Annual Report

of the

Director of Agricultural Extension

Kentucky, 1946

In corn-growing demonstrations in Kentucky in 1946, 401 entries made over 100 bushels per acre, the highest being 164 bushels per acre. This picture was taken on a measured acre that produced 148.3 bushels, on land well adapted to corn, with the slopes in the background in permanent pasture.

Circular 441

UNIVERSITY OF KENTUCKY

College of Agriculture and Home Economics

Agricultural Extension Division

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

LETTERS OF TRANSMITTAL

Lexington, Kentucky

President H. L. Donovan
University of Kentucky

My dear President Donovan:

I have the honor to present the annual report of the Division of Agricultural Extension of the College of Agriculture and Home Economics, University of Kentucky, for the year ended December 31, 1946. In this report will be found a statement of the various activities of the past year, a list of publications, and a financial statement of receipts and expenditures.

Respectfully,
Thomas Cooper
Dean and Director

University of Kentucky
Lexington, Kentucky

Honorable Simeon S. Willis
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 and Home Economics, University of Kentucky, for the year ended December 31, 1946.

Respectfully,
H. L. Donovan
President

ANNUAL REPORT OF THE EXTENSION DIRECTOR FOR THE YEAR ENDED DECEMBER 31, 1946

By T. R. Bryant, Assistant Director

COORDINATION OF the Extension Service with state agricultural experiment stations and the U. S. Department of Agriculture with their research facilities gives rise to values that are realized more and more clearly as time goes by. Farmers and others have demonstrated their understanding of these values by making additional funds available for research work and by putting into practice an increasing number of suggestions and teachings brought to them by the Extension Service.

Farmers are confronted with the need for conserving and improving their land resources while at the same time producing enough for sale to provide the things they must buy. To do this requires good soil management, adapted and improved varieties and breeds of plants and animals, economy of labor, efficient feeding, prevention of diseases in animals and plants, and efficient marketing and buying. For aid in meeting these problems farm people turn increasingly to Extension workers, who in turn are guided by information from research.

One of the problems facing Kentucky agriculture is posed by the multitude of small farms in the state. A small-farm operator is often at a disadvantage because the size of his business does not justify investment in implements and machinery which on larger farms so greatly increase the efficiency. Operators of small farms are therefore often deterred from growing the crops they need, because of difficulty in handling them without proper equipment. In efforts to meet this need, Extension workers have undertaken with considerable success to induce custom operators to enter this field, and have fostered exchange of equipment and cooperative ownership of some types of machines.

The soundness of stressing economy of production and quality of farm products in Extension teaching is rapidly becoming more apparent. Hybrid corn, a product of research, has made possible the production of a given amount of grain on fewer acres than before. The resulting saving of labor has been of great advantage to farmers, especially during the war years, and the need of less land for corn

has made it possible to put a higher proportion of land in improved pasture. The story is much the same regarding disease-resistant tobacco, improved strains of sorghum, better pasture grasses and hay crops. Studies in labor efficiency and demonstrations of labor-saving equipment for farmsteads and homes have a value readily understood, and the improved practices have been widely adopted.

In an effort to stabilize Extension personnel and meet the competition of other agencies for trained Extension workers, such funds as could be so used were given to improve in some degree the salaries of workers, but the higher salaries offered by competitors took their toll, creating difficult problems of replacement and training.

Careful planning by Extension workers is required in making most effective use of time and striking a right balance between group instruction and individual farm and home visits. Obviously it is impossible for one worker to visit a thousand or more farms during the year, in addition to his other duties, and spend enough time at each to accomplish the results desired—and yet no satisfactory substitute has been found for such visiting. Effective local leaders require personal attention. Their recruitment and training cannot be accomplished without personal visits. Well-selected, well-trained local leaders are the best means known by which farm people themselves can work toward the ends sought by the Extension Service.

One secret of the success of Extension work is the aptitude of Extension workers in enlisting the interest and cooperation of people and agencies who can help. The Extension Service captures the imagination of bankers, newspapermen, handlers of farm commodities, manufacturers, and other businessmen and educators who, as a result, give active moral and financial support to the work. Such support makes possible the accomplishment of much that would otherwise be impossible.

COUNTY AGRICULTURAL AGENT WORK

County agricultural agents were overloaded with meetings, farm visits, and office calls. As an average, a county agent made 777 farm visits, had 2,520 office visits from farmers, made 1,510 telephone calls to farmers, held 23 demonstration meetings with average attendance of 30, 14 leader-training meetings with average attendance of 31, and 132 other Extension meetings with average attendance of 41 persons. For effective work nothing can take the place of individual farm visits and demonstration meetings, yet it is impossible for one worker

to visit 2,000 or 3,000 farms a year and spend enough time at each to accomplish the results needed.

The answer to this problem seems to lie in more assistant agents and adequate training of volunteer local leaders. Early in 1946 a plan was adopted for placing assistant agents in counties on a more permanent basis than heretofore. The county appropriated part of the cost, usually half, and the county plan of work was expanded to include activities of the assistant agent. Local leaders in 1946 held an average of 23 meetings per county, with average attendance of 30 farmers at each meeting. As an average, a county agent had the help of 196 adult leaders and 31 4-H club leaders.

County agricultural agents gave special attention to getting farming back on a peacetime program, though insistent demand for food for export called for continued maximum farm production. The favorable season and accumulated results of Kentucky's Extension program in soil improvement, fertilizers, hybrid seed corn, lespedeza, and pasture improvement brought record yields of corn, tobacco, hay, and pasture.

Changes in methods of Extension work in recent years have been brought about by the many organizations and agencies which have been set up to help the farmer. Most of these organizaitons and agencies look to the county agent for leadership in educational programs planned to gain farmer cooperation.

Efforts of supervisors were directed toward helping county agents organize their work so as to reach the largest possible number of farm people. This usually resulted in a combination community and county program of work. Procuring, training, and holding personnel was by far the most difficult problem of the year. During the year 43 new or returned agents were employed and 22 resignations were received.

Programs of work were set up on a community or on a commodity basis, or upon both plans. In either case the over-all Extension committee or organization met and reviewed the past accomplishments and suggested projects or activities for the new year. Consideration was given to the recommendations of the postwar planning committee in building the community programs.

Because of the limited personnel available, development of 4-H club work was brought about chiefly by the assignment of more of the agent's time to 4-H club work.

The following figures were compiled from statistical reports of County Agents for 1946:

FROM REPORTS OF COUNTY AGENTS

Counties having county agents	120
Farm visits made by county agents	93,257
Farms visited by county agents	50,510
Calls relative to work	
Office	302,468
Telephone	181,140
Leader training meetings	1,694
Attendance of local leaders	31,723
Method demonstration meetings	2,804
Attendance	64,888
Other Extension meetings	15,906
Attendance	626,978
Meetings held by local leaders, not participated in by county agents	2,802
Attendance	61,435
Communities that built Extension programs	852
Number of neighborhood community leaders actively assisting	11,081
Number of voluntary local leaders or committeemen actively engaged in forwarding the Extension program	23,552
Number of unpaid leaders assisting	13,993
Number of days unpaid leaders assisted	31,272½
Crop projects:	
Corn—acres	7,260½
Tobacco—acres	3,354
Home gardens—acres	4,143½
Animal projects in 4-H Club work completed:	
Poultry	365,737
Dairy	2,515
Beef	3,248
Sheep	5,649
Swine	8,747
Summary: estimated number of days devoted to food supplies and critically short materials	8,788½
Number of voluntary local leaders or committeemen of other Federal Agencies assisting	4,100

HOME DEMONSTRATION AGENT WORK

Home demonstration agents (78 white and 6 negro), working through 879 community groups of homemakers, with an enrollment of 17,737 rural women, fostered improved homemaking practices in 92,536 homes. These local agents were assisted in problems of organization, administration, program building, homemaking information and techniques by a staff of supervisors and specialists. Programs of work had to do with making rural homes more comfortable, attractive, and convenient, helping in production and conservation of food, preparing better meals, clothing the family attractively and comfortably with greatest economy, managing the work of the home to conserve time, energy, and money, and promoting better home and community life. During the year 19 new agents were employed and 17 resignations were received.

The Extension clothing program was a major project in 64 counties. Subject matter was prepared to meet the expressed desires of the women in these counties. Shortages and high cost of clothing had created a heavy demand for projects in both construction and conservation of clothes. As a result, 56 counties reported making 124,664 new garments and reconditioning 6,161 sewing machines. In 54 counties 121,484 garments were repaired, and 4,876 families reported improved practices in personal grooming. Forty-three counties reported a saving of nearly $189,000 as a result of these projects.

Food production and conservation were given an important place in the Extension program. Nine conservation assistants remained on the job for at least a part of the year and the new home demonstration agents who took over where the emergency assistants left off received training in gardening and in canning, freezing, and storing of foods. They gave information in both organized and unorganized communities. The negro home demonstration agents received the same training and assistance by staff members as the white agents. They reported giving 279 canning demonstrations, with attendance of 3,279.

In improving the home milk supply and raising the standard of homemade butter and cottage cheese, assistance was given to 7,248 families, of whom 947 bought dairy thermometers. Discussions and demonstrations on foods to freeze, varieties to grow for freezing, and how to prepare and package food for freezer lockers were held at locker plants for patrons and operators.

In connection with the food projects, 24,653,787 quarts of food were canned, 23,262,408 pounds stored, and 4,056,484 pounds placed in freezer lockers in addition to the amount dried, brined, and cured. A total of 2,222 pressure cookers were bought and 1,687 gauges were tested and necessary repairs made. In all, 84,249 families were helped to improve their home food supply. Diets also were improved in 33,344 families by better meal planning and improved school lunches, and by their eating more raw foods, fruit juices, milk, eggs, and whole-grain cereals. Some homemakers worked on definite nutrition problems such as weight control and child feeding.

The home-furnishing program was chosen as a project in 60 counties having home demonstration agents. In this project Kentucky women refinished 13,916 pieces of furniture, reseated 4,100 chairs, reconditioned 2,127 spring chair cushions, resurfaced 4,000 linoleums, made 4,721 slip covers and 2,235 hooked and braided rugs, improved

These 4-H Club girls made their own costumes. They develop a feeling of achievement, enjoy their work, and learn many interesting and useful things through 4-H Club work.

9,797 rooms with new window treatments, made more than 19,000 pairs of drapery and curtains, and renovated 6,095 window shades

Kentucky housewives were also taught how to use available space for storage; how to convert discarded materials into useful furnishings; how to select, frame, and hang pictures; how to arrange furniture for better living and use accessories to best advantage; how to refinish floors, paper and paint walls and woodwork; and how to select the finishes and furnishings to make an attractive and harmonious home.

