

489

EXTENSION *Points* THE WAY

toward a more permanent and prosperous agriculture

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T.R.P.

EXTENSION *Points* THE WAY

Thirty-fourth Annual Report

Oklahoma Extension Service

1948

To the farmers of Oklahoma, their wives and children we dedicate this report. Through war and peace they carry on vital farm production upon which our nation depends greatly. It is a few of their achievements we record here.

Circular 489

Introduction

The farm families of Oklahoma constitute one of the greatest teams to be found anywhere. You proved to an amazed world your ability to break food production records under handicaps during the war years; you have done an equally creditable job of guiding your farming operations back toward their normal channels since the war ended.

The Extension Service of Oklahoma A. and M. College has enjoyed the privilege and responsibilities of being a member of your team. It is our job to carry to you farm families of the State results of research work in agriculture and home economics by the State and Federal Experiment Stations.

It is also our responsibility to bring about practical application of research and demonstrate to farm groups all over Oklahoma the latest improved practices and recommendations. This work is carried on in the 77 counties of the State by County and Home Demonstration Agents, 4-H and Home Demonstration Clubs, Local Leaders and other groups and individuals interested in seeing that the results of scientific research are made available to every community, every neighborhood in the State.

Milestones of progress dot the paths you farmers trod last year. They are important milestones because they lead the way to more prosperous farming this year . . . and for years to come.

For example, you Oklahoma farmers last year planted 55 percent of your total corn acreage to Hybrid varieties, a big increase over previous years. It meant 10 to 12 bushels more corn per acre than the open pollinated varieties, and an extra 9½ million dollars in cash.

Wheat farmers in the State realized 21 million dollars extra income last year because they planted 80 percent of their total acreage to recommended varieties.

The use of lime and fertilizers on Oklahoma farms continued at a sharp upswing last year. The use of certified seed showed a 30 percent increase. One-variety cotton communities increased to 72 in 30 counties, with more than \$755,000 in added income for the farmers.

These are only a few of the progress markers along your way. Others will be outlined in the pages of this report. Continued progress—social, economic, cultural—will come through our working together; through participation of more farm families interested in making the rural areas of Oklahoma a better place in which to live.

Shawnee Brown

Director



Extension helped promote livestock marketing by placing more emphasis on production and improved marketing practices. 4-H clubs and adults benefited from this program which provided one of the largest sources of income to Oklahoma farmers during the year. Total livestock marketed brought in more than 223 million dollars. Marketing of dairy and poultry increased this to 335 million dollars, and cash income from major crops brought in 314 million dollars more.

Agricultural Economics

Marketing . . .

THE TOTAL INCOME from agricultural production in Oklahoma exceeded that of any previous year by approximately 35 percent. This record amount of \$723,000,000.00 came about as a result of a combination of favorable circumstances. There was a heavy demand for full production of farm products, good growing conditions prevailed, and prices remained satisfactory. A large acreage of wheat and other cash crops returned high yields and livestock marketing was heavy.

A continuous program of information including agricultural outlook material, periodic economic reports and prices, and trends was conducted throughout the year. This information has served as the basis for planning farm operations and adjustments have been made in order to fit into changing situations. Farmers have used the economic information in shaping the farm enterprise to best meet existing needs.

There has been much interest and activity in farm account records, methods of accounting, lease agreements, and farm income tax returns. Special material was prepared and distributed through press and radio.

MANY NEW DEVELOPMENTS appeared in the marketing field as farmers marketed a record crop. County agents report one of the busiest years in marketing work.

The high farm income was much welcomed by farmers. A large amount of this income was spent on delayed home improvement, soil conservation, and farm buildings. Debts were retired, and better educational facilities were made available for the children. In some areas farmers placed added capital into their cooperative marketing and purchasing association to improve their economic position.

Production adjustments were considered from the standpoint of their permanency as related increased acreage of wheat, increased dairy products, peanut and cotton acreage.

Increased emphasis was placed upon more efficient marketing and improving the quality of dairy products throughout the year. An industry-wide committee was set up to work with the fluid milk industry throughout the state. Several proprietary and cooperative handlers improved

their facilities during the year to handle fluid milk. This increased the market outlet for fluid milk produced by farmers.

The income from livestock marketing was high. Demonstrations in improved marketing established in former years were carried forward with excellent results, handling about \$20,000,000 worth of livestock.

4-H Farm-to-Market livestock projects were carried on by club members. A total of 2,794 club members took part in the projects. Assistance was given in procedure in marketing and in livestock tours to markets.

Lamb and wool marketing meetings were held with producers in 15 counties. A large percent of the state's wool clip was marketed on a graded basis in the bonded warehouse at Oklahoma City. A two-day lamb and wool marketing school at Oklahoma City attracted producers from 18 counties.

The south-wide 7-Point Cotton Program was emphasized with adults and 4-H Club members. Cotton producers were encouraged to place increased emphasis on quality lint and seed production and marketing. About 197,000 bales of the 300,000 bale crop were classed under the Smith-Doxey classing program. There was increased emphasis on the 4-H cotton classing contest. A new set of U. S. grades was obtained for the work.

Emphasis was placed upon the improvement of the egg market. Demonstrations with farmers on egg cooling were established. Dealers also established cooling equipment to cooperate in

State poultry producers adopted the use of state and federal grades in egg marketing. Cash receipts, received by Oklahoma farmers, from poultry and poultry products amounted to more than 47 million dollars during the year.



Farmers grading and shipping watermelons. Many other smaller crops such as onions, spinach, potatoes, beans, sweet potatoes, radish, okra, and other truck and garden vegetables along with the small fruits and nuts are marketed through the cooperation of Extension Service personnel. These crops brought Oklahoma farmers more than 23 million dollars.

the program. Egg grading conferences and schools were held with county workers and producers in many counties.

Several large handlers adopted the use of the State and Federal grades. One large handler operating in ten counties paid producers an average of \$1.50 more per case delivered during the year. This demonstration was followed by enlarging the service and facilities for 1948.

Two new fruit and vegetable marketing associations were organized.

Twenty-five organized groups of fruit and vegetable growers were contacted and information on fruit and vegetable outlook, demand, price, volume, and other information was furnished these groups throughout the year.

Peanut dealers, growers, and others were furnished outlook, price support, grading, and marketing information on peanuts.

Considerable work was done in cooperation with the Production and Marketing Administration informing peanut growers on the marketing quota program. This included a series of area meetings throughout the peanut section of the state.

The major grain project carried out was directed toward improving the quality grown in Oklahoma. Grain Grading Schools were held at Blackwell, Alva, Buffalo, Hobart, and Clinton.

Soil Improvement

SOIL IMPROVEMENT IN OKLAHOMA during the year was highlighted by the first Soil Conservation and Improvement week held in early February. This event, sponsored by the Extension Service, was very successful in bringing to the attention of townspeople as well as farm folks the stake everyone has in conserving Oklahoma soils. In each of the state's 77 counties meetings of civic groups, farm organizations, and townspeople spotlighted Soil Conservation Week. Radio broadcasts were given, special newspaper editions prepared, and other means utilized to bring the message to the public.

In Oklahoma 85 out of every 100 acres are affected by harmful erosion. Losses of soil and organic matter have greatly reduced the moisture holding capacity of many soils in the state. Between 25 and 75 per cent of the topsoil has been lost on 13,460,000 acres. Many years ago the Extension Service, through educational means, started soil conservation work. Today, while soil damage is still evident in almost every section of the state, great strides have been made in reclaiming and conserving this valuable resource. Oklahoma farmers are definitely on the way back in soil improvement.

