

OKLAHOMA A. AND M. COLLEGE—EXTENSION DIVISION
Stillwater, Oklahoma
In Cooperation With the
UNITED STATES DEPARTMENT OF AGRICULTURE
States Relations Service
JAS. A. WILSON
Director and State Agent

OSU
Collection

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REPORT OF THE
EXTENSION DIVISION

OKLAHOMA A. & M. COLLEGE

STILLWATER, OKLAHOMA

FOR THE YEAR 1918-19

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EXTENSION CIRCULAR NO 114

LETTER OF TRANSMITTAL

Hon. J. W. Cantwell,
President A. and M. College,
Stillwater, Oklahoma.

Sir: In accordance with the Act of Congress approved May 8, 1914, to provide for cooperative agricultural extension work, I have the honor to submit herewith the annual report of the Extension Division of the Agricultural and Mechanical College of Oklahoma.

This report embodies the financial statement for the fiscal year ending June 30, 1919, and the report of the activities of the Extension Division for the calendar year of 1919.

I respectfully request that you transmit the same in accordance with the law to the Governor of the State of Oklahoma.

Respectfully,

JAS. A. WILSON,

Director.

REPORT OF THE EXTENSION DIVISION YEAR OF 1918-19

Immediately on the signing of the armistice, November 11, 1918, the Extension Division began shaping its plans and policies to get back to its pre-war basis. The sole idea of greater production to meet the needs of the world war was at once supplanted by a broader policy which included soil improvement, betterment of market conditions, roads, rural schools and churches, more effective organization work, and all lines tending to the improvement of rural conditions throughout the state.

During the war the efforts of the Extension Division had been to increase the production of food to meet the war needs, and to aid the Government as much as possible in all war activities. The results obtained along increased food production lines were very satisfactory. The campaign to increase the acreage sown to wheat in the fall of 1918 was very successful, being 975,000 acres greater than was sown in 1917. The yield was good, and there was a comparatively small acreage abandoned. The cotton acreage of 1918 was considerably reduced that more land might be planted to food and feed crops. The serious drouths of last year and the year before were followed by general rains during the fall of 1918 and the winter of 1918-19. Wheat pasture during the winter of 1918-19, as well as hay and other feed crops the following summer, were generally good, and sections of the state that have been so depleted of livestock during the preceding dry years rapidly stocked up again with breeding animals of all kinds.

There was some insect damage to crops in some sections of the state; also there was some delay in thrashing small grain on account of labor shortage and wet weather, but, on the whole, the year has been a prosperous one for farmers, and the Extension Division considers the results obtained through its efforts as entirely satisfactory.

Administration 1918-19

There were no changes in the general plan of organization during the fiscal year ending June 30, 1919. Mr. John E. Swaim, assistant in charge of Boys Club work, resigned, and Mr. E. B. Shotwell, district agent, was transferred to this position. Mr. W. J. Green, one of the assistants in Boys Club work, resigned to accept a position with the United States Department of Agriculture in the Island of Guam. Also Mr. D. T. Meek, Livestock Club agent, resigned to accept a position as county agent of Garfield county. W. A. Conner, district agent, resigned, and Dan Diehl, assistant district agent, was promoted to the district agent position. There were many other changes in the personnel of the Extension Division during the year, which usually is a matter of regret. So many changes are hurtful to the work.

There were mailed out from the Extension Division during the past fiscal year 19,977 personal letters, 313,907 circular letters, 301,780 bulletins, 2,944 packages, 46,064 posters, and 34,987 record books, making a total of 719,659 pieces of mail matter.

The work of the Extension Division was carried on under seventeen projects, as follows: Administration, Printing and Distribution, County Agents, Boys Club Work, Home Demonstration Agents and Girls Club

Work, Rural Sanitation, Poultry Club Work, Livestock Club Work, Marketing, Dairy Extension Work, Improved Seed-Growing, Farm Management Entomology and Beekeeping, Rural Engineering, Animal Disease Work, Horticulture and Gardening, and Plant Disease Work. Seven of these projects, viz: Livestock Club Work, Marketing, Improved Seed-Growing, Farm Management, Entomology and Beekeeping, Plant Disease Work, and Animal Disease Work, were discontinued during or at the end of the fiscal year. Most of them were discontinued on account of lack of funds.

All lines of extension activities in agriculture and home economics of the Agricultural and Mechanical College and the United States Department of Agriculture are carried on under the direction and general supervision of the Director of Extension. The heads of the various departments of the College are considered final authority on all subject matter problems. The relations between all the various departments of the College and the Extension Division are very friendly. The desire to cooperate and be mutually helpful is everywhere evident.

Frequent conferences are held at the College between the extension people and faculty members. The Extension Division workers are recognized as the field representatives of the College and the Experiment Station, and every effort is put forth by those divisions to assist and cooperate in every possible way. Frequently members of the College and Station forces are called upon to address meetings and do judging work out in the state. These calls are always handled through the Extension Division, and usually the expenses of these trips are paid by the Extension Division. Occasional conferences were held at the capitol building in Oklahoma City with the officials working directly under the State Board of Agriculture in animal disease work, tick eradication work, and other lines directly under the supervision of the State Board of Agriculture, and also with the officials of the State Market Commission. To these conferences the specialists and the supervisory forces of the Extension Division were invited. The purpose of these conferences was in the interest of harmony and close cooperation in the various lines of work. The Board of Agriculture being the Board of Regents for the Agricultural and Mechanical College, makes it important that they be kept informed of the activities of the Extension Division. Monthly reports are made to the Board of Agriculture by the Extension Division through the President of the College covering the chief work done during the month and also the changes in personnel.

The friendly relations heretofore existing between the Extension Division and the State Department of Public Instruction still continue. The State Superintendent supports the Boys and Girls Club work cordially. The teachers of the state are urged to cooperate in this work with the county and home demonstration agents, which most of them do cheerfully. Funds are appropriated by the State Board of Education through the Colored Agricultural and Normal University to pay part of the salary and travel of the negro county and home demonstration agents.

The work of the Extension Division during the past year has been heartily supported by the banks, fair associations, packing plants and other associations of business men to the extent of giving large amounts of money for cash premiums, scholarships, etc., and in aiding the work in every other way possible.

EXPENDITURES

The total expenditures of the Extension Division for the fiscal year 1918-19 were as follows:

United States, direct (Farmers Cooperative Demonstration work)	\$ 25,885.92
Federal Smith-Lever fund	66,894.92
State Smith-Lever fund	56,894.92
War emergency appropriation	91,799.19
College Extension allotment	2,043.57
Appropriations by boards of county commissioners, boards of education, commercial clubs and others	84,470.67
Total	\$327,989.19

FINANCIAL STATEMENT

Table A.—Summary statement of expenditures by projects, showing sources of funds used for extension work.

Project	Total	U. S. D. A.	War Emergency	Smith-Lever Federal	Smith-Lever State	College	County and Others
Administration	\$ 21,111.83	\$ 3,380.05		\$ 8,029.52	\$ 9,702.26		
Printing and distribution of printing	4,392.78			1,580.88	2,811.90		
County agents	175,034.55	\$ 15,941.27	\$ 45,633.69	23,500.57	22,770.10		\$ 67,188.92
Home economics and Girls Club work	80,949.03	4,098.12	30,020.23	18,497.16	11,571.03	\$ 681.19	16,081.30
Boys Club work	15,933.99	2,287.81	4,171.94	1,771.97	6,339.89	1,362.38	
Poultry Club work	3,936.42			3,896.52	39.90		
Rural sanitation	2,860.92	120.00		2,740.92			
Pig Club work	1,448.38			512.83	935.55		
Dairy Club work	3,109.08			3,054.58	54.50		
Farm management	877.93			825.58	52.35		
Entomology and Beekeeping	680.21			87.50	592.71		
Farm engineering	2,155.86			1,352.15	803.71		
Plant diseases	1,044.74			1,044.74			
Home economics and Girls Club work for negro women and girls	3,784.32	58.67	2,963.33		352.00		410.32
Seed distribution	1,094.02				869.02		225.00
County agent work for colored men and boys	8,587.64		8,022.51				565.13
Horticulture and gardening (for six months)	987.49		987.49				
Total	\$327,989.19	\$ 25,885.92	\$ 91,799.19	\$ 66,894.92	\$ 56,894.92	\$ 2,043.57	\$ 84,470.67

FINANCIAL STATEMENT

Table B.—Summary statement of expenditures by projects, showing classification of expenditures from all funds for extension work.

Items of Expense	Total	Administra- tion	Printing	County Agents	Boys Club Club Work	Rural Sanitation	Home Economics	Colored Men's Work	Colored Women's Work
Salaries	\$282,335.84	\$ 13,684.14		\$166,216.05	\$ 8,739.95	\$ 1,740.00	\$ 72,389.00	\$ 8,587.64	\$ 3,784.32
Labor	1,698.86	523.87			326.36		345.93		
Printing and dis- tribution	4,392.78		4,392.78						
Stationery and small printing	4,812.51	3,168.46			925.00		454.75		
Postage, etc.....	373.25	274.12			33.67	3.47	50.10		
Heat, light									
Supplies	686.61	346.46		32.30	15.78		255.58		
Library	11.10	10.85							
Tools, etc.....	48.15	3.51							
Furniture, etc.....	1,752.83	875.83			416.25		459.75		
Sci. apparatus	44.81	18.29							
Exp. State Fair....	2,043.57				1,362.38		681.19		
Travel expenses...	29,786.88	2,204.30		8,786.20	4,114.60	1,117.45	6,312.73		
Conting. expenses	2.00	2.00							
Total expen- ditures....	\$327,989.19	\$ 21,111.83	\$ 4,392.78	\$175,034.55	\$ 15,933.99	\$ 2,860.92	\$ 80,949.03	\$ 8,587.64	\$ 3,784.32

(Continued on next page)

FINANCIAL STATEMENT

Table B (Continued).—Summary statement of expenditures by projects, showing classification of expenditures from all funds for extension work.

Expense Items of	Club Work Poultry	Club Work Livestock	Club Work Dairy	Seed Distribution	Farm Management	Entomology	Rural Engineering	Horticulture	Plant Disease
Salaries	\$ 1,705.83	\$ 543.97	\$ 1,932.45	\$ 587.50		\$ 87.50	\$ 1,350.00	\$ 987.49	
Labor	6.40		39.00		\$ 427.65		29.65		
Printing and distribution									
Stationery and small printing	207.30	16.00	35.00				6.00		
Postage, etc.....	.31	.97	10.61						
Heat, light									
Supplies	4.00	19.65	.60				12.24		
Library25		
Tools, etc.....			40.00				4.64		
Furniture etc.....							1.00		
Sci. apparatus			26.52						
Exp. State Fair..									
Travel expenses...	2,012.58	867.79	1,024.90	506.52	450.28	592.71	752.08		1,044.74
Conting. expenses									
Total expenditures....\$	3,936.42	\$ 1,448.38	\$ 3,109.08	\$ 1,094.02	\$ 877.93	\$ 680.21	\$ 2,155.86	\$ 987.49	\$ 1,044.74

ADDITIONS TO OFFICE AND EQUIPMENT

There has been no improvement during the last year in the crowded condition of the Extension Division office rooms. The rooms are all crowded to the limit, and the hallway space is all taken for filing cases, bulletin shelving, etc.

During the year there was added to the office equipment two desks, one filing cabinet, one rug, one electric fan and four bulletin cupboards; also, for the use of the dairy specialists, one round-bottom wash tank and three noiseless water heaters.

PERSONNEL

On June 30, 1919, there were 77 county agents and 25 assistant county agents, 6 district agents and one assistant district agent for the mens' work. There were 47 home demonstration agents, 2 district agents and 1 assistant district agent for the women's and girls' work. There were also 14 additional women agents employed during the canning season. In the work for negroes there were 9 negro men agents and 4 negro women agents. There were ten specialists and 15 members of the office force. These, with the Director and Assistant Director, constituted the Extension Division. This was an increase over the same date last year of 17 assistant county agents and 5 negro agents, and a decrease of 6 home demonstration agents, 2 specialists and 2 in the office force at the College. On account of reduced appropriations for the fiscal year beginning July 1, 1919, it was necessary to decrease the extension forces very materially.

The following is a complete list of all persons employed in the Extension Division during the fiscal year ending June 30, 1919, except students employed for short periods of time to assist in mailing out bulletins, circulars, etc., and other irregular work in the Extension Division.

Jas. A. Wilson, Director of Extension and State agent.
 W. D. Bentley, Assistant Director and State Agent.
 John E. Swaim, Assistant State Boys Club Agent (resigned).
 E. B. Shotwell, Assistant State Boys Club Agent.
 W. J. Green, Assistant Boys Club Agent (resigned).
 T. H. Mittendorf, Assistant Boys Club Agent.
 I. H. Needham, Assistant Boys Club Agent.
 R. V. Morrison, Assistant Boys Club Agent (resigned).
 L. E. Rathbun, Assistant Boys Club Agent.
 Chas. M. Smith, Assistant in charge of Poultry Clubs.
 P. H. Hayes, Assistant Poultry Club Agent.
 D. T. Meek, Special Agent in Livestock Club Work (transferred).
 C. W. Radway, Special Agent in Dairying, B. A. I.
 H. J. Childress, Assistant in Dairying, B. A. I.
 C. F. Stiles, Special Agent in Field Entomology (resigned).
 A. T. Watson, Special Agent in Field Entomology (resigned).
 E. C. Sherwood, Special Agent in Plant Disease Control (resigned).
 Hugh Webster, Field Assistant in Cereal Investigations (resigned).
 Chas. E. Hoke, Special Agent in Farm Management (resigned).
 G. W. Vincent, State Farm Labor Agent, Office Farm Management (transferred).
 F. F. Ferguson, Special Agent in Improved Seed-Growing and Distribution (resigned).
 D. C. Mooring, Extension Horticulturist.
 M. R. Bentley, Special Agent in Farm Engineering.
 Dr. W. P. Shuler, Special Agent in Hog Cholera Control (resigned).
 Dr. C. L. Nelson, Special Agent in Hog Cholera Control.
 Miss Emma Chandler, Assistant Director, Home Demonstration Work.
 D. B. Tucker, M. D., Special Agent in Rural Sanitation.
 Miss Martha McPheeters, Assistant Home Demonstration Agent.
 Miss Alma Keys, Assistant Home Demonstration Agent.
 Miss Irma Rapp, Assistant Home Demonstration Agent.
 Mrs. Anna Fisher Marx, Assistant Home Demonstration Agent (resigned).
 Miss Lethe Morrow, Office Manager.
 Mrs. V. E. Harris, Assistant Office Manager and Bookkeeper.
 Mrs. Marian Wade, Secretary to Director and Assistant Director.
 Mrs. Kara Hedger, Assistant Bookkeeper (resigned).
 Mrs. Rhodella Doty, Assistant Bookkeeper.

