

**COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF OKLAHOMA**

E. A. MILLER, Director

**OKLAHOMA AGRICULTURAL AND
MECHANICAL COLLEGE AND
UNITED STATES DEPARTMENT OF
AGRICULTURE, COOPERATING**

**EXTENSION SERVICE
COUNTY AGENT WORK
STILLWATER, OKLAHOMA**

Distributed in Furtherance of the Acts of Congress of May 8 and June 30, 1914

***ANNUAL REPORT
EXTENSION DIVISION***

***OKLAHOMA A. & M.
COLLEGE, 1921-1922***

Stillwater, Oklahoma

LETTER OF TRANSMITTAL

Hon. J. B. Eskridge,
President A. and M. College,
Stillwater, Oklahoma.

Dear 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, 1922, and the report of the activities of the Extension Division for the crop year of 1922.

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

Respectfully,

W. A. CONNER,
Director.

REPORT OF THE EXTENSION DIVISION

YEAR 1921-1922.

W. A. CONNER, Director

The underlying principle of the extension program for the year just closed has been to encourage self help. Many farmers were carrying debts incurred during the period of inflation. The boll weevil had destroyed much of the 1921 cotton crop with prospect for an unusually heavy infestation in the spring of 1922. It seemed necessary, therefore, that farmers get on a basis that requires the minimum of credit and the minimum of expenditure for supplies and expenses.

Farmers have been urged to substitute a living making program for the commercial type of farming too frequently engaged in. The production of food for the family and feed for the livestock has been made the first consideration. Much time also has been devoted to the economical production of such commodities as are grown for the market although we find an increasing opinion among the farmers to the effect that production problems have been solved and that our time should be occupied largely with the marketing of these products.

Cooperative marketing of farm products has made satisfactory progress during the year by the Oklahoma Cotton Growers' Association, the Oklahoma Wheat Growers' Association and by a few cooperative shipping associations handling livestock. The Extension organization has had no official connection with these organizations but has given all the assistance possible in an educational way to keep up the morale of the membership.

In carrying out our program of work, no important changes in the form of organization have taken place. The various state departments have continued their assistance and cooperation. Because of the splendid educational work being done by our Free Agricultural Fairs in demonstrating types and standards of farm products and the best methods of handling these products, we have devoted considerable time to encouraging and promoting these fairs. We have endeavored to increase the efficiency of our county agents and specialists by a methodical plan of program building which takes advantage of successful farm practices in the solution of local farm problems. We are assisted in the development of this program by local committees representative of the county's interests and whose moral support is behind the county agent in carrying out the program.

Our extension specialists are expected to keep the county agents informed in regard to the best method of procedure along their special lines of work. These specialists also assist in the organization of the county extension program so far as it affects their particular projects. The specialists conduct a certain amount of demonstration work for which they are personally responsible and in addition to this give assistance to agents on work they themselves have undertaken along these special lines.

The work was carried on under the following projects: 1, Administration; 2, Printing and Distribution; 3, County Agents; 4, Boys' and Girls' Agricultural Club Work; 5, Home Demonstration Work; 7, Work for Negro Men and Boys; 8, Work for Negro Women and Girls; 9, Poultry Club Work; 12, Dairy Extension Work; 13, Livestock Extension Work; 14, Extension Work in Agronomy; 15, Entomology; 16, Farm Engineering; 18, Horticulture; 21, Rodent Eradication; 22, Extension Work in Clothing; 23, Extension Work in Food and Nutrition.

The Director of Extension who is the joint representative of the Agricultural and Mechanical College and the United States Department of Agriculture, has general

supervision of all agricultural extension activities covered by Smith-Lever projects. The heads of the various subject matter departments are considered final authority on all subject matter problems.

In the administration of extension work we have made frequent contacts with the work being conducted under the various projects in all parts of the state, have familiarized ourselves with the methods used in promoting the work under these projects and have kept in close touch with farm problems and farm practices. In order to correlate the different lines of work and to facilitate the handling of administrative problems, we have continued the practice of spending one day each month in conference with specialists and the administrative members of our staff.

There were mailed out from the Extension Division during the fiscal year ending June 30, 1922, 12,926 personal letters, 184,620 circular letters, 150,177 bulletins, 1,629 packages, 5,290 posters, 62,020 record books and 279,000 copies of the Extension News, making a total of 697,094 pieces of mail matter.

The additional office equipment purchased this year were: One film, "Milk—Nature's Perfect Food"; one film, "Sweet Potatoes—From Storehouse to Market"; one Burrough's adding machine with motor; one filing cabinet; one office table; one dictionary and holder; addressing machine; seven "Line-A-Time" copy holders; one Oliver typewriter for colored district agent; six L. C. Smith typewriters (four exchanged); twenty-three office chairs; one roll top desk and chair; two desks and one chair; glass for desk top; four boxes for shipping pressure cookers; two pressure cookers; cooking utensils; window shades; engineer's level rod; two drawing boards; level and tripod; flexible leveling rod; acidity soil tester; one Balopticon, one Burpee can sealer; one gas stove and four bulletin cabinets.

PERSONNEL

On June 30, 1922, there were 74 county agents, five district agents for men's work. There were 38 home demonstration agents, five district agents for the women's and girls' work and seven special home demonstration agents serving in Adair, Beaver, Kay, LeFlore, Lincoln, McIntosh and Stephens counties during the month of June. In the work for negroes there were 10 negro men agents, including one district agent, and four negro women agents. There were nine specialists, one boys' club agent and two assistant boys' club agents and 14 members of the office force. These with the director, assistant director, state agent, state home demonstration agent and assistant home demonstration agent, constituted the Extension Division. This was an increase over the same date last year of two county agents, one home demonstration agent, one specialist and three district agents for women's and girls' work.

The following is a complete list of all persons employed in the Extension Division during the fiscal year ending June 30, 1922, except students employed for short periods of time to assist in mailing out bulletins, circulars, etc., and other irregular work in the Extension Division:

OFFICE FORCE

- W. A. Conner, Director. (Resigned December 31, 1922).
- W. D. Bentley, Assistant Director.
- W. R. Shelton, State Agent.
- B. A. Pratt, State Boys Club Agent.
- E. B. Shotwell, Assistant State Boys Club Agent.
- Phil H. Lowery, Assistant State Boys Club Agent.
- Ward Chase, Assistant State Boys Club Agent. (Resigned July 31, 1921).
- C. M. Smith, Poultry Club Agent.
- E. O. Edson, Assistant Poultry Club Agent.
- C. W. Radway, Dairy Specialist. (Resigned June 28, 1922).
- D. C. Mooring, Extension Horticulturist.
- B. J. Melton, Biological Assistant.
- R. W. Clark, Livestock Specialist. (Resigned June 30, 1922).
- W. J. Green, Extension Agronomist. (Resigned June 15, 1922).
- W. H. McPheeters, Extension Farm Engineer.
- Miss Frances L. Brown, State Home Demonstration Agent.
- Dr. D. B. Tucker, Rural Sanitation Specialist. (Resigned).
- Miss Martha McPheeters, Assistant Home Demonstration Agent.
- Miss Norma Brumbaugh, Home Economics Specialist. (1 month).
- Miss Norma Brumbaugh, District Agent.

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Mrs. Nannie Collins, Home Economics Specialist. (Resigned).
 Miss Anna Lee Diehl, District Agent.
 Mrs. Daisy M. Frazier, District Agent.
 Mrs. Lulu S. Green, District Agent.
 Miss Mary Wright, Clothing Specialist. (2 months).
 Miss Mary Wright, District Agent.
 Miss Lethe Morrow, Office Manager.
 Mrs. Marian Wade, Secretary. (Resigned June 30, 1922).
 Miss Bess G. Finley, Bookkeeper.
 Miss Nellie Knight, Mailing Clerk.
 Mrs. Minnie Smith, Assistant Mailing Clerk.
 Miss Minnie McCoy, Stenographer.
 Mrs. Bertha Briggs, Statistical Clerk.
 Miss Grace Poole, Stenographer.
 Mrs. Lulu McClure, Stenographer.
 Miss Ruth Cox, Stenographer. (Resigned).
 Mrs. Grace Wellmuenster, Stenographer. (Resigned).
 Miss Esther Hunt, Stenographer.
 Miss Ethel Clausen, Stenographer.
 Miss Irdle Finley, Filing Clerk.
 Miss Charlie Henderson, Multigraph Operator.
 Miss Marguerite Purse, Clerk.
 Mrs. Effie Moberly, Janitress.

DISTRICT AGENTS

C. W. Callarman has supervision of the following counties: Canadian, Carter, Cleveland, Garvin, Grady, Jefferson, Johnston, Kingfisher, Logan, Love, McClain, Marshall, Murray, Oklahoma and Stephens.
 Dan Diehl has supervision of the following counties: Beckham, Blaine, Caddo, Comanche, Cotton, Custer, Dewey, Ellis, Greer, Harmon, Jackson, Kiowa, Roger Mills, Tillman, and Washita.
 B. F. Markland has supervision of the following counties: Alfalfa, Beaver, Cimarron, Creek, Garfield, Grant, Harper, Kay, Lincoln, Major, Noble, Okfuskee, Pawnee, Texas, Woods and Woodward.
 T. A. Milestead has supervision of the following counties: Atoka, Bryan, Choctaw, Coal, Haskell, Hughes, Latimer, LeFlore, McCurtain, McIntosh, Pittsburg, Pontotoc, Pottawatomie, Pushmataha and Seminole.
 G. W. Vincent (Resigned June 30, 1922) has supervision of the following counties: Adair, Cherokee, Craig, Delaware, Mayes, Muskogee, Nowata, Okmulgee, Osage, Ottawa, Rogers, Sequoyah, Tulsa, Wagoner and Washington.

COUNTY AGENTS

Adair	Stilwell	G. E. Davis
Alfalfa	Cherokee	G. F. Newton
Atoka	Atoka	A. E. Cook
Beaver	Beaver	W. B. Hanly
Beckham	Sayre	T. J. Eldredge
Blaine	Watonga	J. M. Rapp
Bryan	Durant	G. B. Dunlap
Caddo	Anadarko	I. E. Nutter
Canadian	El Reno	F. K. West
Carter	Ardmore	J. W. Simpkins
Cherokee	Tahlequah	J. F. Riddell
Choctaw	Hugo	J. A. Wyatt (Resigned)
Choctaw	Hugo	F. C. Higginbotham
Cimarron	Boise City	C. S. Andrew
Cleveland	Norman	P. K. Norris
Coal	Coalgate	W. T. Yoakum (Resigned)
Coal	Coalgate	M. W. Plettner
Comanche	Lawton	C. C. Stinson
Cotton	Walters	Geo. L. Gibbs
Craig	Vinita	R. L. Warren
Creek	Bristow	J. W. Riley
Custer	Clinton	C. H. Guernsey
Delaware	Grove	W. B. Wolf
Dewey	Taloga	W. F. Porter
Ellis	Arnett	Tom M. Marks
Garfield	Enid	D. T. Meek (Resigned)
Garfield	Enid	M. C. Liebhart (Resigned)
Garfield	Enid	S. E. Laird
Garvin	Pauls Valley	A. T. Burge
Grady	Chickasha	A. F. Houston
Greer	Mangum	R. T. Lee
Harmon	Hollis	L. I. Bennett
Harper	Buffalo	E. A. Porter
Haskell	Stigler	J. L. Schad
Hughes	Holdenville	T. A. Vanderpool
Jackson	Altus	R. E. Berry
Jefferson	Waurika	B. J. Pullin (1-month)
Jefferson	Waurika	C. P. Cox

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Johnston	Tishomingo	J. P. Gray
Kay	Newkirk	L. C. Shelton
Kay	Newkirk	S. E. Laird (Assistant)
Kingfisher	Kingfisher	Clyde McFeaters
Kiowa	Iohart	A. J. Jordan
Latimer	Killbuckton	N. C. Ward
LeFlore	Notau	Carl M. West
Lincoln	Chandler	J. W. Guin
Logan	Lawhrie	J. R. Wiley
Love	Varietta	R. F. Waters
McClain	Purcell	W. Cromwell
McCurtain	Idabel	A. L. Edniaston
McIntosh	Eufaula	H. L. Bankhead
Major	Fairview	H. B. Binkley
Marshall	Madill	W. E. Martin
Mayes	Pryor	C. R. Jackson (Resigned)
Murray	Sulphur	J. N. Horn
Muskogee	Muskogee	J. M. White
Noble	Perry	S. E. Laird (Resigned)
Noble	Perry	E. E. Horton
Nowata	Nowata	H. M. Wolverton
Oklfuskee	Okemah	E. A. Kissick
Oklahoma	Oklahoma City	C. R. Donart
Okmulgee	Okmulgee	D. P. Trent
Osage	Lawhuska	S. M. McCristion
Ottawa	Miami	Jas. Lawrence
Pawnee	Pawnee	M. T. Maudlin
Payne	Stillwater	L. E. Rathbun
Pittsburg	McAlester	E. B. Nelms (Resigned)
Pittsburg	McAlester	E. H. Houston
Pontotoc	Ada	J. B. Hill
Pottawatomie	Shawnee	E. R. Henson (Resigned)
Pottawatomie	Shawnee	H. G. Ware
Pushmataha	Antlers	George Innes
Roger Mills	Cheyenne	J. R. Waldby
Seminole	Wewoka	H. G. Howard
Sequoyah	Salsaw	Fred Ingram
Stephens	Juncan	Ben Harrison
Texas	Guymon	J. B. Hisey
Tillman	Frederick	S. D. Johnson
Tulsa	Tulsa	J. S. Malone
Wagoner	Wagoner	C. M. Hubbard
Washington	Bartlesville	C. C. Porter
Waskita	Cordell	H. Garland
Woods	Alva	W. D. Kennon
Woodward	Woodward	F. R. Merrifield

COLORED MEN AGENTS

District Agent	Langston	W. A. Hill (Transferred)
District Agent	Langston	J. E. Taylor
Kingfisher	Kingfisher	Lafayette Shawnee
Logan	Guthrie	G. W. Powderill
Creek and Lincoln	Chandler	W. M. Mingo
Muskogee	Muskogee	J. V. King
McCurtain	Idabel	J. W. Shoals
McIntosh	Eufaula	L. W. Presley
Oklfuskee	Boley	J. E. Taylor (Transferred)
Oklfuskee	Boley	W. A. Hill
Seminole	Wewoka	E. R. Moore
Okmulgee	Okmulgee	P. M. Mann

HOME DEMONSTRATION AGENTS

Adair	Stillwell	Miss Louise Backhaus (Special)
Beaver	Beaver	Miss Ruth Raudell
Bryan	Durant	Miss Fannie Buis (Resigned)
Bryan	Durant	Miss M'Edna Corbit
Caddo	Anadarko	Miss Mamie Boynton
Canadian	El Reno	Mrs. Mary B. Ruff (Resigned)
Carter	Armore	Mrs. Minnie B. Church
Cleveland	Norman	Miss Elizabeth C. Denton (Resigned)
Cleveland	Norman	Miss Flora E. Goodwin
Comanche	Lawton	Miss Lenna Speer
Creek	Bristow	Miss Edna I. Whitaker
Custer	Clinton	Miss Lena Blair
Garfield	Enid	Miss Nina Hurlbert
Garvin	Pauls Valley	Mrs. Lena Gentry
Grady	Chickasha	Mrs. Nettie Coryell