During the 10-year period 1937-47, 77 soil conservation districts have been organized. At

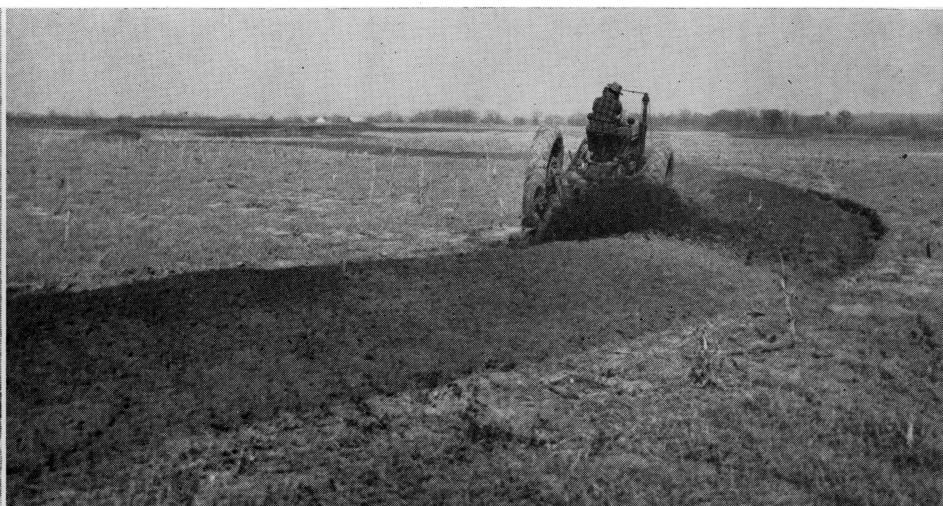
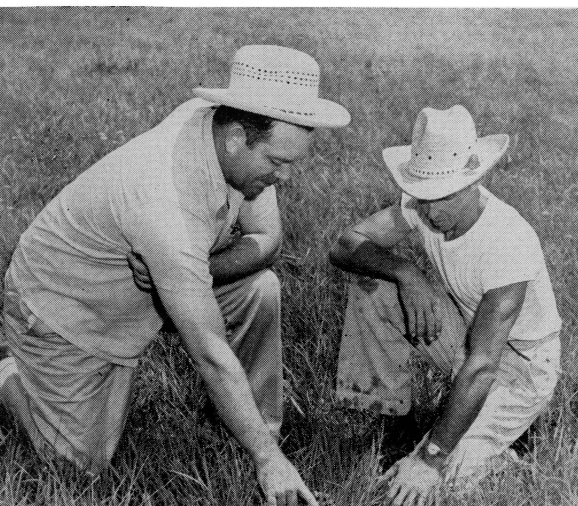


Farmers were given assistance through county agents in analyzing their soils for maintaining and improving soil fertility.

the present time 75 soil conservation districts are operating.

An effort was made to meet with as many boards of supervisors of soil conservation districts as possible. Assistance was given throughout the year by furnishing material or plans for exhibits, and in general, with soil conservation educational work. Soil conservation illustrated lectures were presented to civic clubs. Assistance was given to 4-H clubs and schools. A state-wide fire prevention program was promoted in cooperation with the State Fire Prevention Committee. Assistance was given in other fields such as planning and conducting of field days, club meetings, general educational meetings and meetings called for the purpose of explaining the operation of a soil conservation district.

Great strides have been made in constructing terraces and other soil building devices and county agents work closely with farmers in keeping check on the soil condition of their farms.



Dairy

CONDITIONS early in the year presented a shortage of milk, over 10 percent drop in the number of dairy cattle, a large decrease in the use of butter, and a greater demand for dairy products than ever before in the history of our country. To attack the problem new aids were employed to save labor and eliminate drudgery. Also a great improvement in dairy sanitation was realized. Much more equipment and up-to-date machinery was found on dairy farms. The great problem of more economical production with the decreased number of cows, shortage of labor, pushed by the greater demand for dairy products was a stimulant for a vitalized program.

In the third year of artificial breeding of dairy cattle 17,000 dairy cattle were bred. There were 2,400 farmers owning 24,000 cows making up the organizations. Forty-one carefully selected sires of the Jersey, Guernsey, Holstein, and Milking Shorthorn breeds were used. In addition there were 1,400 high quality, registered sires selected,

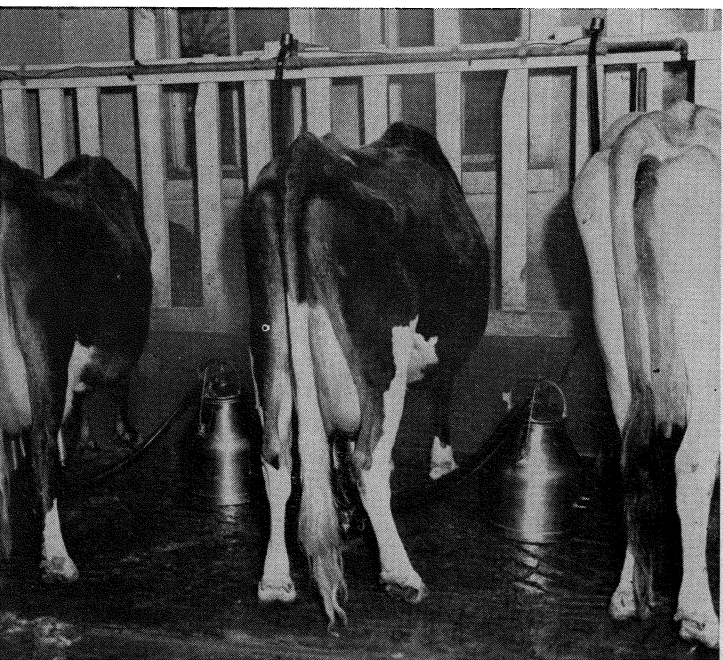
purchased and placed on farms where artificial service was not available through the efforts of county agents. Three times that many good registered herd sires were sold, many going outside of the state.

Eight organized dairy herd improvement associations in which 5,879 dairy cows were tested were used as a means of demonstrating better methods of feeding, herd management, value of herd sires, selection of foundation animals, better feeding methods, and above all, more economical milk production.

The volume of milk being low and the use of butter substitutes increasing constantly, it was evident that the highest quality should dominate the dairy markets. Through the 4-H clubs it was possible to have 681 cream quality demonstrations given by 72 teams in 42 counties. There were 65,991 people attending these demonstrations. In addition to this, 132 demonstrations of milk quality improvement were given in 12 coun-

Suggestions and plans were given farmers for the construction of Grade A dairy barns that would meet the health requirements and be economical.

They are both too young to be actively participating in the dairy program but are looking forward to that time not too far away when they will be doing their part in promoting Oklahoma's dairy industry.



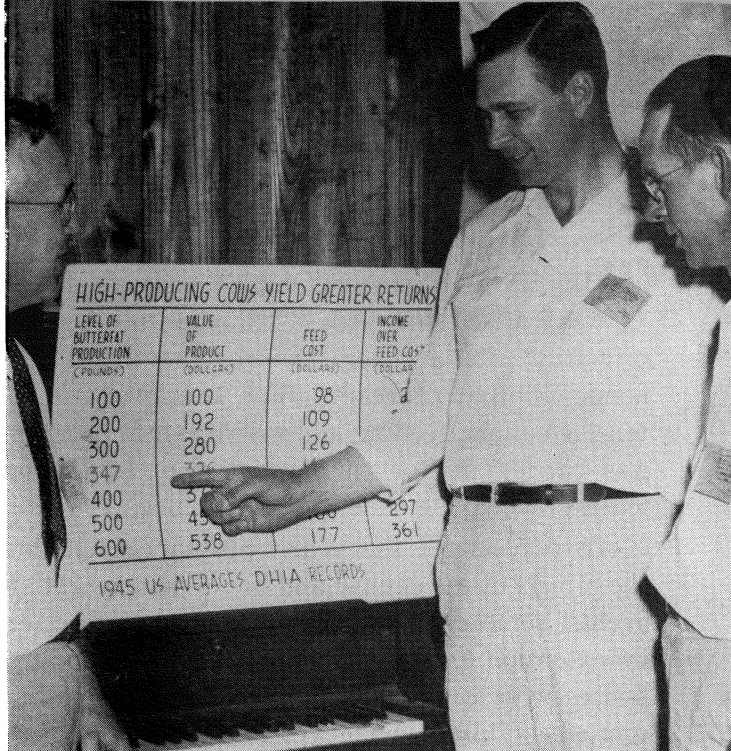
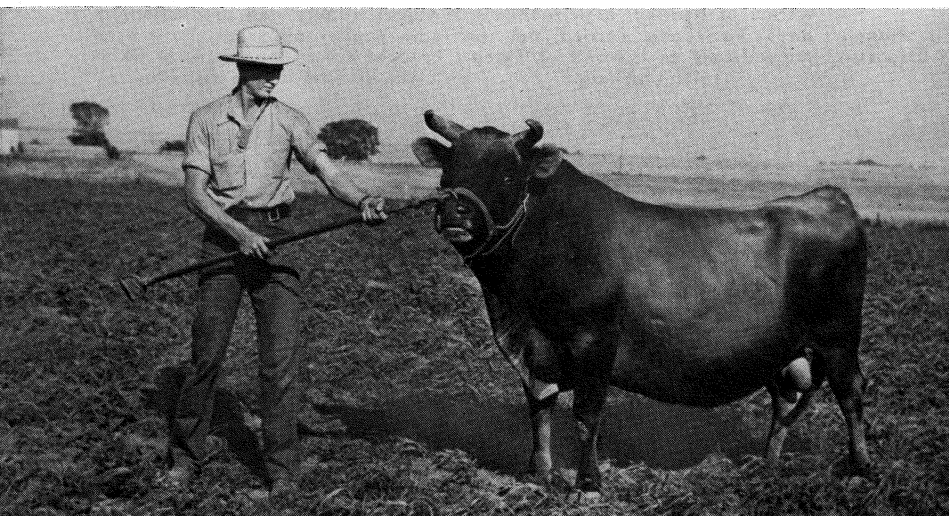
ties with 14,000 people attending. In coordination with the work of the Oklahoma Butter Institute, 335 towns received special help by sediment testing demonstrations at cream stations. This doubtless is the work that reached more individual people in the state than any other dairy demonstrations.