Miss Nellie Knight, Mailing Clerk.
 Mrs. Grace Berry, Assistant Mailing Clerk.
 Miss Ruth Powers, Stenographer.
 Miss Julia Donart, Stenographer.
 Miss Vera Cheatham, Stenographer (resigned).
 Miss Grace Donart, Stenographer.
 Miss Minnie McCoy, Stenographer.
 Miss Madeline Ryno, Stenographer.
 Miss Minnie Clausen, Stenographer.
 Miss Neoma Wallis, Multigraph Operator.
 Miss Ethel Clausen, Filing Clerk.
 Mrs. Bertha Briggs, Statistical Clerk.
 E. B. Shotwell, District Agent (transferred).
 W. A. Conner, District Agent (resigned).

C. W. Callarman, District Agent, has supervision of the following counties: Canadian, Carter, Cleveland, Garvin, Johnston, Love, McClain, Marshall, Murray, Oklahoma, Pontotoc, Pottawatomie and Seminole.

Dan Diehl, District Agent, has supervision of the following counties: Beckham, Caddo, Comanche, Cotton, Grady, Greer, Harmon, Jackson, Jefferson, Kiowa, Stephens, Tillman and Washiita.

B. M. Jackson, District Agent, has supervision of the following counties: Beaver, Blaine, Cimarron, Custer, Dewey, Ellis, Harper, Major, Roger Mills, Texas, Woods and Woodward.

B. F. Markland, District Agent, has supervision of the following counties: Alfalfa, Creek, Garfield, Grant, Kay, Kingfisher, Lincoln, Logan, Noble, Okfuskee, Osage, Pawnee and Payne.

G. W. Vincent, District Agent, has supervision of the following counties: Adair, Cherokee, Craig, Delaware, Mayes, Muskogee, Nowata, Okmulgee, Ottawa, Rogers, Tulsa, Wagoner and Washington.

J. M. White, District Agent, has supervision of the following counties: Atoka, Bryan, Choctaw, Coal, Haskell, Hughes, Latimer, Leflore, McCurtain, McIntosh, Pittsburg, Pushmataha and Sequoyah.

COUNTY AGENTS

County	Headquarters	Name
Adair	Stilwell	W. M. Moberly.
Alfalfa	Cherokee	C. A. Patterson.
Atoka	Atoka	J. L. Howe (transferred).
Atoka	Atoka	T. J. Waddle.
Beaver	Beaver	J. F. Newsom (resigned).
Beckham	Sayre	Sam Ingram (resigned).
Beckham	Sayre	T. J. Eldredge.
Blaine	Watonga	J. M. Rapp.
Bryan	Durant	C. W. Brown (resigned).
Bryan	Durant	G. B. Dunlap.
Caddo	Anadarko	I. E. Nutter.
Canadian	El Reno	F. K. West.
Carter	Ardmore	M. R. Bryant, assistant (resigned).
Carter	Ardmore	Carl Russell.
Cherokee	Tahlequah	E. R. Lawrence (transferred).
Cherokee	Tahlequah	C. E. Morrison (resigned).
Choctaw	Hugo	J. A. Wyatt.
Cimarron	Boise City	B. W. McGinnis.
Cleveland	Norman	L. E. Bogan.
Coal	Coalgate	R. C. Blocker.
Coal	Coalgate	N. C. Ward, assistant.
Comanche	Lawton	J. F. Neely.
Cotton	Walter	A. R. Bateman (resigned).
Cotton	Walter	S. D. Johnson.
Craig	Vinita	G. E. Thomas.
Creek	Bristow	J. W. Riley.
Custer	Clinton	M. A. Watkins.
Delaware	Grove	Clint Young (resigned).
Dewey	Taloga	M. R. Bentley (transferred).
Dewey	Taloga	W. F. Porter.
Ellis	Arnett	E. I. Haworth (resigned).
Ellis	Arnett	F. F. Parker.
Garfield	Enid	J. I. Bunyard (resigned).

County	Headquarters	Name
Garfield	Enid	D. T. Meek.
Garvin	Pauls Valley	T. D. Felts.
Grady	Chickasha	J. W. Owens.
Grant	Medford	E. R. Lawrence.
Greer	Mangum	R. D. Brownell (resigned).
Greer	Mangum	R. T. Lee.
Harmon	Hollis	W. R. Auffill.
Harper	Buffalo	H. E. Wheat (resigned).
Harper	Buffalo	E. A. Porter.
Haskell	Stigler	T. H. Moore.
Hughes	Holdenville	R. L. Wear (resigned).
Hughes	Holdenville	T. A. Vanderpool.
Jackson	Altus	Ben Crawford.
Jefferson	Ryan	C. C. Stinson.
Johnston	Tishomingo	Almon Hall (resigned).
Johnston	Tishomingo	J. P. Gray.
Kay	Newkirk	J. F. Riddell.
Kay	Newkirk	M. G. Harnden, assistant (resigned).
Kay	Newkirk	A. O. Martin, assistant (resigned).
Kay	Newkirk	A. L. Edmiaston, assistant (transferred).
Kingfisher	Kingfisher	J. R. Wiley (transferred).
Kiowa	Hobart	F. F. Parker (transferred).
Kiowa	Hobart	O. W. Talley.
Latimer	Wilburton	C. G. Evans (resigned).
Latimer	Wilburton	N. C. Ward.
Leflore	Poteau	H. W. C. Shelton.
Leflore	Poteau	J. H. Lampe, assistant (resigned).
Leflore	Talihina	T. A. Holbrook, assistant (resigned).
Lincoln	Chandler	J. W. Guin.
Logan	Guthrie	F. H. Dillenback (resigned).
Logan	Guthrie	A. P. Gregory (resigned).
Logan	Guthrie	E. E. Riley, assistant (resigned).
Logan	Guthrie	J. R. Wiley.
Love	Marietta	E. B. Strader (transferred).
Love	Marietta	R. F. Waters.
McClain	Purcell	J. W. Owens (transferred).
McCurtain	Idabel	L. G. Herron.
McCurtain	Idabel	A. L. Edmiaston, assistant.
McCurtain	Idabel	J. G. Barnes, assistant (resigned).
McIntosh	Eufaula	O. L. Wolf.
Major	Fairview	H. B. Binkley.
Major	Fairview	P. K. Norris, assistant (resigned).
Marshall	Mad II	H. Garland (transferred).
Marshall	Mad II	W. E. Martin.
Mayes	Pryor	E. Dickerson.
Murray	Sulphur	A. J. Stevens.
Muskogee	Muskogee	J. M. Dail.
Muskogee	Muskogee	A. R. Smith, assistant (resigned).
Noble	Perry	S. E. Laird.
Nowata	Nowata	H. M. Wolverton.
Okfuskee	Okemah	E. Belcher (resigned).
Okfuskee	Okemah	E. A. Kissick.
Oklahoma	Oklahoma City	C. R. Donart.
Oklahoma	Oklahoma City	A. E. Bentley, assistant (resigned).
Okmulgee	Okmulgee	J. T. Carter (resigned).
Okmulgee	Okmulgee	D. P. Trent.
Osage	Pawhuska	S. M. McCuiston.
Osage	Fairfax	H. E. Wilson, assistant.
Pittsburg	McAlester	W. T. Yoakum (resigned).
Pittsburg	McAlester	E. B. Nelms.
Pittsburg	McAlester	J. L. Howe, assistant (resigned).
Pontotoc	Ada	I. B. Hill.
Pottawatomie	Shawnee	R. C. Moore (resigned).
Pottawatomie	Shawnee	E. R. Henson, assistant.
Pushmataha	Antlers	Geo. Innes.
Rogers	Claremore	R. E. Maloy (resigned).
Roger Mills	Cheyenne	A. I. Jordan.
Seminole	Wewoka	H. G. Howard.
Sequoyah	Sallisaw	Fred Ingram.
Stephens	Duncan	R. S. Coleman (resigned).
Stephens	Duncan	B. F. Harrison.
Texas	Guymon	W. M. Midkiff (resigned).

County	Headquarters	Name
Texas	Guymon	J. B. Hisey.
Tillman	Frederick	J. W. Simpkins.
Tulsa	Tulsa	J. S. Malone.
Tulsa	Tulsa	L. B. Cacy, assistant (resigned).
Tulsa	Broken Arrow	D. Baker, assistant (resigned).
Wagoner	Wagoner	C. M. Hubbard.
Washington	Bartlesville	R. L. Graves.
Washita	Cordell	Dan Diehl (transferred).
Washita	Cordell	H. Garland.
Woods	Alva	W. D. Kennon.
Woodward	Woodward	W. F. Gray.

NEGRO MEN AGENTS

County	Headquarters	Name
District Agent	Langston	W. A. Hill.
Logan	Guthrie	W. A. Hill (transferred).
Creek and Lincoln	Chandler	W. M. Mingo.
Okmulgee and S. E. half of Wagoner	Muskogee	Levi Nelson.
McCurtain	Idabel	L. W. Presley.
McIntosh	Eufaula	J. W. Shoals.
Okfuskee	Boley	J. E. Taylor.
Seminole	Wewoka	E. R. Moore.
Logan	Guthrie	F. W. Kirk.

HOME DEMONSTRATION AGENTS

County	Headquarters	Name
Atoka	Atoka	Mrs. Elizabeth Ward.
Beaver	Beaver	Mrs. Mary H. Newsom.
Beckham	Elk City	Mrs. Mattie Royse (resigned).
Bryan	Durant	Mrs. Kathryn Jackson.
Caddo	Anadarko	Mrs. B. H. Ferguson (resigned).
Caddo	Anadarko	Miss Vera Miller.
Canadian	El Reno	Mrs. Mary B. Ruff.
Carter	Ardmore	Mrs. Minnie B. Church.
Cherokee	Tahlequah	Mrs. Josie Sartain (resigned).
Choctaw	Hugo	Miss Verda Oakley (resigned).
Choctaw	Hugo	Mrs. Esther G. Lewis.
Coal	Coalgate	Miss Alice Ronald (deceased).
Coal	Coalgate	Miss Grace Clowdis.
Comanche	Lawton	Mrs. Maude E. Sims.
Creek	Bristow	Miss Edna Whitaker.
Custer	Clinton	Mrs. Jessie Watkins (resigned).
Garfield	Enid	Mrs. A. N. Southwick.
Garvin	Pauls Valley	Mrs. Mary D. Ware.
Grady	Chickasha	Mrs. Nettie R. Coryell.
Grant	Medford	Mrs. Daisy Elder.
Greer	Mangum	Mrs. Elizabeth Dumont.
Harmon	Hollis	Miss Margaret E. Hopkins.
Harper	Buffalo	Mrs. Ida E. Sweet.
Haskell	Stigler	Miss Rachel L. Blair.
Hughes	Holdenville	Miss Mabel F. Mitchell (resigned).
Kiowa	Hobart	Mrs. Ida Gigray.
Latimer	Wilburton	Miss Grace Evants (resigned).
Latimer	Wilburton	Mrs. Elizabeth Ward.
Leflore	Poteau	Mrs. Mary Shelton.
Leflore	Talihina	Mrs. Cora Taylor (resigned).
Logan	Guthrie	Mrs. Clara Emmons (resigned).
Logan	Guthrie	Mrs. Mary Langton.
McClain	Purcell	Mrs. Cora Owens (resigned).
McIntosh	Eufaula	Miss Jean Jones (resigned).
McCurtain	Idabel	Mrs. Charlotte West.
Major	Fairview	Mrs. Flora E. Bever.
Marshall	Madill	Miss Maud Andrews.
Murray	Sulphur	Mrs. Rosa D. M. Stevens.
Muskogee	Muskogee	Miss Ethel Phelps.
Muskogee	Muskogee	Miss Cora Miltimore.
Noble	Perry	Mrs. Ada Belle Sims.
Okfuskee	Okemah	Miss Gladys Gray.
Oklahoma	Oklahoma City	Mrs. Mamie W. Parks (resigned).

County	Headquarters	Name
Oklahoma	Oklahoma City	Miss Lillie Ita Ross.
Okmulgee	Okmulgee	Mrs. Frances R. McLeod.
Osage	Pawhuska	Mrs. Alma T. McCuiston.
Payne	Stillwater	Mrs. Elizabeth Clark (resigned).
Pittsburg	McAlester	Miss Edna Whitaker (transferred).
Pittsburg	McAlester	Mrs. Sada Grommet.
Pontotoc	Oakman	Mrs. Elva R. Duvall.
Pottawatomie	Shawnee	Mrs. Virdie E. Moore.
Pushmataha	Antlers	Mrs. Ella Innes.
Rogers	Claremore	Mrs. Myrtle Watson.
Seminole	Wewoka	Mrs. Ethel Howard.
Sequoyah	Sallisaw	Mrs. Katheryn Jackson (transferred).
Tillman	Frederick	Mrs. Eva M. Mosteller.
Tulsa	Tulsa	Miss Jessie Shannon (resigned).
Washington	Bartlesville	Miss Iva Burch.
Wagoner	Wagoner	Miss Jean Jones (resigned).

