent, Madison County
Ritchie Stevenson, Home Demonstration Agent, Hardin County
Dorothy Threlkeld, Home Demonstration Agent, McLean County
Helen M. White, Home Demonstration Agent, Daviess County
Frances Wiese Fleming Home Demonstration Agent, Christian County
Sadie Wilgus, Home Demonstration Agent, Calloway County

*Resigned during the year.

RECEIPTS AND DISBURSEMENTS

For the Fiscal Year Ended June 30, 1932

RECEIPTS

Federal Smith-Lever and Supplementary	\$201,402.29
Federal Capper-Ketcham	36,801.18
Additional Cooperative	31,000.00
State Smith-Lever and State Capper-Ketcham	179,531.30
	\$448,734.77

DISBURSEMENTS

PROJECTS	FEDERAL FUNDS			STATE FUNDS
	Smith-Lever Supplementary	Capper- Ketcham	Additional Cooperative.	Smith-Lever Capper- Ketcham.
Aministration	\$12,035.41			\$9,102.03
Publications	6,282.17			654.75
County Agent Work	112,578.53	\$19,280.27	\$24,800.00	51,441.89
Home Demonstration Work	9,817.58	17,520.91		26,942.24
Clothing	2,589.08		397.50	4,224.73
Foods	2,025.66		225.00	2,283.15
Movable Schools	1,867.17		324.00	3,492.00
Junior Clubs	15,417.70			18,374.65
Agronomy	4,892.88		895.00	10,910.62
Dairying	3,003.35		577.51	4,807.52
Animal Husbandry	4,649.19		907.25	9,693.42
Markets	4,685.96		756.67	6,830.84
Farm Management	2,953.12		451.00	4,662.99
Poultry	4,168.07		619.40	7,439.03
Horticulture	4,402.43			7,824.16
Veterinary Science	1,162.07		240.00	2,586.67
Rural Engineering	4,795.00		529.17	1,966.69
Public Information	1,157.46			3,423.92
Farm and Home Week	705.91			
Home Management	1,545.24		202.50	2,182.50
Rural Sociology	154.52		75.00	687.50
Entomology	513.79			
	\$201,402.29	\$36,801.18	\$31,000.00	\$179,531.30