Fourteen spring breed shows were called Dairy Days. In these, 1,158 cattle were shown of the six breeds of dairy cattle in Oklahoma. These cattle were exhibited by 403 breeders from 52 counties. There were 10,521 people in attendance. In this work farmers were instructed in the judging and selection of dairy cattle, the value of testing, the need of better herd sires, and economical dairy practices.

A broad home dairying program was offered to the farm women in Oklahoma. This was in relation to quality improvement of milk and cream, a greater use of pasteurization in the home, a guide to the greater use of dairy products for health and instructions in making of dairy products to balance the family diet. The work was carried out through 14 leaders' meetings and also in many local as well as federation club meetings.

Twenty-two per cent increase over 1946 numbers in 4-H club work along dairy lines characterized the interest in this work. Slightly less than 4,000 young people were active. The ownership of registered dairy females was more fully emphasized in which over 700 were supplied during the year. Work in feeding, management, dairy sanitation, judging of dairy animals, preparation for exhibits, and quality improvement were taught.

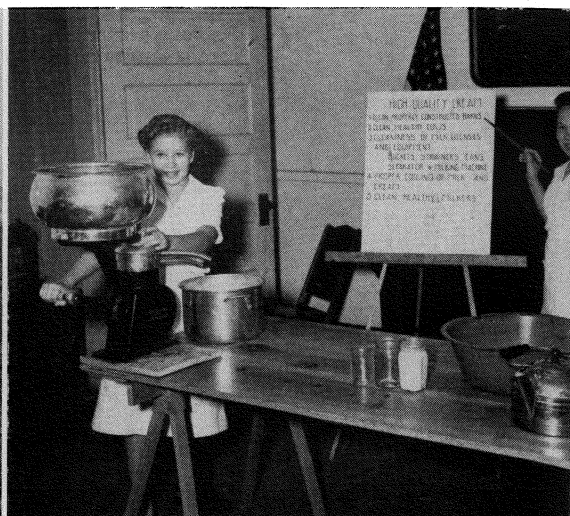
Purebred bulls of all popular breeds are used in the artificial insemination program to increase milk and butterfat production in the state. Extension people also helped 1,000 farmers select purebred bulls for their own herds.



Through efforts of the Extension service, additional artificial breeding circles have been organized. The program is proving successful in breeding high producing cows and raising the average production record.

Effective help was given to an interbreed association to sponsor dairy days and all dairy activities. Cooperative work with the entomologists on insect control was carried out. There were 198 farmers who received building plans for dairy barns and other structures. Close coordination was worked out with nine dairy organizations in the state. There were 49 radio broadcasts made and every week two news releases were prepared on dairy subjects and sent to county agents to be used in their columns to weekly newspapers.

Under Extension supervision, 4-H club members gave quality cream demonstrations before more than 65,000 people in Oklahoma.



Poultry . . .

THE EXTENSION POULTRY PROGRAM was carried forward in all counties dealing primarily with a general improvement and economic poultry program. For example, an intensive culling, feeding and management program was carried on for the purpose of eliminating loafers and saving time, feed and labor.

As a result of the year's program, including the efforts of the county and home demonstration agents, some civic leaders and others interested in extension poultry work, 1,490 new poultry houses were constructed, while 1,882 useful but unused buildings were converted into poultry houses. Thirty-five county poultry associations sponsored the holding of 203 schoolhouse poultry and egg shows, which represented 283 school districts.

There were also 35 county poultry shows held, with 12,898 birds being exhibited at these shows. At the three state fairs and the state poultry show 557 trios of birds were exhibited, and 450 boys and girls participated in the state poultry judging contests.

The year's poultry program included the following points: (1) Flock improvement, which included the selection of healthy, vigorous birds, from high production layers; (2) grow healthy chick and pullet program; (3) housing equipment and management; (4) quality egg program; (5) assisting county poultry associations; (6) Record of Performance (R.O.P. for chickens and turkeys); (7) general turkey management program; and (8) 4-H club poultry program.

Seven flock owners participated in the Record

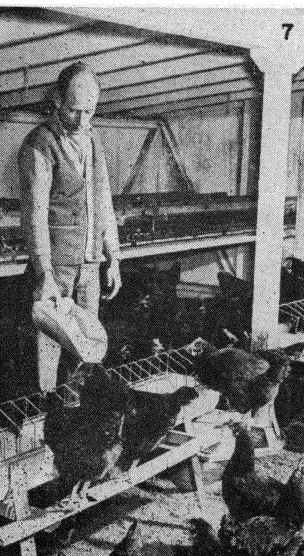
of Performance program advanced breeding phase. The following varieties were represented: S. C. White Leghorns, S. C. White Minorcas, S. C. Rhode Island Reds, Australorps, Barded Plymouth Rocks, White Plymouth Rocks, Black Langshans, Buff Orpingtons, and Jersey White Giants. A total of 3,886 females was officially entered on test for the year, 2,732 of which were pedigreed. All males used were pedigreed. There was 25 per cent, or a total of 974 hens qualifying at the end of the year. Average egg production for qualifying hens was 225 eggs per bird, that averaged 25.5 ounces per dozen.

The Oklahoma Turkey Federation was active throughout the year. In cooperation with Extension Service it sponsored a number of community turkey meetings, farm tours, a number of county and one state turkey show.

Quality of turkeys has greatly improved, advertising has been expanded and the sale of early hatching eggs increased because of the activity of the state turkey federation.

The 4-H club program included all phases of poultry improvement and production work with 11,372 4-H boys and girls enrolled in 4-H poultry projects. Twenty-four leader training 4-H poultry schools were held, with an attendance of 1,007, and 53 meetings were held in 4-H communities for 3,368 youngsters.

The 4-H poultry program as a whole was based on the activities outlined for the adults, and as a result a very cooperative program has been developed between the parents and children in handling the flocks on Oklahoma farms.

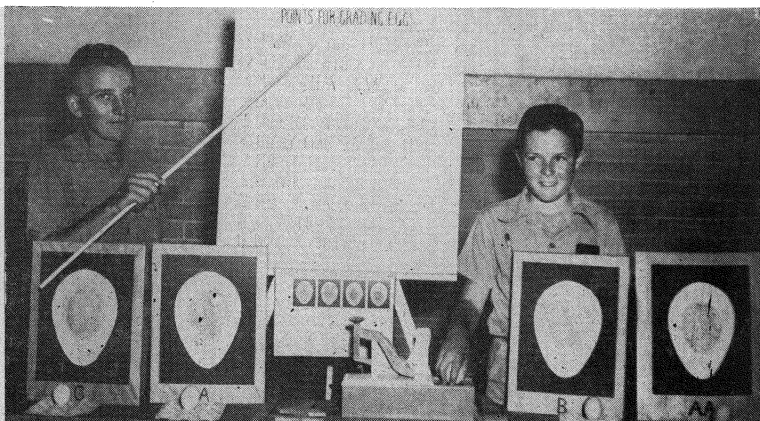


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Feeding proper rations is strongly recommended by the Extension service.

Flock improvement by careful selection of healthy, high producing birds has been carried out on many farms as a result of Extension teaching.

Higher quality and production, in both poultry and eggs, have been brought before the people of Oklahoma by 4-H club activities.



Livestock . . .

IN A YEAR of abnormally high values for all classes of livestock, the best quality livestock continued to return the greatest profits, made the most pounds of meat from whatever feed was available in comparison with livestock of lesser quality, and brought a much higher return per pound per head per year because of its quicker maturity.

The "use of better sires" program was stronger as during the year feeder steers graded good—produced by cows of good breeding and purebred sires. They were worth \$2 per hundred more than those grading medium which may have been produced by cows of reasonably good breeding, and registered bulls, but both the sire and the cow were of lower quality than those producing the good and choice grades.