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GreerMangumMrs. Helen Condon
HarperBuffaloMrs. Ida E. Sweet
KayNewkirkMiss Jo Della Pennington (Special)
Kiowa	.....Hobart	.....Mrs. Edith Huffer
Latimer	.....Wilburton	.....Mrs. Elizabeth Ward
LeFlore	.....Poteau	.....Mrs. M. A. E. Shelton (Special)
Lincoln	.....Chandler	.....Miss Alice Hastings (Special)
Logan	.....Guthrie	.....Mrs. Jessie S. Pollock
McCurtain	.....Idabel	.....Miss Grace Clowdis
McIntosh	.....Eufaula	.....Miss Sylvia Mayer (Special)
Major	.....Fairview	.....Mrs. Flora Bever
Marshall	.....Madill	.....Miss Maude Andrews
Meyes	.....Pryor	.....Miss Vera Jones
Muskogee	.....Muskogee	.....Miss Ruby Mabry
Noble	.....Perry	.....Miss Elizabeth Richardson (Resigned)
Noble	.....Perry	.....Mrs. Jessie S. McCafferty
Okfuskee	.....Okemah	.....Mrs. Anna Richards
Oklahoma	.....Oklahoma City	.....Miss Ita Ross (Resigned)
Oklahoma	.....Oklahoma City	.....Miss Mattie A. Craig
Okmulgee	.....Okmulgee	.....Mrs. Verna Snelson (Resigned)
Okmulgee	.....Okmulgee	.....Mrs. Norine Hughes
Osage	.....Pawhuska	.....Mrs. Ginevra Lohman
Payne	.....Stillwater	.....Mrs. Almira P. Abernathy
Pittsburg	.....McAlester	.....Mrs. Lyle H. Breckner
Pontotoc	.....Oakman	.....Mrs. Elva R. Duvall
Pottawatomie	.....Shawnee	.....Miss Mary McCool (Resigned)
Pottawatomie	.....Shawnee	.....Miss Virginia Allen
Pushmataha	.....Antlers	.....Mrs. Ella Innes
Rogers	.....Claremore	.....Mrs. Myrtle Watson (Resigned)
Seminole	.....Wewoka	.....Mrs. Ethel Howard
Stephens	.....Duncan	.....Miss Esther Martin (Special)
Tillman	.....Frederick	.....Mrs. Eva Mosteller
Tulsa	.....Tulsa	.....Mrs. Kathryn Jackson
Wagoner	.....Wagoner	.....Mrs. Dadie Myers (Resigned)
Wagoner	.....Wagoner	.....Mrs. Sara D. Atwood
Washington	.....Bartlesville	.....Miss Iva M. Burch
Woodward	.....Woodward	.....Mrs. Emma Stewart

NEGRO HOME DEMONSTRATION AGENTS

Muskogee	.....Muskogee	.....Mrs. Ethel White-Brewer
Okfuskee	.....Boley	.....Mrs. Annie Peters-Hunter
Okmulgee and McIntosh	.....Okmulgee	.....Miss Maude Smith
Lincoln	.....Chandler	.....Miss Edna Lewis

EXPENDITURES

The total expenditures of the Extension Division for the fiscal year 1921-22 were as follows:

United States, direct (Farmers' Cooperative Demonstration Work)	\$ 32,249.86
Supplementary Federal Extension Fund	43,450.80
Federal Smith-Lever Fund	114,281.92
State Smith-Lever Fund	104,281.92
State Fair School Fund	3,350.00
College Fund	718.08
Appropriations by Boards of County Commissioners and others	150,956.03
Total	\$449,288.61

FINANCIAL STATEMENT

TABLE A—Summary statement of expenditures by projects, showing sources of funds used for Extension Work.

Items of Expense	Total	U.S.D.A.	Supp. Federal Ext.	Smith-Lever Federal	State	State Fair	College	County
Administration	\$ 29,393.18	\$ 3,500.00		\$ 18,248.35	\$ 7,548.75		\$ 96.08	
Printing and Distribution of Publications	9,132.97			3,778.78	5,354.19			
County Agents	218,262.01	15,338.34	43,450.80	19,724.43	28,129.19		190.00	111,429.25
Home Demonstration Work	109,683.59	7,835.18		25,529.15	35,425.48	1,167.00	200.00	39,526.78
Boys Club Work	20,835.02	2,398.34		8,691.15	7,330.53	2,183.00	232.00	
Home Economics Specialists	1,129.53			329.53	800.00			
Rural Sanitation	530.46				530.46			
Colored Men and Boys	21,069.94	1,978.00		18,360.55	731.41			
Colored Women and Girls	6,982.00	1,200.00			5,782.00			
Poultry Club Work	8,389.22			6,178.89	2,210.33			
Dairy Club Work	4,665.10			3,601.33	1,063.77			
Livestock Club Work	4,953.84			1,353.84	3,600.00			
Agronomy	2,846.05			2,034.70	811.35			
Rural Engineer	2,957.61			893.09	2,064.52			
Rodent Eradication	600.00			600.00				
Horticulture	4,052.07			1,152.13	2,899.94			
Unexpended Balance	3,806.02			3,806.02				
Total	\$449,288.61	\$32,249.86	\$43,450.80	\$114,281.92	\$104,281.92	\$3,350.00	\$718.08	\$150,956.08

FINANCIAL STATEMENT

Table B—Summary statement of expenditures by projects, showing classification of expenditures from all funds used for Extension Work except the United States direct:

Items of Expense	Total	Admini- stration	Printing	County Agents	Home Dept. Work	Boys Club Work	Home Ec. Specialists	Rural Sanitation
Salaries	\$352,236.28	\$17,075.78	.....	\$191,518.32	\$ 89,534.64	\$ 8,495.84	\$ 800.00	\$305.55
Labor	1,677.48	27.29	.....	138.84	386.66	1,124.69	.....	.....
Printing and Distribution	9,132.97	.....	9,132.97	.....	.....	.....	.....	.....
Stationery, Small Printing	5,663.89	1,946.21	.....	118.03	719.42	2,850.23	.....	.....
Postage, Telegraph, Etc.	1,956.53	1,119.60	.....	353.66	248.14	179.65	.....	.....
Extra State	718.08	96.08	.....	190.00	200.00	232.00	.....	.....
Supplies	321.23	187.29	.....	.....	119.27	5.43	.....	.....
Library	25.18	23.63	.....	.....	1.25	.....	.....	.....
Tools, Machinery, Etc.	51.50	12.75	.....	20.00	18.75	.....	.....	.....
Furniture and Fixtures	2,121.66	1,969.23	.....	63.70	83.73	.....	.....	.....
Scientific Apparatus, Etc.	172.75	172.75	.....	.....	.....	.....	.....	.....
State Fair School	3,350.00	.....	.....	.....	1,167.00	2,183.00	.....	.....
Traveling Expenses	35,798.36	3,256.75	.....	10,521.12	9,338.55	3,365.84	329.53	224.91
Contingent Expenses	6.82	5.82	.....	.....	1.00	.....	.....	.....
Total Expenditures	\$413,232.73	\$25,893.18	\$9,132.97	\$202,923.67	\$101,848.41	\$18,436.68	\$1,129.53	\$530.16

Table B (Continued)

Items of Expense	Colored Men and Boys	Colored Women and Girls	Poultry Club Work	Dairy Club Work	Livestock Work	Agronomy Work	Engineer Work	Horti- culture	Rdent Erad- ication
Salaries	\$17,988.38	\$5,599.88	\$6,117.40	\$3,601.33	\$3,600.00	\$2,034.70	\$2,064.52	\$2,899.94	\$600.00
Labor .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing, Distribution .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stationery, Small Printing .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Postage, Telegraph, etc.	10.47	.....	2.00	14.53	6.78	3.15	11.05	7.50	.....
Extra State .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Supplies .....	.....	.....	.....	.65	.....	2.39	.....	6.20	.....
Library .....	.....	.....	.....	.....	.....	.30	.....	.....	.....
Tools, Machinery, Etc. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Furniture and Fixtures .....	.....	.....	.....	.....	.....	.....	5.00	.....	.....
Scientific Apparatus, Etc. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....
State Fair School .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Traveling Expenses	1,093.09	182.12	2,269.82	1,048.59	1,347.06	805.51	877.04	1,138.43	.....
Contingent Expenses .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total Expenditures	\$19,091.94	\$5,782.00	\$8,389.22	\$4,665.10	\$4,953.84	\$2,846.06	\$2,957.61	\$4,032.07	\$600.00

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PROJECT NO. 2. --PRINTING AND DISTRIBUTION

The Extension News is the only periodical put out under this project. However, a number of circulars and bulletins giving instruction in timely subject matter to farmers and farm women in general, and to give instruction to county agents, club members and demonstrators have been printed and distributed. It is our impression that a great deal of educational work is being done under this project.

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

	Smith-Lever	
	Federal	State
A For printing 52 bulletins and circulars; No. of pages 981 (Total edition 647,500)	\$2,221.61	\$5,077.07
B For printing Annual Report; No. of pages 72 (Total edition 3,000)		156.00
C Illustrations half tones, cuts, etc.	6.50	121.12
D For envelopes for bulletins, circulars and reports		
E Personal services and other expenses of distribution	1,550.67	
Total	\$3,778.78	\$5,354.19

The following circulars and other matter were published during the fiscal year ending June 30, 1922, and the cost of printing same is included in the figures given under "A":

- 124 Suggestions for Cooking with Pressure Cooker.
- 125 Corn.
- 126 Control of the Bag Worm.
- 127 Some Internal Parasites of Oklahoma Livestock.
- 128 Plans for Organizing Boys and Girls Demonstration Clubs.
- 129 The Local Club Organization.
- 130 Annual Report, 1920-21.
- 131 Growing Oats.
- 132 The Value of Chemical Analysis in the Determination of the Needs of a Soil.
- 133 Instructions to Clubs on Strawberries, Dewberries and Blackberries.
- 134 Wheat Growing.
- 135 Growing Barley.
- 136 Liming Soils in Oklahoma.
- 137 Pig Club Manual.
- 138 Simple Lessons in Poultry for Poultry Club Members.
- 139 Food Preparation First Year.
- 140 Food Preparation Second Year.
- 141 Food Preparation Third Year.
- 142 Food Preparation Fourth Year.
- 143 Canning for Junior Home Demonstration Clubs First Year.
- 144 Canning for Junior Clubs Second Year.
- 145 Sewing Club First Year.
- 146 Sewing Club Second Year.
- 147 Sewing Club Third Year.
- 148 Sewing Club Fourth Year.
- 149 Protein Foods.
- 150 Desserts.
- 151 Bot! Weevil Information.
- 152 Fruit Club Bulletin.
- 153 Plans for Organizing Boys and Girls Clubs.
- 71 Spanish Peanuts. (Reprint).
- 77 Home Canning of Vegetables and Fruits, 2nd Revision.
- 77 Home Canning of Vegetables and Fruits, 3rd Revision.
- 87 Grain Sorghums for Club Boys in Oklahoma.
- 98 Pickles, Relishes and Appetizers (Reprint).
- 110 Vegetable Spray Calendar (Reprint).
- 113 Hot Beds.

SPECIAL:

- No. 3 Control of Insects in Stored Beans and Peas.
- The Milk Story.
- 11 Issues of Oklahoma Extension News for year.
- August and September Poultry Instruction--1st, 2nd, 3rd and 4th years.
- November Poultry Instructions--1st, 2nd, 3rd and 4th years.
- February and March Poultry Instructions--1st, 2nd and 3rd years.
- April Poultry Instructions--1st year.
- May Poultry Instructions--1st and 2nd years.
- June, July, August and September Poultry Instructions--1st and 2nd years.
- General Letter of Instruction to Club Members.
- Final Instructions for Canning and Poultry Clubs--2nd, 3rd and 4th years.
- Rules for Conducting Contest in Food Preparation.
- Programs for Home Demonstration Clubs, 1st Year, 1921-1922.
- Programs for Home Demonstration Clubs, 2nd Year, 1921-1922.
- Programs for Home Demonstration Clubs, 3rd Year, 1921-1922.
- Programs for Home Demonstration Clubs, 5th Year, 1921-1922.

PROJECT NO. 3—COUNTY AGENT WORK

At the present time seventy of our seventy-seven counties have county agents, and in addition one of these counties has an assistant county agent and another has two assistant county agents. Two other counties are now ready to employ agents. Five district agents supervised the county agents and assisted in the determination of the local program.

During the past year nothing has seriously interfered with the carrying out of the county agent work and much more actual demonstration work has been done this year than at any time since the work was disturbed by war conditions. Everywhere demand is made by farmers for more attention to cooperative marketing of farm products. We have endeavored to meet this demand by keeping in sympathetic touch with cooperative marketing organizations and in giving practical demonstrations in cooperative marketing, such as selling livestock in carload lots. We believe, however, that if the living-making program advocated by the Extension Division were generally adopted, it would render the marketing problem less acute by lessening the volume of the farmer's purchases and making him more independent of the cash products and the prices received for them.

The county agent work for the fiscal year 1921-1922 has been to a great extent a continuation of the program for the previous year, that is, to assist the farmer in readjusting his farm operations so that he may recover from the effects of the demoralized market of farm crops in which he has suffered heavy losses the past two years and which seem to be very slow in beating back to a point where the purchasing power of the farmer will become normal.

In the beginning of the year 1922, it was planned by the supervisory force of the Extension Division to reorganize the county extension work under the county advisory board plan as rapidly as conditions and time would permit. At the close of the year, November 30, 1922, the records show that eighteen counties have been organized under the advisory board plan with approximately thirty more ready for organization in 1923.

In line with the plans to increase the efficiency of county and home demonstration agents, two meetings were held at the A. and M. College during the year. The first meeting was held January 30 to February 3, 1922.

The program for this meeting was made with a view to bringing the agents in closer touch with the Experiment Station and the subject matter heads of the department. The first hour of each day was given over to a general session, the second to experiment station work, the third and fourth to subject matter class room work with the heads of the subject matter departments. The afternoons were devoted to group and district meetings under the supervision of the district agents, where extension problems peculiar to the respective districts were discussed and suggestions offered for meeting them. This meeting was attended by 67 county agents and 34 home demonstration agents.

The fifth annual Farm Congress and Agents' Meeting was held in Stillwater, August 23-30, 1922. There were 74 county agents and 38 home demonstration agents present.

The first four days were given over to the general Farm Congress activities during the first period in the morning, followed by subject matter work given by different departments of the College in the second period. The first period in the afternoon was given to farm association meetings and the second to visiting the College buildings and College farm. Sunday was devoted to a special community building program, which was prepared and carried out by Reverend Warren H. Wilson, professor of rural sociology, Columbia University, New York City. The last three days were devoted to county agents' reports and administrative matters relative to extension work in the counties.

The state has not suffered any severe outbreak of livestock diseases the last year. This is partly due to the fact that the county agents have taught the farmers to vaccinate for cholera, blackleg and similar diseases or call a veterinarian at the first sign of an outbreak in their herds.

In order to carry out the plan of work as submitted in the beginning of the year.

the work was divided into seven classes of activities to be conducted in 1922; first, field crops; second, animal husbandry; third, dairy husbandry; fourth, poultry husbandry; fifth, special farm problems; sixth, boys' and girls' club work, and seventh, organization work.

The following statistical and narrative accounts are submitted as a partial report of results accomplished by county agents during the crop year 1922:

The agents report having 605 corn demonstrators of whom 371 made reports. These demonstrators made an average of 35 bushels per acre which was double the average yield of the state. There were 236 kafir demonstrations with an average yield of 27 1-6 bushels per acre, which is 10 1-3 bushels higher than the average yield for the state. There were 99 milo demonstrations with 54 reporting making an average yield of 23 bushels per acre. There were 13 feterita demonstrations with 8 reporting, making an average yield of 32 bushels per acre and 48 darso demonstrations with 28 reporting making an average yield of 27 1-2 bushels per acre.

There were 541 cotton demonstrators, 297 of whom made reports. Those reporting averaged 578 pounds seed cotton per acre, which was 253 pounds above the state average on similar land. There were 185 tomato demonstrations and 98 reporting with an average yield of 184 bushels per acre. There were 360 wheat demonstrators, 254 of whom made reports. The average yield of those reporting was 23 1-2 bushels, which is 13 bushels more than the average yield of the state. There were 180 oat demonstrators, 131 of them reported an average of 36 1-4 bushels. There were 16 rye demonstrations making an average of 19 bushels per acre. There were 141 barley demonstrations and 85 reports showing an average yield of 23 2-3 bushels per acre. There were several other small grain demonstrations of various kinds, but not of much importance at the present time.

More interest was shown this year in hay crops and tame pasture grasses than ever before. The records show 227 alfalfa demonstrations with 168 reports, 18 clover demonstrations with 8 reports, 307 sweet clover demonstrations with 214 reports, 5 Hubam clover demonstrations with 4 reports, 6 demonstrations of a mixture of red clover and timothy with 1 report, 4 demonstrations of a mixture of bermuda grass and sweet clover with 3 reports, 2 demonstrations of burr clover and bermuda grass with 2 reports, 5 demonstrations in lespedeza with 5 reports, 11 demonstrations in millet with 4 reports, 227 demonstrations in sudan grass with 157 reports, 3 demonstrations in barley and rye with 3 reports, 4 demonstrations in Johnson grass with 3 reports, 71 demonstrations in sorghum cane with 43 reports.