A total of 2,786 leaders were trained in 176 leaders' training meetings and 33,235 farm women were reached through the home furnishings program.

Home management.— Home management projects, carried in 58 counties, resulted in improved housekeeping methods in 72,614 families. Needed storage facilities were added by 5,874 families; kitchens were rearranged by 4,334 families; 14,496 new pieces of equipment were bought; and 18,737 pieces of equipment were repaired. Positive health measures were emphasized throughout. By making routine tasks easier, women did more and better work with less time and effort. Family business affairs were studied and improved methods of planning expenditures were adopted by 5,959 families. Help in buying was given to 12,137 families. Besides the saving of time, energy, and materials, an estimated $78,475 was saved through this project.

Child development projects were carried with special groups who had children or who were particularly interested. In all, 2,388 families reported having been assisted with child development and guidance problems, and 2,062 reported improving family relations. About half of these families were concerned with habit formation in connection with play equipment, about half definitely strove to improve the social life of their adolescent children, and about one-third reported helping children learn to take responsibility in the home and community by making them responsible for certain definite jobs. Fathers showed more interest in this program than ever before.

By beautifying the farmstead surroundings, 12,000 families improved the appearance of their homes. This included planting trees, shrubs and flowers; making walks and drives; rearranging plantings, and improving lawns.

Many community improvement enterprises, such as helping with school lunch, making arrangements for clinics, improving public buildings and grounds, providing community centers, doing Red Cross work, were sponsored and forwarded by homemakers' groups At least one such project for community improvement was undertaken in 351 communities, and in 28 counties 44 county-wide civic projects were undertaken.

Recreation.— Short recreational programs, 6,383 in all, were made a part of the local homemakers' meetings. These groups, in turn, sponsored 796 community recreational programs for the entire community, in 461 different communities.

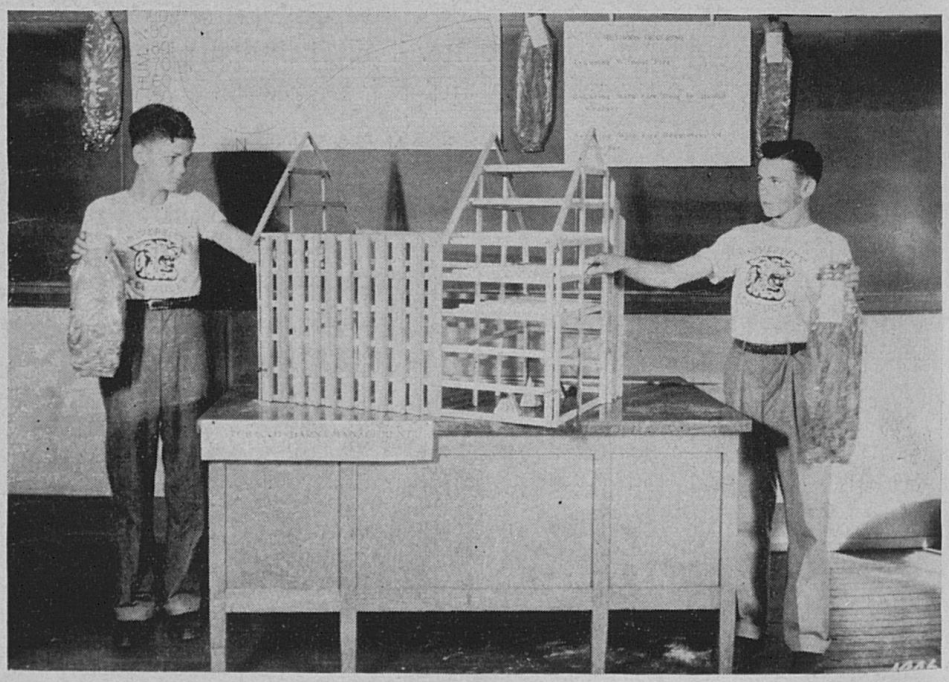
4-H AND UTOPIA CLUB WORK

4-H Club projects were carried by 73,008 Kentucky farm boys and girls enrolled in 2,081 community clubs. Pike county had the largest

enrollment, 3,177 members, and 15 counties had more than 1,000 club members each The boys and girls received training in project work, organization, health, leadership, conservation, judging demonstrations, recreation, and community activities Forty-eight projects were available, from which the members could choose one or more according to their interests and needs.

During the year 6,762 local leaders helped with club work, of whom 108 had been leaders for 5 years or longer Many of the counties have county 4-H councils, composed of the most active leaders, to assist the county and home demonstration agents in planning and carrying on the program.

All of the various activities dropped during the war were resumed in 1946. Junior week at the University of Kentucky, held for the first time since 1942, was attended by 1,037 4-H members, local leaders, and county and home demonstration agents from 116 counties. County champion teams put on 101 demonstrations; 83 county champions in the clothing project took part in the dress revue; and 137 champions in county judging contests in foods, clothing, and canning entered the state judging contests. At the Kentucky State Fair, exhibits by 4-H Club members filled all the classes and rings in the 4-H Club Department and 50 teams were in the judging contests. County camps were attended by 2,320 4-H Club members, and 906 attended Bingham Camp.



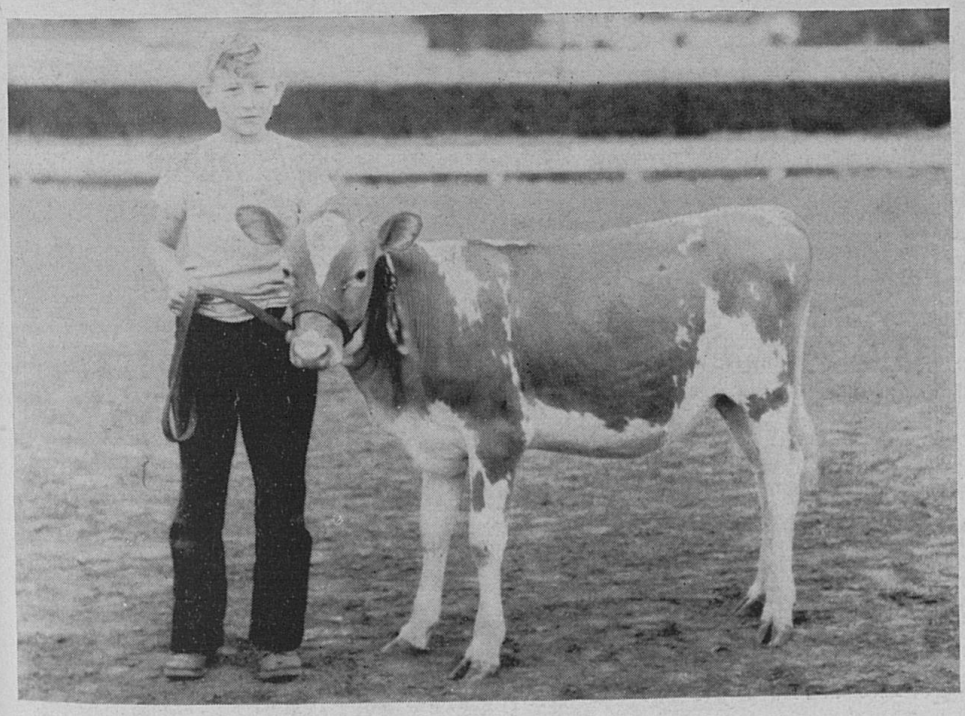
A demonstration of methods for curing high-quality burley tobacco, by 4-H Club members having tobacco projects.

Champion carlot of beef animals exhibited at the 25th annual fat cattle show at Louisville, November 1946, when 1,109 4-H and Utopia calves were shown.

The livestock shows and sales were most successful. District spring lamb shows were held at Evansville and at Lexington. At Lexington 669 lambs were shown and sold. The champion lamb brought $3.05 per pound, and the champion pen brought $30.25 per hundred pounds.

The 25th annual state baby beef show and 3 district shows were held. There were 1,109 4-H and Utopia calves in the state show. The grand champion weighed 1,020 pounds and sold for $3.00 per pound, and the grand champion carlot of 15 calves sold for 51 cents per pound. All the cattle in the show sold for an average of $29.04 per hundred.

Dairy interests in Kentucky provided premiums for 3 district dairy cattle shows, the first held in more than 10 years, in which 334 animals were entered.



When this 4-H Club boy gets older he will not produce scrub cattle. He will insist upon quality as shown in the calf he has raised. His influence will be felt in his community.

Negro 4-H Club boy with his sample of burley tobacco that won the county championship.

The National 4-H Club camp was opened again after being closed for 4 years. Kentucky sent her quota of delegates and leaders. Kentucky also sent a full quota of 23 state champion 4-H members to the National Club Congress. Expenses of these champions were paid by friends of 4-H Club work. The Courier-Journal, Louisville Times, and radio station WHAS awarded a gold watch to each of the two outstanding 4-H members, a girl and a boy.

Negro 4-H Club work was carried on in 16 counties under the supervision of 4 negro county agents and 6 negro home demonstration agents, and in 24 other counties under the supervision of white county and home demonstration agents. In all there were 169 community clubs, with 4,471 members. The work was assisted by 325 local leaders. The projects carried were clothing, canning, poultry, garden, tobacco, hogs, and corn.

The negro 4-H members, local leaders, and agents participated in the State Camp and the State Rural Youth Conference. The State

Camp was held for 5 days at the Fee Memorial Institute in Jessamine county, attended by 119 club members and leaders. A patron of 4-H Club work paid most of the expenses of club members attending this camp, the cost to the club members themselves being only $1 each. The camp opened on Monday and closed on Friday with 12 instructors assisting. The 6-day Rural Youth Conference was held at Kentucky State College for Negroes, with 85 4-H members, agents, and leaders attending. The only charge was $5 for meals and serving.

Utopia Club work in Kentucky made good progress. Twenty-three new clubs were organized, making 53 counties with Utopia Clubs with total membership of 1,820 older youths about equally composed of young men and young women. The Utopia projects are not standardized as in 4-H Club work. Each member takes a project in some phase of agriculture or home economics which he or she feels is most needed in the farm or home program. The achievements or results of each project are reported at the general meetings of the club and tours of the various projects often are held.

Some clubs also have community projects in which the whole club participates, the nature of the project depending on the needs of the community or county. One club owns and operates a nonprofit agricultural fair. Another fitted up an abandoned 1-room school building and grounds for community meeting purposes.