Feeder steers graded plain were worth \$5 to \$7 per hundred less than those grading choice and good. In addition to this, the plain steers weighed 150 to 175 pounds per head less as coming two year olds than the good and choice grades of steers. This was the most constructive proof that a good sire, even at two or three times the price paid in pre-war years, pays for himself more quickly than ever before.

The more efficient use of feeds by the better bred livestock, the quicker maturity, and higher yield animals resulting from good breeding were major factors in a grain saving program.

The program of farm-to-market livestock production for 4-H club members was highly successful both from an educational and a profit-making standpoint. In every case where the boys did a reasonably good job on the program outlined at the beginning of the projects they made an



Governor Roy J. Turner presented scholarship awards to three state 4-H club members who did outstanding work in livestock production. The scholarships were given by the livestock industry.

excellent profit with livestock handled just as any adult livestock producer would handle livestock at a regular market. In addition, the youths received an educational value of the trip to a central market with their livestock. There they saw it received at the stock yards, sold by the commission man, weighed and delivered to the purchaser. In most cases they followed similar grades of livestock through the packing house, saw it slaughtered and finally hung in the coolers.

Considerable progress was made during the year in parasite and grub control work due to the demonstrations and proven profitable returns from fly control with DDT.

A new swine production program was started and the interest indicated it will result in increased swine production in Oklahoma on the basis of one to three sows per farm.

Farmers and ranchers throughout Oklahoma are building up their livestock by the use of purebred males. Extension personnel helped 6,624 farmers and ranchers in selecting and purchasing purebred males during the year.



Agonomy . . .

THE POTENTIAL FERTILITY OF SOILS in central and eastern Oklahoma has gradually declined under the influence of a pioneer agriculture. The combined effects of erosion and crop production have severely depleted much of the cultivated land. The limiting factors in crop production in this area are deficiencies of organic material, nitrogen, phosphorus, calcium and other soil minerals. The application of practices to conserve the soil, the use of lime and phosphate on mineral-deficient soils, and the growing of legumes to supply organic matter and nitrogen constitute the major phases of the soil improvement program in the state.

Demonstrations which show the effectiveness of basic methods in soil improvement have been conducted in nearly every county by farmers cooperating with county agents. Lime, phosphate, and legume demonstrations were conducted in 45 counties. The successful growth of sweet clover, hairy vetch, and Austrian winter peas on mineral-deficient soils by the use of lime and phosphate treatments has been fully demonstrated, and the acreage of these legumes is rapidly increasing. Many farmers in the wheat and corn sections of the state now grow these crops in regular rotations with sweet clover. Hairy vetch is grown extensively in the cotton and peanut sections. The acreage of both sweet clover and hairy vetch is increasing rapidly.

Approximately 350,000 tons of lime were used in the state during the year. Farmers in

the central and eastern parts of the state used 58,000 tons of fertilizers, including 32,000 tons of rock phosphate and superphosphate.

The cotton improvement program is another important activity in the state. Reports indicate that 12,589 farmers in 57 cotton improvement associations planted 263,303 acres with seed of adopted varieties during the year. Cotton farmers are also growing the crop in a balanced system of farming and are adopting suitable practices to maintain and improve soil fertility.

Seed improvement is a very important phase of the crop improvement program in the state. Seed certification is conducted by the Oklahoma Crop Improvement Association, a cooperative of the Extension Service. The Association is composed of leading farmers throughout the state who specialize in the production of high quality seed of adapted varieties of crops. The Association has 587 active members, nearly all of whom are growing one or more crops for certification. The growers have a total of 24,864 acres of crops which were approved for certification. This includes 12,268 acres of wheat, 2,148 acres of oats, 320 acres of sweet clover, 1,118 acres of sorghums, 5,888 acres of cotton, 753 acres of hybrid corn, 432 acres of open-pollinated corn, and smaller acreages of the other crops commonly grown in the state.

The alfalfa seed improvement program which was started in 1938 has continued with increased participation of alfalfa growers. The program

Grain sorghums adapted to combine harvesting are grown extensively in Oklahoma, and other crops are being adapted to mechanical harvesting. Extension people have helped farmers with insect and disease control problems as well as cultural practices and soil building programs.





Extension personnel kept farmers supplied with latest insect control methods and chemicals. Proper insect control programs have added many thousands of dollars to the pockets of Oklahoma farmers and ranchers.

Entomology . . .

INSECT PROBLEMS were quite varied in Oklahoma during this year. Some of the outstanding control projects covered cotton insects, livestock parasites, and grasshoppers. Other projects receiving considerable attention were garden insects, household pests and pecan and fruit insects. There was also considerable interest in beekeeping by both adults and 4-H clubs.

Extension service personnel devoted much time during the cotton growing season to controlling cotton insects. The boll weevil overwintered in enormous numbers throughout the central and eastern portions of the Cotton Belt. Early in the season, educational meetings were held at which those interested in cotton production were informed as to the seriousness of the situation and latest cotton insect control methods. At least one-third of the 1,050,000 acres of cotton in the state were dusted one or more times with good results. Proper control measures increased yields. There was a large increase in the number of power take-off dusters in the state and in the number of acres dusted by airplane.

A cotton insect survey was conducted throughout the leading cotton counties. Each Saturday the findings of this survey were released to cotton growers, county agents and others interested in cotton production.

During the year a total of 101,083 farmers

were assisted in the control of livestock and poultry parasites. Approximately 90 per cent of all cattle in Oklahoma were sprayed or dipped for the control of horn flies. The interest continued high in cattle grub control with 294,283 head treated during the season. Rotenone was applied as a dust, wash, dip or spray. Livestock owners dipped or sprayed with DDT or Rotenone 710,074 head of livestock for lice and 197,361 head of livestock were treated for the control of ticks.

The grasshopper control program was carried on in 21 counties where a total of 46,691 acres was baited with a saving to the farmers of \$813,986.

In vegetable insect control 26,066 farmers and gardeners were assisted. Sabadilla gave excellent results on the control of the squash bug. DDT was used by a few for the first time for the control of potato beetles.

There were more 4-H club boys and girls enrolled in beekeeping than ever before—1,832. Around 64,000 colonies of bees in the state produced honey valued at \$650,000 and beeswax valued at \$24,000. There was also much interest in bees as an aid to pollinizing legumes.

Prairie dogs were eradicated from 54,768 acres, using either poisoned grain, carbon bisulphide or cyanide flakes. Gophers were eradicated from 6,280 acres by using poisoned grain and traps. A total of 10,577 farmers were assisted in controlling rodents and other animals on their farms.

A total of 8,251 farmers were assisted in controlling predatory animals on their farms.



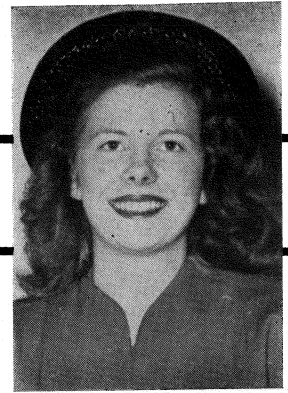
Head

LAVONA THORNDYKE

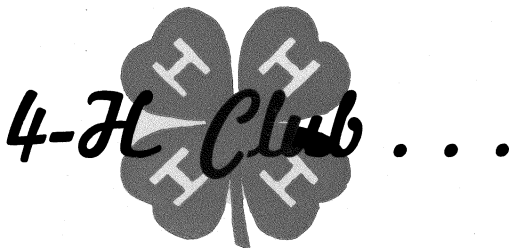


Heart

RALPH LEE CHENOWETH



JOANNE FLETCHER



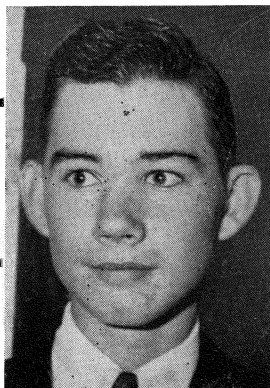
In December, in Chicago, 10 Oklahoma club members received the highest honors that 4-H club work can give. They were named national winners at the twenty-sixth annual National 4-H Club Congress. Two more national winners were selected at the National Garden Show at Jackson, Mississippi, later in December. The total of 12 was the most outstanding record made by any state in the nation. It meant that Oklahoma 4-H club members again led the nation in 4-H club achievements.

Our best farm "crop"—the fine boys and girls on farms throughout the state—have won more college scholarships through 4-H club work than any other state in the nation. Oklahoma young-

sters have won 135 National awards since 1924.