There was a great interest in summer legumes as shown by 34 demonstrations in soy beans with 25 reports, 245 demonstrations in cowpeas with 170 reports, 25 demonstrations in velvet beans with 2 reports, 173 demonstrations in peanuts with 126 reports.

The report in horticulture shows 207 Irish potato demonstrations and 153 reports with an average yield of 93 1-2 bushels per acre, 193 sweet potato demonstrations with 189 reports showing an average yield of 147 bushels per acre. There were 349 demonstrations in home orchards with apples, 349 with peaches and 949 in other fruits.

All the agents were active along livestock improvement lines. Through their influence 35 purebred stallions, 36 jacks, and 59 brood mares were purchased. In dairy work 283 purebred bulls, and 1017 purebred cows and heifers were brought into the counties. Through the influence of the agents, 2,325 cows have been tested to determine the profitable milk production, 3,648 farmers have been induced to feed a better balanced ration to their stock.

In the beef breeds of cattle the agents influenced the bringing in of 408 purebred bulls, 1,069 purebred cows or heifers and 1,159 grade cows for breeding purposes. 14 dipping vats were built, 9 of which the agents helped construct. There were 1,203 purebred boars and 4,629 sows purchased through the influence of the county agents. They assisted the farmers in selling 4,565 purebred hogs. There were 351 hog-feeding demonstrations of which 240 kept records. The agents influenced the bringing in of 81 purebred rams and 342 purebred ewes. They assisted in the selling of 705 purebred sheep. There were 1,860 poultry demonstrations in addition to the boys and girls poultry club work.

The agents during the past year have been quite as active in animal disease work as formerly; however, farmers seem to be depending more and more upon their own efforts in the vaccination of animals for blackleg, cholera, etc. These diseases seem to be controlled much better than in the past. 52 agents own instruments for vaccination demonstrations. Many farmers have sets of instruments and do their own vaccination work. The agents report a total of 34,871 cattle and 91,366 hogs treated for various diseases, which is a much smaller number of cattle but a larger number of hogs than were treated last year. This would seem to indicate that animal disease control methods are becoming more effective, especially among the cattlemen and that a large percent of the farmers are becoming proficient in the treatment of the common diseases of livestock.

The agents advised 1912 farmers in the proper use of commercial fertilizers. There were 291 fertilizer demonstrations containing a total of 2,445 acres. The use of commercial fertilizers is discouraged in the western part of the state on account of irregular and sometimes deficient rainfall. The farmers are encouraged to take better care of and make better use of farm manure. The agents report 62 manure spreaders purchased through their influence.

The agents report a total of 2,208 silos in their counties, 72 of which were built this year. There were 81 demonstrations in the use of lime on the soil, and 66 reports were received. The soil on 236 farms was tested for acidity.

Many improvements were made on the farms and in the homes through the influence of the county agents. They report 821 new buildings erected, 955 farm buildings improved, plans furnished for 533 new buildings, 943 farm buildings painted or whitewashed, 132 home water systems installed or improved, 322 lighting systems installed, 806 farm and home sanitary conditions were improved, 938 homes screened against flies and mosquitoes, 274 sanitary privies erected, 52 septic tanks installed, 42 telephones installed, 1,291 plans furnished for systematic crop rotation, 128 drainage systems were established and 12,683 acres drained. 1,112 farmers were induced to terrace their sloping lands and a total of 29,080 acres terraced.

In the discharge of their official duties the agents made a total of 75,230 visits to demonstrators, other farmers, business men and club members, traveled a total of 489,706 miles, received at office and home relative to work 93,160 personal calls and 56,111 telephone calls, attended 3,493 meetings held under the auspices of the agent or Extension Division, attended and made addresses at 7,071 meetings of all kinds with an approximate attendance of 493,321. The agents spent 7,196 1-2 days in the office and 10,192 days in the field. They wrote 73,896 letters, prepared 3,249 articles for publication, prepared and sent out 1,141 circular letters with a total of 187,189 copies, sent out 93,840 bulletins of various kinds, made 4,000 visits to schools, assisted in 107 extension schools or short courses with a total attendance of 1,818 and were engaged in these schools 238 days. 329 club boys entered college for the first time this year. The agents were visited by specialists from College or Department 1,001 times. 59 agents report having held county fairs and 14,047 demonstrators, cooperators and club members made exhibits at fairs, a very large number of them won prizes.

PROJECT NO. 4—BOYS AND GIRLS AGRICULTURAL CLUB WORK

On July 1, 1922, boys and girls club work was combined under this project. Mrs. Frazier was made assistant state club agent and Mr. Lowery was transferred to our livestock project. Perhaps no project made greater progress this year than did the junior club work. Teachers who are relied upon to assist with the supervision of the local club have taken a renewed interest in this work. The age and grade of boys and girls doing club work is gradually rising and as a result we are getting a better quality of work than we did a few years ago. Our enrollment in these clubs has made a substantial increase and the number of reports received this year is almost three times the number received a year ago. We have no county club agents. The work in the counties is done by the county agents and home demonstration agents. We have observed that the quality of work done by club members is usually better

in counties having an enrollment of 500 to 1,000 than it is in counties having the smallest enrollments.

ORGANIZATION OF THE CLUB DEPARTMENT

Until July 1, 1922, the club work in Oklahoma was divided into two departments, the boys club work and the girls club work. Since July 1, B. A. Pratt was placed in charge of all junior demonstration work, with Mrs. Daisy M. Frazier and E. B. Shottwell as assistant state club agents. The work with the state club supervisor deals particularly with methods and organizations. The assistants in the state club department not only assist in putting over the state-wide program in club work, that is promoting all phases of club work, both boys and girls, but are responsible for certain parts of the state club program.

The entire extension staff of Oklahoma, including the county and home demonstration agents, are in sympathy with the unified county program plan of work, and are developing material particularly adapted to the promotion of permanent junior organizations of agriculture and home economics.

All subject matter is compiled by the specialists. Subject matter reaches the club member in two ways, through the subject matter bulletin, and the Extension News. The subject matter for the 1923 club program is already prepared for the year by the seasonable topic method. The extension agronomist reaches down into the junior crop club work in the same manner as he does with adult program of work, the same is true with the other phases of club work.

THE CLUB GOAL FOR 1922

1. Enrollment.—Counties with one agent should have as a minimum 150 club members, and counties with two or more agents should have as a minimum 250 club members.

2. Organization.—Counties with one agent should have at least six organized clubs, and counties with two or more agents ten organized clubs.

3. Reports. All agents should complete at least 60 percent of their minimum enrollment, that is, counties with one agent should secure 90 complete reports, and counties with two or more agents should secure 150 reports.

White Enrollment.—29,603 individual boys and girls enrolled, which was an increase of 6247 over 1921. These members enrolled in 42,807 club activities, which was an increase of 8277 over 1921. The members enrolled in different activities are as follows: Corn 5839, grain sorghum 2296, small grain 838, cotton 1309, peanut 1236, potato 1705, pig 6338, beef 639, sheep 173, dairy 338, poultry 10,588, fruit 678, bee 208, sewing 5332, canning 3205, food preparation 1725, miscellaneous 339.

Club Organizations.—The club members are organized into boys and girls agricultural clubs. The members select their officers and hold monthly meetings. These organizations keep up the interest among the members, give drill and promote leadership and greatly aid the supervising force in directing the work. There were 837 of these organized clubs in 1922, an increase of 203 over 1921.

Club Exhibits at State Fairs.—Each club member is requested to make an exhibit from his or her club activity at the county fair, and the best at each county fair is sent to the state fair at Oklahoma City and from there it is taken to the Muskogee fair. The amount offered as incentives in club work, as premiums at township, county and state fairs, judging contests, out-of-state trips and scholarships amounted to \$90,088.20. The club exhibits at the Oklahoma State Fair were as follows: Corn 340, grain sorghum 218, small grain 133, cotton 231, peanut 116, potato 162, pig 88, beef 42, sheep 2, poultry 75, fruit 147, bee 19, sewing 78, canning 240, food preparation 9. Total 1900. This number was again shown at the Oklahoma Free State Fair, at Muskogee.

Club Reports.—There was a marked increase in the number of reports received from the club members showing the results of the year's work, 17,230 having reported this year, which is an increase of 11,538 over last year.

Production and profits.—The club members have made a greater production and an increased profit the past year, the results being as follows:

	Value	Profit		Value	Profit
Corn	\$ 21,388.33	\$ 7,949.41	Pig Breeding	98,578.43	12,016.52
Peanut	10,532.56	6,425.05	Sheep	1,096.12	290.37
Potato	7,564.43	4,834.77	Beef Fatcening	116.00	207.67
Wheat	3,463.38	315.33	Beef Breeding	5,539.85	1,743.85
Oats	840.94	219.30	Dairy	21,000.00	5,200.00
Barley	254.30	127.92	Poultry	75,514.33	47,229.07
Grain Sorghum	8,071.11	3,018.29	Canning (Garden)	20,692.31	12,893.86
Fruit	3,611.22	1,763.12	Canning (Farm and Orchard)	26,272.64	
Cotton	15,966.10	8,575.31			
Bee	2,164.31	1,415.17			
Pig Fatcening	2,650.57	1,223.51	Total	\$331,687.33	\$145,418.55

Club Rallies and Short Courses.—Many of the counties held club rallies where the club members were brought together for a good time, some held short courses from 1 to 3 days at which instructions were given the members on their work and on preparing exhibits at the fairs.

Two state-wide short courses or state fair schools were held. One at Oklahoma City and one at Muskogee during the time of the State Fairs. These fair schools were held under the direction of the Club Department and continued three days. The first and second prize winners in each club in each county were awarded scholarships to the schools, first prize winners at one and second prize winners at the other. They were furnished their meals and lodging free while in attendance. Five hundred and fifty-five members attended at the two fair schools.

NEGRO CLUB WORK

Club work is carried on among negro boys and girls along the same lines as among the whites.

Club Enrollment and Organizations.—Individual enrollment 4,342, an increase of 614 over 1921; club activities 6,961, club organizations 104. Club activities are divided as follows: Corn 1026, cotton 424, potato 293, peanut 300, grain sorghum 163, fruit 63, bee 3, dairy 20, small grain 15, pig 150, calf 3, sheep 1, poultry 1250, canning 1500, food preparation 500, sewing 1250.

Exhibits at State Fairs.—There were 391 colored exhibits at each of three state fairs, Oklahoma City, Muskogee and the colored state fair at Langston.

Reports.—The number of colored club members reporting was 1657, being an increase of 1109 over last year.

PRODUCTION AND PROFITS

	Value	Profit		Value	Profit
Corn	\$6,598.13	\$1,797.69	Cotton	6,876.54	3,728.82
Peanut	5,116.39	3,148.40	Pig	3,361.25	1,436.78
Potato	1,183.65	703.75	Calf	121.50	36.30
Grain Sorghum	674.95	283.79	Canning	3,385.63	1,284.26

Colored Club Rallies.—The colored agents held club rallies in most of their counties. They were generally well attended. They always had good programs.

State Fair School.—There was a state fair school for the colored held at Langston at the time of their state fair. It continued three days. Those who attended were the first prize winners in their work at the county fairs. Forty-three members attended.

Outlook for 1923.—The outlook for club work is even brighter for 1923 than it was for 1922. The majority of the field agents have discovered that the fundamentals in the club program deal with enrollment, organization, general activities, club projects and the club report. The 1923 club goal is practically the same as 1922, except more pressure will be added to quality of reports.

PROJECT NO. 5—HOME DEMONSTRATION WORK

The beginning of the year found Home Demonstration department composed of seven members, state agent, assistant state agent and five district agents. On July 1st the office of assistant state agent was discontinued and in its place was given a specialist in food and nutrition. In August the department was again reorganized and the five districts were redistricted into four, one district agent being dropped from the list. At the same time a specialist in clothing was added. The loss in number of district agents, however, was compensated in a great measure by the placing of a woman in the club department as assistant state club agent whose chief interest should be centered in the girls club work in the field.

During the year two conferences for the home demonstration agents were held, the most important during the latter days of January and the first day or two of February. The second conference was held in connection with the Farm Congress in August. Both of these conferences were held at the A. and M. College in Stillwater.

One of the most important phases of home demonstration work is seen in the exhibits made at the fairs—community, county and state. During the past year the exhibits at all of these fairs not only show increase in numbers but a remarkable improvement in quality and appearance. It is by means of these fairs that the home demonstration agent and her work is put before the people in a visualized manner.

The beginning of the year found the department with 34 counties having appropriations for home demonstration work. In 32 of these counties there were agents and agents were put on in the other two in January. During the spring and summer one county was lost. Two counties that had had agents but discontinued the work were reclaimed and contracts were sent in from seven new counties. In four of these agents were placed. In one the appropriation was cut off before an agent could be placed there and in two counties the contracts were rejected because they were not satisfactory. Thus during the year the staff of 34 white home demonstration agents grew to 39 by its close. In all the counties the work is progressing well, expanding in a steady growth that may be a little slow in some counties but everywhere it is improving in quality. Standards are being raised and more interest is being shown in the work and its support is greatly strengthened. Never before have the county contracts for home demonstration agents come in with so little solicitation from the central office. The agents are all planning better programs and are more nearly completing them. The project work carried on by them shows that the agents are obtaining good results. During the year twelve of the counties having home demonstration agents have made out unified county programs. These programs vary somewhat but are alike in essential features. Many more counties are planning during the next year to make out these unified county programs.

Club work is on a better basis and is progressing more rapidly than ever before (see report of Club Department). Club programs form a part of every home demonstration agent's program and supervising officers are giving more time and attention to this part of their program. Adult home demonstration club work is growing rapidly. During the year the programs provided for the adult home demonstration clubs have been revised. In seventeen counties county federations of farm women's clubs have been formed. These federations are an advanced step in our adult club work and give an opportunity to the women to take up county-wide projects. The growth of our club work, both junior and adult, is really the outstanding piece of work in the field during the year and marks particularly growth in systemization of the agents through the organization of their workers. Here are the figures to show this growth:

Last year number of clubs, girls, 654, membership 7372; women, 150, membership 2200. This year number of clubs, girls, 837, membership 10262; women, 288, membership 5232.

The projects in which the members of the home demonstration force are interested are food and nutrition, clothing, dairy, horticulture, and poultry.

In food and nutrition several phases of work are carried on. In the preservation of food we have had 2448 girls and 1841 women enrolled as demonstrators—1612 girls reporting and 1462 women. These report for girls 80987 quarts of fruit and vegetables canned and for women 1,100,571 quarts of fruit and vegetables canned, while in the

meat project the report is 109315 lbs. of meat canned by the 710 demonstrators reporting. During the year 746 pressure cookers were sold which shows that newer methods of preservation of food are eagerly being taken up. Under the food project also valuable work has been done in milk and milk products—our 737 adult demonstrators having reported 389744 pounds of butter sold at a total value of \$26808.82, 396499 gallons of cream sold at a value of \$98965.88. 11098 children have been benefitted during the year by an increased use of milk. 2754 rural schools have put milk into the school lunch and 4792 children are drinking milk at school.

In clothing, while the work of the specialist is quite new there have been more than 4000 girls enrolled as demonstrators and more than 1000 women. 2439 girls have reported that they have made 15697 articles in their club sewing, ranging from caps and aprons up through table sets, curtains and hats. Our 914 women who reported have many articles to their credit, not the least among which stands 1087 dress forms made with 2271 garments remodeled.

Our poultry project represents to our demonstrators the chief source of income that home demonstration work affords. We have had during the year 5658 girl demonstrators and 1274 women. Of the girls 3307 reported and of the women we have reports from 914. Here is just a glimpse of the results of their work as it stands:

	Girls	Women
Total value of all chickens and products sold	\$17,145.36	\$ 93,991.83
Total value of chickens and products used at home	10,588.03	326,400.23
Total value of increase in flock on hand	25,499.72	153,635.67

The totals for these figures show that \$43233.11 represent the poultry project for our girls in dollars and cents and \$574027.73 for our women.