Picnics, parties, camps, tours, and general discussions are parts of all Utopia programs. At the winter meetings current topics are discussed and the farm outlook studied. Experts in various fields of Agriculture and Home Economics present up-to-date information to the clubs.

Recreation.— During December 1945 and January 1946 recreation workshops were held in Clay, Estill, Harlan, Knott, Lee, Perry, Pulaski, and Wolfe counties. These recreation workshops fit into the pattern of Extension work for both youth and adults. They encourage games, songs, and tales traditional in rural communities, and supplement these with new material.

FIELD AGENT WORK

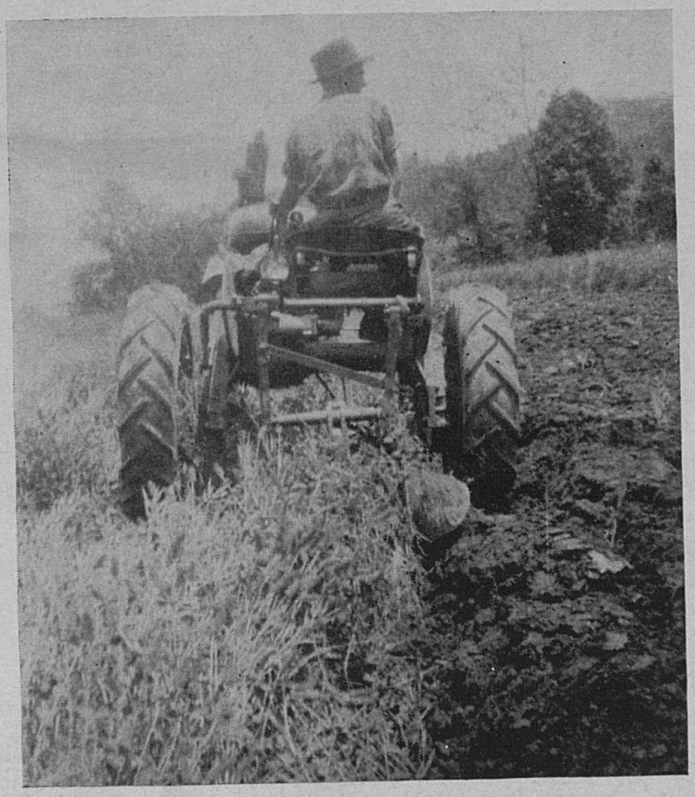
Work of the field agents is done largely in assistance of county agents with their various programs. The following reports in subject-matter fields are therefore also to a large extent reports of the accomplishments of county agents.

Agronomy

Pastures and meadows.— Except in a few areas, chiefly the Central Bluegrass region, pastures in Kentucky are very poor, and pasture improvement is one of the major Extension projects. Introduction of Korean lespedeza has helped greatly in improving pastures, but a grass is also needed that makes as thick and lasting a turf as bluegrass and is capable of growing on different types of soil. Apparently Ky 31 Fescue meets this need, and seems certain to aid greatly in producing good pastures. Field agents in 1946 gave much time to promoting the growing of Ky 31 Fescue for seed. The small supply of seed available was distributed to farmers all over the state who agreed to raise a seed crop. Over 80,000 pounds of seed were harvested in 1946, and 1,300 farmers sowed over 9,000 acres, of which probably 90 percent will be harvested for seed.

A 39-acre field of Ky 31 fescue and Ladino clover in Logan county, on land that was practically worn out in 1940. The photograph was taken on May 13.

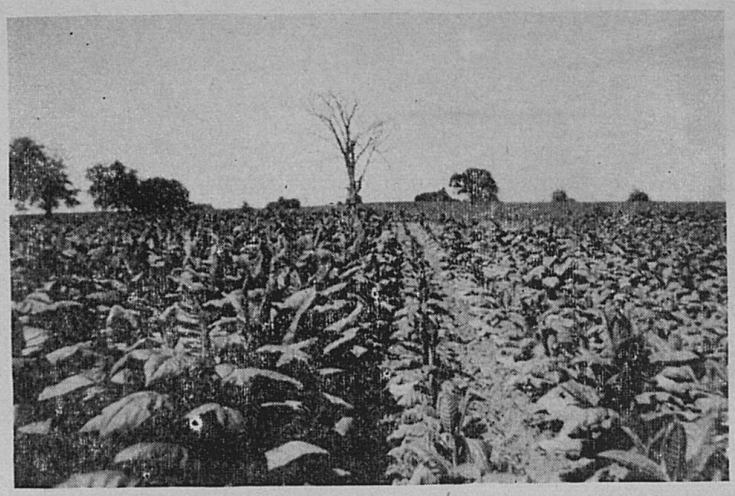
Extension work with pastures also included demonstrations showing the value of Bermuda grass on rough, eroded land where other grasses could not be grown successfully. Ladino clover was very popular in some counties in southwestern Kentucky, and will undoubtedly become one of the important pasture legumes of the state in a few years. Extension agronomists urged growers to save as much seed as possible, for its wider use is dependent upon a more adequate local supply of seed. Some excellent results from seeding a mixture of Ladino and Ky 31 Fescue were reported by farmers.



Green-manure crops on land adapted to corn, plenty of fertilizer, good stands of adapted hybrids, and good corn-growing weather are important factors in getting high yields of corn.

Corn.—An effective project of 1946 was a state-wide corn-growing demonstration. Its primary aim was to demonstrate to farmers all over Kentucky the advantages in growing corn only on more level land and getting larger yields per acre by good soil management, good stand, and the use of adapted hybrids. The advantages are evident in both production costs and soil conservation. Other groups (both public and private) working with farmers, and many bankers, merchants, and other individuals furnished prizes and awards, sponsored local contests, and otherwise cooperated with the Extension Service to make the corn-growing demonstrations a success.

Participation was open to any farmer in Kentucky who enrolled in a county corn-production contest under the supervision of the county agent. Farmers of all ages, 1,592 of them in 87 counties, entered the 1-acre contest, and 551 entered the 5-acre contest. The winner in Pike county was a 74-year-old farmer who produced 134 bushels per acre. An 11-year-old boy was second in the state demonstration contest with 163.3 bushels per acre. Many 4-H Club members became interested in corn growing who heretofore had not been enthusiastic.



Root-rot-resistant tobacco (at left) growing beside Golden Burley. The contrast was very convincing to the grower and his neighbors.

In the 1-acre class, 5 entrants made over 150 bushels an acre, 87 over 125, and 208 over 100 bushels. In the 5-acre test, one entrant made over 150 bushels an acre, 17 over 125 bushels, and 80 over 100 bushels. The winner in the 1-acre contest made 164 bushels an acre, and in the 5-acre test 155.1 bushels an acre.

The greatest lesson of the corn-growing demonstration was psychological. Hitherto the average farmer thought it impossible to get corn yields of 100 to 150 bushels per acre in Kentucky. The demonstration taught that high yields can be made and how they are made.

Sorghum.— The Williams sorghum selected by the Experiment Station as the best molasses sorghum among the many varieties grown in Kentucky proved its superiority in various demonstrations conducted by county agents. Reports from 60 counties were received, and most demonstrations reported increases in yield of about 1/3 over varieties grown previously. The quality was reported to be far better than that of local varieties.

Tobacco.— As a result of Extension programs for control of wildfire and angular leafspot of tobacco, many growers have adopted as routine practice the spraying of plant beds with a lime-bluestone mixture soon after the plants are up and again about 10 days later. Blue mold, another plantbed disease, was particularly destructive in Kentucky in 1946. The best method of combating this disease is use of Fermate as a spray or dust. Every effort was made to acquaint farmers

with the use of this material and to get dealers to stock it in sufficient amounts.

Constant warnings are necessary to remind farmers that they may incur heavy losses if non-resistant varieties of tobacco are used on soil infected with black root rot. Striking demonstrations, showing the danger of using other than root-rot-resistant varieties of tobacco, particularly on land that has been in tobacco in recent years, were conducted in several places. A number of demonstrations of new root-rot-resistant varieties were given in different parts of the state.

Priming was encouraged as a means of increasing the amount of cigarette grades of leaf and also for increasing the total yield. It was pointed out to growers who have only a small allotment that priming is particularly advantageous to them.

Failure to give tobacco barns proper attention while the crop is curing results in reduction in quality and consequent heavy losses each year. The Kentucky Agricultural Experiment Station has done much research on curing burley tobacco and has determined definitely the best humidity and temperature for curing. Methods of obtaining the most effective ventilation have been exhaustively studied. Getting this information to farmers through numerous county meetings, press articles and leaflets has been one of the tasks of the field agents.

A popular phase of the tobacco work is the tobacco grading demonstration held each fall in numerous counties. These demonstrations were well attended, and farmers, particularly young farmers, felt that it was very helpful. Much of the success of the stripping and sorting demonstrations in 1946 was due to the cooperation of federal tobacco graders.

Soils and fertilizers.— During the spring, county agents in 30 counties were supplied with nitrogen and potash fertilizers, and plans for conducting simple tests with corn. Also demonstrations with boron on alfalfa were carried over from previous years, and some new demonstrations were started.

Varied results were obtained from fertilizer tests, and these were reported to the county agents. Nitrogen and potash fertilizers gave very small returns where the soil had been kept productive by lime, phosphate fertilizer, farm manure, and legumes. Where little or no manure had been used, or where legumes were not grown often in the rotation, yield was increased chiefly by nitrogen fertilizer, but only if the soil was well supplied with phosphate.

The response of alfalfa to boron varied greatly. Benefit was seen in perhaps one-fourth of the tests, very marked in some instances. As

the use of boron is so inexpensive, it would seem practical to use it in all fertilizers intended for alfalfa. Probably in most fields some areas at least would be benefited.

Agricultural Engineering

Water management.— In the project on conservation and improvement of soil and water resources, the major problems covered this year were farm fencing to facilitate contour farming; erosion control by contour cultivation, terracing, and use of diversion ditches and terraces on land with over 15-percent slope; drainage by open ditches and tile; livestock water supply, and land clearing. Leader-training meetings were held in 51 counties, and method demonstrations in 35. A survey was made, through county agents, of the need for drain tile in 45 counties, and sources of supply were found to satisfy this demand.

In connection with this project, 8,377 farmers practiced contour cultivation, 790 constructed terraces, 1,232 made drainage improvements, 5,516 built new farm reservoirs and 1,164 rebuilt old ones, and 4,710 farmers used practices for controlling gully erosion.

Until this bottomland in Carter county was tile-drained by agricultural engineers it produced very little. Now it produces excellent crops.