HOME DEMONSTRATION SUMMER WORKERS

County	Name
Bryan	Miss Esther North.
Carter	Miss Leona Abercrombie.
Creek	Miss Jessie May Price.
Creek	Mrs. Lulu S. Green.
Garfield	Miss Irma Rapp.
Logan	Miss Florence Watson.
Oklahoma	Miss Alma Keys.
Pottawatomie	Miss Norma Brumbaugh.
Tulsa	Miss Elsie G. Carter.
Washington	Miss Maude Bandell.

NEGRO HOME DEMONSTRATION AGENTS

County	Headquarters	Name
Logan and Oklahoma	Guthrie	Mrs. H. V. Ashcraft.
Muskogee and Wagoner	Muskogee	Miss Aquilla O. Chadwick.
Okfuskee and Seminole	Boley	Mrs. Annie Peters.
Okmulgee and McIntosh	Okmulgee	Miss Maud Smith.
Carter and Marshall	Ardmore	Miss Camilla Stewart.

PRINTING AND DISTRIBUTION OF PUBLICATIONS

The following is a statement of funds expended under this project:

	Federal	Smith-Lever	State
A—For printing 46 bulletins and circulars; number of pages 556 (total edition 828,200)	\$ 1,278.50		\$ 2,490.00
B—For printing Annual Report; number of pages 40 (total edition, 5,000)	235.00		
Illustrations—halftones, cuts, etc.	16.50		174.40
For envelopes for bulletins, circulars and reports			147.50
Personal services and other expenses of distribution	50.88		
Total	\$ 1,580.88		\$ 2,811.90

The following circulars were published during the fiscal year ending June 30, 1919:

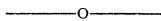
- Circular No. 32 Cotton in Oklahoma. (Reprint.)
- Circular No. 39 Simple Menus for Informal Occasions.
- Circular No. 63 Home Canning of Meats. (Reprint.)
- Circular No. 68 Early Cabbage, Cauliflower and Lettuce.
- Circular No. 69 Sewing Bulletin for Club Members. (Reprint.)
- Circular No. 70 The Small Home Garden.
- Circular No. 77 Home Canning of Fruits and Vegetables. (Two reprints).
- Circular No. 79 Liming Oklahoma Soils.
- Circular No. 80 Checking System for Judging Poultry and Eggs at School House Shows.

- Circular No. 81 Save Your Own Garden Seed.
- Circular No. 82 Outline of Plans for 1918 Home Demonstration Clubs.
- Circular No. 83 Ideal Farm Greenhouse.
- Circular No. 84 Condimental and Medicinal Stock and Poultry Foods.
- Circular No. 85 Beautifying Home Grounds. (One reprint.)
- Circular No. 86 A Safe and Permanent Agriculture.
- Circular No. 87 Grain Sorghums for Club Boys in Oklahoma.
- Circular No. 88 Boys Potato Club Instructions.
- Circular No. 89 Facts About Boys Agricultural Clubs. Revised 1919.
- Circular No. 90 Beans for Oklahoma.
- Circular No. 91 Annual Report.
- Circular No. 92 Salads.
- Circular No. 93 Sweet Potatoes.
- Circular No. 94 Saving the Small Grain Crop.
- Circular No. 95 New Laws.
- Circular No. 96 Terracing in Oklahoma.
- Circular No. 97 Planning Daily Menus.
- Circular No. 98 Pickles and Relishes.
- Circular No. 99 Interior Decoration.
- Circular No. 100 Furnishing the Home.
- Circular No. 102 Importance of Fall Gardens.
- Circular No. 103 Catch Crops for Late Spring and Summer Planting.
- Circular No. 104 Home Planning.
- Circular No. 105 Home Planning—Living Area of Home.
- Circular No. 106 Bee Circular.
- Circular No. 107 Varieties of Fruit.
- Circular WD2 Poultry Diseases.
- Circular WD4 Victory Bread.
- Circular WD5 Meat Substitutes.
- Circular WD6 Sugar Substitutes. (One reprint.)
- Circular WD7 Culling the Flock.
- Circular WD8 Christmas Dinner in Wartime. (One reprint.)
- Circular WD9 Food Production and Conservation Plan for Family of Five. (One reprint.)
- Special Circular No. 1 Making a Seedbed in Southwest Oklahoma.
- Leaflet Grasshopper Control.

In addition to the above there were forty-eight letters of instruction to club members and others.

The publication of a monthly paper called "The Extension Divison" was begun, and Numbers 1 to 8, inclusive, were printed and sent to a limited mailing list. This paper consisted chiefly of extracts from county and home demonstration agents' weekly reports, and was intended to keep the agents informed of the various lines of work being carried on. On July 1 the paper was enlarged to include monthly instructions to Boys and Girls Clubs, and its name was changed to "The Extension News and Boys and Girls Club Letter".

All printed matter is prepared by members of the Extension Division or of the College faculty. Manuscripts must have the approval of the Director of Extension and be submitted to the College publications committee for criticism and approval. The approval of the interested subject matter department of the College must also be secured. Circulars and leaflets are sent to a small, regular mailing list of officials and others, and a small supply sent to county and home demonstration agents to be distributed to interested parties in their respective counties. The regular mailing list is composed of extension workers in other states, colleges, newspapers, libraries and a few others. No attempt is made to maintain a large general mailing list.



COUNTY AGENT WORK

Project No. 3

The war emergency funds available during the fiscal year of 1918-19 made possible the employment of the largest number of county agents yet employed in agricultural extension work in Oklahoma. There were seventy-seven county agents and twenty-five assistant county agents working

at the close of the fiscal year. In addition to this there were nine colored agents working in ten counties. This is five more colored agents than at the close of the last fiscal year.

Until the signing of the armistice on November 11, 1918, there was but one problem, viz: To bring about the maximum production of food crops with which to feed ourselves and our allies, and thereby make it possible to win the war. When it became evident that the war had been won, plans were immediately considered to bring the work back as rapidly as possible to a pre-war basis, which contemplated a safe, well-balanced system of agriculture, having in mind particularly the conservation and improvement of the soil and organization for the economic distribution and marketing of farm products. Early in the year a safe farming campaign was put on, and all county agents exerted themselves to induce farmers to produce as far as possible their own food and feed, and through better tillage methods to produce maximum yields on smaller acreages.

The high cost of living has made it very difficult for the county agents to live at the salaries received during the fiscal year of 1918-19. Many agents are quitting for employment that pays better. These frequent changes in county agent work have been very detrimental to the work. The difficulty of finding men competent to do county agent work is becoming more and more serious. There are no other very serious difficulties confronting the work at this time. The county agent work has become so firmly established in Oklahoma at this time that there is little danger of its lacking in financial support from the local people, except possibly in a few counties where the taxable values are very low. If competent men can be found sufficient to keep all county agent vacancies filled and the selection of county agents can be kept free from the influence of party politics, magnificent results will be accomplished in Oklahoma.

The most friendly and cordial relations exist between the different departments in the College—a spirit of cooperation exists everywhere. The relations between the county agents and the teachers and school officials throughout the state are all that could be asked. The State Superintendent of Schools, the State Board of Education and the county superintendents of schools encourage and assist the county agent work in every way they possibly can, more especially in the Boys and Girls Club activities.

The results accomplished by the county agents during the crop year of 1919 are given herewith.

A great deal of time was spent by the county agents in organization work. They report having assisted this year in the organization of 380 farmers clubs with a membership of 9,946. They report a total of 493 such clubs in the state with a total membership of 17,589. In fifteen of the counties, Granges and Farmers Unions are included in this number; 461 of these clubs are organized to include the farmers' wives and young people in their membership. Many of these organizations buy and sell cooperatively. The agents assisted very materially in this work, more especially during the period when the half freight rate on feed was on on account of the drouth conditions throughout the state. The agents report that during the year there were shipped in or out cooperatively 328 cars of corn, 177 cars of oats, 150 cars of barley, 204 cars of hay, 11 cars of grain binders (167 binders), 1,322 cars of wheat, 50 cars of alfalfa hay, 49 cars of Irish potatoes, 24 cars of peaches, 1 car of apricots, 51 cars of mill feed, 5 cars of apples, 2 cars of cabbage, 11 cars of fertilizer, 1 car of brood sows, 25 cars of watermelons, 2 cars of canteloupes, 27 cars of cottonseed, 7 cars of fat cattle, 2 cars of fat hogs, 1½ cars of wool, 21 cars of straw, 260 cars of coal, 140 cars of cottonseed cake and 6 cars of fence posts; also 5,000 pounds of cane seed, 181,000 pounds of binder twine and 2,000 bales of Acala cotton. On all of this business there was a total saving to the farmers of \$822,687.69. The agents also assisted in the organization of a number of local Federal farm loan

associations which made loans to the amount of \$40,000.00, with a saving of \$5,000.00 to the farmers.

The county agents report having 523 demonstrations in corn, making an average yield of 43.4 bushels per acre; 81 in milo with an average yield of 25.2 bushels per acre; 314 in kafir with an average yield of 35 bushels per acre; 13 in feterita with an average yield of 26 bushels per acre; 6 in darso with an average yield of 38 bushels per acre, and 628 demonstrations in cotton averaging 939.6 pounds per acre. The above averages are based on reports from only about 55% of the demonstrations. There were 275 oats demonstrations with an average yield of 50.3 bushels per acre, 147 reporting; 275 demonstrations in rye with an average yield of 30.7 bushels per acre, 67 reporting; 147 demonstrations in barley with an average yield of 42 bushels per acre, 99 reporting, and 773 demonstrations in wheat with an average yield of 22 $\frac{2}{3}$ bushels per acre, 330 reporting.

There were 838 demonstrations in various kinds of hay crops, alfalfa leading with 249, sudan second with 169, sorghum next with 148, and sweet clover with 119. There were 326 demonstrations in peanuts, 83 reporting an average of 41 bushels per acre; 159 demonstrations in Irish potatoes, 98 reporting an average of 110 $\frac{1}{2}$ bushels per acre; 141 demonstrations in sweet potatoes, 88 reporting an average of 315.8 bushels per acre. There were 561 orchards pruned and 324 sprayed through the influence of the county agents.

The agents were all active in work to improve livestock of all kinds. They report 54 purebred stallions, 46 jacks and 322 brood mares being brought into the respective counties. In dairy work, 135 purebred dairy bulls and 1,536 purebred dairy cows and heifers were brought in, and also 1,372 grade dairy cows. The agents assisted in selling 1,662 purebred dairy cattle. In beef cattle, 643 purebred bulls and 2,598 purebred cows and heifers were brought in, and also 5,682 grade cows for breeding purposes. The agents also assisted in selling 3,335 purebred cattle of the beef breeds. There were 589 purebred boars and 2,708 purebred sows and gilts brought in, and the agents assisted in the sale of 4,976 purebred hogs in the various breeds. There were 804 poultry demonstrations with a total of 48,521 fowls.

There is more interest in sheep in Oklahoma this year than ever before. The agents report having influenced the bringing in of 2,695 purebred sheep and assisted in the sale of 2,142.

In animal disease work the agents rendered valuable assistance to farmers in the treatment of diseases of farm animals of all kinds, making demonstrations in the vaccination of cattle for blackleg and hogs for cholera, and teaching farmers how to vaccinate their own stock to prevent these diseases. They also assisted farmers in securing needed vaccine and the services of veterinarians where needed.

More interest is being taken in fertilizers than ever before, a large quantity of commercial fertilizer being used in the east half of the State, especially on wheat. There were 119 fertilizer demonstrations, 1272 farmers were advised regarding the proper use of fertilizers, and 3764 farmers report taking better care of barnyard manure. The agents report having helped to place 174 manure-spreaders. There were 47 demonstrators in liming soils of which 8 made reports. The agents report that there are 2647 silos in the State of which 245 were built this year.

A greater interest is being taken by farmers in draining wet lands and terracing washy lands than ever before. The agents report 176 drainage and 646 terracing demonstrations.

County fairs were held in sixty counties, at which 10,179 demonstrators, cooperators or club members made exhibits, 5,912 of them winning prizes.

In the discharge of their duties the agents report having made 68,239 visits to demonstrators, farmers, club members and others; they traveled a total of 467,779 miles and addressed 8,514 meetings with a total attend-

ance of 382,689. About one-third of their time was spent in their offices and two-thirds doing field work. They wrote 95,261 official letters, prepared 2,381 articles for publication, wrote 5,200 circular letters and sent out 182,349 copies of same. They also sent out 180,367 College and Department circulars and bulletins.

Organization Work

In March and April, 1919, an active organization campaign was carried on by the county agents all over the State. County Farm Councils were organized in nearly all of the counties. These County Farm Councils were in most cases successors to the county councils of defense which were so useful and effective during the war. They are composed of delegates from each of the several local farmers' organizations throughout the county, and also delegates from local farm councils which were organized in communities where there were no other active local farmers' organizations.

Improved breeders and livestock associations were organized in many counties. Muskogee, Cleveland, Canadian, Custer, Washington and Tulsa Counties have strong dairy associations also. These are all the outgrowth of county agent activities. Most of these county organizations were active in the purchase cooperatively of binder twine, machinery and other supplies which resulted in a great saving to the farmers. In Caddo county farmers pooled their orders for eighty binders and saved more than \$35.00 on each binder.

Adult Demonstrations

During the war the adult demonstration work suffered considerably on account of the numerous war activities in which the agents were called upon to assist. With the crop of 1919 an effort was made to get back to pre-war conditions by giving more attention to adult demonstration work. There were an unusually large number of small grain crop demonstrations. Barley seems to be establishing itself firmly as an early and sure grain feed crop through the efforts of the county agents.

There are this year quite a large number of successful demonstrations in the use of fertilizers for small grain in the eastern part of the State. The county agents have also brought about the use of lime on soils needing it in the eastern part of the State. Quite a lot of this ground limestone has been bought cooperatively by the farmers using it in Rogers and Muskogee counties.