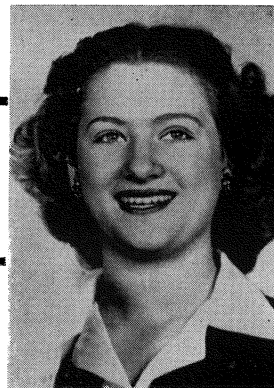
4-H club work is a part of the Cooperative Agricultural Extension Service educational program of the Agricultural College and U. S. Department of Agriculture. In each county, Extension Agents are employed to demonstrate and encourage the latest and best farming and home-making practices. Extension Agents work with farm boys and girls in much the same way they work with older farmers and homemakers. They help organize clubs, select and train local leaders and supply teaching materials and research results from the state and federal experiment stations in terms of local needs.

4-H club work was organized nationally in 1914 with passage of the Smith-Lever Act which created the Cooperative Agricultural Extension Service. In Oklahoma the first "4-H" club was organized at Tishomingo in 1909 by W. D. Bentley, first director of Extension in Oklahoma. Mr. Bentley formed a boys' corn club of 50 members.



HAROLD KERNER

**2,046
Organized
Clubs**



SHIRLEY JO JOHNSON

**32,777
Boys
31,889
Girls**



DALE JORDAN



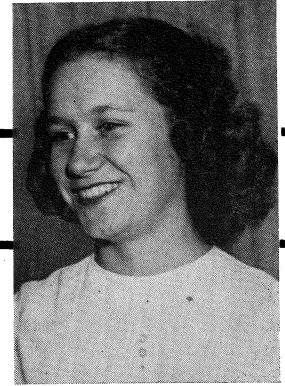
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DONALD LEE EIFERT



Health

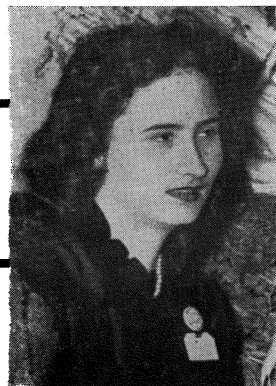
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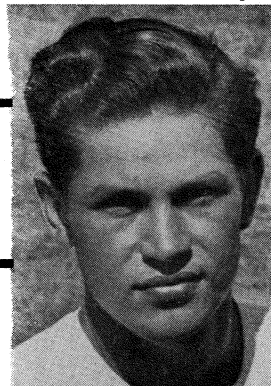
Summary of 4-H Club Boys and Girls Projects

Project	Members Enrolled	Units Involved in Completed Projects	Estimated Value
Corn	8,127	17,946 acres	\$ 942,165.00
Other Cereals	3,677	43,936 acres	1,439,053.00
Cotton	3,760	12,545 acres	598,024.00
Peanuts	1,003	1,984 acres	93,000.00
Soybeans, Alfalfa, Other Legumes	2,371	7,170 acres	333,500.00
Other Crops (Grain Sorghums)	2,986	22,342 acres	656,840.00
Poultry	11,548	391,646 birds	979,115.00
Dairy Cattle	3,743	4,047 animals	755,000.00
		Dairy Products (Milk and Butterfat)	228,000.00
Beef Cattle	9,560	10,252 animals	3,383,160.00
Swine	12,199	24,234 animals	1,720,614.00
Sheep	1,509	4,315 animals	161,812.00
Potatoes, Irish and Sweet	1,163	635 acres	200,025.00
Fruits	2,664	2,664 acres	865,600.00
Home Gardens	27,026	6,329 acres	1,740,475.00
Market Gardens	1,742	1,161 acres	464,000.00
Beautification of Home Grounds	19,755	14,432 home grounds improvement	432,960.00
Soil and Water Conservation	2,222	30,122 acres	150,610.00
Agricultural Engineering	4,915	6,705 articles made	67,050.00
		4,813 articles repaired	24,065.00
Bees	1,832	1,998 colonies	49,950.00
Forestry	1,294	1,214 acres	128,684.00
Wild Life Conservation	4,535		90,700.00
Food Selection and Preparation	31,745	1,393,229 meals served	459,251.00
Food Preservation	31,490	1,111,075 quarts preserved	444,430.00
Health	46,656	112,837 garments made	677,022.00
Clothing	31,573	34,416 garments remodeled	
		4,348 units	13,044.00
Home Management	11,424	8,144 rooms	81,440.00
House Furnishings and Room Improvement	29,438	68,944 articles	98,944.00
		TOTAL	\$17,278,533.00