A properly made reservoir is a valuable improvement on any farm. Since 1940 over 32,000 farm reservoirs have been constructed by custom operators according to instructions provided by extension agricultural engineers.

Farm buildings and equipment.— To help meet Kentucky's acute farm housing situation, plans for remodeling houses and farm buildings, new designs, and uses of new materials were studied by county agents at 12 district group conferences, and a 3-day training school on farm housing was held for all home demonstration agents. Later, 65 leader training meetings were held in 62 counties to train farmers as community leaders in regard to farm houses and other farm buildings. Leaders attending these meetings totaled 1,972, including 204 rural carpenters. Thousands of inquiries about farm buildings and equipment were answered through letters, distribution of circulars, leaflets, and mimeographed plans. Farmers requested 2,469 blueprint plans.

According to reports of county agents, 4,439 farmers were assisted in constructing new buildings and 3,860 in remodeling and repairing old ones. From plans furnished through the Extension plan service, 21,271 pieces of livestock equipment and labor-saving devices were made or remodeled by farmers.

Farm and home equipment show.— As a special feature of the annual Farm and Home Convention, the Agricultural Engineering Division and the Home Economics and Farm Labor Departments

The Farm and Home Equipment Show displayed inside this building attracted over 2,000 people at Flemingsburg. Because of lack of space inside, the commercial exhibit of labor saving machinery was shown on the outside.

prepared and held a Farm and Home Equipment Show. It consisted of 8 different educational displays; latest designs of electrical, gas, and mechanical equipment; and buildings and materials for the home and farm. Utility companies, manufacturers, and their local distributors and dealers furnished commercia lequipment and representatives to demonstrate and explain the equipment to the visitors. Over 4,600 persons visited the exhibits and hundreds expressed their appreciation for ideas obtained from the show.

4-H Club work.— In work with 4-H Club members, special emphasis was given to engineering practices in water management and farm buildings. Twelve district water-management training schools were held, at which 600 boys in 40 counties were trained in the use of levels in staking out guide rows for contour cultivation. These boys later enrolled in county contests. From the 40 counties 80 boys, winners of the county contests, entered the state contest on water management held during Junior Week. Each team entering the contest was required to do actual work in establishing water-management practices in their counties before coming to Lexington. The 40 teams reported that they had staked 50 miles of guide rows for contour cultivation and 7½ miles of terraces, helped with 5½ miles of open ditches, surveyed sites for 20 dams, and given 160 demonstrations before 4-H Club members and adults.

In connection with farm buildings, 600 Club members were trained at district camps, in making high-quality concrete and in the uses of electricity on the farm. Seventy-five 4-H Club boys were trained

in the use of self-feeders and other labor-saving devices in raising poultry.

Developing limestone quarries.— Kentucky counties west of the Tennessee River have no local source of liming materials, and because of lack of labor and equipment many counties in the western part of Kentucky that have limestone quarries were unable to get ground limestone during the war. During 1946, one of the agricultural engineers acted as a consulting engineer in selection of machinery for establishing two farm cooperative limestone quarries and crushing plants; one in Christian county, valued at $100,000, and one in Livingston county valued at $70,000.

Beef Cattle

Attention was given to increasing the amount of pasture forage and harvested roughages consumed by beef cattle and improving the efficiency with which those feeds are utilized, efficiency in utilization of pasture forage being as important to Kentucky as efficiency in utilization of corn is to the corn-belt states.

The Kentucky cow-and-calf plan has been promoted in a limited way, and farmers have been quick to accept it as a conservative, profitable means of utilizing more pasture forage and home-grown roughage. It now appears that the major effort must be directed toward getting each farmer using this plan to do a thorough and complete job with it, rather than to encourage more farmers to undertake the project.

Kentucky beef producers are using more and better purebred animals in their breeding herds. The value of purebred sires is stressed throughout Kentucky each year. This program has been aided considerably by the county purebred livestock associations now active in over half the counties.

Kentucky cattlemen were warned of the dangers of expected decline in beef cattle prices. Those who depend mainly on pasture for beef production and feed little or no high-priced grain are not likely to be caught in a money-losing position. This beef-raising plan is much more common now than after the first world war. It means keeping cattle until they are 2 to 2½ years old—a new idea to most Kentucky cattlemen, but one that has proved to be a sound, conservative method of producing beef.

Much time during 1946 was given to encouraging junior beef cattle work, teaching young people management practices of value to them as future commercial cattle producers.

More purebred beef cattle herds and improved pastures would benefit Kentucky's economy.

Programs emphasizing the use of rotenone to control ox warbles and DDT to control flies were very profitable to cattlemen in 1946. These practices gain wider acceptance each year.

Sheep

Extension efforts with sheepmen were centered on producing the highest possible income per ewe at the lowest cost. All phases of the sheep project received attention, but the main emphasis was on reducing ewe and lamb losses and growing the lambs to rather heavy market weights. Kentucky led all states in percentage of lambs raised in 1946.

The parasite control program by means of phenothiazine was again outstanding. Almost without exception the test flocks came through without noticeable effects from parasites even though many of them were flocks in which, at the beginning of the program, farmers had been unable to finish late lambs. Kentucky again led all states except Texas, which has many times more sheep, in the amount of phenothiazine used. On 3 markets this year and last, late lambs averaged 12 to 14 pounds more than in late prewar years when phenothiazine was not used. The heavier weights and better finish of late lambs, as a result of this program, increased their sale value more than 4 million

This flock is typical of many now being established in western Kentucky, where sheep raising has not been extensive. Notice the high quality of the lambs in the foreground.

dollars in the last 3 years. A new and improved phenothiazine-salt feeder designed by the College of Agriculture and Home Economics is the most widely used feeder in the country.

Loss of ewes from ketosis was further reduced during the year. This disease was formerly the cause of heavy mortality in ewes just before lambing time. Management and feeding practices recommended by the College were responsible for this reduction in ewe losses. If followed, these practices control ketosis entirely.

Because of a shortage of western yearling ewes of the Hampshire-cross type used by Kentucky sheepmen, about 50,000 ewe lambs of this type were brought into Kentucky and "roughed through" for breeding ewes the next year—though some of these were sold for slaughter because of high price of lambs. Nearly 350,000 ewes have been obtained on this plan developed by the Extension service. Production records on 150,000 of these lambs show that they can normally be carried through on pasture and a little roughage without grain. This year about 1/3 of the lambs were given neither grain nor roughage. Not only has the cost been small, under this recommended program, but the over-all losses are still well under 2 percent. Because of the critical ewe situation in the West, this plan may become the principal means of getting breeding ewes in Kentucky.

Hogs

Hog production.— The ton-litter project continued effective in improvement of hog-raising practices. In this project this year the number of pigs per litter averaged a little more than 10, total weight at 175 days averaged 2,033 pounds, and weight per pig averaged 201.7 pounds. Of the 125 entries is the contest, 51 litters finished and 41 qualified for the award of a certificate. The requirement for a certificate is to produce 1,700 pounds or more of pork per litter within 175 days from birth. Ton-litter shows were held at Evansville, Indiana, where 15 litters were exhibited, and at Louisville, where 21 litters were exhibited.

In the swine-sanitation project 3,412 farmers, who raised a total of 70,728 hogs for market, in 84 counties, practiced sanitation. This is but a small part of all the hog producers who practiced certain features of the program. One producer reported that the use of this system increased his net income by about $100 per litter.

The tilted-floor farrowing house introduced by the Extension Service was widely used. On 8 farms, 41 sows farrowed 614 pigs on tilted floors, and only 4 were mashed.

Reports from 84 counties showed that 3,079 purebred sows and 1,598 purebred boars were bought for use as breeding animals during

Prize-winning hams, eggs, and samples of sorghum at the 1946 Negro Adult Achievement Day at Hopkinsville.

1946, and that purebreds are kept on 6,778 farms in these counties. One county reports that 75 percent of the 1,400 farms in the county have purebred registered hogs or a crossbred from 2 purebred breeds.

Meats.—County agents of 84 counties reported that 16,443 families cooperated in 1946 in handling their meat supplies as recommended in the Extension program. They estimated that this improved the quality of the meat to the value of almost a quarter of a million dollars. Demonstrations of cutting and curing pork were given, with an attendance of 979. Use of freezer lockers greatly increased. From 12 freezer-locker plants in the state in 1941, the number increased to 84 in 1946, with 38,456 lockers, of which 25,213 were rented to farmers.

Dairying

Dairy production.—Kentucky stands 19th among the states in production of dairy products, but 38th for average butterfat and 41st in milk per cow. Interest in dairying is growing rapidly, especially on the part of owners of small farm herds. More dairying generally results in more diversified and balanced farming. Because of Kentucky's low average production, better breeding is necessary—hence an artificial breeding program to obtain greatest possible use of sires bred for high producton. Much time was given to preparation for and supervision of this program, which actually started in September.

In production testing it had been difficult during the war to secure test supervisors, but this situation showed signs of improvement in 1946. Averages of Kentucky herds on test in Dairy Herd Improvement Associations compared very favorably with those of other states.

Interest in dairy 4-H Club work was greater in 1946, after curtailment during the war years. Several district 4-H Club dairy shows were held, and a creditable exhibit of 14 head of 4-H Jerseys was selected and shown at the National Jersey Show at Columbus, Ohio, where 13 won prizes. The two Kentucky junior state groups, of 5 animals each, selected from the 14 head, placed 3rd and 11th respectively among exhibits from 19 states.

Dairy products.—Improvement of milk from which dairy products are manufactured was the objective in Extension work in dairy manufacturing during the year. The peak of 1945 production was not equaled in 1946, but the reduction in amount was only slight. It was late in 1946 before consumer demand for milk was being supplied, at one of the highest consumption levels and the highest price in history. There was no fluctuation of prices, but at the close of the year there was some surplus milk, and some was diverted to other channels of manufacture. Removal of restrictions on market cream

The quality of livestock produced is evidence of the excellent work done by 4-H Club members. This group of dairy heifers was the champion group of Jerseys at one of the district 4-H dairy cattle shows.

and slump in price diverted a large amount of cream to buttermaking. As surpluses began to appear, however, consumer preference exerted itself. This condition had not existed on a scarce market, when inferior quality was accepted without complaint. The close of the year found gradual changes in requirements for both market and manufactured milk, and improvement in quality of cream.