Feed Shipments

The serious drouth during the crop year of 1918 made feed so very scarce in a large section of the State that it became necessary to ship to market early in the fall a large part of the breeding stock, and it also made necessary the shipping in of many carloads of feed during the winter and spring of 1919. Through the efforts of the State Council of Defense the railroad administration made a one-half freight rate on feed for this drouth stricken area. The county agent was named as the official who should issue freight certificates to the farmers entitled to them, thus making the county agent's office the headquarters for this activity. This work took the entire time of a number of the agents for several weeks. The agents in many cases assisted farmers who desired less than car lots to pool their orders and thus secure the benefit of the low freight rate. This has caused a more general appreciation of the county agent work among farmers than any one thing that has been done. It also taught the farmers a new lesson in co-operation and at the same time saved them many thousands of dollars.

The flu epidemic seriously interfered with the regular work of the county agents. Meetings of all kinds were forbidden for quite a period of

time and a number of the agents spent considerable time nursing and helping with cases greatly in need of such help.

During the drouthy conditions in some sections of the State in the Summer of 1918, the county agents were able to be of material assistance to farmers in helping them to locate pastures for stock where it was necessary to ship them out, and to locate stock where there was a surplus of good pasture and stock could be shipped in. During the fall of 1918 the agents report that through their direct efforts 7,550 head of cattle were shipped out of their counties to pastures, and 25,228 head of cattle were shipped into other counties from drouthy sections to be pastured.

Livestock Diseases

The control of livestock diseases has always demanded a large share of the county agent's time. In hog cholera the educational stage is almost past in most counties, and the county agents are able to control it through their leadership in community cooperation. The unusually high prices of livestock have caused farmers to be on the alert to protect it against contagious diseases.

For two or three years anthrax has caused considerable loss in Rogers, Nowata and Washington counties. It is believed that the disease is now under control. The county agents and the state and Federal officials in charge of animal disease work are now working in harmony and close cooperation. Dr. Harrington, in charge of the Federal veterinary work in Oklahoma, is deserving of great credit for his efforts to bring about a better working agreement and understanding between the county agents, the veterinarians and the public. The situation now is all that could be desired.

Government Loans to Wheat Farmers in Oklahoma

The Government loans to farmers in the drouth-stricken area to enable them to purchase seed wheat, mention of which was made in our last annual report, proved to be of inestimable value to this section of the state. Loans were made in twenty-seven counties to 3,852 farmers amounting to \$773,271.00, secured by mortgages on the crops to be grown on 708,013 acres. Favorable soil and weather conditions caused the wheat to grow rapidly, and it afforded winter pasture for thousands of cattle and horses, enabling the farmers to bring their stock through the winter in good condition at a very light expense. These farmers were benefited not only by a large amount of fall and winter pasture, but they harvested a much larger acreage of wheat than they otherwise would. The county agents were the representatives of the Government in their respective counties in making these loans and later in looking after them.

Farm Congress and Agents' Meeting

The second annual Farm Congress and Agents' Meeting was held at Stillwater, August 24 to 30, 1919. There were seventy county agents and forty-two home demonstration agents present. There were also present 426 farmers and others not residents of Stillwater. Many of the farmers present were delegates from County Farm Councils and other farmers' organizations. These delegates organized a state farm council, electing a president, secretary-treasurer and other officers. The Farm Congress is composed of various state farm and livestock associations which hold annual or called meetings at this time. General sessions were held in the forenoon and sectional meetings in the afternoon. Many of the farmers in attendance came in automobiles and camped during the congress. The county and home demonstration agents held daily sessions presided over by the Director or one of the district agents.

Special Grain Sorghum Work

An arrangement was made with the Bureau of Plant Industry, United States Department of Agriculture, whereby a specialist in grain sorghums was employed from March 13 to May 12, 1919, to encourage the planting of a greater acreage of sure feed crops in Oklahoma. Mr. Hugh Webster was the specialist employed, and he worked in close cooperation with the county agents in the respective counties, chiefly, however, in the western and northern parts of the state. Mr. Webster did work in forty-one counties, traveled 3,000 miles by rail, 500 miles by auto, visited thirty-five county agents, sixty farms, thirty banks and fifteen grain and seed concerns. He did individual work with approximately 600 farmers. He made twenty addresses with a total attendance of 3,000. The acreage planted to grain sorghums in Oklahoma this year was not as great as it should have been, or as it would have been, but for the very large acreage planted to wheat and oats, and the fact that such a remarkably small percent of the small grain crop was abandoned before harvest.

Summary of Annual Reports

For the purpose of giving a better idea of the work accomplished by the county agents, the following paragraphs from the annual reports of the several district agents are made a part of this report:

Northeast District, Comprising Thirteen Counties—George W. Vincent, District Agent.—"The free county fair law, as enacted by the Oklahoma Legislature, is in effect and operation in ten out of the thirteen counties in the northeast district, Cherokee, Adair and Delaware counties being the only counties not having the free fairs organized. These organizations were all made under the direction of the county agents, and the fair associations are now, and have been in the past, one of the strongest supporters of the county agents' plans of work. Through their various organizations in the ten counties, approximately \$54,000.00 was paid this year in cash premiums to patrons of the fairs. A very liberal portion of this fund in every county was paid direct to the contestants in club work in the various Boys and Girls Clubs organized by the county agents. Aside from this regular fund, more than a thousand dollars was paid as extra premiums to club members.

"The growth of these county fairs is fairly well illustrated in a recent weekly report of Mr. G. E. Thomas, county agent of Craig county, in which he says: 'Our county free fair, which has just closed, was a great event in the history of our county fair, which was established since we began demonstration work in the county, and has shown a marked growth each year. At our first annual free fair we had on exhibition eighteen cattle. At this time we had 152 head. At the first fair (1915) we had ten hog pens. At this time we had 100 pig pens, and had thirty-two entered over. At the first fair we had fifteen entries in poultry. At this fair more than 300 entries were made, and other branches have grown equally as much.'

"I herewith submit figures showing increase in eleven counties in my district of amount counties are paying as local aid to county agents this year as compared to what was paid last year. Besides this, a substantial increase in the pay of the home demonstration agents has been made in Tulsa, Okmulgee, Rogers and Muskogee counties, this increase in every instance amounting to more than 10%:

County	1918	1919	Increase
Nowata	\$ 840.00	\$1,260.00	\$ 420.00
Wagoner	900.00	2,000.00	1,100.00
Rogers	600.00	1,600.00	1,000.00
Ottawa	912.00	1,800.00	888.00
Washington	600.00	1,200.00	600.00
Mayes	780.00	1,260.00	460.00
Muskogee	900.00	1,530.00	630.00
Okmulgee	600.00	2,044.00	1,444.00
Tulsa	1,200.00	2,040.00	840.00
Craig	1,200.00	1,500.00	300.00
Adair	600.00	900.00	300.00
			<hr/>
			\$8,002.00

"In the discharge of my duties as district agent of the northeast district, I spent 160 days in the field and seventy-four in the office; addressed forty-eight public meetings with an attendance of 3,275; made 107 visits to county agents; traveled 10,420 miles by rail and 2,523 miles by auto."

North Central District, Comprising Thirteen Counties—B. F. Markland, District Agent—"Adult Demonstration Work".—Owing to the many war activities the county agents were compelled to participate in, the adult demonstration work was somewhat neglected this last year, but with the advent of peace and the return to more normal conditions, adult demonstration work has once more been given the prominent place in the county agent work this year, each county agent having a definite number of such demonstrations to carry out. Where practical, these demonstrations are being conducted under the auspices of the community council. There were a total of 1,672 adult demonstrations in field crops in the north central district.

"In January, 1919, an extensive organization campaign was put on in each county of the district. The district was divided into four divisions or circuits, two or three lecturers being provided for each circuit, the county agent in each county having carried on a two to three weeks' advertising campaign prior to the day of the organization meeting. Proof of the wisdom of this organization program—a county council was organized in all of the counties in the district, excepting Osage county, where conditions were such that it was not thought wise to organize at this time a county-wide organization. After the temporary county organizations were perfected, many community councils throughout the counties were organized with the view of establishing a permanent organization. Many of these organizations have done splendid work this year in promoting closer cooperation in the communities and in working out plans for a better system of marketing. The total value of cooperative buying and selling in the district amounts to 1,185 cars with a total value of \$2,473,134.00, at a saving of \$202,479.96.

"The popularity of conducting fairs under the free fair plan, rather than the old system was well demonstrated in the elections which were held the 8th of November, as provided by law, which resulted in electing the free fairs in all the counties of the north central district in which a county agent was employed; namely, Alfalfa, Creek, Garfield, Kay, Logan, Noble, Osage, Okfuskee, Pawnee, Payne and Lincoln. The following counties had county exhibits at the Oklahoma State Fair at Oklahoma City: Kay, Payne, Osage, Lincoln, Creek and Logan. All of the counties made club exhibits except Pawnee. The exhibits at each of these fairs, and all county fairs, excelled in quality of exhibits over previous years.

"An improved breeders' association has been organized in the following counties: Payne, Logan, Garfield, Kingfisher, Grant, Noble, Creek, Okfuskee, Kay, Alfalfa, Lincoln, Pawnee and Osage, with a membership of approximately 1,200. Through these organizations, sales have been held in all of these counties of purebred livestock, distributing about 3,500 head of purebred cattle, seventy-five purebred horses, 1,500 purebred hogs and 500

purebred sheep. These organizations have made a splendid growth, having increased the membership at least one-third during the year. Lincoln, Okfuskee, Kay, Pawnee and Alfalfa counties were organized this year. These associations have been active in distributing breeding stock to boys who belong to the Livestock Clubs, and individual members are acting as sponsors for the boys and otherwise assisting the county agent in promoting the Boys Livestock Clubs in the county. In Alfalfa, Noble and Osage counties, sale pavilions have been erected, thus giving the improved breeders' associations a home in which sales may be held. Through this organization, campaigns are being waged to eliminate the scrub sire and otherwise promote the livestock industry.

"In the discharge of my duties as district agent for the north central district, I made 187 visits to agents and 263 to demonstrators, attended 115 meetings with an attendance of 7,289, traveled a total of 20,104 miles, spent eighty-one days in the office and 226 in the field, wrote 532 personal letters and circular letters. The county commissioners courts in the north central district appropriated for the support of county agent work in 1919 a total of \$32,140.00, which was \$17,400.00 more than in the year 1918."

Northwest District, Comprising Twelve Counties—B. M. Jackson, District Agent, from December 1, 1918, to October 1, 1919.—"I began the year's work by inaugurating a general county and community organization campaign. On account of excessive snowstorms and the flu epidemic, work was greatly hindered during the first three months of the year, but the campaign was continued up to July 1 with good results in most counties. Eight of the twelve counties in my district were organized. Eighty-five community councils were organized. The Farmers' Union and the Grange were active in some of my counties, and our agents worked in cooperation with them where already organized, and were instrumental in the organization of several local granges.

"The fall of 1918 an active wheat-sowing campaign was carried on by the agents in my district. Also they were active in helping the farmers with their Government wheat loans, and this spring and summer the checking up on this work consumed quite a good deal of the agents' time. These Government loans enabled the farmers of my district to produce more than \$2,000,000.00 worth of wheat that otherwise could not have been produced.

"The community organizations resulted in quite a saving to the farmers in nearly every instance in the buying of twine, coal, posts, etc., and in the selling of wool.

"Nearly all of the counties have active improved breeders' associations, and eight of them held breeders' sales. At these sales were sold thirty-five draft stallions, five jacks, fifty brood mares, seventy-five beef bulls, sixty registered beef cows, also quite a number of high-grade beef cows and heifers, and 100 registered hogs, mostly purebred gilts. This stock was bought mostly by local farmers to improve their farm stock. In addition to the above sales, which were the direct result of county agent work, quite a number of private sales were held in the district where some of the best livestock in the United States was sold. Quite a number of these high-class animals were bought by farmers on the advice of the county agents.

"Seven of the twelve counties held county fairs, five of them free fairs, and fourteen community or district fairs were held. Club activities were especially strong in Blaine, Custer and Major counties, and all the other counties except Texas were well represented in the club work, population considered. I cannot give, from memory, the club enrollment, but same can be secured from the office files. First place for kafir was won by Ellis county team. The Poultry and Livestock Clubs also made an excellent showing.

"Agents have been active in assisting farmers in the control of diseases among their livestock, have given a great many demonstrations in the use of blackleg vaccine and serum, the serum treatment for hog cholera, and

the direct result is that the losses on hogs and cattle have been reduced to a minimum. Agents in three counties gave valuable assistance in stamping out glanders, getting State Veterinarian's assistance, having affected animals condemned by state valued, and thus saving one-half the loss to the farmers.

"A campaign for better schools has been waged in most of the counties in my district, and the agents have been active in this work, assisting the county superintendents, and the result is that a number of consolidated, union grade and district high schools have been established.

"The agents have cooperated with the State Market Commission, and in this work have caused quite a saving to the farmers.

"The work in general is in good shape in the district. The agents are getting better cooperation, both with the business men and farmers, than ever before, and this, more than anything else, shows that the county agents have been on the job. Agents have been very loyal to the district agent, and any benefit to the county or state from the extension work in my district should be credited to them and not to the district agent."

T. A. Milstead, District Agent for Northwest District, from October 1 to December 1, 1919.—"I began work September 1 as assistant district agent to all of the district agents, and was used by them during the month of September in judging township and county fairs, and other work. On October 1, I succeeded Mr. B. M. Jackson as district agent of the northwest district of Oklahoma, which includes the following counties: Beaver, Blaine, Cimarron, Custer, Dewey, Ellis, Harper, Major, Roger Mills, Texas, Woods and Woodward.