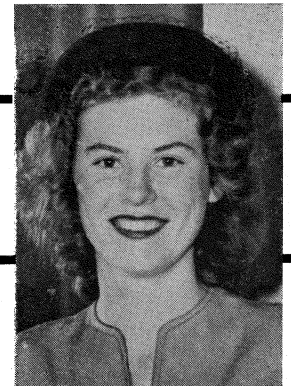
**12
National
Winners**

JANE ANN MILLER

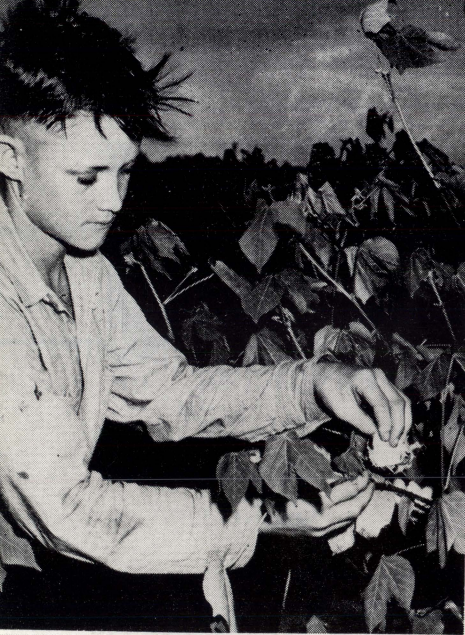


**7,286
Local
Leaders**

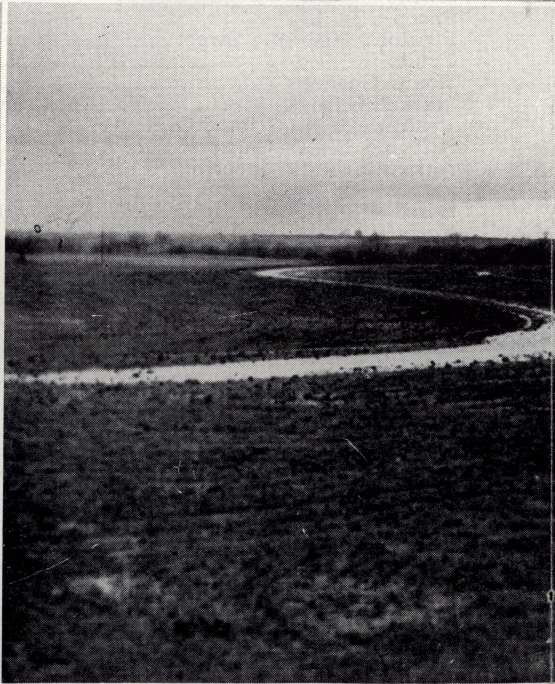
ORVAL D. SMITH



MARY LOUISE LONG

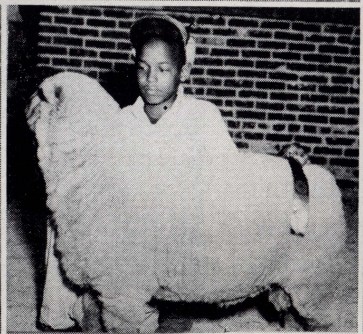
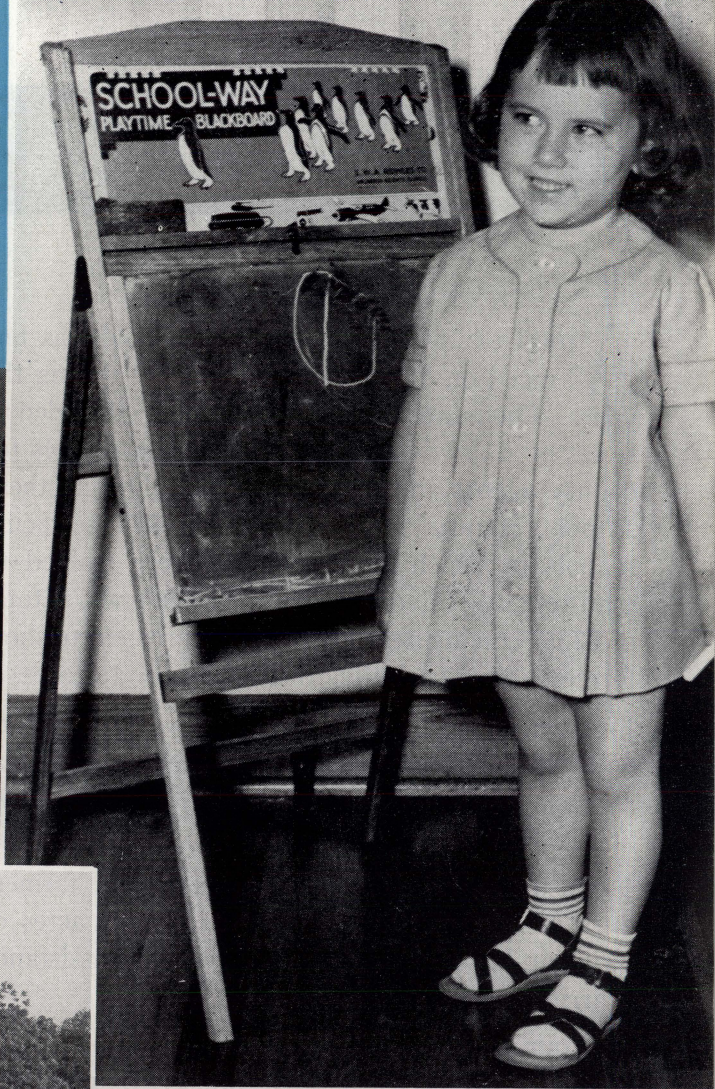


The Extension Division, operating in all 77 counties of the state, points the way to a more permanent and prosperous agriculture for rural Oklahoma by giving practical information and teaching aids in the various phases of farm economics, farming, and livestock production. Through the 4-H clubs, youth work is stressed. This year 65,000 boys and girls were enrolled in projects covering the field of agriculture.



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thousand of these youngsters enrolled in the health project to receive Extension training. Home Demonstration clubs, with more than 27,000 women participating, carried on a progressive program of community development and 4-H club work, while the men were following Extension guides in good farming practices, soil improvement and livestock production. Extension teaching reached more than 208,000 families during the year.



Agricultural Engineering . . .

A total of 264,406 acres of farm land was terraced on 5,097 Oklahoma farms during the year. The state terracing program included a series of six two-day district terracing schools for county agents and local leaders. Following these schools, county agents conducted 374 terracing schools in which 2,536 persons were trained to plan terrace systems and run terrace lines. A total of 723 terracing demonstrations were held to show farmers how to build and maintain terraces.

Construction of farm ponds was important with 10,968 farm ponds being built. A total number of ponds now in the state is estimated at 118,406.

In drainage and irrigation work, 921 farmers were assisted in the drainage of 38,917 acres of farm land, while 470 farmers received assistance in irrigation of 16,847 acres.

Four hundred eighteen sets of building plans were given farmers for farm houses, dairy barns, and other types of buildings during the year. A total of 1,516 new farm houses was constructed and 4,122 remodeled. Assistance was given to 2,578 in the construction of farm buildings while 443 farmers were aided in the repair of their buildings.

Extension personnel conducted county meetings in which farm people were given instructions on wiring and in the selection of electric equipment. Electric cooperatives were assisted in bringing electricity to 6,180 farm families. In the selection and use of electric lights and other home electrical equipment 7,414 families were helped.

Three thousand six hundred forty-eight farmers were assisted in the selection of mechanical equipment while 9,403 were helped in making more efficient use of their machinery and equipment. More than 12,000 farmers followed instructions in the maintenance and repair of farm machinery and equipment.

District training schools were held for the purpose of training farm leaders in the selection and utilization of farm water systems. During the year 1,322 farm families installed bathrooms and sewage systems while 1,833 installed water systems.

District 4-H Tractor Maintenance Schools were held in which 105 4-H club leaders and coaches were given instructions in the training of club members in 4-H tractor maintenance. During the year, 877 club members completed requirements for tractor maintenance activities.



Proper installation of electric lines on farms was stressed by county agents. Forty-seven per cent of Oklahoma's rural homes now have electricity.

was conducted in 32 counties, or all of the counties in which seed is grown commercially. The 3,478 growers registered 160,552 acres of approved alfalfa for seed. These farmers sold more than 8,000,000 pounds of seed, which was tagged and sealed with the official tags and seals of the Oklahoma Crop Improvement Association. Participation by farmers was the largest of any of the 10 years during which the program has been in operation.

The fertilizer test demonstration program is a cooperative activity between the Extension Service and the Tennessee Valley Authority. The program is being conducted in eight counties at the present time. The 92 cooperating farmers fertilized 5,144 acres. They used 237 tons of TVA fertilizer and many of them purchased additional amounts of fertilizers.

The total state enrollment in 4-H crop club projects was 25,082. This was 40 per cent higher than last year's figure.



Approximately 1,500,000 seedlings were grown for distribution to farmers in the state. County agents have order blanks and often make site inspection to assist the farmer with planting problems.

this project. In the Izaak Walton League no burning contest, ten counties participated. There were 5,187 farmers who signed the pledge representing 1,833,517 acres.

A stimulated tree planting program has become a regular piece of work, and during the year, 1,133,055 trees were planted during the winter and spring season. Of this number 406,649 were forest trees provided by the Division of Forestry at Oklahoma City. The county agents handled applications and in many cases made site inspections.

The Farm Forestry Project had 16 cooperators, representing 7,175 acres of woodlands, put under management. It has had its influence on harvesting and marketing 21½ million board feet.

A major phase of the forestry program in Oklahoma is fence post production. Some of the more popular species in Oklahoma are: catalpa, black locust, cedar, osage orange, walnut. Both methods of harvesting, the clear cut and the thinning are shown in this picture.



Forestry . . .

PROBABLY THE MOST IMPORTANT forestry project in the state today is that of fence post production. About 80 per cent of the trees planted go for this type of work.

The forest fire prevention program is becoming more and more important. In close cooperation with the Division of Forestry, foundation plans were laid for the Division of Forestry to put fire protection personnel in four new counties and the Extension Service assumed leadership in an educational program. These counties include Cherokee and its neighbors. In Cherokee County about one-half of the area was protected by farmers' volunteer department. With this as a nucleus the Division of Forestry felt this was the best place for a new intensive fire protection area.

4-H clubs took an ever-increasing interest in

Horticulture . . .

Horticulture in Oklahoma has come to mean more than just growing a garden. Six phases were included in the extension program—Home Gardening, Home Beautification, Home Fruit Production, as well as Commercial Fruit, Vegetable and Nut Production.

Farmers are using more commercial fertilizer under truck crops. Vegetable seed treatment for disease control is a practice now in wide use, resulting in better stands and yields throughout the principal truck growing region.

Farmers are increasing their acreages of small fruits. The frozen food industry is making it possible for the better utilization of the berry production in the state. Irrigation systems are in use on some of the larger plantings, and they are proving to be very profitable.

More farmers each year are taking better care of their native pecan groves. The value of clearing and thinning timber to give the native pecans the advantage needed has been well demonstrated. The official production of pecans for this year has been listed as 44 million pounds. This is an all time record for Oklahoma and some of the increased production is due to improved management practices.

Home vegetable production program received special attention during the year. 318,722 gardens were produced. Soil treatment demonstrations



"Better gardens for better living," a slogan sponsored by Extension and carried to all 77 counties in the state, pointed out the need for proper fertilization, selection of high quality seed and proper cultural practices. The program covered more than 318,000 gardens.