Cream quality improvement.— The purpose of this project was to improve the quality of butter by grading cream when bought. Two definite programs were followed. The first and most successful was the "Four-Day Plan" of marketing, in which quality of cream is considered and a definite record kept of the interval between marketings. The second method, known as "Taste and Smell," depends largely upon the individual buyer's judgment for the establishment of grade. The buyer lacks the advantage of knowing the interval between marketings of the cream, but a differential is paid for first quality.

Under the grading program more than 15 million pounds of fat were bought, of which 70 percent graded premium and received 3 cents per pound over the regular station price. This was an increase of 2 percent for premium cream over 1945, but was slightly under the 5-year average. During the last half of 1946, after removal of controls,

diversion of products at very high prices may have been responsible for the lower percentage of premium cream.

Utilization of milk and milk products.— Strong urban demand for milk created favorable markets, and as a result the rural consumption of milk and milk products did not increase as much as urban consumption. Data collected showed insufficient milk in the diet of farm families. Encouragement of farm families to use plenty of dairy products to meet nutritional needs, has been an Extension project in Kentucky for several years. This program continued in 1946 through demonstrations in butter and cheese making, and in methods of handling milk.

Poultry

In poultry Extension work special attention was given to the problems faced by the poultry industry in changing from wartime to normal peacetime conditions. Work was carried on with producers and local leaders. In total, 278 meetings were held with 8,340 attending, and 2,161 visits were made to farmers, produce dealers, hatcherymen, feed dealers, broiler producers, and 4-H Club members.

4-H Club work.— The "lantern brooder" 4-H Club project was carried on in several counties. The 4-H fryer project in Metcalfe

Demonstration of brooding chicks with an electric brooder, by 4-H Club members who learn by doing to "make the best better."

county, which began in 1945 and was enlarged this year, was carried to completion by 13 leaders and 96 members. Average profit in this project was 23.7 cents per bird.

James Earl Dalton, Breathitt county, won the state 4-H poultry contest. Of 204 chicks that he put in the brooder April 5, he raised 201 and put 70 pullets in the laying house, from which he made a net profit of $45.75 during October. Jack Small, a 4-H Club member in Martin county, cleared more than $1,000 in 9 months from his laying flock.

Record keeping.— Production summaries of record flocks illustrate the increasing efficiency in laying-flock management. Following is a 12-month record of these flocks:

Year	*Number of flocks*	*Income per hen*	*Expenses per hen*	*Eggs per hen*	*Income above expenses*
1945-1946	417	196	$8.70	$4.21	$4.49
1944-1945	704	188	8.76	4.60	4.30

The advantage of having flocks made up exclusively of pullets is illustrated by 14 record flocks in Logan county, where the income per hen was $6.41. The cash expenses were $1.88 plus 40 cents cost of raising the pullet, which left a net profit of $4.13 per bird.

Flock replacement.— This project includes purchase of livable chicks, stock bred for high production, a good summer feeding program, and disease and parasite control.

The following summary on 24 flocks gives some interesting figures, the income being mostly from sale of cockerels and culls:

Chicks started	*Percent raised*	*Total cost*	*Total income*	*Net cost*	*Pullets raised*	*Cost per pullet at laying time*
8,078	95.7	$6,737.83	$5,226.05	$1,511.78	2,961	51 cents

Poultry improvement.— Close cooperation of the Kentucky Poultry Improvement Association with the National Poultry Improvement Plan continues. Much time is spent with hatcherymen because most of the chicks that farmers raise now are bought from hatcheries. Under the provisions of the National Plan in Kentucky during 1947, 97 chicken hatcheries with a total of 4,709,428 eggs and 3 turkey hatcheries with a capacity of 425,000 eggs will operate. More than 4,000 flocks will furnish eggs to these hatcheries. All the turkey flocks are pullorum-clean and 48 of the chicken hatcheries will get eggs from flocks that are either pullorum-clean or pullorum-passed—which means that there were no reactors on the last test. Each flock that supplies eggs will be pullorum-controlled, which means that on the last test,

less than 2 percent of the birds were reactors. Twenty years ago 20 percent of the birds were reactors.

Turkeys.— Most of the Extension work in turkey production during the year was carried on through farm visits, tours, and field meetings. The tour in Clark county attracted more than 500 people from 30 counties in Kentucky and from 15 other states. The Harrison county tour attracted 150 people. About 1,000 attended 10 other turkey meetings.

During the year poults were shipped into 15 states, and hatching eggs were shipped to several states. One Negro farmer in Warren county made $2,000 on 6,875 turkey hatching eggs during 11 weeks, starting April 13. He had 150 hens and 15 toms.

Egg marketing.— Federal-State egg grading service was carried on in cooperation with four plants in Louisville, Owensboro, Glasgow, and Russellville where bonded, licensed graders trained by the Extension Service are located.

The Warren County Farm Bureau continued to sell eggs cooperatively. The Ohio Valley Egg Cooperative near Cincinnati received about 12,000 dozen eggs from Kentucky poultrymen in northern Kentucky. Many other counties profited from the program of selling by grade. Those who sold by grade received about 3 cents per dozen more for their eggs than those who sold on current receipt basis.

Miscellaneous activities.— Numerous articles were written by the poultry field agents for farm magazines, 10 radio talks were given, 4 hatchery bulletins were published, and 4 quarterly letters were sent out. Field agents cooperated with Smith-Hughes teachers and other instructors in the veteran-training program. The field agents worked in the Egg Grading School, Poultry Short Course, Farm and Home Convention, Junior Week, Refresher Course for County Agents, Turkey Breeder Selection School, the 4-H and FFA judging contests, and they also superintended the poultry department at the Kentucky State Fair.

Veterinary Science

Veterinary extension work, re-established in 1946 after a lapse of 2 years, advises farmers on the diagnosis and prevention of livestock diseases and parasites. Special attention was given to blackleg, mastitis, diseases of pigs, and educational work with 4-H Club members on keeping livestock healthy. Thirty-two meetings on livestock diseases and parasites were held in 26 counties with 2,033 farmers present. At clinics where prevention of diseases was discussed, diagnoses were

made of diseases in 1,229 cattle, 36 horses, 25 hogs, 62 chickens, and 62 sheep. Visits were made to 228 farms, 8 hatcheries, 5 feed dealers, and 20 4-H Club projects.

Horticulture

Fruits.— The outstanding results from the general use of DDT for codling moth control in Western Kentucky apple orchards featured the pomology extension program. Fruit 98 percent free of worms, or even of stings, was quite common where DDT was used. In previous years, where the arsenate of lead and nicotine spray schedule was used, it was not uncommon to find orchards with 98 percent of the fruit wormy or stung.

Demonstrations featuring the amount and method of applying nitrogen fertilizers have convinced the apple and peach growers of west Kentucky that it is profitable to apply the fertilizer at double the rate formerly used. Spreading the nitrogen fertilizer over the whole area between trees has largely replaced application just under the spread of the branches. In one demonstration 7-year-old peach trees receiving a 3-pound application of ammonium nitrate in March and a similar amount in late June, produced 5 bushels per tree, or a gain of 3 bushels in favor of the heavy split application.

Through an organized planting program, the commercial strawberry acreage set in 1946 was double that planted in each of the two preceding years. Harvest records in trial plantings of the Tennessee Shipper and Tennessee Beauty varieties along with Aroma, Blakemore, and Premier in 8 commercial berry counties were very promising. In Jefferson county, the Tennessee Shipper yielded 60 crates per acre more than Premier. Tennessee Beauty yielded twice as much as Aroma in 2 counties. Special meetings and field demonstrations were conducted in 58 counties.

Vegetables.— A total of 46 planning meetings for home gardeners were held in 27 counties with 678 leaders attending. In 15 other counties, summer meetings were held in 65 gardens, with an attendance of 798. Similar work was done with Negroes in 7 counties, where 29 meetings were held. Forty weekly garden articles were given the press, and in 49 counties 52,740 garden service letters were used.

With commercial gardeners in 12 counties, 30 meetings were held, and 38 demonsetrations of Wando peas, Fordhook lima beans, and U. S. Refugee green beans were supervised. Commercial potato growers were aided through general meetings and 18 demonstrations of DDT

and BHC, and a series of 3 service letters of which 3,375 copies were mailed. In 5 counties, 20 meetings were held with 549 pickle growers to whom was sent a series of 3 service letters. With growers of greenwrap tomatoes in 2 counties 6 general meetings were held. Picking demonstrations were held for the benefit of 286 growers, and 2 service letters were sent to 1,125 growers.

Aid was given to 8 state and 3 federal institutions in choosing vegetable varieties, fertilizers, and fungicides.

Landscaping work.— was done in every county having a home demonstration agent and in 11 counties that had only a county agent. Two thousand monthly service letters were sent, 17 leaders' training meetings were held, and 31 new result demonstrations were established. Assistance was given in plantings for 28 schools and 7 churches, besides that given to the state hospital at Danville, the Veterans Hospital at Lexington, the roadside planting committee of the State Highway Department, and the Public Health Building at Henderson.

Farm Forestry

In Kentucky about four-fifths of the timber produced is from farm-owned stands. The principal objectives of the Extension forestry pro-

Planting seedling conifer trees on eroded soil. In many such areas this is the best and most profitable way to restore the land.

gram were finding and developing desirable markets for woodland products, helping farmers to obtain fair returns for woodland products, formulating and developing good cutting practices, increasing the productiveness of the woodland, channeling woodland products where most needed, developing an index of current market prices for woodland products, establishing a better relationship between farmers and buyers of timber through the use of simple contracts, and advising and assisting mill owners and operators in making their operations more effective.

Despite farm-labor shortage, many thousands of seedling conifers and hardwoods were planted on farms. Each of the 3 farm forestry projects in cooperation with the U. S. Forest Service covered an average of 4 counties and was under the charge of a trained forester.

For the first time in Kentucky, the Extension service assigned a trained forester to work in a single county. If this intensified approach is successful there is hope that it can be duplicated in many other forested counties in the state.

Farm Labor

During early 1946 over 100 labor-saving devices for farm and home were exhibited in 47 counties. These exhibits, displayed with the cooperation of local people, drew an attendance of 49,580.

Change from heavy wartime demand for all types of workers made it rather difficult to anticipate the labor needs of farmers in 1946. Through the cooperation of county agents and local labor committees,

Workers were recruited in eastern Kentucky to help with tobacco harvest in central Kentucky.

Looking over the equipment and methods in the tobacco section at one of the Farm and Home Equipment shows.

however, and surveys of counties needing workers and other counties that could supply workers, the necessary help was recruited at harvest time. A total of 17,953 placements were made to fill 3,814 orders from 2,965 different farmers. In addition 2,293 workers were recruited and sent to other states, mostly Maine and Idaho for potato harvest. Smaller groups went to Maryland and Virginia for apple harvest, and to Colorado for the sugar beet harvest.