"All of my counties, with the exception of Beaver, have agents, and the commissioners of Beaver county have assured me that they would make an appropriation to take care of the work in their county beginning July 1. The agents of my district, as a whole, are well educated, safely balanced men who are well grounded on the social and economical problems of the semi-arid territory they serve. In my estimation, Mr. B. M. Jackson deserves much credit for his good judgment in the selection of county agents for the northwest district, for I believe they are second to none in the state.

"Thirty-four lighting and five water systems were installed by farmers in the district on the advice of the county agents. Forty-nine silos were erected or put down by farmers on the advice of the county agents.

"The Blaine county exhibit, under the supervision of County Agent J. M. Rapp, won first prize at the Oklahoma State Fair against strong competition. The Ellis County Kafir Clubs team, coached by County Agent F. F. Parker won first place at this fair.

"In checking over the annual reports of the county agents, I note that several of them have been drawing on Mr. M. R. Bentley, the efficient farm engineer, for his services, especially in terracing work. This is an important phase of farm conservation work, and I am pleased to note that the farmers, especially those in the semi-arid sections, are awakening to the value of the terrace, not only as a preventive of soil erosion, but as a means of conserving moisture on the sloping lands.

"Generally speaking, the northwest district is not adapted to orcharding, but, fortunately for the farmer, there is on most of the farms, a little land on which he can at least grow a few varieties of vine, bush or tree fruit for home consumption. Mr. D. C. Mooring, the genial, hard-working horticulturist, has done much good work in my district in inducing farmers to plant a small family orchard and in instructing them how to care for the orchard when it is planted.

"In the performance of my duty as district agent I spent fifty-nine days

in the field and twenty days in the office, addressed eighteen meetings with an attendance of 1,196, made fourteen visits to agents, and traveled 4,491 miles by rail and 958 miles by auto."

Southwest District, Comprising Thirteen Counties—W. A. Conner, District Agent (Resigned June 30, 1919).—"The beginning of the new calendar year found southwestern Oklahoma very active in the shipping in of feed under the half freight rate plan arranged for by the State Council of Defense and the Railroad Administration. Since it was made the duty of the county agent to issue a freight certificate to those entitled to the half freight, his office generally became the headquarters for this activity. This brought many farmers to the county agent's office who previously had hardly known that there was such an office in existence. Many farmers desired less than carload lots. In such cases they would pool their orders and get the county agent to put them in touch with shippers. In some instances county agents in their eagerness to assist farmers to bring their livestock through the winter spent some time in making up shipments or in getting small buyers together, since he was in position to do so.

"This one thing has acquainted the people with the county agent and his work better than anything else that has been done. Farmers appreciate market demonstrations more than they appreciate production demonstrations. A few retailers, however, are unfriendly to county agents on account of their activities in this direction. This work has taught the farmers a new lesson in cooperation, and at the same time saved them many thousands of dollars.

"The flu epidemic, bad roads, and the feed activity caused the agents to spend an unusually large percent of the time in the office, so that field work suffered to a considerable extent during the winter months. Club work started off rather slowly, and the number enrolled has not been as large as was the case a year ago.

"Carrying out the suggestion from the Washington office to give special attention to organization work, we put on an organization campaign in the southwest district in concert with the organization movement throughout the state. The experiences gained through the work of the Council of Defense during the war, and the experience in cooperation through feed shipments, we found a very fertile soil for organization work. Farmers wanted to organize because they felt that there was strength in organization. They wanted to improve their conditions, but had various and sundry ideas as to how this might be done. In some instances they insisted that it must be exclusively a farmers' organization, while others wanted to build an organization founded on the broad, fundamental principles of economic and agricultural development which should invoke the cooperation of bankers, chambers of commerce and farmers alike.

"All the thirteen counties in the southwest district, with the exception of Kiowa county, have formed county organizations. The general principle of organization was made fairly uniform in most of the counties. There is organized at the county seat a central or county organization made up of representatives of the various local community branches and all the various county organizations. The number of community branches in the county varies from about thirty-five in Jackson county and Caddo county to some three or four in Cotton and Jefferson counties.

"The counties refusing to cooperate with business men's organizations, or to admit any one not exclusively engaged in farming, are Jackson, where a rather radical set of officers was elected, and Caddo county, where the organizations are so far composed of Farmers Unions. Beckham county has admitted business men under certain restrictions. Grady county has only Granges for the local organization, and this arrangement is working admirably so far. The other eight counties are combining farmers and business men in their organizations.

"In this organization work we found that farmers responded quicker to marketing problems than to anything else. Most of the county councils have held monthly meetings to consider local problems. In some of the counties they purchased binder twine and farm machinery. Caddo county farmers pooled their orders for eighty binders at a saving of more than \$35.00 each. They also purchased collectively a car of sugar through a local dealer at a considerable saving.

"The one great need in this organization movement is leadership. Impractical undertakings are being planned by enthusiastic and well-meaning but inexperienced leaders. In some cases county agents have not shown strength or originality in leadership, while again some have not been able to control the situation. The Grange has a fixed ideal that they adhere to, and are doing some good work.

"In the supervision of the work in the southwest district during the period from January 1 to June 30, 1919, I made eighty-four visits to agents, addressed forty-seven meetings, and traveled 12,350 miles.

Dan Diehl, District Agent for Southwest District, from July 1 to December 1, 1919.—"Since the first of July the county agents in the southwest district have been very busy in helping the farmers to secure help in their harvesting of small grain crops and broomcorn. In some of the counties the agents were busy most of the time in securing help and placing help with the farmers who were calling for it through thrashing and broomcorn harvesting. At Chickasha, while visiting our county agent there one day, in less time than two hours he placed more than forty laborers with different farmers over the county who were calling for hired help. This was true of practically every county in my district.

"I have visited all of my county agents and a majority of them have some splendid club work which they will be able to report on in their annual reports. Much praise should be given to the Boys Club work, especially in the Pig and Poultry Clubs. Nearly every boy in my district sent large exhibits to the Boys and Girls Club work to the state fair.

"I find in all of my counties that a large percent of the people are beginning to appreciate the work of our county and home demonstration agents; while there are still a large number who are willing to fight anything that will raise their taxes one cent. Our agents throughout the southwest district are spending and devoting much of their time to assisting the farmers in field selection of seed before harvesting. I have been encouraging this work as I believe it is the one way to increase the yields of the best crops. All of our county agents have just held successful township and county fairs in their respective counties.

"While this year has been one that was extreme, a wet year, and crops are especially good, last year was just as much of an extreme, a dry year and crops were poor. It is rather hard on an agent to get his work down in good shape and make the right kind of a showing in two years so extremely different. All over the southwest district our county agents are working hard to get a better class of livestock raised on the farms, and are especially trying to interest the farmers in keeping some good milk cows to furnish milk and butter for the farm and at the same time have a surplus for sale. As this country is largely farmed by tenants, and many of these tenants live on the same farm only one year, there are hundreds of these tenants who do not even keep a hog for their meat. Through our farm agents we have interested bankers, business men and commercial men to help us to interest these tenants in getting brood sows and raising their own meat. Many of the bankers have given us their time as well as their money, attending our club meetings, and talked to these farmers on the advantages of growing their own meat, keeping a few good cows and some good poultry. Of course, this is largely educational work, but it takes that to win in the southwest district.

"For eighteen years I have lived in southwest Oklahoma, and it is very gratifying to me to note each year the steady growth of the livestock industry in southwest Oklahoma. Too much credit cannot be given to the county agents who have done so much. For the last three years it has been their slogan, 'A Purebred Sire at the Head of Every Herd', and also 'Field Selection of Pure Seed'. To those of us who have been judging at the fairs for the past five years, we cannot help but notice the improvement in the quality and number of livestock and agricultural exhibits. This has largely come about through the agitation and advice of our county agents, through the livestock and seed-growers' associations organized by the county agents in their respective counties.

"The southwest district is in the best shape it has been for several years. The farmers learned this year that it pays to cooperate more in their selling and buying, and in all farm work. The Government, by furnishing seed wheat to the farmers last fall, made it possible for the farmers to stay on, and this year's splendid crop has put the farmers on their feet. They are just now learning to appreciate the work the county agent is doing, and with our community work started I feel the future is much brighter than the past, and that home life of the farmers for the southwest district will be more pleasant, and with the assistance of the Smith-Hughes teachers I look for a better contentment among the younger folks on the farm."

South Central District, Comprising Thirteen Counties—C. W. Callaman, District Agent.—"There has been a county agent at work continuously in each of the thirteen counties constituting the south central district during the year 1919. In five of the counties the present agent has been working less than a year, and as the new man rarely takes up and emphasizes the same line of work, the frequent changes of agents is a serious hindrance to efficient service.

"After the suspension of war emergency funds it was necessary, in order to maintain our present organization, to ask for about 100% increase in county appropriations beginning with the fiscal year, July 1, and in every instance the county commissioners responded favorably, and indications are that the county agent work is growing year by year in popularity.

"In 1919 crop conditions were excellent, and a splendid crop of corn, cotton and alfalfa were produced, but owing to an unusually wet fall the corn and cotton is only about 70% gathered at this time, and that part remaining in the field has sustained considerable damage.

"During the year a number of purebred livestock organizations were started, and several of them held auction sales with very satisfactory results, and in spite of disappointing market conditions, the livestock business has made splendid progress. Through the cooperation of bankers working with club boys, about four hundred purebred gilts were placed in the district with club boys. This was worked on the endless chain plan.

"County free fairs have been organized in each of the thirteen counties. This will give new impetus to the club work in those counties where they have had no fairs. The fair is of definite value in the adult work also.

"Nearly all of the south central district is in the territory affected by the severe drouth of 1918, and practically all the feed for the early part of the season was shipped in, and the county agents, by organizing the farmers into groups to handle car lots, and buying direct from the sections where the feed was produced, were able to save many thousands of dollars for the farmers. Then, again, this fall they have organized the farmers in similar groups to dispose of their surplus feed in car lots to the consumers in other sections. This also has amounted to a considerable saving.

"Considerable progress has been made by the agents in securing the interest and cooperation of the teachers in the club work, and this will give to the club work that closer supervision it has needed so much in the past.

"Perhaps there has been no extension work carried on during the year of more lasting value than that of terracing the land; most of the agents have booked at this time dates for terracing demonstrations enough to fill all the time that can be allotted to that work.

"The loss from hog cholera has been reduced to such a small item that it has ceased to be feared at all. In practically every community there is some one trained to administer the simultaneous treatment, and as soon as the disease makes its appearance they begin treatment. As a result, the losses are kept down to a negligible percent. There is considerable interest in producing a higher grade of hogs as a result of confidence in cholera control methods.

"Quite an interest has developed in sweet potato production, and a number of community storage and curing houses have been built during the past season and are now filled to capacity. The growers of sweet potatoes have completed an organization for cooperation in selling which bids fair to be of considerable assistance in securing a remunerative price for this product.

"In carrying on the work of district agent during the year, from December, 1918, to December, 1919, I have traveled by rail 15,301 miles, by auto 1,862 miles, have made 143 visits to agents, have addressed 116 meetings with an attendance of 13,355, have devoted 219 days to work in the field and spent eighty-seven days in the office.

"We go into the new year with an agent in every county, with the work better financed than ever before, and with 100% more local organizations supporting the agents' work. The outlook is fine. We are indebted in a large way for the work accomplished to the wise counsel coming from Mr. Knapp's office, the privilege of close cooperation with the state office, and the very efficient assistance rendered by the various specialists working with the county agents."

Southeast District, Comprising Thirteen Counties—John M. White, District Agent.—"Up until January 1, 1919, the local and county councils of defense composed the principal organizations in the district, with the exception of a few livestock and seed-growers' associations. In January, 1919, an extensive organization campaign was put on, touching every county in the district. The purpose of this campaign was to divert the councils of defense into local and county farm councils. The district was divided into four divisions or circuits, two or three lecturers being assigned to each circuit. The county agent in each county put on a two weeks' advertising campaign prior to the date of organization. This organization drive resulted in perfecting a county farm council in twelve of the thirteen counties in my district, the thirteenth county being organized at a later date.

"Ten of the thirteen counties have organized livestock breeders' associations, and at present are very active in the introduction of purebred animals. Several of the breeders are rapidly developing statewide reputations on their special blood lines.

"Several counties have perfected county associations of fruit and truck-growers. McCurtain county perhaps has the most active organization, employing two sales managers during the shipping season, shipping several cars of peaches and melons during the season, and realizing quite an additional profit through cooperation in marketing. There are five local Farmers Unions reported in Haskell county, but they have been practically inactive during the year. So far there have been no Granges organized in the district.

"There were 208 adult demonstrators enrolled for the 1919 crop. Of these eighty-three made reports, showing in the majority of cases both in-

creased yields and additional profits on the demonstration plats. Space will not permit giving a detailed report of these demonstrations; however, we plan to make a supplemental report fully covering this phase of the work. This year an effort was made to handle the Boys Club work through regular organized clubs, which has proved very satisfactory, as this plan affords the agent an opportunity to reach a large number of boys in much less time than by looking up each individual club member.

"Hog cholera control work has been carried on in the district by Dr. C. L. Nelson, in cooperation with the county agents. Quite a number of lectures and demonstrations have been given in the district this year. However, it has been difficult to control hog cholera outbreaks owing to the indifference of many of the farmers in the free range sections of the state. In several of the counties, the county agents, cooperating with Dr. Harrington, Federal hog cholera specialist, are putting on systematic campaigns to control cholera outbreaks. Through this plan from fifteen to forty farmers and stockmen in each county are trained to vaccinate for their respective communities. If we are successful in completing this plan of organization throughout the district we will be able to almost instantly check any outbreak of hog cholera that is reported.

"In cooperation with the county agents, Mr. M. R. Bentley, farm engineering specialist, has put on a number of terracing and drainage demonstrations in the district during the year. Terracing is a very important phase of our work, as a great deal of our land is sandy and lies rolling enough to wash more or less. There have been thirty-one field demonstrations in terracing put on in the district, resulting in approximately 2,500 acres of land being terraced. There is a drain tile factory at Poteau which has furnished tiling for several farms in Leflore and adjoining counties.