Interest in the subject of horticulture is increasing. Early this year there were 2386 girls enrolled in garden demonstrations and 1439 women. 1369 girls reported and 1009 women. The reports from these women and girls on their garden work are as follows:

	Girls	Women
Fresh Vegetables		
Total number of pounds yield	388,303	874,204
Total number of pounds sold	63,302	142,278
Value	\$3,885.89	\$5,793.19
Total number pounds used at home	25,348	443,603
Value	\$9,104.04	\$17,350.96
Total number of pounds canned or preserved	114,993	326,569
Fresh fruits:		
Total yield in pounds	63,051	2,397,978
Total number of pounds sold	8,964	623,480
Value	\$10,470	\$42,266.14
Number pounds used at home	52,163	540,192
Value	\$1,000.05	\$42,894.05
Number pounds canned or preserved	64,964	454,745
Number of demonstrators in flower gardens	1,843	657
Number reporting	564	503

Since dairy work has been conducted in cooperation with the food and nutrition work the results of it have been mentioned under food and nutrition.

The outlook for the home demonstration work is very encouraging. Through the adult home demonstration clubs as well as through the interest of the juniors in the junior clubs the work is being placed on a more permanent basis. Closer cooperation between agents and supervisors is being stressed and can only result in a more clearly definite program in more well directed efforts and in more definite and worthwhile results.

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PROJECT NO. 7—WORK FOR NEGRO MEN AND BOYS

Our work with negro men and boys has gone forward in a satisfactory manner. Our negro district agent has been given headquarters at the Negro Agricultural and

Normal University at Langston. Our cooperation with this institution has been very helpful in promoting this work. Nine agents are employed in counties having the largest colored population where they have been getting very satisfactory cooperation and very good results. Most of these agents are up to the standards in preparation and experience for this work. The exhibits as shown at the fairs this year showed a marked improvement in quality which is a fair indication that these people are profiting by the work of the agents.

On account of a shortage of funds the Colored Agricultural and Normal University at Langston failed to contribute any funds this year to the work. The entire expense of it was paid from the regular extension funds of the A. and M. College and the U. S. Department of Agriculture, except that a few counties paid part of the traveling expenses of colored county agents.

White agents report having 8 negro demonstrators with a total of 393 acres under improved methods and 24 negro cooperators with a total of 512 acres under improved methods. 16 negro farmers planted pure seed on their demonstrations, 10 of whom have been influenced to select seed for next year's crop.

J. E. Taylor, negro district agent, reports in part as follows:

Agricultural extension work with negroes has been carried on in the following counties:

Kingfisher, Logan, Oklahoma, Lincoln, Okfuskee, Seminole, Okmulgee, McIntosh, McCurtain, Muskogee and Wagoner under the direction of nine county agents, four home demonstration agents and one supervising agent.

The men, save one, have fair to good office quarters, with an average of fair equipment. All have typewriters, furnished by themselves, and desks with limited space for filing records and reports. Some of them have classified or indexed files for reports and bulletins; while records are kept on forms furnished from the A. and M. College, Stillwater. These records contain lists of demonstrators together with the projects carried on. No stenographic services are available to the agents—all do their own clerical work.

There is a lack of sufficient filing equipment in all the men's offices. Some have roll top desks with filing cases attached while others have improvised desks.

Three-fourths of the men have vaccinating equipment; about half of them have access to farm levels but no agent's office owns one. One-third of them have pruning and spraying equipment. None have motion picture projectors, but three or four can arrange with local theatres to put on such pictures as they may secure.

A six-day agents' meeting was held at Langston, June 19 to 24, attended by all the colored agents. The lecture work was done chiefly by the district agents and specialists from the A. and M. College. A good program was carried out.

Following the practice of the previous year, this course was held while the summer school for teachers was in session in order that we might bring our program work before the teachers of the state, since their cooperation in carrying out our club work plans is so much desired. The results in this connection were highly satisfactory.

Program.—Our programs in the various counties were for the most part outlined by the county agent, assisted by the supervising agent, and agreed to by the county and community people. Major portions of these programs were put over with fair to good success.

Community programs are so made that they fit into and become the component parts of the general county plan of work.

Project Activities and Results.—In the field crop work, we are working toward standardization of varieties and methods of handling crops. In Okmulgee county, Agent Mann reports that a very large majority of his farmers use the same variety of cotton, Acala No. 5.

In Okfuskee, McCurtain, Logan, Okmulgee and Muskogee, the standard of corn has been much improved by selection and supervised distribution of pure seed. A few farmers and club members have been selected and supervised closely in the growing of seed which has been sold at moderate prices to other farmers and club mem-

bers. Agent King, Muskogee, arranged to furnish seed to about thirty boys who are to return one bushel of seed corn which will be distributed to other boys or men. Agent Hill, Okfuskee, got ten men to furnish pure seed to their boys on condition that the boys in return should furnish seed to their fathers to plant the next crop.

In livestock work, efforts to rid the farms of scrub sires are pushed strongly. Reports from the counties covered by the agents' activities show the following purebred livestock secured:

Boars 132, bulls 34, jacks 19, stallions 15, rams 1, ewes 12, gilts 67, cows and heifers 35, mares 6, herds of hogs started 27, beef cattle herds 9. In the cases where herds have been started, it is either a club boy's herd, or the father has been influenced to take the step from the success his boy had with his club pigs.

Four-fifths of the cattle mentioned are dairy cattle, and are owned in numbers varying from one to four. Nineteen cream separators have been bought. The Lima High School owns a Babcock tester and tests free of cost for any of its patrons. Several have had tests made of their milk and steps to replace non-payers are under way.

Poultry.—Lincoln, Kingfisher, Okfuskee, Seminole and McCurtain counties have done a great deal of work in poultry raising. Seminole already has a breeder's association to foster the purebred poultry spirit. It starts with six breeders about Lima with a number who are weeding out the scrubs.

Club members have taken the lead in poultry improvement work. Reports show that poultry management on three hundred sixty farms has been improved as a result of the agents' influence and that eleven thousand birds are kept on these farms.

Orchards and Gardening.—Pruning and spraying are being accepted as a means of improving fruit quality and production. Agents' reports show 3867 trees inspected in 61 orchards; 3287 trees pruned in 56 orchards; 1170 trees sprayed in 29 orchards; 441 trees planted in 11 new orchards; 140 trees treated for borers in 7 orchards; and 7390 trees cared for in commercial orchards.

Soil Improvement.—This phase of work is attacked by use of barnyard manure, lime, crop rotation, terracing and ditching.

Efforts are made to turn into useful channels all the wastes of the farms. 305 farmers have been influenced to take better care of barnyard manure. 37 have built manure sheds. 13 are composting waste products about the farms.

In Okmulgee and Muskogee counties, lime on acid lands was used by fourteen farmers this year and though the effects were not glaring, it is clear that the productivity of the soil treated has been increased. The physical condition of the land was very noticeably improved. Lime was applied at the rate of about two tons per acre. Ninety acres have been treated with lime. On 24 farms, systematic crop rotation is being practiced on 1067 acres.

Terracing is urged and is being practiced in all the counties. Thirty-three farmers have terraced 625 acres of land. 1368 acres are drained by ditching. Stumps have been removed from 432 acres on 18 farms. Nine drainage systems have been established.

Organization—County and Community.—Six agents report organizations on county-wide basis. The organizations support the work of the agents by aiding in working out plans and organizing methods for putting the plans over. Through their aid, the people get more direct knowledge of the purposes and policies of county agent work, which insures better cooperation.

2777 farm people are working through 84 community clubs; 21 clubs with 500 members have been formed this year. Eight clubs have ceased to be active this year, largely due to lack of direct aid from the agents. These losses are confined to four counties.

Cooperative Marketing.—Selling: The only cooperative selling among our farmers this year was cotton through the Oklahoma Cotton Growers Association. General satisfaction from sales has been expressed.

Club Work.—Club work has received a very liberal share of the agents' time and activities. So much of the present hearty cooperation we have is primarily due to the influences club work has had on parents, teachers, clubs and communities. Club work is directed along the same general lines as the adult work. Because of the vitalizing influence of club work in the schools, teachers fairly demand that they have clubs in their schools.

There were in the several projects carried out this year the following:

874 enrolled in corn, 380 of these reported 14,310 bushels from 350 acres, an average of 40.9 bushels per acre. Average cost of production 29 cents per bushel.

387 boys joined the peanut club, 200 of these boys grew 4,361 bushels on 147 acres, at an average cost of 48 cents per bushel. 32 of these boys reported 6½ tons of peanut hay fed to farm animals.

19 joined the Irish potato club. 15 boys on 3 3-8 acres grew 339 bushels. Average cost 34 cents per bushel. 197 boys grew sweet potatoes. 70 reported 2,370 bushels from 35 acres, cost per bushel 31 cents.

142 boys grew grain sorghum. 58 of these produced on 48 acres 1,626 bushels at 32 cents per bushel. Of 429 cotton club boys, 143 grew 68,293 pounds on 118 acres, or 578 pounds per acre, cost of production 3 1-2 cents per pound. Two of the 6 wheat club boys made 18 bushels per acre. Cost 44 cents per bushel. Three boys made an average of 40 bushels of oats per acre on three acres at 25 cents per bushel.

190 boys did livestock work. The 74 who reported raised 200 animals including pigs, fattening and breeding; calves, beef and dairy; and one boy is growing sheep. While these boys did not keep accurate records for the most part, there is profit for most of them.

These club members work through 110 chartered clubs. Their activities exert great influence on community life. It has been easy to form adult clubs in places where the junior clubs were active.

Our annual club rallies are held for the most part at the rural centers so as to bring the purposes and policies of club work to the notice of the greatest possible number of rural people.

The club exhibits make up the major parts of our farm exhibits and the most liberal prizes are offered on club exhibits. First prize winners are granted scholarships to a three-day short course, or state fair school at Langston University in October of each fall.

Langston University offers two \$100 scholarships to girls and one similar scholarship to boys each year, who make the best record in club work.

Fairs.—Our fair program contemplates community, township, county and state fairs.

There were fifteen community fairs held in exclusive colored communities. At nine of these fairs there were one thousand, seven hundred and forty-six exhibits shown, reported to be of a high average quality.

In two counties, Okfuskee and Muskogee, colored fairs on county-wide scales were held. These two fairs were great demonstrations and lent much impetus to the spirit of cooperation among colored farmers.

At these fairs 1700 exhibits were shown which were well distributed among farm and home products.

Again, there were fifteen fairs held where colored and whites exhibited on the same grounds at the same time. There was separate space and composition for the colored and white groups in most instances, with generally satisfactory premium offerings for each group.

PROJECT NO. 8—WORK FOR NEGRO WOMEN AND GIRLS

The negro home demonstration work was carried on in six counties by four agents. The total enrollment was forty-one adult clubs with a membership of 500 women and eighty-six junior clubs with a membership of 1,380. This enrollment of girls kept the agents very busy and had it not been for the splendid cooperation and assistance of the county superintendents in urging the negro teachers to do club work, the results would have fallen far short of our expectation. As it is, the

cooperation between the agents and teachers is fine and in counties where there are no negro agents, splendid work has been done in several negro rural schools by the teachers under the direction of the white agent. The most outstanding feature of the negro home demonstration work this year has been the women's work.

The demonstration work was carried on in the following counties by the following agents: Edna L. Lewis, Lincoln county; Ethel White-Brewer, Muskogee county; Annie P. Hunter, Okfuskee county; Maud Smith, Okmulgee and McIntosh counties.

The agents are all good organizers and with the help of the teachers and county superintendent, who are faithful believers in club work, the organization of junior clubs was carried on early in the year. The adult clubs are an outgrowth of junior work and never before have we had so much interest taken by the negro women in club work. After the club rallies in the spring, negro women clamored for club work, and the agents easily organized all the adult clubs they could care for. Lincoln led off with seventeen clubs with an enrollment of 195. Okmulgee and McIntosh with eleven, Okfuskee six with an enrollment of 130 and Muskogee and Wagoner seven clubs with 175 members.

Lincoln County has for two or three years been organizing what they called Farm Bureaus. Men, women and children all meet together for a community program, then they have these organizations divided into committees and the chairman of these committees make up the advisory board. The farming in these communities has been improved and practices in better farming are adopted by the whole community. These community committees are a great help in putting on district fairs, club rallies and public meetings. When the Braggs community club was organized on March 17, 1922, two neighboring school districts came together with a big dinner for 100 people and out of this meeting an agricultural club and a woman's club were organized and have been doing good work ever since.

It was found in carrying on the milk campaign in Okmulgee county that almost every home had a cow and that the children were using milk. The school children in Okfuskee county look well fed and hearty and at a meeting in McIntosh county the school children all held up their hands that they had cows and drank milk so we are pretty well satisfied that among the negroes the importance of milk in the diet is recognized.

The women's clubs of Okfuskee county are doing much to encourage the use of more milk in the home and more people are interested in dairy work. Three cream separators have been sold there lately and are being successfully used.

Work with poultry is encouraged a great deal by the school house poultry shows and in this Lincoln county took the lead with 30 shows, 455 birds and 119 dozen eggs in exhibit, 152 children exhibiting, 1151 children and 393 adults attending these shows, and \$190.25 paid in premiums.

Okmulgee county came next with 28 shows and 630 birds exhibited, and \$175 paid out in premiums. This was the first year these shows had been held and they were a fine stimulant for poultry work and the junior poultry club enrollment was three times what it had formerly been.

Okmulgee county held six shows and Muskogee county held eight shows with 250 birds exhibited. These shows are held according to the Jackson Poultry Law of Oklahoma regarding school house shows and are and have been very helpful in promoting the poultry industry in the state among the junior clubs.

More work has been done in nutrition by the milk campaign than any other line of work. These campaigns have also encouraged school lunches. In Okfuskee county six schools are serving hot lunches. Okmulgee county has six schools serving hot lunches and the milk campaign was carried into 21 schools.

The preservation of food by canning was the first work done by the negro agents and so well have they carried on this work through the girls that the women have taken it up, and now gardens are raised because the vegetables can be canned. The fair exhibits are good and the homes are better provided with food than ever before. Forty-seven canners are reported purchased, seven being steam pressures.

In Okmulgee county, it being an oil county, many of the negro women raised garden vegetables to sell and they say they are making as much money as they ever made from cotton.

When the adult clubs were started in Lincoln county in the spring everybody wanted to sew and the agent started them on dish towels and dresser scarfs with applique patterns and fancy stitches and there surely was a lot of sewing done. At a women's club meeting in June, the supervisor attended, every one of the thirty women present brought a piece of sewing she had done or tried to do. These were criticised and praised and instructions given and they were happy women. The girls in this county did good sewing and sent in sewing reports that made a grade of A on almost every one.

Okmulgee county did good work in sewing. They did quite a bit in made-over clothes. The women gave the garments and then met under the supervision of the agent and made them over for poor people. They also made stocking dolls to sell to help buy a church piano.

From McIntosh county comes the story of Nellie Clay, secretary of the club, who, after attending a club meeting at which sewing instructions were given, cut out 20 aprons and 15 caps for the girls. She made a vine arbor in the yard and moved her sewing machine out there from the little one-room hut she lived in.

Ninety hats were made in Okmulgee county by women and girls. Sixteen in Muskogee county, fifteen in Lincoln county and ten in Okfuskee county.

Negro health week was observed the first week of April. Lectures were given by preachers, teachers and agents and posters were distributed. Lincoln county had 52 lectures given and they held a baby show under the supervision of the state nurse, agent and local doctor. The one thing the negroes do try to do is to get the houses screened. In Lincoln county at Chandler a screening campaign was put on with good results, and the other agents report favorably on this subject.

Five club rallies were held in Lincoln county with seventeen clubs taking part. The county superintendent attended all these rallies and talked to the parents about community welfare. Okmulgee county had one big rally with 400 present and Okfuskee county had two after a series of very definite club meetings telling them just what to do. Muskogee had one rally and McIntosh one. These rallies came in the spring and the fairs came in the fall. The fair board of Okfuskee county decided to let the negroes have their own fair at Boley, the largest negro town in the state, so they turned over their share of the money to them provided they would furnish the fair ground which they did and they worked hard all summer to put it over. The women canned and made quilts and did all kinds of work to make a good fair.