At the beginning of tobacco harvest, demonstration meetings on labor saving methods in priming and cutting tobacco were held in 33 counties with an attendance of 2,868.

Farm Economics

Extension activities in Farm Economics were directed toward encouraging farmers in more effective organization and administration of their farm business. Emphasis was placed on helping farmers to meet the changed economic conditions brought about by the war. Encouragement was given in the wise use of machinery and equipment, and particular stress was placed on having every acre make its best contribution to the farm income.

One of the most useful projects was that of improving the utilization of labor through work simplification and job instruction and analysis. The Department of Farm Economics began pioneer work in this field as early as 1919, Kentucky being one of the first 3 states

to start the project. During the past 3 years Kentucky has stood first among all the states in its extension project in this field. Staff members have been called upon by numerous states to describe the methods used.

The project of farm accounts and cost accounts for better business organization continued to be very effective. This was also true of farm budgeting. Arrangements were made for special demonstration farms on which there were cropping and livestock systems best suited to the farm. A service was also provided for teaching how to use inventories to achieve larger profits. Farm management tours were another effective means of increasing profit.

Another important project was that on the land tenure situation. This proved to be an effective means toward a better understanding of the principles underlying better landlord-tenant relations and more satisfactory incomes to both tenants and landlords.

On 21 farms, detailed farm business analyses were made to demonstrate the principles involved in improvement of the organization and operation of farms. In counties where commercial agriculture was of major importance 51 special farm management improvement meetings were held with 14 of these meetings featuring labor-saving demonstrations. Three of these were farm management tours; one a 6-county demonstration meeting for young farmers; and one was a farm management leader's meeting in western Kentucky. Two dealt with the more effective use of labor in tobacco stripping; one with making farm chores easier, and one with more effective methods on dairy and poultry farms.

One of the major activities was an intensive examination of the "balanced farming" approach to more effective agricultural extension work. Radio discussions were given on such topics as farm records, inventories, control of mortgage indebtedness, farm work simplification, and scientific management. The monthly publication, "Farm Economics Information," gave help on such questions as economic investment policy, farm land values, machinery cost computation, the economics of priming tobacco, and tractor ownership for the small farm.

Rural Sociology

Revival of interest in neighborhoods and communities in many parts of the state resulted in increased demand for maps which had been made in connection with the land-use planning and neighborhood project. These maps are revised and kept up-to-date for use by county extension workers.

Demand for aid in community planning increased during 1946,

and several county agents and home demonstration agents were helped in this field. As an example, a planning group for economic and social improvement in Franklin county asked for help in deciding upon goals and the ways to reach them. The field agent in Rural Sociology cooperated with the field agents in Farm Management in counselling with this group. A report on the present situation was submitted to the county committee and assistance was continued in methods of organization, discussion, achieving agreement, and stimulating action. Data on rural health in various areas of Kentucky were interpreted in conferences and meetings with local groups and assistance was given to homemakers' clubs in studying local recreational facilities and ways of making them more adequate.

During the Farm and Home Convention, a section meeting on "Rural Church and Community" was held. Social information of special use to rural church leaders was distributed in the form of the "Kentucky Rural Leader", 3 times during the year.

At the annual Rural Leadership Institute, May 7-9, 12 denominational groups were represented by 215 persons, and 24 representatives of Kentucky rural churches attended the Rural Convocation of Church in Town and Country in Des Moines, November 12-14.

Markets and Rural Finance

The Extension program attempts to inform farmers on current economic developments and to interpret these developments in the light of farmer needs in production and marketing. Outlook information in 1946 was presented throughout the year but was particularly concentrated in late fall and winter in regard to the outlook for the coming year. Timely market information was presented throughout the year at regular farm meetings and special meetings, through news letters, newspaper releases, and radio reports. The usefulness of this material was attested by increasing demand for the service by Kentucky farmers.

Sound producer-owned and producer-controlled cooperatives have been recognized in both state and federal legislation as a means of improving agriculture's economic position. It has long been the policy of the Extension Service to give educational and fact-finding assistance to farmers desiring to establish and participate in cooperatives. This phase of Extension work was in particular demand in Kentucky the past year. As one feature of the work a Cooperative Short Course attended by 150 cooperative leaders was held in Lexington in May. Savings in the purchase of farm supplies and machinery can greatly influence the net income from farming. This has resulted in increased

interest on the part of farmers in establishing farm supply cooperatives. Locally owned and operated cooperatives handling farm supplies are now located in Carroll, Kenton, Boone, Livingston, Simpson, Marshall, Trigg, Calloway, Graves, and Daviess counties, and numerous other groups are served as affiliates of the regional farm supply cooperatives. Among marketing cooperatives the most recent development is the establishment of cooperative loose-leaf tobacco auction floors. Extension workers assisted farmers in Washington, Daviess, Clark, Hopkins, and Shelby counties in establishing such cooperatives. Savings made by these cooperatives for their members have been significant. Similar assistance was given to groups marketing seeds, wool, dairy products, livestock, fruit, and vegetables.

In March an intensified program of cooperative education was started in 8 counties in the Tennessee valley of Kentucky. A field agent in cooperative marketing is putting in full time in this area carrying on educational work with farmers, mainly as to the possibilities and limitations of cooperatives. While no promotional work is being done, the fact that farmers are becoming more familiar with the principles and practices of cooperatives has resulted in an increased participation by farmers in their own cooperatives.

FARM AND HOME CONVENTION

The 34th annual Farm and Home Convention, January 29 to February 1, was concerned principally with discussions of problems most likely to affect the plans of farm people in the immediate future. Attendance taxed the capacity of the meeting places. Because there was no place on the campus large enough to seat all together, the men's and women's sessions were held separately. Some features of mutual interest thus had to be repeated for the separate groups. Interest in the exhibit of labor-saving devices was high again this year, and that exhibit was expanded greatly. Homemade devices for saving labor on the farm and in the home were given prominence in the display. To these exhibits were added those of dealers and manfacturers.

PUBLIC INFORMATION SERVICES

Public information services included news releases and stories to newspapers and magazines, radio broadcasts, and publications available free to the people of the state. Items of interest were published in 225 weekly and daily newspapers circulating in Kentucky, and also in magazines and farm papers. The weekly and daily news releases informed the people of the activities of the Extension Service and the

Experiment Station and of events important to farm people. That news service has been kept entirely free from propaganda has commended the releases to publishers, who use them freely. Some papers publish all releases sent out. Many journals and business concerns in various parts of the country are on the mailing list at their own request. Many of the news releases are used by radio stations in their farm or general news programs.

Farm and home programs were broadcast daily over WHAS, of Louisville, from the University studios. Many of the programs were arranged as "How-to-do-it" interviews in which specialists in the various branches of agriculture and home economics took part. Others described accomplishments of individual farmers and homemakers. A homemakers' program was presented each Saturday, and a special 4-H Club program once a month. Certain programs were devoted to answering questions sent in by listeners, and emergency broadcasts dealing with such matters as the sudden appearance of blue mold in tobacco beds were appreciated by farmers. Special programs were arranged on food production, preservation, and storage.

The following publications were issued during the calendar year 1946:

Circulars

410. Housekeeping project for 4-H Club girls.
411. Good grooming; foundations of charm.
412. Burley tobacco project.
413. Planning a locker plant for the Southeast.
414. Corn project for 4-H Clubs.
415. Garden project for 4-H Clubs.
416. 4-H canning project. Unit I.
417. 4-H Club farm-labor project.
418. 4-H Club canning project. Unit II.
419. Annual report of Director of Extension for 1945.
420. Dairy project for 4-H Clubs.
421. Canning project for 4-H Clubs. Unit III.
422. 4-H Club Fescue project.
423. Woodworking project for 4-H Clubs.
424. Good eggs for market.
425. Care of young children.
426. Grooming for personality.

Leaflets

101. Guide to planting forest trees.
102. Growing good pullets.
103. Preparing housed burley tobacco for market.
104. Prevention of mastitis.
105. State-Federal plans for control of Bang's disease.

Miscellaneous

Folder — A list of farm time-savers.

In addition, the following publications issued in previous years were reprinted:

Circulars

276. Hotbeds and cold frames.
347. Planning and planting an orchard.
353. Sprays for the home fruit garden.
376. The vegetable garden month by month.
383. Sewing—a new venture.
391. Household equipment, its care and simple repair.
398. Storing foods in freezer lockers.
401. Farming as a business.
402. Seeding meadow and pasture crops.
403. Shed-roof laying house.
404. Opportunities in Kentucky agriculture.
408. Collars, hames, and harness fitting.

Leaflets

9. Peach spray program.
10. Apple spray program.
75. Machine setting of burley tobacco.
76. Cutting and spearing burley tobacco.
79. Cutting and housing burley tobacco.
84. Stripping burley tobacco.
85. Tobacco plant bed management.
91. Soil conservation practices for Kentucky farms.

Other publications

Secretary-treasurer's record book for 4-H Clubs.
Calendar of events for 4-H Clubs.
Dairy record book for 4-H Clubs.
Canning record book for 4-H Clubs.
County plan of work for 4-H Clubs.
Poultry calendar.