"In cooperation with the county agents, Mr. D. C. Mooring, horticultural specialist for the Extension Division, put on several orchard demonstrations in the district during the year. The general policy is not to encourage commercial orcharding, but 'a family orchard on every farm'. Considerable progress has been made along this line of work this year. At present there are reported sixty-five commercial orchards in the district, ranging in size from three acres up, with approximately 2,600 acres set to mixed varieties of fruits.

"Practically all agents in this district have been more or less active in the educational phase of the tick-eradication work, realizing the importance of eradicating the fever tick before the introduction of a better class of cattle. Tick-eradication work has been carried on by the State Board of Agriculture, in cooperation with the Bureau of Animal Industry, in practically every county in the district. The work has been very successful, resulting in placing four or five counties above the quarantine line.

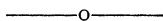
"Plant disease control work was conducted by Mr. E. C. Sherwood, who resigned July 1, 1919. Mr. Sherwood devoted considerable attention to diseases of the sweet and Irish potatoes creating considerable interest among the sweet potato-growers in treating the seed to prevent the spreading of injurious diseases, through the distribution of slips. This work is quite important, considering the large acreage of sweet potatoes grown in the district. There have been a number of storage houses and curing plants erected this year, making a total of twenty-six storage houses of commercial size with a capacity of 105,000 bushels.

"The Jackson Poultry Law has stimulated poultry interests in this district to such an extent that six counties have organized poultry associations, and in addition to the many school house shows, there will be held this winter six regularly recognized poultry shows. This indicates general interest throughout the district in more and better poultry on every farm. Messrs. Smith and Hayes, poultry specialists, deserve special credit for their efficient efforts in promoting the poultry industry in this state.

"During the period of the war, several counties discontinued holding free fairs; however, during the year interest in the fairs has revived and is growing popular. Nine of the thirteen counties reorganized in November under the free fair law, Bryan county preferring to continue under the old method of holding a pay admission fair. Two of the other counties had no county agent at the time to hold the free fair election, and one county failed to show sufficient interest to organize.

"It is probably too much to expect an immediate return to pre-war conditions; however, to take the district as a whole and check up the rapid progress that has been made within the last year, keeping in mind the war-torn conditions twelve months ago, I presume we should be pleased with our accomplishments, yet we almost feel that we should make an apology for the limited amount of definite results obtained during this reconstruction period. However, at present the outlook is very promising. The people as a whole, as well as the county agents, have a much larger, clearer vision of the possibilities of agricultural development than ever before, indicating rapid progress in all lines. The increased total appropriation by county commissioners courts of \$9,700.00 for county agent work over and above the appropriations made last year is encouraging, and we think a splendid indication that the county agent work is growing in popularity in the southeast district.

"In supervising the county agent work, I traveled by rail 27,750 miles, and 2,035 miles by auto; spent 227 days in the field and seventy-seven in the office; made 196 visits to county agents and 159 visits to demonstration farms, addressed 104 public meetings with an attendance of 5,482, and prepared and sent out two extension circulars."



BOYS CLUB WORK

Project No. 4

At the close of the fiscal year ending June 30, 1919, there were employed under this project seven persons, including one stenographer and one clerk. The work is supported entirely by state, Federal and College funds. (See financial statement of this report.)

The Boys Club work suffered more perhaps than any other line of extension work by reason of the readjustment made necessary by the closing of the war. The enrollment immediately fell off. The leader of the work, Mr. John E. Swaim, resigned in December, 1918, and this was followed by resignations at different times of three of the assistants. In all, there were six resignations in this department before the close of 1919. Better paying positions is the reason for all these resignations. In spite of these and other obstacles, the work has made substantial progress during the year, and at this time has a very promising outlook.

Club work—both boys and girls—in Oklahoma is one of the most important parts of county agent work. Each county and home demonstration agent is required to give club work a fair share of their time and effort. The Boys Club leader and his assistants are club specialists, whose duty it is to assist the county agents in the organization and carrying on of the work, to prepare and send out club instructions, and to have charge of and direct all state club activities, such as State Fair Schools, etc.

The total enrollment in all clubs for the year was 28,027, divided as follows: Corn, 3,915; Cotton, 2,274; Grain Sorghum, 2,655; Peanut, 2,552; Potato, 980; Fruit, 62; Bee, 207; Calf-Breeding, 285; Calf-Fattening, 109; Pig-Breeding, 1,968; Pig-Fattening, 487; Dairy, 194; Poultry, 11,158; Wheat, 768; Sheep, 363; Crop Rotation, 50. Of these 2,060 were negro boys.

The club work has grown past the stage where each club member can be visited personally by an extension representative. It has become neces-

sary to organize the members into local clubs with a president, a secretary and other officers. An adult in the neighborhood is usually chosen to supervise the club. During the year 1919 there were 821 separate club organizations, to each of which a charter was issued. Ten counties had no chartered clubs. The others are as follows: Payne county 43, Carter 37, McIntosh 36, Okfuskee 34, McCurtain 32, Alfalfa 29, Kay 27, Garfield 26, Oklahoma 25, Coal 24, Lincoln 22, Okmulgee 21, Logan 18, Grady, Craig and Johnston 17 each, Garvin 16, Seminole 15, Rogers 14, Stephens, Pontotoc, Roger Mills, Haskell and Comanche 13 each, Harmon, Noble and Tillman 12 each, Harper and Caddo 11 each, Osage 10, Murray, Blaine, Pittsburg, Pushmataha, Leflore and Bryan 9 each, Atoka, Custer, Beckham, Cherokee and Pawnee 8 each, Kiowa, Adair, Woods and Wagoner 7 each, Pottawatomie, Marshall, McClain, Canadian, Major and Latimer 6 each, Greer, Jefferson, Ellis, Choctaw, Woodward and Nowata 5 each, Washington, Mayes, Dewey and Hughes 4 each, Creek, Beaver and Muskogee 3 each, Cimarron and Cotton 2 each, and Delaware 1. Reports from club officers and supervisors indicate that splendid work was done through the local club organizations. Some of the local clubs held as many as nine meetings during the season.

Club members were given instruction by means of correspondence, circulars, bulletins, The Boys and Girls Monthly Club Letter, by the supervisors, by teachers, by county and home demonstration agents, and the club agents. Rallies and short courses were held where instruction was given in seedbed preparation, seed selection, grain and cotton-judging, poultry-raising, stock-raising and feeding, the care and handling of tools, etc. In this connection there were held twenty-two short courses, attendance 1,699, and forty-five rallies with an attendance of 4,602. There were sixty-seven other meetings with an attendance of 6,301. In addition, there were held three statewide short courses or fair schools, one at Stillwater, and one at each of the two state fairs. These statewide schools were financed by an appropriation by the state legislature for that purpose. The boys attending these three statewide schools were prize-winners in the several clubs in the counties. There were eighty-seven boys in attendance at the short course at Stillwater, 201 boys at the fair school at Oklahoma City, and fifty-four boys in attendance at the Muskogee Free State Fair.

The Oklahoma City Fair Association has a large dormitory building especially for the boys, and the Muskogee Fair Association has completed a two-story club building, arranged for exhibits below, and dormitory and classrooms above.

At the state fair at Oklahoma City there were offered as premiums for Boys Club work \$2,485.00 regular, and \$1,352.00 special premiums. At the Muskogee State Fair there were offered as premiums for Boys Club work \$2,008.50 regular, and \$1,240.00 special premiums. For the best work done in each of the five bank districts of the state there were awarded five scholarships at the A. and M. College by the Bankers Association, valued at \$1,645.00. Also, for the best work done at the statewide schools two scholarships were awarded by the State Board of Agriculture, valued at \$125.00 each, and one each by the Cottonseed Crushers Association and Grain Dealers Association, valued at \$160.00 each. Liberal premiums were awarded for club work at township and county fairs as well as the state fairs. Reports were received from 45 counties on township and county fairs from which we learn that 1370 boys made exhibits at township fairs and 2203 boys made exhibits at county fairs. 2717 boys made exhibits at the two state fairs, making a total of 6290 boy exhibitors at both state and county fairs.

Total cash prizes won by the boys at both township and county fairs amounting to \$17,034.57 and of this amount \$400.50 was won by 203 negro boys. The total amount available from all sources, including state fairs, for boys club premiums for the year 1919 was \$25,650.07.

Thrift is taught in club work. The manager of the Thrift campaign in this state offered \$1,000.00 in thrift stamps to the clubs and club members who had invested the largest amounts in thrift stamps and baby bonds. Thirteen prizes went to clubs to be divided among the members and thirty-six prizes went to individual club members. The total amount of stamps and bonds purchased by the winners in this contest was \$9,908.45. At the Fair Schools it was learned that fully 80% of those in attendance had bank accounts.

The club work has had the hearty support of the State Superintendent of Education and a majority of the teachers and county superintendents of the state. The Club department has been given an opportunity to discuss club work at most of the teachers' meetings in the state during the year.

In the discharge of their duties during the year 1919, the club leader and his assistants traveled a total of 87,280 miles, attended 430 meetings with an attendance of 33,850, made 461 visits to agents and 397 visits to demonstrators, wrote 3,924 official letters, prepared 97 letters or cards of instructions, wrote three bulletins, mailed out 150,024 circulars and bulletins and 23,336 other pieces of mail matter.

HOME DEMONSTRATION AND GIRLS CLUB WORK

Project No. 5

At the close of the fiscal year ending June 30, 1919, there were 70 persons employed under this project. This included 14 agents employed for the canning season only. There were 47 regular home demonstration agents, 7 members of the supervisory force with headquarters at the College and two stenographers. The total cost of the work was \$80,949.03. Of this amount \$16,081.30 was appropriated by county commissioners and the remainder was allotments from State and Federal funds. All regular county home demonstration agents are employed for full time.

The winter meeting of the home demonstration agents was held at the College at Stillwater in January, 1919, and a complete program of work for the calendar year outlined. Later in the spring two-day group meetings of all agents were held. Not more than five agents attended any one meeting. At these meetings practical instruction in canning club products was given. There were so many calls for help in canning from counties not having home demonstration agents that 14 additional helpers in canning work were put in the field for one month. All reports from counties having this work were good. A meeting of women agents was held at the College August 11 to 30, at which a thorough drill was given the agents in all lines of their work. Part of the expense of this meeting was borne by the agents personally. All the women agents attended this meeting except two who were away on annual leave.

In the home demonstration work for women there were organized in the counties 109 clubs with a total of 1358 women demonstrators. There were 1032 individual women demonstrators not in clubs. It is estimated that 11,511 women other than demonstrators were influenced directly by the work of the home demonstration agents. There were given 3392 demonstrations in canning, drying, cooking and 15 other important lines of work to groups of women by the women agents at which there was a total attendance of 15,480. There were grown 2577 demonstration gardens. The total value of all food products canned, preserved, dried, brined, etc., by women under demonstration methods amounted to \$162,356.80. There were established through cooperation with the home demonstration clubs 6 marketing organizations which sold through such agencies butter, cheese, poultry, eggs, fruits and vegetables to the value of \$14,102.00. There were fifty-three demonstrations in raising Belgian hares and 144 demonstrations in beekeeping.

There was a total enrollment in the Girls Clubs of 14,301 members, of whom 3,487 made reports. There were 377 clubs holding regular meetings with a total attendance of 29,138.

The first prize-winner in each club in each county (if 12 years of age) won a free trip to the Oklahoma State Fair School at Oklahoma City, and the second-prize winner won a trip to the State Fair School at Muskogee. An appropriation was made by the last state legislature of \$5,000.00 to take care of the expense of holding these two schools. The Free Fair Association at Muskogee enlarged its club building by an addition 40×120 feet, and the Oklahoma State Fair Association at Oklahoma City built a new dormitory 40×150 feet for girls, near the boys' building. In addition to the above trips, the girl in each club in each county who makes the best record of her year's club work wins a free trip to Stillwater, where she is given lessons in the College laboratories for three days. Home demonstration agents are assigned to assist in instructing and looking after these girls during the schools. This year there were ninety-three girls at the Oklahoma City fair and forty at the fair at Muskogee. There were 2,279 exhibits made by club girls at county fairs. The Canning Club exhibit at the state fairs was larger and better than ever before.

Last year only six counties sent team exhibits; this year there were thirteen. A team exhibit consists of exhibits from ten girls. Thirty-six counties sent exhibits to the two state fairs, representing 203 girls, making a total of 1,723 quart jars and 342 containers of dried products. In addition, sixty-eight colored girls sent exhibits to the state fairs this year. The value of all state fair prizes for club girls this year was \$863.00. Farm women's county clubs from nine counties made exhibits at the state fair this year; there were only three counties that made exhibits last year.

The Bankers Association awarded four scholarships, valued at \$160.00 each, as prizes in Girls Club work. The State Board of Agriculture also awarded two scholarships, valued at \$125.00 each, as prizes in Girls Club work. One hundred and twenty-three club girls are paying all or part of their school expenses this year from money earned in club work.

There were 1,593 club girls who grew one-tenth-acre gardens. The average cost of production per tenth-acre was \$5.93. The total value of tenth-acre garden club products was \$30,329.29. There were 4,915 girls and 716 women enrolled in poultry work. The girls and women together raised approximately 105,470 chickens. Total value of poultry products produced by the girls and women, \$57,789.85. There were ten girls and 100 women enrolled in butter-making, and 114 girls and 240 women enrolled in cottage cheese-making.

To this date 444 girls have bought thrift stamps to the value of \$4,502.00; 637 club girls have bought thrift certificates to the value of \$1,729.00, and fifty club girls have bought liberty bonds to the amount of \$52,500.00.

At the request of the State Board of Agriculture, a club exhibit was prepared and placed in the state capitol at Oklahoma City. The Board of Agriculture furnished the jars and the home demonstration agents selected the club girls from different sections of the state to fill them. The exhibit includes 187 jars of fancy packs of vegetables, fruits, preserves, relishes and pickles.