Okmulgee always has a good negro exhibit at the county fair. Lincoln county also made a good colored fair exhibit. Muskogee county without any fair money or prizes held a very successful negro fair at Taft, attended and addressed by the governor of the state. Pictures of it are shown in the agent's report.

PROJECT NO. 9—POULTRY CLUB WORK

Two major lines of progress in poultry work are claiming the interest of our poultry producers. One is breeding to maintain and to improve the quality of varieties according to the standard of perfection and the other lays more stress on production. We have had a fair degree of success in meeting both of these problems. School house poultry shows, township fairs, county fairs, state fairs, county poultry shows and a state poultry show afford numerous opportunities to encourage progress from the standard of perfection point of view, while our program of housing, feeding and culling gives emphasis to production problems. Poultry is more and more becoming one of our important industries and a great deal of demand is made on our specialists for assistance. Perhaps the next step in our poultry work should include some phases of marketing poultry and poultry products.

Chas. M. Smith, poultryman in charge of this project resigned July 31, 1922, and his assistant, E. O. Edson, resigned October 31, 1922. P. H. Hayes was appointed leader in the poultry project August 3, 1922. Mr. Hayes reports as follows on the year's work:

We have special projects located in 18 different counties in the state and 36 people are taking part in this phase of the work. We are making monthly visits to

each one of these demonstrators and it is our ultimate aim to build their flocks up to a standard that we may establish certified flocks.

We have made arrangements for conducting our poultry culling school in four counties thus far and expect to hold twelve such schools, beginning the first of April and ending the last day of June.

To these two projects we expect to devote not less than seventy-five percent of our time, believing that this is the only method to get some real, concrete, definite results and records that will be authentic and can be relied upon.

In junior poultry club work there are 77 counties organized with 10,794 members. There have been mailed out 50 posters, 15,942 poultry bulletins and 26,160 record books. 4,225 club members have reported, 161,435 eggs were set, 112,900 chicks were hatched and 80,252 chicks raised, 1,658 compositions on poultry were submitted.

BUSINESS ACCOUNT

CREDIT		
Fowls sold	12,617	\$17,255.60
Eggs sold	100,919	4,816.38
Fowls on hand November 1	33,525	69,530.92
Houses and coops built	1,810	3,715.89
Prizes won		5,229.31
Total		\$91,078.16
DEBIT		
Poultry houses and coops built		\$ 3,215.89
Cost of eggs for hatching		5,129.62
Cost of breeding stock		2,619.89
Cost of feed		9,766.16
Total		\$20,761.86
Receipts		\$91,078.16
Cost		\$20,761.86
Profit		\$70,316.30

Poultry Work With Adults—Men

Number of poultry demonstrations		1863												
Number of each kind of poultry grown and cared for according to methods advocated	}	<table border="0" style="margin-left: 1em;"> <tr> <td>Chickens</td> <td style="text-align: right;">196025</td> </tr> <tr> <td>Ducks</td> <td style="text-align: right;">1250</td> </tr> <tr> <td>Guineas</td> <td style="text-align: right;">287</td> </tr> <tr> <td>Turkeys</td> <td style="text-align: right;">12866</td> </tr> <tr> <td>Geese</td> <td style="text-align: right;">1016</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: right;">211174</td> </tr> </table>	Chickens	196025	Ducks	1250	Guineas	287	Turkeys	12866	Geese	1016	Total	211174
Chickens	196025													
Ducks	1250													
Guineas	287													
Turkeys	12866													
Geese	1016													
Total	211174													
Number of farms on which poultry management has been improved		8381												
Number of birds on these farms		513291												
Number of communities adopting standard variety of poultry		95												
Number of cream routes on which poultry products are collected		168												
Number of flocks culled		7515												
Number of birds in flocks culled		137866												
Number of birds eliminated through culling		48759												
Number of farmers induced to raise standard bred poultry this year		2721												
Number of demonstrators induced to practice early hatching		1161												
Number of winter feeding demonstrations		216												
Number of birds in these demonstrations		27131												
Number of new poultry houses erected		483												
Number of poultry houses remodeled		621												
Number of communities in which poultry demonstrations were conducted		592												

Poultry Work With Adults—Women

Number of communities in which demonstrations were conducted		328
Total number of demonstrators enrolled		1271
Number reporting		911
Number of other people improving practices from success of demonstrators		412
Number purchasing standard bred eggs		1217
Number dozen standard bred eggs purchased		10512
Number using incubators		1097
Number purchasing standard bred baby chicks		3199
Number using brooders		575
Number purchasing standard bred breeding stock		610
Number standard bred chickens purchased		5124
Number using standard bred males to improve flock		1538
Total number standard bred chickens raised		117230
Number poultry houses built		325
Number poultry houses remodeled		491
Number flocks culled		738
Total number in flocks culled		80972
Total number birds eliminated from flocks culled		31667

Total egg production, in dozens	914436
Number flocks producing infertile eggs	297
Number dozen eggs sold cooperatively	30
Number of egg circles organized	1
Number dozen eggs used for hatching	199653
Number breeders' associations	19
Number dozen eggs used at home	407696
Number dozen eggs sold (by individuals)	1824572
Number dozen eggs preserved in water glass	4345
Number standard bred eggs sold for hatching	40986
Number standard bred chickens sold for breeding purposes	6589
Total value of all chickens and products sold	\$ 93991.86
Total value of all chickens and products used at home	326400.23
Total value of increase in flocks on hand	153625.67

Equipment Made

Number self feeders	325
Number water fountains	361
Number candling lamps	305
Number egg carriers	423
Number of other equipment	218

PROJECT NO. 12—DAIRY EXTENSION WORK

Oklahoma has not yet developed into a commercial dairy state. A few commercial dairies are conducted where satisfactory markets are had for whole milk but the bulk of dairying centers around the family dairy and the sour cream producer. Our principal problems are to get a family milk cow on every farm, establish correct practices in feeding dairy cows and in raising the standard of production. Milk campaigns were conducted in two counties to encourage the use of milk and we have consistently urged that every farm family keep a cow. Considerable work has been done in rendering assistance to farm families in introducing proper methods of feeding and handling products from the family cow. With the commercial dairies the work has dealt largely with feeding and testing. This is a very important project and is creating considerable interest.

C. W. Radway, dairy specialist, was the leader of the dairy project until June 30, 1922, when he was succeeded by J. W. Boehr. The following paragraphs are taken from the annual reports of Mr. Radway and Mr. Boehr:

There is an increasing number of farmers asking for information on feeding for milk production, also for milk record sheets. This indicates a splendid growth of the cow testing club sentiment and cow testing associations where there is a sufficient number of cows.

The summary of the cow testing work for the past eighteen months indicates the great need of this work. The following figures were obtained on 436 cows:

- 37 cows, or 8.4%, produced below 150 lbs. fat in one year.
- 131 cows, or 30.0%, produced between 150 and 200 lbs. fat.
- 120 cows, or 27.5%, produced between 200 and 250 lbs. fat.
- 99 cows, or 22.7% produced between 250 and 300 lbs. fat.
- 44 cows, or 10.0%, produced between 300 and 350 lbs. fat.
- 5 cows, or 1.4%, produced between 350 and 400 lbs. fat.

This does not include all cows on official test. From these records we find that approximately 40% of the dairy cattle in Oklahoma are failing to return a profit. This low average is due to two causes. 1st, poor cows, and 2nd, poor feeding methods. The cow testing clubs have shown clearly that better cows are needed and at the present time there is a strong demand for high grade and registered dairy cattle. Business men and the commercial organizations are showing a keen interest in promoting the dairy industry.

Many farmers as well as the business men have been a little slow to realize the importance of proper care and feed. There is a tendency to ship in large numbers of cows where there is not the proper preparation in the way of home grown feed, winter pastures and proper forage.

There is a marked improvement in the marketing facilities of dairy products from the farm. One year ago there were twelve counties without a market for sour cream, but at the present time every county but three has a fine market for sour cream in

any amount. This gives every farmer who will milk cows an opportunity to sell a little cream.

There is a tendency in many places to consider dairying a temporary industry and consequently these farmers do not have any definite plan for improving their herds. There is too little interest in these places in cooperative bull clubs to expect any marked improvement in the dairy herds.

Dairy extension work is being done in Oklahoma in full cooperation with the county agents, in fact, no dairy work of any kind is started without first conferring with the county agent and discussing the plans in detail. The district agent is also advised as to plans and in this way he can advise and give valuable assistance.

Splendid assistance is being received from the Smith-Hughes men, particularly in the cow testing clubs and junior dairy clubs. There is a splendid field for further cooperation with the Smith-Hughes men as the nature of the dairy work needs close supervision and can be carried out better under their supervision than any other way. This is particularly true in the cow testing club work.

The dairy extension work is carried on by means of definite projects in the various counties. In a few counties two or three projects are under way, but as a general thing only one project is started in a county. A project when once decided is presented by means of demonstrations, lectures and personal visits to those interested.

The kind of project attempted and methods of presentation depend upon the following factors:

1. Need of community.
2. Attitude of people toward project.
3. Influence of work in community.
4. Relation of project to general program.

The following phases of dairy extension work have been started during the past six months:

1. Cow testing clubs.
2. Promotion of purebred sires.
3. Feeding demonstrations.
4. Junior dairy clubs.

In addition to these four definite phases of dairy work, some time has been given to miscellaneous work, particularly along the following lines:

1. Promotion of official testing.
2. Marketing, care of milk, milk campaigns.
3. Meetings and short courses.
4. Buildings and improvements.

Cow Testing Work.—Only one cow testing association is in operation at the present time in Oklahoma, this one being in Tulsa county and under the direct supervision of Roy Anderson, the Smith-Hughes teacher at Consolidated School No. 2, of Tulsa county. Mr. Anderson has conducted the testing work for the past eight months in connection with his school work. The record books have been kept in splendid shape and the work in the Tulsa association is in excellent condition. There are fourteen herds in the association.

In addition to this association there are several men keeping private records of their herds, several of them doing the work under the supervision of the county agent and dairy specialist. In such work those interested in the testing meet at some central point for the purpose of testing milk, making up the books and getting information about feeding. This work, called cow testing club work, is under way at Enid, Guthrie and Ardmore.

Feeding Demonstrations.—The feeding demonstrations are carried on in connection with the cow testing clubs. Every dairyman is advised to raise as much feed for his dairy herd as he can. Pastures having three or four kinds of grasses and cared for regularly are recommended. Also, Sudan for summer pasture has been recommended in most all cases. The dairyman is assisted in figuring out a ration that will balance with his pasture and the kind of roughage.

Junior Dairy Clubs. During the past six months no new junior dairy clubs have been organized but the ones already under way have been carefully supervised to the end that they might prove successful. Some of the club heifers were purchased while prices were still very high and some criticism was directed against the club for that reason, but due to the careful supervision of the county agent and the cooperation of the club members there were no serious losses and the clubs taken as a whole were a decided success.

Adult Work. The attitude of breeders and farmers is very friendly and five hundred requests for bulletins on feeding dairy cattle have come in. Also, requests for barn plans, disease control, literature, bulletins on calf raising, information on dairy cattle for sale, milk campaign slides, films and circulars, market guidance, milk and feed record sheets, and other information have been requested, so much interest is manifested. Demonstrators for these definite projects were easily secured. Assistance to breeders and farmers was rendered as a result of these requests. More calls came in for dairy addresses, demonstrations and assistance to dairymen than we could fill.

Publicity. Articles concerning dairy progress in Oklahoma have been published in the Jersey Bulletin, Holstein-Friesian World, Hoard's Dairyman, Oklahoma Farmer, Oklahoma Farmer-Stockman, and fifteen county papers of the state. The press is friendly and practically all editors are cooperating with dairy movements and publicity.

Advanced Registry and Record of Merit Work. Official testing is growing rapidly and wherever registered herds are found, the value of records is emphasized. This has resulted in demands for test supervisors far above expectation. A one hundred percent increase in tests over last winter's work is gratifying. Good prospects of still more increase, especially in seven day work is in view.

Dairy Short Courses. A six-day dairy survey was carried out in Muskogee county followed by evening meetings in six communities of the county to stir up interest in dairying. The evening meetings were devoted to elucidating the benefits of dairying, feeding methods, dairy herd management, cooperation and diversified dairy farming. Definite dairy projects will follow up this work in 1923. The results of this work are manifold. Several purebred sires have been placed. Purchases of good grade and some registered cattle have increased dairy progress. Requests for barn plans are coming in. A dairy sale of registered Jerseys netted higher prices than average sales of dairy stock.

In Murray county a four-day short course was conducted, and meetings were held in four communities. Similar talks as at the Muskogee county meetings were delivered. Judging demonstrations were given in each community. The results are gratifying, as more cream is sold and demand for dairy literature is strong.

In Marshall county, the three-day junior club short course was held to emphasize dairying and club work in general. Dairy talks, dairy films and judging demonstrations featured in the program.

The Choctaw county dairy short course lasted two days and a visit to the fifteen projects completed the work. Feeding, judging, management of diversified dairy farm, and cooperation among dairymen were all emphasized.

To meet the increasing demand for barn plans it has been necessary to prepare a series of blue prints of a southern type of a dairy barn. The barn plans published almost universally are not suitable to Oklahoma conditions. So the dairy specialist and the specialist in farm engineering prepared several plans for barns adapted to the south. An open shed, combination horse and dairy barn, and three plans for dairy barns, which indicate adequate ventilation and lighting facilities are now available. Most economic construction methods, sanitary features and conveniences prevail in these plans.

Dairy Cattle Purchases.—The shipping in of grade cows consisting of culls in part is met with strong disapproval by extension workers, progressive dairymen, business men and educators. To counteract this movement, a dairy cattle purchase

project has been planned and put into operation. In this project, the dairy specialist, county agent and purchaser work in harmony to bring into the community some registered or high grade dairy cattle of good type, free from disease and with splendid production records. This project has been carried out in Wagoner, Muskogee and Okmulgee counties.

Dairy Organization in Oklahoma.—Three state dairy organizations met in the summer and some progress is evident. The extension specialist works with these associations. The dairy department of the A. and M. College outlines the work for the association and practically all of this guidance is followed.

In the past five months the extension service was instrumental in helping several dairymen to form county organizations. The Guthrie Dairy Association, Okmulgee Dairymen's Association, Major County Dairy Association and Carter County Holstein Company were organized.

The Love County Bull Association near Marietta has fifty members. Charles T. Conley is secretary. Four Holstein bulls are owned. Forty purebred cows and two hundred and thirty grades are owned by members of the association. The calves of grade cows as well as those of purebred cows are all marked like typical Holsteins.

Silo Work.—Over sixty-five percent of the silos in Oklahoma are not in use. Most of these are so large in diameter that molding and spoiling are common before the next layer is needed for the average herd. Then the extreme drouth of 1922 is followed by a general shortage of roughage. Silage crops did not grow sufficiently to make good silage. The need of silage in dairy rations is not appreciated by most dairymen, and further education is needed for the realization that silage is essential in the dairy ration.

The work at present emphasizes silage as a needed dairy feed and construction of silos about ten feet in diameter, so less is wasted in feeding.

Showing of Dairy Cattle and Dairy Products.—In dairy products we find an increase of exhibits at both state and county fairs. At the Oklahoma county fair fourteen entries of farm butter and sixteen entries of cheese were judged. Keen competition prevailed.

Dairy Work for Women.—The work for women is so planned that demonstrators are active in many communities, to raise the standard of Oklahoma dairy practices. As a large percentage of women participate in the production phase of dairying, a program has been worked out so lessons and demonstrations will be given to fulfill this five fold object:

1. To teach better methods in feeding, care and management of dairy cattle.
2. To raise calves successfully.
3. To improve sanitation and health conditions of the entire dairy.
4. To teach efficient manufacturing of various dairy products in the home.
5. To assist in marketing of dairy products.

Definite outlines and plans are ready to follow up the work through the home demonstration agents.