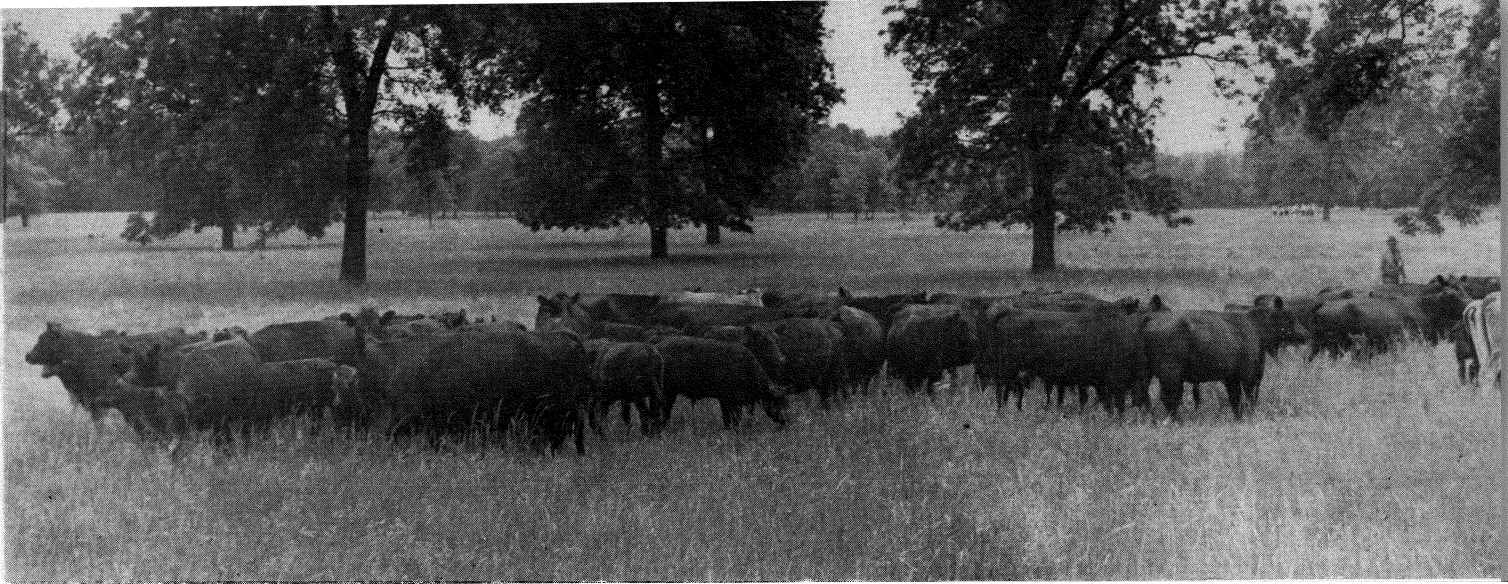
were established in most of the counties. The results of this program indicate that both the yields and the quality of the vegetables produced on soils well supplied with needed fertility were superior to the vegetables produced on untreated plots. Gardening is considered important by many of our farm families not only from the economic standpoint but also as a health safety measure.

More than 13,000 families were assisted and advised on landscaping problems. Practical usefulness and attractiveness was the theme of the landscaping program.

Home landscape plans were drawn, furnished, and explained; planting demonstrations were held. Assistance was given and plans drawn for various types of community projects such as parks, roadside plantings, churches, and schools. Educational meetings were held for the purpose of presenting practical information on selection of plant materials, pest control, and general maintenance of plantings.

For maximum production of high quality products, fruit growers of Oklahoma have followed county agents' recommendations for a year-round spray program.





The Extension pasture program stressed the need for good, well nourished pastures, like the one above, that can take care of large numbers of livestock.

Pastures . . .

REPORTS SHOW THAT the production of **R** from 250 to 300 pounds of meat per acre was realized from demonstrations of Bermuda based pasture. In nine counties, such demonstrations show a yield in milk per acre of from 1,000 to 3,000 pounds.

In many instances grass fat cattle, from tame grass pastures, were ready to sell from two to five weeks earlier than cattle on native grass. These reports do not include the number of exceptions when, with special management, much higher yields were actually made.

Pasture work in many counties was stimulated by cash prizes being paid to farmers for outstanding accomplishments in pasture work.

Next in importance has been educational work done in showing how to plant when phosphorus was applied to the soil. Thirty demonstrations were held, with farm crowds numbering from 150 to as many as 400, where legume seed was inoculated, grass seed weighed, and planted together with fertilizer.

In southwestern Oklahoma many thousands of acres of Bermuda have been planted to hold soil—to prevent fine sand from blowing. As pasture, Bermuda has a few friends in the area. The soil is high in mineral but low in organic matter and water-holding capacity.

Special high yielding demonstrations of vetch and rye grass, Korean lespedeza

and rye grass, and sweet clover and rye grass were used to show how hogs and poultry can be kept more cheaply and how poor cattle can be quickly improved in condition.

Cattle have been pastured on Korean and rye grass from March 9 until January 1 without feed or hay. This phase paves the way by soil improvement for permanent pasture.

Demonstrations, supervised by Extension personnel, were given on the proper method of seed harvesting and cleaning. Good results were realized in the harvesting and cleaning of 12,000 pounds of big hop clover seed.

The difficulties in harvesting vetch seed were solved and demonstrated. This has reference to harvesting uncracked seed and to separating cut from uncut growth before combining.

Gradually changing poor producing native pasture into high producing clover and tame grass pasture was made in outstanding demonstrations. Without much tillage, mineral deficiencies were corrected and plantings made directly in native grass.

An increased acreage of Korean lespedeza was planted in the state. 5,500,000 pounds of seed were purchased, which is more than three times the amount for the previous year.

While the purchase orders were below normal for vetch, due to the shortage of seed from outside sources, there is reason to believe that the seed harvested here in the state resulted in an increased acreage of vetch.

There was definitely an increase in the use of sweet clover in temporary pasture.

More than 108,000 families were assisted by Extension personnel with home food preservation problems and 19½ million quarts of fruit, vegetables and meats were canned during the year.



Foods and Nutrition

THE FOOD AND NUTRITION project during the year was concerned with the promotion of food lines that would help them in solving their problems of a program that would bring to the people of the state new, helpful and practical information along with food problems.

Emphasis on good and accepted methods of food preservation, such as canning, freezing, brining and storage of foods, was a major feature of the program.

A total of 1,625 food preservation leader training schools were held with 4,580 leaders trained.

In all, reports show that there were 108,123 families assisted with some phase of food preservation work by home demonstration agents and leaders. These 108,123 families were assisted with food preservation problems as follows: 81,492 with canning; 39,433 with freezing; 5,605 with drying; 28,201 with storage of foods; 42,012 families produced and preserved, by some method, home food supply according to an annual food budget; 37,781 families canned according to a canning budget; and 2,721 families did some of their canning at canning centers.

The food preservation record showed that 12,442,722 quarts of fruit, vegetables and meats were canned by 68,623 families reporting. A

total of 1,263,308 quarts were brined; 10,898,592 pounds stored; 814,427 pounds dried; 18,614,005 pounds cured; and 6,505,132 quarts frozen.

The chief food preparation demonstrations were: vegetable cookery, cooking frozen foods, salads, use of canned vegetables, yeast breads, muffin mixes and meat cookery.

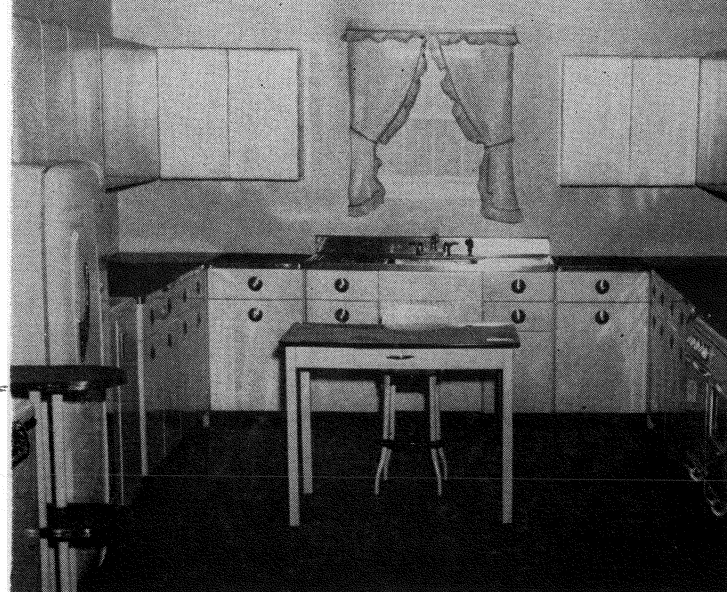
During the year, 60,384 families have in some measure improved their diets; 29,764 families did meal planning work; and throughout the state families, under the guidance of Extension personnel, participated in the various phases of food preparation and put on demonstrations before other families and clubs.

Homemakers were helped with child feeding problems; and 32,200 4-H club girls were assisted with food preparation, preservation, and nutrition work during the year.

The Extension food and nutrition program is constantly stressing the importance of an adequate, well balanced daily diet. This means that some foods from each of the seven essential food groups must be included, in the daily diet.



The U-shaped kitchen, like the one right, is fast winning the approval of rural women because it combines compactness with sufficient cabinet space and a convenient arrangement of working facilities.



Home Management . . .