Home Demonstration Clubs in Oklahoma are organized for the purpose of studying home-making, child welfare work, how to feed and clothe the family and similar subjects of interest to the home and the community. To accomplish this, programs covering four years are offered. The program for the first year is varied. A different subject for each month is chosen. In the work for the following years, fewer subjects are used, and more time is given to a subject. One thousand eight hundred members were enrolled in this work during the past year. Our women agents are becoming more and more interested in the Home Demonstration Clubs for Women. It is

believed that the possibilities for this phase of work are greater than ever before.

In the discharge of their duties during the last year they wrote 39,560 letters, sent out 72,129 circular letters, 108,373 bulletins, held 37,953 consultations at office, visited 3,982 demonstrators, 12,779 club members, 5,952 farmers and others, and held 8,886 public meetings with an attendance of 167,006 persons. In doing this work they traveled 61,177 miles by rail and 124,626 miles by auto. The home demonstration forces working out from the College traveled 88,475 miles by rail and 10,130 miles by auto, attended 608 meetings with an attendance of 68,662. They visited 1,245 agents and others.

RURAL SANITATION

Project No. 6

The object of this project is to give instruction and conduct demonstrations in rural sanitation, healthful arrangements of farm homes and country school houses, prevention of disease, eradication of harmful insects, etc.

This project has been carried on in Oklahoma by the Extension Division since January 1, 1915. Dr. Dixie B. Tucker, a practical physician, familiar with rural conditions, was employed as leader of this project.

The results obtained have been very satisfactory, and greatly appreciated by the country people. This work is greatly needed, as sanitary conditions in the country as a rule are not so good as in the cities and larger towns. As a result of this work in several counties in the state, all the rural schools have fixed the wells to prevent surface water draining into them, and have made their toilets flyproof. Also many other improvements along sanitary lines follow the active campaigns carried on by the leader in this project.

The specialist in this work reports that between January 1 and December 1, 1919, she spent 251 days in the field, fifteen days in the office, held 251 meetings with an attendance of 41,824 persons, traveled 14,081 miles by rail and 2,952 miles by auto.

POULTRY CLUB WORK

Project No. 9

This project is carried on in cooperation with the poultry division of the Bureau of Animal Industry, United States Department of Agriculture, the expense of it being borne about equally. Mr. Charles M. Smith is the leader of the project, and he is assisted by P. H. Hayes. The work in the field is carried on in close cooperation with the county agents and the home demonstration agents, Poultry Club work being considered primarily a part of the work of the home demonstration agents.

While the club enrollment and number of reports received is somewhat less than last year, it is chiefly due to the fact that there were fewer home demonstration agents this year than last, and no assistant county agents after July 1. However, very effective work has been done. The reports show that more standardbred poultry is being kept this year than last, more and better poultry houses have been built, and larger and better exhibits made at the fairs and poultry shows.

At the Oklahoma State Fair at Oklahoma City there were 556 exhibits, at the Free State Fair at Muskogee there were 564 exhibits, and at the State Poultry Show held at Blackwell there were 348 birds shown. At the State Poultry Show at Blackwell fifty-seven club members, representing nineteen

counties, competed in a judging contest; \$750.00 in cash was allotted for this purpose. Judging contests are held at all county-poultry shows. From \$15.00 to \$30.00 are offered as prizes from county funds under the Jackson Poultry Law.

Judging work was stressed particularly this year, as it teaches the children to know their birds, which helps them use better judgment in mating their breeders and in disposing of their surplus stock. Reports show that as a result of the work, 705 farms changed their mongrels to standardbred flocks; seventy-six counties were organized with a total enrollment of 10,728; 2,632 complete Poultry Club reports were received.

Seventy eight thousand nine hundred and thirteen bulletins, 150 packages of posters and 13,500 record books were mailed out; 107,854 eggs were set; 77,393 chicks hatched, and 54,084 chicks raised by club members; ninety-three poultry exhibits were held; 1,389 Poultry Club members made exhibits at county and state shows. They exhibited at state and county shows 4,168 fowls and 310 dozen eggs. The total value of eggs sold, fowls sold and on hand, prizes won, houses and coops built during the year by Poultry Club members amounts to \$93,636.15. The total cost of feed bought, breeding stock and eggs bought, and houses and coops built, amounts to \$52,691.67, leaving a net profit of \$40,944.48.

There were 584 school house poultry shows held under the Jackson Poultry Law. There were 581 school districts represented at these shows. At these shows 3,829 children exhibited 10,313 birds, and 2,202 children exhibited 2,304 dozen eggs; \$4,532.92 was awarded as premiums in these school house poultry shows. These school house shows were attended by 24,284 children and 7,411 adults.

In the discharge of his duties, the leader of this project traveled 14,667 miles, attended forty-eight club meetings with an attendance of 3,487, held forty other meetings with an attendance of 2,250, delivered 155 lectures attended by 9,093 persons, conducted fourteen short courses and attended six conferences, wrote 1,085 letters, issued ten circular letters of 38,620 copies, and twelve letters of instruction with 141,487 copies, prepared twelve articles for publication, and also visited the homes of 114 club members and made 155 other poultry visits to farmers, etc.

The assistant Poultry Club agent visited the homes of ninety-six club members and made 132 poultry visits to others; wrote 233 letters, one circular letter and 250 copies; attended 104 club meetings with an attendance of 3,185 club members and 2,096 others; attended thirty-six other meetings with an attendance of 2,383, delivered 190 lectures, attendance 10,406; gave seventy-four demonstrations, attendance 3,769; conducted four short courses, and traveled a total of 18,643 miles.

NEGRO WORK

During the year there were nine negro men agents working among the negro farmers in ten counties, and five negro women agents working in ten counties. This is five more men agents and one more woman agent than last year. During the year one of the negro agents, W. A. Hill of Guthrie, was made district agent for the negro work. We are sure that better and more effective work under this arrangement is being done.

The negro work is carried on in cooperation with the Colored Agricultural and Normal University at Langston, Oklahoma, which is under the general supervision of the State Board of Education. The Director of Extension of the A. and M. College is one of the five members of the Board of Regents of the University.

Two agents' meetings were held at the Colored Agricultural and Normal University at Langston, Oklahoma, for both men and women. Instruction was given them by the district agents and specialists from the A. and

M. College at Stillwater, and also by members of the faculty of the Colored University.

There was expended by the Extension Division for salaries of negro women agents \$3,374.00, and for negro men agents \$8,022.51. The State Board of Education expended on the salaries of these negro agents \$975.45.

The following is a partial report of the work accomplished by the colored men agents:

The negro agents report that with their cooperation in organization work, the negro farmers bought or sold cooperatively one car of corn, one car of hay, eight cars of cottonseed and 3,000 bushels of peaches, with a saving thereby of \$5,250.00.

There were sixty-seven negro demonstrators in corn, twenty-seven in kafir, six in milo, 122 in cotton, two in tomatoes, five in wheat, four in rye, thirteen in oats, seven in alfalfa, ten in cane for syrup, fourteen in sorghum for hay, nineteen in peanuts, twenty-four in cowpeas, nine in Irish potatoes, nineteen in sweet potatoes, and sixteen in home orchards.

The colored agents, both men and women, gave a great deal of attention to Boys and Girls Club work. The colored boys and girls made a very creditable exhibit at the fairs, especially at the state fairs at Oklahoma City and Muskogee. There were 109 colored boys in the Grain Sorghum Club, 293 in Cotton Club, 92 in Potato Club, 619 in Corn Club, 357 in Peanut Club, and 150 in Pig Club, making a total in all clubs of 1,620.

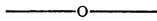
The negro agents report that through their influence there were brought into their counties five purebred horses, three jacks, and twenty purebred mares; also four purebred dairy bulls and fourteen dairy cows, and forty-six beef cattle for breeding purposes. They also influenced the bringing in of twenty-six purebred boars and forty-two purebred sows. As a result of the work of the colored agents, the poultry management has been improved on the farms of ninety-six colored farmers who had a total of 3,025 birds. They assisted in the treatment of 246 cattle for blackleg and 2,882 hogs for cholera. They advised 150 negro farmers regarding the proper use of fertilizers. With their advice and assistance 117 farm buildings were erected or improved, 158 homes screened against flies and mosquitoes, and the sanitary conditions of 287 other homes improved. Forty-four farmers were induced to establish new pastures or renovate old ones; twenty-six to drain all or part of their farms, twenty to remove stumps, twenty-nine to terrace their land; 687 to plant or improve home gardens; 858 to save surplus farm products for winter use. As a result of the colored agents' work, 270 colored farmers are practicing fall plowing, 531 are selecting their seed, seventeen growing improved seed for sale, and 191 growing sugar cane or sorghum for syrup.

In the discharge of their duties the negro men agents made 856 visits to demonstrators and cooperators, 2,234 to club members, and 3,604 visits to other farmers and business men. They traveled a total of 30,132 miles, made addresses at 557 meetings, with an estimated attendance of 25,586. They held 163 field meetings with an attendance of 7,086, wrote 3,470 official letters, prepared sixteen articles for publication; thirty-nine circulars were prepared and sent out, and 8,174 circulars and bulletins were distributed. Five hundred and sixty-four negro club members or demonstrators made exhibits at the fairs, and 155 of them won prizes.

The colored home demonstration agents have finished a profitable and successful year. Their county and state fair exhibits were the best they have ever put up. Special premiums were offered this year for negro children. In Okmulgee and Seminole counties the negroes held fairs separate from the whites.

The negro women take great interest in the demonstration work, and have done very commendable work this year in poultry-raising, gardening, canning and household activities. Where work with negroes has been carried on the longest, the results are very evident. In one community twenty negroes have bought homes this year. There were 872 girls enrolled in the Colored Girls Clubs, and 448 colored women enrolled as demonstrators. It is estimated that 600 other colored women were influenced directly by the work of the colored women agents.

In the discharge of their duties, the colored women agents have visited 2,259 demonstrators, club members and others, also 297 schools; have held 331 meetings with an attendance of 6,247; have written 1,552 official letters, and distributed 7,574 bulletins; have traveled by rail 6,346 miles, by auto 1,514 miles, and by team 3,327 miles.



DAIRY EXTENSION WORK

Project No. 12

This project is being carried on in cooperation with the dairy division of the United States Department of Agriculture. The object of this work is to secure the adoption of better methods of dairying, and to assist in every way possible the development of the dairy industry of the state. Two specialists are employed, one for the entire state and one for the tick-free area. Mr. C. W. Radway is the leader of this project, and Mr. H. J. Childress, assistant for the tick-free area. The salaries and expenses of these two specialists are paid jointly by the United States dairy division and the Extension Division. The chief lines of work carried on were silo and dairy barn construction, herd records, cow-testing associations, bull associations, Junior Dairy Club work, creamery organizations, purchase of improved dairy stock, lectures, demonstrations, exhibits at fairs, etc. All work was carried on in close cooperation with the county and home demonstration agents.

The following is a summary of the work accomplished during the fiscal year by the two dairy specialists:

Owing to war conditions, the high cost of building material and the inability to get labor, very little building has been done the last year. Assistance was given in planning sixteen dairy barns, two milk houses and ten silos. A new dairy law requiring better sanitary conditions and providing for inspection will doubtless cause many barns to be remodeled and new ones built. Already requests from this cause are coming in. The pit silo and those built of tile or concrete are the chief kinds advocated. Twenty-three dairymen kept records on production, butterfat tests, cost of feed and other data concerning each cow through the personal visits of the dairy specialists. These men served as demonstrators who posed as apostles of better dairying in their respective communities.

The first cow-testing association in Oklahoma was organized in Tulsa county with seventeen members, having about 450 cows. The association is financed by a fee of \$2.00 per cow per year. A second association is being organized. Five cow-testing clubs were organized where cow-testing associations were not practicable. The members of each club meet once each month at some central point, bringing samples of milk from each of their cows for testing. Records are made up and timely dairy topics are discussed. There are thirty-one members in these five clubs, representing 237 cows.

The Junior Dairy Clubs were reorganized this year on a different and

much better plan. The boy or girl must use a bred heifer or cow with first calf, which must be of some dairy breed. Only boys and girls were taken in who were well equipped for the work, and whose parents were sufficiently interested to attend the monthly meetings and give general encouragement to the whole proposition.

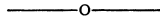
As a result of the dairy extension work this year, there are seventy-one men keeping records of their cows; 192 members of the Junior Dairy Clubs, making a total of 263 homes represented in some phase of dairy record work with a total of 1,184 cows. A bull association was organized in Canadian county, and the preliminary work is being done in the organization of other similar associations in other parts of the state.

Several calls were made by business men, farmers and others at different points in the state for assistance in the establishment of creameries. In each case, after a careful survey was made, it was decided that it would not be wise to establish creameries at this time.

Assistance was given in the purchase of twenty-seven dairy cows and four bulls.

Mr. C. W. Radway, dairy husbandman of Oklahoma, reports that in the discharge of his duties between December 1, 1918, and November 30, 1919, he traveled 13,633 miles, spent 158 days in the office, 192 days in the field, called on 449 people, attended sixty-eight meetings, addressed 2,172 people, and wrote 588 letters.

Mr. H. J. Childress, dairy specialist for the tick-freed area, reports that in the discharge of his duties between December 1, 1918, and November 30, 1919, he traveled 13,740 miles by rail, called on 338 men, attended forty-one meetings, addressed 1,944 people, spent 118 days in the office, 183 days in the field, and wrote about two hundred and fifty letters.



ENTOMOLOGY AND BEEKEEPING

Project No. 15

Entomology and beekeeping were carried on in cooperation with the Bureau of Entomology, United States Department of Agriculture. The chief work accomplished under this project was along beekeeping lines, with a view of increasing the production of honey, hoping thereby to relieve in some degree the shortage of sugar caused by war conditions.