PROJECT NO. 13—LIVESTOCK EXTENSION WORK

The livestock work was interrupted in the middle of the year by the resignation of R. W. Clark, our livestock specialist. Mr. Lowery, formerly assistant club agent, was transferred to this project July first and has continued much of the work started at the beginning of the year. Very good progress was made during the year in encouraging livestock shipping associations and in feeding demonstrations. In the past a great deal of work has been devoted to improving the quality of livestock. We now have a grade of hogs in most parts of the state that feed out about as economically as can be expected and our livestock problem is resolving itself into one of feeding and marketing. We should make further progress in providing year-round pastures, in the home curing of meat and in our feeding and marketing problems as well as in maintaining and improving the quality of our livestock.

The following is taken from the report of R. W. Clark, livestock specialist from December 1, 1921, to June 30, 1922:

COOPERATIVE MARKETING OF LIVESTOCK

Shipping associations have been established in the following counties: Major, Choctaw, Latimer and Beaver. I have visited by request of county agents, Lincoln and Woods counties to help establish shipping associations, but to my knowledge this has not been accomplished yet.

The results secured in this work are most gratifying. From March 2, 1921, to January 28, 1922, Major County Shipping Association handled 1965 hogs and 42½ head of cattle, totaling a business of \$51,840.77.

The Choctaw County Shipping Association up to April 30 had made four shipments, totaling 483 hogs, with a saving to the farmers of \$2,434.81. The saving to the farmer per hundred varies from \$2.50 to \$3.50. Since April 30 several more cars of hogs and some cattle have been handled, considerably increasing the above amount saved to farmers.

The great value of this association has been to encourage farmers to raise more livestock and to give it better care. The effects of this association on the farmers, coming at a time when the boll weevil threatens the cotton crop, have been almost electrical.

The Beaver County Association, though just started, is doing good work and the county agent reports that the farmers are well pleased and encouraged by the results secured.

Latimer County Association is planning on making its first shipment the forepart of July.

Extension Schools.—Several very excellent schools were held during the winter; two of outstanding quality, one at Blue Grove, Jefferson county, and the other at Marietta, Love county. At these schools the farmers took the work like children, taking notes, figuring, etc., in the lecture work and using the score card in the livestock judging work. As a result of this work, according to the district agent, many demonstrators were secured in crop and animal production.

The farmers near Marietta have requested that more work of this kind be given them and it shows that extension schools of several days duration are successful when properly handled.

In addition to the above schools, others were held in Custer and Garvin counties.

Institute meetings were held in the following counties: Okfuskee, Dewey, Latimer, Cimarron, Texas, Beaver, Logan, Custer, Major, Roger Mills, McCurtain, Choctaw, Garvin, Okmulgee, Atoka, Ellis, Woodward, Lincoln, Cotton, McClain, Bryan, Marshall and Washington.

I have assisted in the various phases of boys' and girls' club work in the following counties: Beaver, Custer, Roger Mills, McCurtain, Choctaw, Garvin, Atoka, Ellis, Marshall, Latimer and Kiowa.

The following is a numerical summary of work done during the period from December 1, 1921, to June 30, 1922: 157 days were spent in the field and 27 in the office; held 25 consultations; two long distance calls; wrote 155 letters, sent out 265 bulletins; visited 49 county agents; visited 125 farms; gave 16 demonstrations with 775 in attendance; made 87 addresses with an attendance of 5,277; in the discharge of official duties traveled 7,997 miles by rail and 2,960 miles by automobile; worked in 31 counties; visited 34 men demonstrators and 4 boy demonstrators.

Phil Lowery, livestock specialist, reports that during the year he made 178 visits to county agents, traveled a total of 23,421 miles attending 103 meetings with an attendance of 11,525; conducted 35 judging demonstrations; attended 15 fairs, 13 livestock sales and 3 farmers' short courses.

He reports that:

The Cooperative Livestock Marketing Association in Choctaw county, at Hugo, has been a big saving to the farmers of said county. Another great value of this

association has been to encourage farmers to raise more livestock and to give same better care.

During the year the Choctaw County Shipping Association has made twenty-two shipments of hogs, representing a business of \$31,120.14 and saving the farmers \$7,826.

The Craig County Cooperative Livestock Association has a membership of one hundred forty-six. Sixteen cars of cattle have been shipped during the year 1922, saving the farmers \$3,000, and one car of hogs, saving \$150.

A total of seventy-eight cars of livestock have been shipped from Major county during 1922. 4,111 hogs were shipped, saving \$8,022, 777 cattle, saving \$3,008, and 295 sheep, saving \$590, making a total of \$11,610.

The manager reports that they would have handled more livestock had it not been for the car shortage.

Livestock Judging Schools.—It has been the ambition of the Extension Division to encourage livestock judging schools both for adults and club members. A knowledge of what constitutes a good animal and the ability to see the defects in a poor one are great advantages in selecting animals for any purpose.

During the year livestock judging contests have been conducted in thirty-two counties with an attendance of 1946.

Club Trips.—This year seven livestock club members won trips to the International Livestock Show at Chicago, Ill., six of these trips being based on the high scoring individuals at the State Fair and Exposition at Oklahoma City and the Oklahoma Free State Fair at Muskogee.

These trips to the International Livestock Show are offered by the following interests: Oklahoma National Stock Yards Company, Oklahoma City; Oklahoma Stock Yards National Bank, Oklahoma City; Morris and Company, Oklahoma City; Wilson and Company, Oklahoma City; Cooperative Livestock Development Association, Oklahoma City; Armour and Company, Chicago, Illinois; Jet Community Club, Jet, Oklahoma.

These trips have been one of the greatest incentives toward developing interest in judging in Oklahoma.

I have had charge of all pig, calf and sheep club work, and have furnished subject matter and instructions to 6338 pig club members, 173 sheep club members and 639 calf club members.

I have attended fifteen livestock shows and county fairs where I have judged or assisted in judging livestock.

During the year I have attended thirteen livestock sales, where I have assisted new breeders to select foundation stock.

These short courses were general, and the farmers were well pleased with the meetings.

Meetings were held in the following counties: Garfield, Woods, and Payne with an attendance of 1150.

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PROJECT NO 14 - AGRONOMY

This project involves a number of the paramount problems of the state's agriculture. Soil fertility must be maintained and improved. Work in liming, the growing of legumes, the use of commercial fertilizers and in crop rotations is successfully meeting this problem. The difference in the adaptability of different crops is being very successfully demonstrated through varietal comparisons in the fields to the extent that total production is being increased by the growing of better varieties.

Our agronomist is also secretary of the Oklahoma Crop Improvement Association and has the assistance of this organization in this phase of the project. This is one of our new projects but it is getting under way in a very satisfactory manner.

The following paragraphs are taken from the annual report of W. J. Green, extension agronomist, who resigned June 15, 1922:

The work of the extension agronomist during the period covered by this report has been continued along the same general lines as last year. The principal projects have been as follows:

1. Soil Fertility and Improvement.
 - a. Commercial Fertilizers.
 - b. Barnyard Manure.
 - c. Legumes and Crop Rotation.
 - d. Lime.
2. Farm Crops, Cultural Methods, Variety Tests.
 - a. Corn.
 - b. Cotton.
 - c. Wheat.
 - d. Other small grains.
 - e. Alfalfa and sweet clover.
 - f. Other feed and forage crops.
3. Seed Certification.
Conducted through the Oklahoma Seed Growers' Association.
4. Miscellaneous.
 - a. Fairs.
 - b. Short Courses.
 - c. Club Work.

Commercial Fertilizers and Barnyard Manure.—The use of commercial fertilizers is a comparatively new thing in Oklahoma, in fact, the quantity now used is very small compared with what it no doubt will be in a few years. Considerable interest is being manifested in its use all over the east half of the state.

In order to demonstrate the use of commercial fertilizers and to determine its economic value when used on the standard farm crops, a series of demonstrations have been started in nine counties of the state. These demonstrations have been planned on a uniform basis so that the results obtained in various parts of the state will be comparative.

Barnyard manure is included in the tests for the purpose of demonstrating its value in comparison with fertilizers that must be purchased.

Legumes and Crop Rotations.—The results of a one crop system are beginning to be seen in many parts of the state in smaller yields due to depleted soil fertility. This fact is noticeable in both the small grain and the cotton sections. An attempt has been made to get more folks interested in diversifying their crops and using a crop rotation which would include some leguminous crop.

During the period covered by this report work along this line has been done with county agents in Murray, Pawnee, LeFlore, Seminole, Lincoln, Noble and Cleveland counties.

Lime.—An unusual interest in the use of lime on soils is being manifested in all parts of the state, especially the east side. Demonstrations conducted under the supervision of extension workers have proved that it will increase the yields of crops on many soils. In some parts of eastern Oklahoma by lime being applied, alfalfa is being grown on land on which this crop has failed in the past. There is a tendency, however, for people to use lime on soils which do not need it, going on the supposition, no doubt, that what is good for one kind of soil should be good for another. In view of these facts considerable educational work has been done along the line of testing soils for acidity and applying lime. A Truog tester has been carried on practically all field trips, and the sending of samples of soil to the office to be tested for acidity has been encouraged.

During the winter a circular on "Liming Oklahoma Soils" was written. In this publication an attempt was made to give the essential principles of the use of lime in simple terms.

Publications.—Circulars have also been written on "Wheat Growing," "Barley Culture," and "Growing Oats."

W. J. Green reports that in the discharge of his official duties 85 days were spent in the field and 59 in the office; 287 letters were written; 47 agents visited; 110 demonstrations visited and 66 other official visits; 59 addresses made with an attendance of 5,356; total number of miles traveled 7,288.

The following is taken from the report of G. C. Gibbons, who was appointed extension agronomist, August 21, 1922:

The plan of work established as a basis of procedure by the former agronomist is being followed as closely as possible with minor changes or additions.

Soil Fertility. The work in soil improvement has been so far limited to demonstrations that were placed with wheat this fall. A fertilizer test was begun with the Nunn Seed Farm at Porter, Oklahoma, in Wagoner county, as well as a variety test with soft wheat varieties. These tests have been instituted with a view of continuing them through a series of seasons.

The use of barnyard manure as compared with commercial fertilizer and the value of lime will be demonstrated by this test.

A similar test with hard wheat was placed in Canadian county. A fertility test is being conducted on the same plot as well as the value of limestone. These plots will prove the question of protein in wheat being a factor in value of seed wheat, which the farmers of that county have been agitating.

Other fertility tests are being conducted in Washington, Craig and Wagoner counties.

Soil tests have been made in various counties with the Truog tester to determine lime requirement of soils and a large percent of eastern Oklahoma is being found to be deficient in lime.

Demonstrations Completed. Of farm fertility tests placed in Seminole county, only one was carried through to completion, due largely to lack of interest and knowledge of the demonstrator.

In Atoka county, of twelve tests all but two were completed. Of six demonstrations in Marshall county, one was carried to completion. In Pawnee county four demonstrations were completed.

Other Activities. Active interest is being shown in yellow corn through eastern Oklahoma and demonstrators with Reid's Yellow Dent corn have been visited and aided in seed selection for ear to row work for next season.

Fairs. County fairs were judged at Kingfisher, Buffalo, Beaver and Grove.

Assistance was given in judging the club classes of cotton at the Oklahoma State Fair at Oklahoma City. At the Free State Fair at Muskogee the club grain sorghums were judged, and assistance was given in judging the peanuts. The entire week was spent at these fairs aiding in handling the club exhibits.

At the county fairs the crops and farm products exhibits were judged and at some of these places talks were made on seed selection, adapted varieties and preparing exhibits for fairs.

Publications. Data is being collected and prepared on the "Availability of Agricultural Lime" in Oklahoma. This bulletin will be written as soon as all the information is secured. It will serve to locate limestone, shipping points, cost of crushers, cost of operation and production, and other information of interest to the prospective users of lime.

A circular has been written, "The Basis of Demonstration Work in Crops and Soils," which is expected to serve as a basis on which future demonstration work through county agents will be carried on.

A small circular or leaflet, "Growing Cotton and Combating Boll Weevil in Oklahoma," has been written in conjunction with the station agronomist and distributed.

the fall in checking up on farm practices in boll weevil control work. As in other states it appears that the results of the various methods of control are not uniform. Observations so far made indicate that the old method of cleaning up hibernating quarters and giving frequent shallow cultivation to the crops shows as good results as any. Educational work that has been done in the boll weevil districts and in green bug and chinch bug control work, indicates that work under this project is destined to be of tremendous importance to the state.

Ernest E. Skoll was appointed extension entomologist, effective July 20, 1922. The following is taken from his report of work done up to December 1, 1922.

The nature and distribution of the more destructive insects of Oklahoma suggested the following outline of work which was followed:

Boll Weevil Control in the central, southern and southeastern counties.

Chinch Bug Control in the north and northeastern counties.

Green Bug Control in the southwestern and western counties.

Miscellaneous Insects over the entire state as occasion and seriousness of the species demanded.

Fair Demonstration Work, consisting of boll weevil control demonstrations and bee judging demonstrations.

Bee Work, demonstrations in feeding and preparing for winter, care of bees, marketing honey, listing honey plants.

Office Work, classification of insects for farmers, correspondence, preparation and circulation of special circulars on insect control and on bee keeping.

BOLL WEEVIL CONTROL

A survey of cotton counties where boll weevils were abundant showed the heavier infestations in old cotton and along timber belts before the August dispersion. After that time the infestation was general, and young cotton suffered mostly because of the scarcity of squares and the presence of young tender bolls, which were practically all damaged.

The advisability of early and uniform planting was fully demonstrated by the injury to late plantings.

Where cotton was planted early and cultivated frequently the heaviest yields and best lint were obtained.

This was especially true where the winter quarters of the weevil had been burned, where the land was prepared early and where an improved variety with quick maturing habits had been planted.

These farms served as good demonstrations and were used to show the main points in controlling weevils by the cultural plan. Those who understood the method kept right on with their plowing until late in the season with the result that good crops of cotton were made on such farms.

Some cotton farms were cultivated too deeply and too close to the plants. This mistake was corrected by personal visits.

The personal visits on farms by the entomologist were well received by growers and plans for the fall destruction of cotton stalks are being carried out.

The surveys made show that good culture and clean up are the essentials to make a cotton crop in spite of the weevils, and frequent visits by the entomologist were found to encourage the planters.

Much money was saved the farmers by discouraging the buying of catching machines. The farmer was convinced of the fallacy of these catchers when he was taken to a catching machine and shown that from 60 to 75 percent of the insects caught were lady beetles and other useful kinds. Too many good squares were also found in the pans of these machines.

A number of useless arsenical mixtures and oil sprays were used. This was discontinued as soon as the injurious effect to the plant was explained.

Out of twenty-five different experiments and demonstrations where calcium arsenate was used as a dust poison for weevil control a final check does not give any

encouragement, under present conditions, for the recommendation of this method. Only where dusting was done early and on land that produces more than one-half bale per acre could any degree of gain be noticed.

CHINCH BUG CONTROL

Weather conditions during the summer were in favor of chinch bug development and large numbers of these insects have gone into winter quarters. General recommendations for destroying insects in the winter time by burning hibernating places have been sent out by this division, but special efforts were made in organizing burning squads in the northern counties, where chinch bugs were very numerous. The work is progressing nicely at present.

GREEN BUG CONTROL

Investigations of wheat fields during the fall failed to show green bug infestations, but carefully worked out plans with county agents and agents of the federal bureau of entomology will make it possible to take prompt action if this insect is found.

Bee judging demonstrations were given at the Oklahoma State Fair, September 23 to 30, and at Muskogee during the Oklahoma Free State Fair, October 2 to 7. It was found that more bee keepers should be encouraged to prepare and show their products at these fairs.

Bee Work.— Several bee keepers were visited and given demonstrations on preparing their colonies for winter. Honey plants were listed from a number of counties, showing that the main plants for fall work are heartsease and goldenrod.

OFFICE WORK

In addition to making regular reports in the office 219 letters of inquiry were answered, circulars were prepared on 15 subjects, of which 1,500 copies were circulated. Insects mailed in by growers were classified and information for the control of the destructive kinds was sent out.

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PROJECT NO. 16 RURAL ENGINEERING

We have found it impossible to meet the demands for demonstrations in the various phases of farm engineering. One of the first steps to be taken to insure the permanency of our agriculture is the terracing of our sloping fields. Many of our upland farms are washing away at an alarming rate. Our farm engineering specialist has already been fairly successful in inducing farmers to take up the work of terracing after a demonstration has been given in the community. In addition to the work done in promoting terracing, a great deal of information has been given out about farm building plans and methods of construction and other rural engineering problems. This is a service that is much appreciated throughout the state.