THE BASIC PROBLEMS and needs of rural families were the guiding influences in developing the home management program for the year. The major activities of the program included phases that would be most helpful to these families in solving satisfactorily their own home management problems.

A study and analysis was made of census data, reports of county extension agents, local leaders, and the state sociologists, farm and home accounts, accident surveys and personal studies and observations in order to find the principal needs common to all counties.

The need and desire for suitable dwellings adequate for family requirements were great. The lack of practical and usable information and training regarding planning and building, showed that the greatest return in improvement was not received from money and time spent on housing. Insufficient labor saving equipment and facilities for the farm and home were evident. Unsatisfactory farm and home financial plans and practices handicapped families in meeting current economic problems affecting family living. The number of accidents in the homes of Oklahoma farm families was cause for concern.

The interest in home management information was great throughout the state. Because of shortages in unavailable materials and labor, housing improvement and purchase of new equipment and furnishings have been by-passed for a

long time. High incomes, reduced debt, and increased property value intensified the urge to get busy with these improvements.

The 77 counties in Oklahoma emphasized home management information in 236 monthly programs. Club members in each of the 1,599 home demonstration clubs had access to the information. One hundred and fifty-four groups, including, 2,080 people, with special interest in housing, electric needs, home lighting, house furnishings, and better methods of doing housework, were trained in workshops or training schools.

Because of the urgent need and desire for better accommodations housing became a major activity. Greatest demands for information and training were in the phases of planning and remodeling homes, planning of electrical needs, and home lighting.

In 1940, 51 per cent of the farm homes in Oklahoma were in need of major repairs. County reports show that 1,516 dwellings were constructed and 4,122 old dwellings were remodeled.

The interest in kitchen improvement was widespread. Twenty-six counties carried kitchen improvement as a major activity. Four phases, (1) kitchen planning and arrangement, (2) kitchen storage, (3) treatment of kitchen floors, and (4) kitchen backgrounds and window treatment, were emphasized in different counties. Functional and attractive kitchens were the results hoped for: 6,148 rearranged or improved kitchens; 7,940 provided needed storage; 4,449 kitchen floors were refinished; 6,648 kitchen curtains were made.



A program for the entire family, stressing the importance of sound growth of children, family relationships and home care of the sick is carried on by the Extension service.

Family Life . . .

SIXTY-ONE COUNTIES carried Family Life demonstrations. The program emphasized basic needs, sound growth and development of infants and children, family relationships and home care of the sick. Attention was directed to responsibilities of the family to the people of the community, the state and to people of other countries and cultures—a “good neighbor spirit.”

Fourteen demonstrations were included in the program of work on growth, development and family relationships. In all Family Life demonstrations, the need for individuals and families to recognize and solve individual or family problems was emphasized. Five demonstrations were set up for the purpose of the conversion of health and human energy for the greatest benefit to the individual and community. Health examinations were encouraged for all family members. One hundred two leader training meetings were held with a total of 1,168 leaders trained.

Off to school. These youngsters are typical of the many healthy, happy children in the rural families of Oklahoma. Extension provides assistance to families by providing a program to include the welfare of the entire family.



Clothing . . .

O KLAHOMA RURAL FAMILIES are one of the best dressed groups in the state. Through the different phases of home demonstration clothing work rural women are becoming conscious not only of the need to be well dressed and well groomed, but how to conserve the family clothing budget by sewing for their families.

During the past year 245,697 garments were made for children and adults by women enrolled in some phase of clothing work. Twenty-four thousand, six hundred and fifty-three other families were assisted with their clothing problems.

Seventy-seven counties carried the 4-H clothing project with 31,573 girls enrolled.

Nine thousand, nine hundred and twenty-eight girls entered the county dress revues, and 76 entered the state dress revue.

Tailoring was one of the most popular phases of the clothing program. Four thousand, seven hundred and ninety-one coats and suits were tailored during the year.

The need for conservation of old clothes to keep down the rising cost of living prompted the rural women to remodel 68,572 garments and 394,436 garments were made to last longer through mending, better general care and storage.

As a result of clothing work done by home demonstration agents to clothing leaders 245,697 garments were made for adults and children.



Extension personnel stressed the latest fashions in clothes as well as the most economical ways of making or remodeling garments.

During the year 4-H club girls made 112,337 new garments and remodeled 34,416 old garments. County home demonstration agents with the assistance of local leaders and older 4-H club girls teach the younger members the basic principle of sewing.





Negro county agents and home demonstration agents, by giving demonstrations and using other phases of extension teaching, were able to bring about changes in agricultural practices in more than 8,000 negro families.

Negro Extension Work . . .

Negro county and home demonstration agents in 13 counties carried extension work to most of the 8,238 Negro farms in Oklahoma. Visits were made to 6,698 different farm homes and instruction and teaching aids in Extension work given.

Twenty-seven new home demonstration clubs were organized and 868 new members were added to organizations this year.

Through the efforts of Extension service personnel changes in agricultural practices have resulted on 6,004 farms. Non-farm families, numbering 2,118, also made changes in practices as a result of the agricultural program. The home demonstration program resulted in changes in 5,112 farm homes and 1,989 non-farm homes.

4-H members are enrolled from 3,714 farms and 1,024 non-farms representing 259 clubs with a total enrollment of 6,503.

Health examinations were given to 4,318 children and 2,162 adults during the year and 654 physical defects were corrected.

In the clothing division of the work 11,855 garments were made and another 4,000 re-modeled.

Thirty-one terracing schools were held during the year with 123 terracing demonstrations being put on and a total of 7,932 acres of farm land was terraced.

During the year nearly 10,000 farm and non-farm Negro families have been influenced by some phase of the Extension Service program in Oklahoma.

Negro extension personnel, working with both adult and 4-H members, was influential in improving the living conditions and health of Oklahoma's negroes.



Statistical Section . . .

Farm and non-farm families participating in the Extension program.....	208,201
Farms adopting improved practices as a result of agricultural programs.....	120,853
Farm homes adopting improved practices as a result of Home Demonstration programs	79,990
Number of different farm homes visited.....	60,018
Office calls made to county and home agents' office.....	314,773
Newspaper articles prepared by agents for local papers.....	22,883
Bulletins distributed	601,736
Radio broadcasts by agents.....	1,109
Farm homes with 4-H club enrollment.....	39,436
Other homes with 4-H club enrollment.....	8,457
Farmers assisted by Extension in:	
Obtaining improved varieties or strains of seed.....	83,367
Use of lime and fertilizer.....	90,927
Controlling plant diseases.....	36,547
Controlling injurious insects to crops.....	60,182
Controlling noxious weeds.....	18,608
Obtaining purebred males.....	6,624
Obtaining purebred or high-grade females.....	11,391
Obtaining better strains of chicks.....	13,168
Improving methods of feeding.....	72,538
Controlling external parasites.....	101,083
Controlling disease and internal parasites.....	62,738
With problems of land use.....	31,757

In crop rotation.....	23,435
In constructing terraces and contouring farming.....	17,265
In education for organization or operations.....	22,324
Arranging for farm-conservation plan and working on this definite plan.....	9,302
Reforestation new areas by planting small trees.....	1,190
Wildlife conservation.....	8,706
Keeping farm inventory, records and enterprise records.....	10,175
Developing farm and home plans.....	9,300
Analyzing farm business and improving landlord-tenant relations and leasing agreements.....	5,278
Farm-Labor problems.....	26,007
Smith-Doxey cotton classification service.....	17,229
Constructing or remodeling dwellings and installing sewage, water, heating systems.....	32,689
Controlling household pests.....	31,441
Obtaining electricity, selection of equipment and using for income- producing purposes or remodeling.....	15,578
Constructing farm buildings (other than dwellings).....	7,017
Selection, use and maintenance of farm equipment.....	25,514
Improving diets.....	60,384
Food preparation.....	57,169
Home butchering, meat cutting or curing.....	16,877
Food preservation problems.....	108,123
Positive preventive measures to improve health and first aid or home nursing.....	32,541
Home-Management problems.....	15,187
Clothing problems.....	104,379

Child development and guidance problems.....	15,408
Improving family relationships.....	16,856
Improving home recreation.....	16,758
Number of 4-H clubs in state.....	2,046
Enrollment (32,777 boys, 31,889 girls).....	64,666
Number 4-H club members from non-farm homes.....	11,303
4-H club local leaders.....	7,286
Number of 4-H club members completing farm-to-market livestock projects	2,228
(a) Number of farm-to-market animals sold by 4-H members.....	8,696
(b) Approximate value of farm-to-market animals raised.....	\$ 801,603