During the fall of 1918, Mr. C. F. Stiles, an entomologist, was detailed by the United States Bureau of Entomology as a specialist to do chinchbug control work in cooperation with the College Department of Entomology, through the Extension Division. On November 1, Mr. Stiles was assigned work in apiculture. The Boys and Girls Club work in beekeeping had been developed by the Extension Division to a point where much good could be done by a good field man. Meantime, cooperating with the Department of Entomology correspondence work in beekeeping, had been inaugurated. With a specialist in the field, this work was made successful beyond all original expectations.

A prerequisite for enrollment in beekeeping work was that the applicant have for study at least one colony of bees in a modern, ten-frame hive, and in the estimation of the county agent be otherwise qualified to take the course.

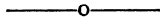
Instructions in theory and practice were issued weekly, beginning March 5 and ending June 17. Four examinations, including a final, were given. The individual papers were graded and returned. With the exception of the last, the students had ample opportunity for obtaining answers

to the questions, which were printed along with questions in the regular weekly instructions.

There was a great demand for a continuation of this work, but the Entomology Department was unable to obtain sufficient help necessary for its continuation. The results of the correspondence work in beekeeping and the visitation of the specialist among club members was quite apparent in the county and state fair Honey Club exhibits. Mr. Stiles resigned February 13, 1919, and Mr. A. T. Watson filled the vacancy, beginning March 13, and continued in the work until July 1, at which time he resigned.

The work has resulted in the enrolment of about eighty Bee Club members, and in the addition of much skill in beekeeping; also many changes from old style beegums and beekeeping, and in the saving of much nectar which was seriously needed to augment the failing sugar supply.

In the performance of his duties as extension beekeeping specialist, Mr. Stiles reports that he addressed 113 meetings with an attendance of 1,446 persons, and visited fifty-two apiaries containing a total of 1,489 colonies of bees. Mr. A. T. Watson reports that during the time he was acting as extension beekeeping specialist he traveled a total of 3,925 miles, visited forty-two agents and 100 farmers, made nineteen addresses with an attendance of 1,640 persons, and gave ninety-seven demonstrations with an attendance of 234 persons.



FARM ENGINEERING

Project No. 16

Numerous calls for assistance with farm engineering problems made it necessary to employ an extension farm engineer, which was done September 30, 1918. The demand for the services of the farm engineer has increased during the past year; terracing, drainage, farm buildings and farm machinery problems are the chief lines of work called for.

There were thirty-eight terracing demonstrations in twenty-one different counties. A homemade level and a "V" drag were made and their use demonstrated, as well as the use of the telescope level, at most of these demonstrations. Complete and detailed reports have been received at this date from fifteen of the farms terraced. Others are expected later. The average cost of the farms terraced was \$2.75 per acre, and the average benefit estimated at \$15.00 per acre.

Fourteen visits were made for drainage work. Ditch line levels were run, and in two different fields the preliminary surveys were made for tile drainage. Seven visits were made on irrigation work. Seven wier measuring gates were made as patterns for about thirty-five more, to be used on a large irrigation plant in northwest Oklahoma. Preliminary surveys were made for irrigation ditches on two farms. Two successful tractor plowing demonstrations were held. In May, 1919, a series of thrashermen's meetings were held to encourage the saving of grain during harvest and thrashing.

Plans were prepared and blueprints or mimeograph prints furnished for three different styles of poultry houses, two self-feeders for hogs, one poultry feed hopper, two hog houses, an alfalfa rack for hogs, a feed rack for sheep, three school houses, two county agricultural exhibit buildings for fairs, and one community building and stock pavilion. An extension circular on terracing was written, also one on poultry houses, and one on irrigation. More than a hundred people have been furnished plans for poultry houses, and a number of them have been built. Forty plans for other buildings have been sent. Several one and two-room school houses have been built from plans furnished by our farm engineer.

In the discharge of his duties, the farm engineer traveled by rail 19,600

miles, by auto 2,836 miles, wrote 383 letters, visited 100 county agents, made 111 visits to farms, made twenty addresses with 1,400 people in attendance. There were present 305 people at field demonstrations.

HOG CHOLERA CONTROL WORK

Project No. 17

The object of this work is an organized effort to bring to the attention of farmers and stock-raisers the recognized methods of treatment for infectious and contagious diseases of animals, especially hog cholera, and to prevent the spread of such diseases in Oklahoma. The work was carried on in close cooperation with the county agents, and also with veterinarians in the employ of the Bureau of Animal Industry of the United States Department of Agriculture, and those in the employ of the State Board of Agriculture doing enforcement control work. There is no friction of any kind between these three sets of animal disease control workers, their work being carried on in a friendly, helpful spirit which is resulting in better control of animal diseases, especially hog cholera, than ever before. A large part of the credit for the excellent condition of this work should go to Dr. C. F. Harrington of the Bureau of Animal Industry, who has general supervision of the work from the office of the State Board of Agriculture at Oklahoma City.

The leader of the educational features of this work, Dr. C. L. Nelson, has his headquarters with the Extension Division at Stillwater, Oklahoma. His salary and travel expenses are paid entirely by the Bureau of Animal Industry, the Extension Division furnishing desk room and stenographic help. Dr. Nelson reports that in the performance of his duties since his assignment to this work, September 11, 1918, to June 30, 1919, he has visited 303 towns for the purpose of holding meetings, giving lectures, interviewing business men, newspaper men, veterinarians, bankers, county agents, city, county and state officials, and making train connections to other points; 9,655 miles were traveled by rail and 1,042 miles by other conveyance; 142 farms were visited for the purpose of giving demonstrations and instruction to farmers, nine demonstrations were made to show the correct method of vaccination with serum and virus, forty-nine hogs were vaccinated for demonstration purposes, 118 addresses were made with an attendance of 7,010. There were 3,022 interviews with county agents, farmers, bankers, stockmen and others.

HORTICULTURE

Project No. 18

The interest in horticulture has increased throughout the state very materially during the last year. This was shown by the increased attendance at the horticultural section of the Farmers Congress, held at the College in August, 1919, the attendance averaging sixty each day, while it was only twenty in 1918.

The project in horticulture was begun in this state in July, 1918, and a specialist in horticultural extension work appointed. His work is carried on in close cooperation with the county and home demonstration agents. During the war, while the need for quick food production was greatest, the chief work done by the leader of this project was home garden work. After the war ended, the production and handling of fruit was stressed.

In the fall and early winter of 1918 a fall plowing garden campaign was put on in cooperation with the Junior Red Cross, city and rural schools and the home demonstration agents. This work was carried on in twenty-five counties, and excellent practical results were obtained. County and home

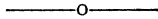
demonstration agents in these counties estimate that 34.5% of the gardens were fall-plowed. The work in the following spring consisted quite largely in the introduction of better varieties of truck, such as Swiss chard, New Zealand spinach, black-eyed peas and frostproof cabbage. The planting of blackberries, dewberries, asparagus, etc., was also encouraged. Permanent planting in one or more of these was started in 203 gardens. The cypress lath sub-irrigation garden plan for both farm and town gardens was encouraged.

A campaign was carried on to encourage the saving of home garden seed. Assistance was given in Boys and Girls Clubs, more especially the Garden and Fruit Clubs. Considerable time was spent in making talks and field demonstrations in pruning, spraying and cultivating orchards, also proper methods of thinning and taking care of the fruit. Orchard information has been well received, and it is very gratifying to see the number of spray pumps, pruning tools, orchard cultivators, etc., that have been purchased where orchard demonstrations have been held.

A big saving was made where we were able to assist parties in the purchase of insecticides. For example, arsenate of lead was bought for 38 cents a pound which cost \$1.00 per pound locally, and lime-sulphur was bought for 20 cents per gallon which cost locally \$1.00 per gallon. The demand for orchard demonstrations was greater than could be met.

During the year, articles were furnished by the leader of this project for the daily and weekly papers, and instructions prepared for the Potato, Fruit and Canning Clubs; also Extension Circulars Nos. 68, 70, 81, 88, 93, 102 and 107 were written.

In the discharge of his duties, the leader of this project made addresses at 119 meetings with an attendance of 9,561, conducted forty-seven demonstrations with an attendance of 1,030, visited 137 homes, wrote 615 letters, twenty-eight circular letters, and traveled 14,469 miles.



PLANT DISEASE CONTROL WORK

Project No. 19

This work was carried on in cooperation with the Bureau of Plant Industry, United States Department of Agriculture, the Bureau of Plant Industry paying all the salary of the specialist in the work, and the Extension Division paying the travel expenses and supervising the work.

On August 1, 1918, Mr. C. E. Sherwood was appointed specialist in plant disease control work. His work was mainly with sweet and Irish potato diseases and the *Fusarium* wilt of tomatoes.

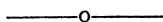
It was ascertained that black rot and stem rot were causing very material damage to the sweet potato industry of the state. Arrangements were made with growers in the eastern part of the state to carry on demonstrations in the methods of control of these diseases. The condition of these crops at this time indicates that this work will be very beneficial. Along with this work, advice was given to many regarding prevention of soft rot in storage, which is usually caused by insufficient ventilation and curing.

It was determined last year that the principal causes for the reduction in yield of Irish potatoes were due to diseases carried in seed potatoes. A few demonstrations with certified seed were planned. The yields from the demonstration fields were satisfactory, and the potatoes were of excellent quality and of uniform size. One demonstration at Warner, Oklahoma, made a yield of fifteen bushels of potatoes from one bushel of certified Triumph seed, while one bushel of ordinary northern seed yielded but three bushels under exactly the same conditions.

Wilt-resistant varieties of tomatoes were distributed in twenty-five

counties, and the yields were equal in quality and amount to the varieties usually grown.

Unfortunately it was necessary to discontinue this work August 25, 1919, on account of shortage of funds.



PLANT DISEASE SURVEY WORK

During the past two years the Bureau of Plant Industry of the United States Department of Agriculture has made plant disease surveys of the small grains in Oklahoma. The work was carried on in cooperation with the Extension Division, and the subject matter department of the A. and M. College. The main object of the survey was to obtain information upon the prevalence of the "loose smut", "covered smut" and "stinking smut", but all diseases were reported.

The 1919 survey was made from June 4 to 10 by Messrs. James Godkin, G. H. Gillespie, F. N. Briggs, W. F. Nehrling and W. W. Wood. Summary of report follows:

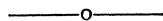
Number of wheat fields inspected	98
Number of wheat fields having loose smut	73
Number of wheat fields having stinking smut	12
Number of wheat fields treated	5
General average of the 73 fields having loose smut was, percent	1.8
Number of wheat fields having black chaff	70
Number of wheat fields having "septoria"	40
Number of wheat fields having "stem rust"	89
Number of wheat fields having "leaf rust"	86
General average of infection for the 89 fields having "stem rust" was, percent	13.6
General average of infection for the 86 fields having "leaf rust" was, percent	30.5

This was the first year that "black chaff" on wheat made a noticeable appearance, and the infection ranged from slight to very abundant.

Number of oat fields inspected	33
Number of oat fields showing "covered smut"	17
Number of oat fields showing "loose smut"	32
General average of 17 fields having "covered smut" was, percent	2.4
General average of 32 fields having "loose smut" was, percent	3.7
Number of oat fields showing "stem rust"	3
Number of oat fields showing "leaf rust"	30
Number of oat fields showing "blast"	28
General average of 30 fields having "leaf rust" was, percent	11.2
General average of 28 fields having "stem rust" was, percent9

Out of the ninety-eight fields only five were treated for "stinking smut", it was found in but twelve fields, varying from a trace to 3%, with exception of one field, where the damage was 20%. This shows but one thing, namely, farmers are not using control methods.

The data obtained on the prevalence of "stem rust" of wheat might indicate one of the reasons for the low wheat yield, but the grower most universally attributed it to the excessive moisture.



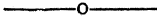
RODENT PESTS

In the fall of 1918 an active campaign was put on in this state by the United States Biological Survey to destroy wolves, prairie-dogs, gophers and other rodents. The representative of the Bureau of Biological Survey first called at the Director's office at Stillwater to secure the cooperation of the Extension Division in the work, which was cheerfully promised. Two or three wolf-hunters were assigned to work in the southeastern counties of the state, and Mr. B. J. Melton was assigned to rodent control work in the

western part of the state, with headquarters at Lawton. With several assistants, Mr. Melton began the extermination of prairie-dogs on the Fort Sill military reservation and neighboring farms as soon as the dogs became active in the spring, and the work was completed during the summer. In cooperation with the Extension Division, a survey was made to learn the location of the various animal pests in the state and the estimated damage done by each. Prairie-dogs were reported in thirty-two counties, covering more than 100,000 acres, on which the grass was almost totally destroyed.

The last state legislature passed a law declaring prairie-dogs to be a public unisance, and requiring that they be all destroyed before 1923 by the land-owners, and requiring the county commissioners to keep a stock of prairie-dog poison on hand to sell to farmers at cost. This law greatly aided the county agents and Mr. Melton in securing local cooperation in prairie-dog control work.

The pocket gopher was another animal pest which was generally distributed over the state and doing serious damage to alfalfa fields. The common crow was another pest becoming more numerous and destructive each year. The crows congregate in large flocks in the fall and winter, destroying thousands of dollars worth of grain. In one instance, at Norman, Oklahoma, crows were discovered killing young lambs. Organized effort is being made to control these pests.



OUTLOOK

The outlook for extension work in Oklahoma this coming year would be all that could be desired but for the difficulty in securing and keeping competent men and women to do the work. In spite of the fact that there have been liberal increases in salaries, the increases have not been sufficient to keep up with the ever-increasing cost of living. The law limiting the amount counties may appropriate for county agent work has been repealed, and the counties this year have increased their appropriations nearly 100%, and this office has increased its share on the salaries as much as it could, yet our best agents and specialists are quitting continually to accept better paying positions.

The earnest cooperation and warm support given our work by all worthy interests throughout the state justify the highest anticipation of great results should general conditions get back to something like normal in the near future.