The following information is taken from the annual report of W. H. McPheeters, who is in charge of the farm engineering extension work:

The field of work covered by farm engineering may be divided into four general classes:

- | | | |
|----------------------|---|-----------------------|
| 1. Land Reclamation | { | Terracing |
| | | Drainage |
| | | Irrigation |
| 2. Home conveniences | { | Water Supply |
| | | Sewage Disposal |
| | | Lighting Plants, etc. |
| 3. Farm Building | { | Farm Homes |
| | | Barns |
| | | Hog Houses, etc. |
| 4. Farm Machinery | { | Gas Engines |
| | | Tractors |
| | | Farm Implements |

TERRACING

From fields that have been observed since terracing and from letters and reports from county agents, about seventy percent of the terracing where the extension farm engineer helped with the demonstrations have been completed or nearly so. From reports from county agents, practically one hundred percent of the men who have completed the demonstrations are satisfied with the results. The need of terracing in Oklahoma is great. As nearly as can be estimated, over half of the farm land in this state needs to be terraced or else the next generation will have but little soil on which to produce a livelihood. In fact, there are a great many fields now that might just as well lie idle for the farmer cannot produce enough to pay for the seed and labor. There are quite a number of progressive farmers who realize the condition and are calling for help in terracing their land.

The farmers have been urged to club together in groups of two or four and buy a level. A terracing school has been agreed upon in all counties where two or more groups of farmers purchase levels. We have succeeded in getting quite a number of levels in different parts of the state. The last three months more men have been induced to buy levels and to prepare themselves to do their own work than during the preceding twelve months.

A method used to get terracing before the people of the state was a demonstration put on at the State Fair at Oklahoma City, and at the Free State Fair at Muskogee. These demonstrations consisted of a miniature field 27 by 40 feet, the field being built so as to bring in as many problems in terracing as was possible to have in one field. Then this field was terraced. At these demonstrations the opportunity was had of talking to a great many people, and the demonstration being on a small scale, gave everyone that saw it a fair idea of terracing. No water could be obtained at Oklahoma City but plenty was had at Muskogee and a lawn sprinkler was used to furnish rain. The rain and water running in the terraces and down the ripped hillside ditch showed what a terrace would do. These demonstrations created quite an interest and at Muskogee where the water was used some were interested enough to come around every day to see the results. The gullies in the field were exaggerated, and yet they were completely filled during the week's demonstration. Each of these demonstrations lasted one week.

PROCEDURE AT A TERRACING DEMONSTRATION

1. Make a V drag that does just as good work for terracing as anything on the market and only costs \$1.50 to \$2.50. This is done so as to have it as a pattern in the community. Thirty-seven drags were made this year.
2. The next thing done is to go with the men to the field and show them how to size up the field, i. e., determine the general lay of the field and where to empty the terraces.
3. Next, a few terrace lines are run.
4. A terrace is built.
5. Try to explain all the important things during the demonstration.
6. When a large number of men are present, call the men together, after they have seen some of the work, and explain the purposes, and all important points about plowing, planting rows, cultivating, etc., and answer questions.
7. When the crowd is small, try to find time to let the men run several lines themselves, checking them of course, this being done especially when the men are contemplating buying a level. It is found that most of the men take hold of the work quite readily.

DRAINAGE

The calls for drainage seem to be on the increase. During the past year fifteen demonstrations and eight surveys have been made. The average farmer in Oklahoma who has hillside seeps or flat wet land does not have the means to do much tile draining at present, so if there is any way to help the land other than tile draining, it is shown them. The hillside seeps is one drainage problem that is hard to do much with unless tile is used. In several hillside seep problems, farmers have been

advised to put in tile. Lines are run and grade stakes set for same. Only a few farmers have put in tile at present but most of them are contemplating putting it in as soon as they are able.

The greater number of calls for drainage are for draining of flat, wet land and sloughs and boggy lakes. In most of these cases, open ditch drainage has been advised for the present or until they are able to put in tile. This will make the land produce well, but the ditch is unsightly and inconvenient.

In Harper county there is an area of between two and three thousand acres that has been under irrigation for the past twenty years, which is alkalizing very badly due to the water table being raised nearly to the surface. The whole section may have to be tiled but at present an open ditch will be tried, and one tile line for a demonstration. This ditch is to be about one mile long.

Up to the present there has been nothing done but it is learned that work is to be started on this ditch right away. Here is a case of do something or quit farming the land for the alkali is very bad. The sub-soil was examined and quick sand found so it is quite a problem. If instructions are carried out it is felt that this trouble can be corrected.

PROCEDURE AT A DRAINAGE DEMONSTRATION

1. Walk over the field with the men, taking a spade and post-hole digger to examine the soil for several feet deep. After the nature of the sub-soil is determined, discuss the advisable course to follow.

2. The next thing is to see if it is possible to locate the tile line or ditch without making a contour map which is generally the case on small projects.

3. After the location of the lines is determined, run the line and drive grade stakes, then take the level readings, after which figure the grade and grade lines and determine the depth of the ditch at various places, explaining all this to the men. Afterward go over it with the county agent in more detail. He needs it in his ditch work in terracing as well as in drainage.

IRRIGATION

The calls for irrigation are not so numerous as for terracing and drainage, but are sufficient to call one's attention to the fact that some irrigation is being started. There have been several inquiries for irrigation, a few of them from men who had a wild scheme and thought they wanted to do something big in the irrigation line, but after talking to them and showing them the impracticability of it they decided they did not want it. However, most of the calls are for small tracts of land that can be irrigated and made a success. These projects are advised to be put in for the irrigation of gardens and orchards and advocated where a farmer has plenty of good water to do it with.

There are three types of irrigation for which the farm engineer has calls: the overhead system, the underground system, and the surface system. The method that should be used depends on the soil, the crop to be irrigated, and the money one has with which to install the system. Calls have been received for all three types but in most cases surface irrigation is used. One overhead system has been installed to irrigate strawberries and another one will probably be installed next year. The surface irrigation can be put in at a great deal less expense, hence, it is advised unless the man is in good circumstances. Another reason is that the climate in Oklahoma is so variable that irrigation is not needed every year, but it is well to have some way of supplying water when it is needed. Farmers will be urged to put in tanks for stock and provide a means to use water on their gardens. The sub-irrigating with lath-tille seems to be giving satisfaction for small gardens.

RESERVOIRS

The building of larger ponds or reservoirs is being advocated, especially in the central and western parts of Oklahoma. The average pond seen in the state is too small. It affords water only in the rainy season. As soon as a dry spell comes the ponds go dry.

Farmers are being urged to build their ponds or reservoirs large enough so they will not go dry even in the long, dry, hot fall. On most farms in the western part of the state there are splendid places for large reservoirs. They can be made with little expense other than work and in a great many cases, will be large enough to furnish some water for irrigation.

Hydraulic Rams.— In Dewey county three hydraulic ram sights have been laid out as demonstrations and calls have been received for three more. The hydraulic ram makes use of a source of energy that is now going to waste and it is very faithful, working twenty-four hours a day and three hundred and sixty-five days in a year. It puts the water high enough that the farm home where it is installed is just as convenient from the standpoint of water as is the city home. It also furnishes good fresh water for the stock at all times and just where needed. There are a great many places in both eastern and western Oklahoma where this energy is going to waste, consequently it is felt that it is worth while to get it harnessed.

Septic Tanks. The septic tank is a home convenience that should be installed along with the system of running water in the farm home. Several calls have been received for drawings and literature on this subject, consequently a septic tank has been designed that is suitable for the average farm family, and blue prints have been sent out in answer to the calls.

FARM BUILDINGS

All the time possible has been spent on the designing and drawing of various farm buildings for distribution.

Buildings that have been designed and drawn this year are as follows:

1. Six-room bungalow adaptable for farm and rural town.
2. General purpose barn.
3. Dairy barns, adaptable to nearly any dairy farm, showing cows facing in and facing out. Along with this goes a drawing of various types of walls, roofs, and floors, making it suitable for nearly any part of the state.
4. Hog houses. This consists of four drawings, showing four types of roofs with two types of floors, and the plans of various falls, roofs and floors.

Another phase of work in farm buildings that many calls have been received for is the laying out of farmsteads.

Farmstead planning is a phase of work that is growing and with a few demonstrations over the country will prove to those who see them that it is far better to place buildings properly so they will harmonize and be convenient, than to place them as though they had been tossed up and let fall in place. The cost generally is the same.

STRAIGHTENING CREEKS AND RIVERS

Several calls have been received for changing the courses of creeks and rivers. In most cases they were advised to do so and helped to lay out the ditch line. There are a great many crooked streams that can be straightened fairly easy. This will lessen the flood water and in many cases straighten fields to a great advantage. Advice has been given to do this in a great many fields that were noticed when working on other problems.

In a few cases advice has been given on how to fix bends in creeks and rivers to keep water from cutting into land. One place in particular near Shawnee, the river was causing the bank to wear away near a man's farmstead. The problem was discussed thoroughly and it has since been learned that the work has been completed.

SUMMARY

In the discharge of official duty, spent 170 days in field and 150 days in the office, wrote 392 letters and 2 circular letters, sent out 66 blue prints and 27 bulletins, held 1263 consultations, 600 of which were at the state fairs, made 27 addresses at which there was an attendance of 1090, visited 41 counties, made 43 calls

on county agents, traveled a total of 15395 miles, made a total of 130 field demonstrations and surveys of various kinds at which there was an attendance including that at the fairs of 26302, and made 27 V drags at terracing demonstrations.

PROJECT NO. 18—HORTICULTURE

Home gardening and the home orchard as well as commercial trucking and fruit growing fully justify even more work than we have been able to do along these lines. The demonstrations in home gardening have resulted in the general practice of growing home gardens even in those sections of the state where seasonal conditions appeared to make such practices unprofitable. Splendid results have been obtained from educational work in melon growing and marketing and in guiding communities desiring to plunge into a type of trucking with which they have had little experience. Demonstrations in orchard pruning have begun to change practices in methods of pruning.

During the past year the time of the extension horticulturist has been about evenly divided between home and commercial projects in fruits and vegetables. The increased interest in commercial horticulture is possibly due to boll weevil conditions together with the fact that we have had a fair fruit crop.

Home Gardens.— Due emphasis has been placed on the home garden in the way of encouraging fall plowing, proper selection, arrangement of vegetables in the garden, early planting and fall gardening. The question of proper selection and arrangement of vegetables in the garden has been taken up at agents' meetings, county meetings and through newspaper articles. The longer lived, drouth resistant vegetables such as carrots, okra, swiss chard, egg plant, salsify and New Zealand spinach are becoming more common in the average garden.

A campaign for the planting of fall gardens was carried on this summer in the following counties, namely: Garvin, Latimer, Osage, Wagoner, Oklahoma, Pittsburg, Payne, Logan, Tulsa, and Muskogee. On account of the protracted drouth during the summer the results from the campaign were negative so far as this season is concerned.

The cypress lath sub-irrigation has been talked at agents' meetings as well as in a few counties. A special circular, No. 158, "Cypress Lath Sub-irrigation," has been prepared and is now on the press.

The growing of Bermuda onions from southern seedlings is becoming popular in home gardens and commercially. The onions become edible quickly, grow large in size, yield well and the quality is mild and sweet.

There have been some unusual yields of wilt resistant tomatoes reported. Miss Effie Harpster of Seward, Oklahoma, reported a yield of over 600 bushels per acre.

Tomato wilt is common in many counties. Seed of wilt resistant varieties have been distributed in a limited way by the Extension Division for several years. The demand for this seed has gradually increased as a result of the satisfactory returns.

This year seed of two varieties of Italian tomatoes were distributed. Both varieties proved to be good yielders in spite of hot dry weather.

Spring frosts and continued rains during blooming season cut the tree fruit crops short. Good care given orchards the previous season was very evident in this year's crop.

There has been a substantial increase in the planting of home orchards.

Pruning and spraying demonstrations, talks on encouraging better cultivation and increased plantings have been the principal activities from a home orchard standpoint.

The horticultural clubs have shown a steady growth the past three years as shown by the following enrollment:

Year	Sweet Potato Club	Irish Potato Club	Fruit Club
1920	176	676	664
1921	711	1003	655
1922	939	1131	761

There has been an increase in the number and quality of exhibits at the state fairs.

A proportional amount of time has been spent in preparing instructions and attending meetings for canning clubs.

During this year prizes on canning club activities were donated by Oklahoma nurserymen as follows: 50 dewberry plants to each of 38 girls, 50 blackberry plants to each of 30 girls and 25 asparagus plants to each of 68 girls.

Satisfactory demonstrations in the pruning of watermelons were conducted in Grady county. The demonstrations consisted in pruning off all imperfect melons and thinning the others to two to four melons per vine. It was necessary to go over the vines three times at intervals of ten days apart.

The growing of tomatoes on a commercial basis was taken up in Choctaw, McCurtain and Pushmataha counties. This was an effort in most instances on the part of the cotton growers to find a more profitable crop than cotton under boll weevil conditions. The total acreage was about 381 acres. The average acreage set by the individual growers did not exceed two acres. Around Hugo and Broken Bow the plants were grown collectively and sold at \$1.00 per 1000 plants at transplanting time. The Early Detroit variety was grown exclusively. Practically all the tomatoes were shipped as green wrapped.

From 200 to 800 pounds of commercial fertilizer per acre were used. Pruning and staking proved profitable also.

Certified Irish potato seed is becoming more common in Oklahoma. The average yield for the potato districts was a little above normal this season.

The acreage in Muskogee county this year was as follows: Ft. Gibson 2200 acres, Wybank 800 acres, Braggs 200 acres, Webber Falls 100 acres, Yahola 100 acres, miscellaneous 100 acres.

The Triumph variety has been grown almost entirely until this season, when the acreage planted to Irish Cobblers ran about one-third of the total acreage. The Irish Cobblers brought a premium in price in most instances and yielded about 20 percent more than the Triumph.

The Nebraska dry land certified Bliss Triumph seed out yielded the Oklahoma second crop Bliss Triumph in each of the three demonstrations by 22 bushels, 30.6 bushels and 42.2 bushels respectively per acre.

On account of increased yields and less mosaic disease of certified Irish potato seed, it is important that more extensive planting of such seed be emphasized.

The sweet potato work this year consisted principally in encouraging the use of better seed and treatment of seed potatoes, together with a survey of the storage houses in the state. According to figures obtained, principally through county agents, we find that Oklahoma has sweet potato storage houses aggregating to 724,950 bushels.

The Porto Rican variety of sweet potato seems to be gaining in popularity on account of bringing a premium in price on some local markets. The commercial growers doubt its displacing the Nancy Hall on account of smaller yield and irregular size.

Demonstrations with paradichlorobenzene for the eradication of borers have been conducted in Tulsa, Lincoln, Logan, Garvin and Payne counties. This chemical has proven economical and efficient and should be more extensively used. While the general recommendations are that it is only safe to use paradichlorobenzene on six-year old trees or older, one demonstration with one-half ounce was effective, but not injurious on two-year old trees in Payne county in the orchard of F. A. Henderson of Yale, Oklahoma.

Pruning and spraying demonstrations were conducted in the following apple orchards: F. A. Henderson, Yale; Virgil Route, Crescent; J. F. Bailey, Grove; John Cooper, Mayesville; Eld Stobaugh, Crescent; Mrs. B. F. Stuard, Lindsay; V. E. Arnold, Calumet; Frank Evans, El Reno; O. B. Ingals, Dover; C. S. Jensen, Anadarko.

The results from the pruning were very satisfactory. The fruit as a whole was larger and better colored and made the spraying easier and more effective, also the trees are in better shape for fruit production for future years.

The results of systematic orchard cultivation were very marked as the summer was very dry. Many trees died where poor or no cultivation was practiced.

The result from spraying for the control of codling moth averaged between 95 and 100 percent free.

The control of apple blotch was in proportion to timeliness and thoroughness.

Assistance in the way of talks has been rendered in two county agents' meetings, two colored agents' meetings and short courses in Okfuskee, Muskogee and Okmulgee counties.