DIVISION OF AGRICULTURAL EXTENSION

(January 1st to December 31st, 1946)

ADMINISTRATION

H. L. Donovan, President
Thomas P. Cooper, Dean and Director
T. R. Bryant, Assistant Director
F. D. Peterson, Comptroller
S. K. Slaughter, Records and Budgetary Assistant

AGRONOMY

Russell Hunt, Field Agent, Tobacco
William C. Johnstone, Field Agent, Soils
S. C. Jones, Field Agent, Soils
Ralph Kenney, Field Agent, Crops
Wm. G. Survant, Field Agent, Soils
C. E. Wyatt, Field Agent, Test Demonstrations

AGRICULTURAL ENGINEERING

J. B. Brooks, Field Agent
Elwyn S. Holmes, Field Agent
J. B. Kelley, Field Agent
John L. McKitrick, Field Agent
Earl G. Welch, Field Agent

ANIMAL HUSBANDRY

E. S. Good, Field Agent
R. C. Miller, Field Agent, Sheep
Grady Sellards, Field Agent, Swine

DAIRYING

J. O. Barkman, Field Agent
Carl Clifton, Field Agent
*Lynn Copeland, Field Agent
George M. Harris, Field Agent *(Military leave)*
*Elmer C. Hixson, Field Agent
Wm. J. Keegan, Field Agent
Wm. Walker, Field Agent

FARM MANAGEMENT

E. J. Nesius, Field Agent
*Bruce Poundstone, Field Agent
*R. E. Proctor, Field Agent
Harry M. Young, Jr., Field Agent

HORTICULTURE

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

HOME ECONOMICS

Vivian Curnutt, Field Agent, Home Management
Pearl J. Haak, Field Agent, Foods
Ida Hagman, Field Agent, Home Management
Florence Imlay, Field Agent, Foods
Venice Lovelady, Field Agent, Home Management
Dorothy Threlkeld, Field Agent, Clothing

FORESTRY

W. E. Jackson, Field Agent
Robert R. Rider, County Forestry Assistant

4-H CLUBS

J. W. Whitehouse, State Leader
*James M. Drake, Field Agent
E. E. Fish, Field Agent
M. S. Garside, Field Agent
Dorothy Gentry, Field Agent
H. B. Gibson, Field Agent
Carl W. Jones, Field Agent
Edith Lacy, Field Agent
G. J. McKenney, Field Agent
Frank H. Smith, Field Agent
Lyda Mae Sutherland, Field Agent
Boyd Wheeler, Field Agent

MARKETS

Wendell C. Binkley, Field Agent
George P. Summers, Field Agent
L. A. Vennes, Field Agent

POULTRY

Stanley Caton, Field Agent
C. E. Harris, Field Agent
J. E. Humphrey, Field Agent

PUBLICATIONS

J. Allan Smith, Editor

PUBLIC INFORMATION

C. A. Lewis, editor
Orinne Johnson, Assistant in Information

VETERINARY SCIENCE

Ross Brown, Field Agent

RURAL SOCIOLOGY

Ralph J. Ramsey, Field Agent

* Resigned

HOME DEMONSTRATION WORK

State Leader	*Official Station*
Weldon, Myrtle	Experiment Station Lexington
Assistant State Leaders	
Logan, Lulie	Experiment Station Lexington
Monroe, Zelma	Experiment Station Lexington
White, Helen M. (Mrs.)	Experiment Station Lexington
Henning, Alda	Experiment Station Lexington

County Home Demonstration Agents	*Official Station*	*County*
Adams, Margaret H. (Mrs.)	Hickman	Fulton
Avant, Opal C.	Henderson	Henderson
Ball, Zora	Hazard	Perry
*Barlow, Christine	Mayfield	Graves
Bartlett, Marian	Paris	Bourbon
*Beck, Nancy S. (Mrs.)	Princeton	Caldwell
*Binkley, Myrtle	Glasgow	Barren
Blankenship, Lorene	Elizabethtown	Hardin
Blanton, Helen (Mrs.)	Berea	S. Madison-Rockcastle
Buckner, Margaret S. (Mrs.)	Campbellsville	Taylor
Brown, Grace W. (Mrs.)	LaGrange	Oldham
Brown, Maudline L. (Mrs.) (Colored)	Hickman	Fulton-Hickman
Burroughs, Mary C. (Mrs.)	Lexington	Fayette
Burton, Mary S. (Mrs.)	Harrodsburg	Mercer
Byerly, Zelma	Covington	Kenton
Cannon, Virginia H. (Mrs.)	Winchester	Clark
Carter, Ada G.	Shelbyville	Shelby
Caudill, Anna F. (Mrs.)	Burlington	Boone
Caudill, Pruda Mae	Owingsville	Bath
Cherry, Nell	Mayfield	Graves
Click, Nell J.	Maysville	Mason
Colley, Sunshine	Liberty	Casey
Cornett, Harriett A. (Mrs.)	Greenup	Greenup
Cosby, Louise	Lawrenceburg	Anderson
Davis, Rachel (Colored)	Hopkinsville	Christian-Todd
Donnell, Elizabeth	Cynthiana	Harrison
Dunn, Mildred	Glasgow	Barren
Evans, Anna K.	Louisville	Jefferson
Fondaw, Martha F.	Bardwell	Carlisle
Foree, Bina B. (Mrs.)	New Castle	Henry
*Gee, Genevieve	Nicholasville	Jessamine
Gillaspie, Mary Hood	Burlington	Boone
Gillett, Leone	Henderson	Henderson
Gould, Dorothy D. (Mrs.)	Nicholasville	Jessamine
Grubbs, Jennie C.	Danville	Boyle
Gudgell, Thelma J.	Brooksville	Bracken
Guinn, Verna E. (Colored)	Frankfort	Franklin-Shelby-Scott
Gulley, Margaret	Georgetown	Scott

*Resigned

County Home Demonstration Agents	*Official Station*	*County*
Hatcher, Viola K. (Mrs.)	Stanford	Lincoln
Harris, Bettie S. (Colored)	Lexington	Fayette-Jessamine Madison
Harris, Lorraine	Owingsville	Bath
Hembree, Lilah	LaGrange	Oldham
Hight, Nina M.	Calhoun	McLean
*Hixon, Laverne B.	Madisonville	Hopkins
House, Thelma B. (Colored)	Henderson	Henderson-Daviess
House, Wilma C. (Mrs.)	London	Laurel
Johnson, Fern R. (Mrs.)	Jackson	Breathitt
Jones, Martha Jane	Munfordville	Hart
Jones, Martha Lee	Owenton	Owen
*Keaton, Alice Glenn	Paris	Bourbon
Kincer, Requa J.	Prestonsburg	Floyd
Lewis, Roberta	Hodgensville	Larue
*Littrell, Launa V. (Mrs.)	Maysville	Mason
Lytle, Priscilla	Leitchfield	Grayson
McNutt, Angie	Wickliffe	Ballard
Mann, Opal H.	Pikeville	Pike
Mason, Amelia B.	Hopkinsville	Christian
Mason, Sarah P. (Mrs.)	Elkton	Todd
Meredith, Thelma	Paintsville	Johnson
*Merryman, Augusta R. (Mrs.)	Clinton	Hickman
*Minick, Frances B. (Mrs.)	Winchester	Clark
*Mitchell, Betty Lou	Nicholasville	Jessamine
Morris, Mary O. (Mrs.)	Dixon	Webster
Murray, Mary Ellen	Hopkinsville	Christian
Myers, Sue M.	Greenville	Muhlenburg
*Pennington, Heloise	Alexandria	Campbell
Perkins, Roxie C. (Mrs.)	Harlan	Harlan
Porter, Doris A.	Bardstown	Nelson
Price, Vandilla	Pineville	Bell
Proctor, Shella E. (Colored)	Russellville	Logan-Simpson
Pulliam, Sadie W. (Mrs.)	Paducah	McCracken
*Rogers, Mary Bell (Mrs.)	Whitesburg	Letcher
Roser, Priscilla G. (Mrs.)	Richmond	Madison
Rowe, Dorothy	Carlisle	Nicholas
Rowland, Judith	Hawesville	Hancock
Rowland, Rachel	Murray	Calloway
Russell, Katherine	Carrollton	Carroll
*Sanderson, Roberta	Greenville	Muhlenburg
Saunders, Ruth L. (Mrs.)	Lexington	Fayette
Sebree, Kathryn	Flemingsburg	Fleming
Sharp, Lois H. (Mrs.)	Catlettsburg	Boyd
Shelby, Kathryn	Owensboro	Daviess
Sinclair, Evelyn L. (Mrs.)	Morehead	Rowan
*Smith, Marietta	Paducah	McCracken
Smither, Dorothy	Shelbyville	Shelby
Soper, Frances Poe (Mrs.)	Frankfort	Franklin
Stevens, Helen	Morganfield	Union
Streeter, Thelma K.	Hartford	Ohio
Sullivan, Margaret	Russellville	Logan
Sullivan, Rowena I.	Franklin	Simpson

* Resigned

County Home Demonstration Agents	*Official Station*	*County*
*Thornton, Mary L.	New Castle	Henry
Updike, Betty S. (Mrs.)	Lexington	Fayette
Van Arsdall, Margaret	Versailles	Woodford
Vandiver, Wilma	Princeton	Caldwell
*Warren, Lucille E. (Mrs.)	Madisonville	Hopkins
Weinman, Claudia	Mayfield	Graves
White, Frances G.	Eddyville	Lyon
Whittinghill, Eleanor	Cadiz	Trigg
Wilder, Fanny	Greensburg	Green
Williams, Marguerite	Lancaster	Garrard
Word, Dorothy L.	Louisville	Jefferson
Word, Elizabeth	Bowling Green	Warren

COUNTY AGRICULTURAL WORK

State Agent		
Mahan, C. A.	Experiment Station	Lexington
Assistant State Agents		
Graddy, Ivan C.	Experiment Station	Lexington
Kilpatrick, Elmer J.	Experiment Station	Lexington
Lickert, Raymond H.	Experiment Station	Lexington
Link, Harold F.	Experiment Station	Lexington
Whittenburg, Harry W.	Experiment Station	Lexington
Wilson, William Clark	Experiment Station	Lexington
Agent, Charge of Negro Work		
Burnette, A. C.	179 Dewees Street	Lexington

County, Agricultural Agents	*Official Station*	*County*
*Allen, Carl W.	Benton	Marshall
Anderson, Shirley W.	Louisville	Jefferson
Atterbury, Harry B., Jr. *(Military Leave)*		
Bach, John	Williamsburg	Whitley
Bastin, Garland M.	Russellville	Logan
Blue, John W., III, *(County Agent Assisting)*	Glasgow	Barren
Bohanan, Samuel C.	Wickliffe	Ballard
Bondurant, Charles O. (Assoc.)	Murray	Calloway
Brabant, Kenneth	Hardinsburg	Breckinridge
Brabant, Stuart	Elkton	Todd
Brame, Forrest S.	Morehead	Rowan
Brown, Bennett K. (Colored)	Russellville	Logan-Simpson
Brown, Chester L.	LaGrange	Oldham
Brown, Henry C.	Louisville	Jefferson
Brown, John C.	Danville	Boyle
Bryan, Charles V.	Campbellsville	Taylor
Butler, Benjamin J.	Lexington	Fayette

* Resigned

County Agricultural Agents	*Official Station*	*County*
Campbell, Howard	Hodgenville	Larue
Cannon, Charles T.	Benton	Marshall
Claxon, Joseph L., Jr.	Owenton	Owen
Clay, Glenn W.	Alexandria	Campbell
Cochran, John T.	Mt. Olivet	Robertson
Coffey, Wallace	Frenchburg	Menifee
Coleman, James V.	Greenville	Muhlenberg
Collins, William B.	Maysville	Mason
Cook, Sherman M.	Hyden	Leslie
Coots, Woodrow	Franklin	Simpson
Corder, George D.	Whitley	McCreary
Cornett, William Fred	Greenup	Greenup
*Craigmyle, Beach	LaGrange	Oldham
Culton, Eugene, Jr.	Winchester	Clark
Davie, Jones Reeves	Bardwell	Carlisle
Davis, Allan C.	Harlan	Harlan
Davis, Hubert W.	Pineville	Bell
Davis, William E.	Elizabethtown	Hardin
DeLong, Sidney W.	Franklin	Simpson
Dixon, Charlie	West Liberty	Morgan
Duncan, Louis L., Jr. (Colored)	Hopkinsville	Christian-Todd
Dye, James G.	Bedford	Trimble
Ellis, Leslie Holmes	New Castle	Henry
Ellis, Justus L.	Tompkinsville	Monroe
Ellis, Robert H.	Mayfield	Graves
Elston, Charles B.	Bardstown	Nelson
*Erwin, James W.	Cadiz	Trigg-Lyon
Ewing, John H., Jr.	Greensburg	Green
Faulkner, Robert T.	Leitchfield	Grayson
Feltner, John C.	Jackson	Breathitt
Fike, Robert H.	Hazard	Perry
Finch, John H. (Colored)	Bowling Green	Warren-Barren
Ford, Robert H.	Morganfield	Union
Forkner, Holly R.	Burlington	Boone
Foy, Samuel V.	Murray	Calloway
Friedly, Robert E.	Louisville	Jefferson
Gabbard, Charles E.	Campton	Wolfe
Gardner, Warren H.	Eddyville	Lyon
Goebel, Nevin L.	Taylorsville	Spencer
Goff, Charles L.	Hawesville	Hancock
Graham, John F.	Princeton	Caldwell
Granacher, Robert P.	Brandenburg	Meade
Gray, John H.	Bowling Green	Warren
Griffin, Marshall C.	London	Laurel
*Griffy, Charles E., Jr.	Munfordville	Hart
Hager, Stanley	Brownsville	Edmonson
Hayes, Henry J.	Hardinsburg	Breckinridge
Heath, Robert	Frankfort	Franklin
Henson, Hollis	Beattyville	Lee
Holland, John W.	Shelbyville	Shelby
Hoover, Wilson R.	Mayfield	Graves
Hopper, Ray C.	Bowling Green	Warren

* Resigned

County Agricultural Agents	*Official Station*	*County*
Horning, Jess O.	Glasgow	Barren
Howard, James S.	Madisonville	Hopkins
*Howard, Joe M.	Lawrenceburg	Anderson
Howell, William B.	Harrodsburg	Mercer
*Hubbard, John W.	Jamestown	Russell
Hume, Robert C.	Williamstown	Grant
*Hurley, George H.	Cadiz	Trigg
Hurst, Hugh	Somerset	Pulaski
Hurt, Joe	Paducah	McCracken
Irvine, John W.	Greenup	Greenup
Isbell, Samuel L.	Prestonsburg	Floyd
Isgrig, Dan	Maysville	Mason
Jackson, Homer R.	Henderson	Henderson
Johnson, Raymond O.	Lancaster	Garrard
Jones, Thomas H.	Beattyville	Lee
Karnes, Gilbert H.	Lebanon	Marion
Keen, Paul	Pikeville	Pike
Kelley, Keith	Murray	Calloway
Kent, Samuel B.	Morgantown	Butler
Kidwell, James W.	Somerset	Pulaski
Kilbourne, Andrew E.	Berea	Rockcastle
King, Prichard	Salyersville	Magoffin
King, Roscoe H.	Grayson	Carter
*Kleiser, William D.	Owenton	Owen
Lacy, George F.	Owensboro	Daviess
Laine, Henry A. (Colored)	Richmond	Madison & Adj. Cos
Lay, Carl H.	Paintsville	Johnson
Long, Henry S.	Georgetown	Scott
Losch, Otto H.	Paris	Bourbon
Lovely, Corbett	Whitesburg	Letcher
McCoy, Frank W.	Springfield	Mercer-Washington
McClure, John E.	Owensboro	Daviess
McClure, William C.	Manchester	Clay
McDaniel, Floyd	Mt. Sterling	Montgomery
*McDowell, Glen D.	Pikeville	Pike
McGary, Joseph E.	Benton	Marshall
Mabry, Rodolphus A.	Paducah	McCracken
Miller, J. Homer	Benton	Marshall
Miller, J. Lester	Richmond	Madison
Miller, Laymon	Hartford	Ohio
Mills, Kermit C.	Hindman	Knott
Moore, James F.	Louisa	Lawrence
*Morgan, Thomas W.	Hodgenville	Larue
Nelson, Michael S.	Georgetown	Scott
Newman, William	Edmonton	Metcalfe
Noble, George D.	Liberty	Casey
Northington, Leroy	Calhoun	McLean
Noffsinger, Estil	Warsaw	Gallatin
Nute, Raymond E.	Vanceburg	Lewis

* Resigned

County Agricultural Agents	*Official Station*	*County*
*Park, Curtis F.	Harrodsburg	Mercer
Parker, James Edward, Jr.	Lexington	Fayette
Perkinson, Ova D.	Irvine	Estill
Pirtle, Thomas L.	Smithland	Livingston
Poe, J. W.	Jackson	Breathitt
Pope, Henry H., Jr	Catlettsburg	Boyd
Porter, Samuel A.	Alexandria	Campbell
Rankin, Robert B.	Columbia	Adair
Razor, Adrian M.	Catlettsburg	Boyd
Redd, Obie B.	Stanford	Lincoln
Reynolds, Walker R., Jr.	Inez	Martin
Reynolds, Walker R., Sr.	Tyner	Jackson
Rice, Edgar	Sandy Hook	Elliott
Richardson, Clyde M.	Frankfort	Franklin
Ridley, Raymond D.	Hartford	Ohio
Rothwell, Herman E.	Shepherdsville	Bullitt
Routt, Grover C.	Nicholasville	Jessamine
Rudolph, Robert L.	Smithland	Livingston
Russell, Evan R.	Monticello	Wayne
Salisbury, Durward E.	Albany	Clinton
Satterwhite, Frank L.	Versailles	Woodford
Scott, William Dale	Brooksville	Bracken
Shelby, Oakley M.	Marion	Crittenden
Shouse, Charles L.	Stanton	Powell
Shryock, John B.	Owenton	Owen-Grant
Siler, Dallas R.	Carlisle	Nicholas
Spence, Robert E.	Berea	Rockcastle
Stacey, James K.	Pikeville	Pike
Stagner, Charles M.	Cadiz	Trigg
Stephens, James I.	Flemingsburg	Fleming
Straw, William T.	Carlisle	Nicholas
Talbert, William D.	Hopkinsville	Christian
Thaxton, Andrew J.	Elizabethtown	Hardin
†Thompson, Herbert H.	Catlettsburg	Boyd
Thompson, Joe R.	Owingsville	Bath
Thompson, Warren C.	Clinton	Hickman
Thornton, James B.	Richmond	Madison
*Tolbert, James D.	Bedford	Trimble
Venable, Keith S.	Cadiz	Trigg
Walker, Fletcher C.	Burkesville	Cumberland
Wallace, Free W.	Munfordville	Hart
Warren, Aubrey M.	Eddyville	Lyon
Watlington, John R.	Russellville	Logan
Watlington, Phillip R.	Paris	Bourbon
Watts, Clyde	Carrollton	Carroll
Watts, John B.	Hickman	Fulton
Wheeler, Jewell A.	Morganfield	Union
White, Robert W.	Falmouth	Pendleton
Wicklund, Carl A.	Independence	Kenton

*Resigned
†Transfered to clerk

County Agricultural Agents	*Official Station*	*County*
Wigginton, Robert	Cynthiana	Harrison
Wilder, Joseph S.	Jamestown	Russell
Williams, Arthur A.	Henderson	Henderson
Williams, Gray H.	Barbourville	Knox
Williams, H. Maurice	Booneville	Owsley
Williams, J. B.	Scottville	Allen
*Williams, Maurice K.	Covington	Kenton
Williamson, Glynn E.	Mayfield	Graves
Winchester, Ralph D. *(Military Leave)*		
*Wright, James E.	Hopkinsville	Christian
Young, Troll	Springfield	Washington

EXPENDITURES OF FEDERAL FUNDS AND OFFSET FUNDS, BY PROJECTS, FOR THE FISCAL YEAR ENDED JUNE 30, 1946

Projects	*Federal Funds*				
	Smith-Lever Bankhead- Jones	*Capper- Ketcham*	*Bankhead- Flannagan*	*State Appropriation*	*County Offset*
Administration	$ 24,367.71			$ 6,847.62	
Publications	11,472.63				
County Agent	409,540.96	$12,578.82	$ 89,145.26	14,100.14	$156,600.14
Home Demonstration	130,114.77	24,809.14	78,584.84	12,829.97	2,945.44
Junior Clubs	16,508.25			37,747.84	
Public Information	1,106.61			8,513.89	
Clothing	1,119.45			3,050.00	
Foods	808.21			3,416.68	
Agronomy	5,530.19			18,022.02	
Dairy	3,381.98			7,004.96	
Animal Husbandry	3,206.10			7,260.00	
Markets	3,230.18			6,766.68	
Farm Management	508.98			2,959.13	
Poultry	3,549.58			11,804.92	
Horticulture	2,352.08			9,820.00	
Veterinary Science	164.89			750.00	
Agricultural Engineering	2,926.13			8,375.00	
Farm and Home Convention	831.12				
Home Management	3,186.87			9,108.29	
Rural Sociology	366.21				
Forestry	1,708.63			2,122.86	
Total expenditures.	$625,981.53	$37,387.96	$167,730.10	$170,500.00	$159,545.58

RECEIPTS FOR FISCAL YEAR ENDED JUNE 30, 1946

Federal Smith-Lever and Bankhead-Jones	$ 625,981.53
Federal Capper-Ketcham	37,387.96
State Appropriation	170,500.00
Bankhead-Flannagan	167,730.10
County Funds Used as Offset	159,545.58
Total receipts	$1,161,145.17

Lexington, Kentucky June, 1947

Cooperative Extension Work in Agriculture and Home Economics: College of Agriculture and Home Economics, University of Kentucky, and the United States Department of Agriculture, cooperating. Thomas P. Cooper, *Director*. Issued in furtherance of the Acts of May 8 and June 30, 1914.

2M—6-47