Assistance in working up interest and judging two flower and vegetable shows has been given. These shows were held in Osage and Wagoner counties.

Forty articles have been furnished the Agricultural News Service of the College and a number of articles have been written for the Extension News. Articles have been furnished daily and agricultural papers.

Instructions for the sweet and Irish potato, canning and fruit clubs have been furnished.

The following circulars have been written this year: Small Fruits, Tomato Growing (canning club), Cypress Lath Sub-Irrigation, Acre Orchard, Horticultural Food Budget and Fruit Club Circular.

One hundred and thirty-three meetings were held with 6,220 in attendance, 95 agents visited, 97 demonstrations held, 652 personal letters written, 206 circular letters written, 12,816 miles traveled by rail, and 6,410 by auto.

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PROJECT NO. 21 RODENT ERADICATION

This is a cooperative project between the Extension Division and the Bureau of Biological Survey. The headquarters of Mr. B. J. Melton, who is in charge of this project, are at El Reno, Oklahoma. It appears that the present method of completely cleaning up an infested area of rodents before leaving it is much more effective and satisfactory than attempting to render service to all parts of the state without means of doing effective work. We consider this an important project and feel that it is making satisfactory progress. The following is from Mr. Melton's report:

The first three years of rodent control work contributed considerably to our knowledge of how to conduct rodent eradication campaigns. The only way to control injurious rodents is to completely eradicate them over a sufficiently large area to prevent reinfestation. To completely eradicate the injurious rodents from Oklahoma is a large task and one requiring a long time with the limited funds and personnel available. At first our efforts were distributed over the state as evenly as was possible with the idea that all parts of the state deserved impartial service. But this distributing of our efforts did not result in clearing any area of nests sufficiently to prevent reinfestation and without following up the work undertaken it was noticed that the areas worked on were soon reinfested. So in order to make the work effective it was necessary to concentrate our efforts on local units where the work could be closely supervised and followed to complete extermination. Advancing from one locality to an adjacent one the area cleaned up grows continually larger and in the end the state will be cleaned up of injurious rodents sooner than would be possible in any other way. It is of course necessary to give aid to any person or community asking for it at any time but it has been found not wise to encourage this local work to the detriment of concentrated effort already started in other units.

Likewise it has been found that by confining effort to one particular rodent pest instead of trying to carry war against all rodents more can be accomplished in a given time. Consequently, while operations against gophers, rats and other rodent pests are approved, it is not pushed to the extent that the prairie dog eradication work is for the reason that if we can eliminate the prairie dog, we can then accomplish more against the gopher and rat.

During the past year our efforts have mainly been confined to the extermination of prairie dogs in Stephens, Cimarron and Jefferson counties. Stephens county was practically cleaned up, there being only a few scattered dogs left, which we propose to kill as soon as we can get to it during the winter or certainly before breeding time in the spring. Work here was started in April and stopped the first of July.

A foreman paid by the Biological Survey had supervision of the work and strychnine for poisoning the dogs on Indian land was also furnished by the Biological Survey. Poison for the deeded land was furnished by the county. 8,827 acres were treated and, at least, 98 percent of the dogs were exterminated.

The best work of the year has been done in Cimarron county. There is a large area of state land in Cimarron county which is leased to ranchmen for grazing purposes and which is extensively infested with prairie dogs. The writer discussed the problem of exterminating these prairie dogs with the lessees and agreed to furnish a man to supervise the work and to furnish strychnine for killing the dogs on the deeded land providing the lessees would kill the prairie dogs on the state land at their expense. The plan was agreed to and we have had excellent cooperation from these stockmen in carrying out the campaign. The work was started in May and is still in progress. A total of 88,734 acres including both state and deeded lands have been treated with an average kill of 95 percent. The fact that the prairie dogs are more scattering than in central Oklahoma and that the areas infested are large, allowing a man to distribute the poison from horseback, allows the work to progress more rapidly in Cimarron county than elsewhere.

Beginning July 1 of this year, we have extended our work to Jefferson county in cooperation with county authorities. The Biological Survey pays the foreman for one-third time and the county pays for two-thirds of the time. The Biological Survey also furnishes the strychnine for killing the prairie dogs on Indian land. Up to July 1 of this year there had been treated 3,849 acres in Jefferson county, this work being without our direct supervision. In the five months since we have had direct supervision there has been treated 10,110 acres and 965 acres retreated. Work cannot progress so rapidly in Jefferson county as in Cimarron county because the infestation is extremely heavy and the land holdings are small, making it necessary to deal with several men sometimes in cleaning up one colony of prairie dogs. The results in Jefferson county are from 85 to 90 percent.

Prairie dog work was carried on in twenty-eight other counties without our direct supervision. In these other counties 45,198 acres were treated with results of about 85 percent. The total acreage treated in the state during the year just past is 156,718 acres or nearly twice as much as has been treated in any similar period of time since this work started in Oklahoma, which demonstrates the advisability of concentration.

In the work carried on not under our direct supervision, the Experiment Station cooperates with us in furnishing prepared poison to farmers at cost. This is a great aid in keeping the prairie dogs under control in the counties where we cannot concentrate, but it is ineffective in completely exterminating prairie dogs.

Very little work against rats was attempted during this year. The biology class of the El Reno High School conducted a rat campaign under our supervision. 3,129 rats were accounted for at a cost of \$122.05.

A rat problem came up in February and March in Caddo county. In the bottom lands adjacent to several small streams in that county, the rats were destroying crops. They live in burrows some six to ten inches below the surface and run parallel with the surface. Trapping was not tried but poisoning was not successful and was also unpopular because of the likelihood of poisoning dogs, which were valuable as rat catchers. Carbon bisulphide would not permeate the horizontal runways sufficiently to kill the rats. After going over the field with County Agent Nutter, it was recommended that some device for forcing poison gas into the runways be tried. Mr. Nutter reported that an ingenious farmer attached an automobile pump to a friction top bucket and then ran a hose from the bucket to be inserted in the rat burrows. Sulphur was ignited in the bucket and by working the pump the fumes from the sulphur were forced into the runways. A dog or two was kept handy in case the rats should manage to escape from the gas. The method proved very effective although a little slow.

No organized gopher work was undertaken during this year. Some of the prairie dog poison sold was used for gophers with good results. On such miscellaneous work we find it hard to get a check on the amount of work done or the results obtained. If we can organize a community so that a large enough area can be treated to pre-

vent reinfestation after the gophers are killed, we should like to undertake the proposition. So far we are unable to find a community where we can get the cooperation we desire.

PROJECT NO. 22—EXTENSION WORK IN CLOTHING

Clothing as a separate project has been carried on since August 15, 1922. This project covers work for both adults and juniors. For adults the work covers printed information, miscellaneous demonstrations in which local leaders are trained and in which they in turn pass on their training to other demonstrators. In this project the outstanding piece of work so far is the work with the adult demonstrators. So far nine counties have been reached with demonstration No. 1. There were 92 local leaders who took the training each in turn to present the instruction received to at least six in their community. Two of the counties have had instruction on second demonstration, and results have been good, about 80 percent having reported that all instructions had been passed on to an average of four demonstrators each. Mrs. Jessie S. Pollock is the leader of this project, and reports that the following work has been taken up:

1. Demonstrations at Farm Congress.
2. Judging at County Fairs.
3. Plans for Clothing Work.

Farm Congress was in session from August 23 to 30. During that time the following demonstrations were given: Millinery demonstration for adults. This consisted of a talk on selection as to line and color, utilization of left over material, and the making of a soft hat, with explanation of steps. Patterns of the hat were furnished. A dress form demonstration was given for visitors and home demonstration agents who had not previously had instruction.

A demonstration for juniors who were representing junior clubs from all over the state was given. This was a demonstration in millinery on the making of a Tam O'Shanter hat for school wear, another demonstration in sewing on the making of handkerchiefs, model of fancy stitches and flowers.

The county agents' meeting which followed the Farm Congress afforded excellent opportunity for outlining plans for the coming year to county demonstrators.

While not a part of clothing work, the fair judging is a part of all extension activities. Exhibits in domestic science and art at four county fairs and one township fair were judged. The leader of this project also had charge of the arrangement and judging of the junior club sewing at both Oklahoma City and Muskogee State Fairs. These exhibits were only blue ribbon exhibits in each of the four years sewing, from counties. There were twenty-nine counties exhibiting with 75 individuals exhibiting.

Classes were held at the State Fair School each day for scholarship girls who won trips to the Fair School. These classes were given instruction in fancy sewing and flower making.

The plans for state wide clothing work include adult and junior work, the preparation of subject material, organization and short course work.

In adult work, the plan as outlined is to present the principles of sewing in a clear concise manner in four demonstrations:

1. The use of the sewing machine and short cuts in sewing, finishes and trimmings.
2. The use of the dress form, cutting and fitting.
3. Planning and making a house dress, shrinkage, setting of colors, line and color in dress.
4. Making of children's clothes.

There are to be at least four counties in each of the four districts and as many more as can be reached in one year. Each county to have one meeting each month for the four consecutive months.

This training group is to be made up of local leaders from the various communities, and not to exceed ten or twelve in number. These members of the training group are to carry back to their local group the instruction received at these meetings.

The county home demonstration agent is to assist in presenting the work, supervising and collecting reports monthly.

Short course work for junior club supervisors and teachers is to be given as needed.

Plans to be outlined at teachers' meetings and with county superintendents of schools for junior sewing work in schools.

To date the adult work has been started and the first demonstration has been carried to nine counties. In these nine counties, 92 local leaders are taking the training. The second demonstration has only been given in two counties of the nine, so far, but results have been good. The local leaders are eager to get the instruction and 80 percent report having passed on instruction received to an average of four ladies each.

Three county meetings for junior sewing supervisors have been held and work taken up in detail.

Two county teachers' meetings have been attended and the cooperation of the county superintendents assured.

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PROJECT NO. 23 EXTENSION WORK IN FOOD AND NUTRITION

The food and nutrition work has been carried on as a separate project in this state only since July 1, 1922. Splendid progress has been made in the field of food preparation and nutrition. The greater part of food preparation work was done through food preparation for girls. An interesting feature of this work was the preparation contest. This is going to be a very popular line of work in the future. The nutrition phase of food work is much newer but we feel encouraged over the progress made and feel that the time has arrived when we should make special effort to develop this phase of food work. During the year, 1922, rural children have been using more milk as a result of the milk campaign work. Two city milk campaigns were conducted with good results.

At the close of the campaign in Oklahoma City, the city milk inspector reported that dairymen were delivering 50,081 quarts of milk daily as against 43,963 prior to the campaign, or an increase of 6,118 quarts which is approximately 14 percent increase. This amount of milk at 10 cents per quart amounts to \$611.80 per day additional revenue to the dairymen of Oklahoma City and county.

The results of our school survey in the city showed that 22.4 percent of the school children did not drink milk at all. The survey of the rural schools showed 67.5 percent drinking milk daily, 21.5 percent drinking milk occasionally and 11 percent not drinking milk at all.

A partial survey taken just prior to the close of school in May showed a considerable decrease in the percentage of underweight among children. The survey taken prior to the campaign at Bryant School showed 46 percent underweight (2¹/₂ lbs. and over) as against 38 percent in May, and 17 percent underweight (10 percent and over) as against 13 percent in May. At Edgemere school the precampaign percentages were 67 percent and 38 percent as against 49 percent and 17 percent in the May survey. Other schools showed a similar decrease in underweight of the pupils.

The nutrition or growth class work of this year is a continuation of the work done along this line last year. Eight agents have conducted growth classes this year.

The home demonstration agent chooses a locality where she knows a good deal of malnutrition exists and forms a class of the underweights, (7 percent or more underweight) and 10 to 20 in a class. The class meets for one hour once a week. A local doctor gives the physical examination. Parents are informed in regard to the child's physical condition and urged to have physical defects looked after. The children are weighed each time and their gains or losses recorded on their weight charts. At each meeting they are given definite nutrition instruction. Also health talks on health and hygiene. If there is a county public health nurse, she and the county home demonstration agent work together in conducting these classes, the county home demonstration agent giving the hygiene talks. Both do home visiting, weighing, etc. The mothers are urged to be present at all meetings. It usually takes from 2 to 3 months to bring underweights up to normal weight.

There are 26 home demonstration agents and 169 schools doing hot school lunch work.

Food selection demonstrations are being started for the first time. The first demonstrators were enrolled October 26 of this year. At present we have demonstrations in process in eleven counties and have seventy-five demonstrators enrolled. The demonstrations may be carried on by individuals or by families.

An intelligent and careful selection of food is one of the greatest needs of the time. Much of the defective health of our people is due to defective nourishment and most of our defective nourishment is due to poor food selection and food habits, rather than to lack of food.

The home demonstration agent gathers a group of interested women together and the plan is presented to them. Those interested in carrying on the demonstration agree to adopt certain food practices themselves and to see that her family adopts the same practices as far as possible. Score cards setting forth these practices are used. There are separate cards for adults and children. The demonstrator agrees to carry on this demonstration in her home for at least six months. She also agrees to see that an ample supply of fruits and vegetables is produced and conserved for carrying on the demonstration throughout the year. She checks up on the demonstration while it is in process from two standpoints:

1. Noting the number of good food practices adopted by the family.
2. Noting the improved general health of the family. Is there less of constipation, indigestion, headaches, colds, irritability, etc.

In most instances all of the food selection demonstrators come together once a month where they meet with the county home demonstration agent and food specialist. At this meeting the food specialist will have an opportunity to find out how each individual is progressing with her work, etc., and at the same meeting some instruction is given along the line of food selection, meal planning and food preparation. These women who come from organizations in their communities agree to go back and give the same information to a group of women in the community which wish to carry on the demonstration.

Our food preparation work is done largely through our junior food preparation clubs. This work covers four years' work. In these four years the club member receives instruction in food selection, food preparation, the planning and serving of simple home meals, and invalid cookery. Some work on food preparation is given our "Food Selection Demonstrator" and some is given at special short courses for women and girls, and some is given to food selection demonstrators and to adult home demonstration clubs. One of the district agents prepared the lessons for the junior food preparation clubs and also planned the food preparation contest. The food preparation contest was an interesting feature of the junior food preparation work this year. Each contestant was required to make cornmeal muffins and baking powder biscuits. She made these products a certain number of times at home, keeping a complete record. All contestants took part in a county contest. At this county contest the state contestants were chosen. The state contest was held at Stillwater during our Farm Congress.

Eight counties took part in this contest. The outcome of the contest was very satisfactory indeed.

In food preservation work an attempt is made to teach people to provide more food for home use throughout the year, especially more fruits and vegetables. And to teach the best methods of conserving food stuffs. Miss Martha McPheeters is the leader of this project.

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THE OUTLOOK

Since we now have county agents working in nearly all of our counties, there is little room for further expansion in that direction. Our improvement in county agent work must be in developing a more definite and unified program and in raising the standard of this service and the quality of the work. There still is room for expanding the home demonstration work in other counties. The programs of the county agents and the home demonstration agents in the counties are becoming better cor-

related and will likely continue to develop the extension program along the lines of unified service rather than to encourage a line of cleavage between the work by the men and the work by the women.

Our junior club work has made such satisfactory progress in the hands of county agents and home demonstration agents that it is not anticipated that county club agents would materially strengthen the county extension program.

The negro farming population of the state comprises about one-eleventh of the entire farming population. Much of this number is scattered over wide areas which would make it impractical to serve them with negro agents. In such cases the services of white agents are available to these colored people. It appears, therefore, that at the present time the funds available will not permit of our carrying more local negro agents.

Specialists are an important part of our extension organization, keeping field workers and farm folks supplied with best methods and latest subject matter information as they do through demonstrations. These specialists are unable to meet all the demands that are made upon them. Their work, however, will become more effective as the quality of work done by county agents through more unified programs improves. It is likely, therefore, that the number of specialists will not need to be increased until the county programs and methods of work make further developments. One of the difficulties encountered in outlining a program of agricultural development to extend over a period of years is a fluctuating public attitude towards some of these fundamental farm problems. At the present time it appears to be advisable to outline these programs with the assistance of program committees selected locally who are independent of any one exclusive school of theory in regard to the proper basis of agricultural development.

