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EXTENSION SERVICE

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*Biennial Report of the Director of
Extension Service Agricultural
and Mechanical College
of Texas, 1915-17.*



Address

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**BIENNIAL REPORT OF THE DIRECTOR OF EXTENSION SERVICE
OF THE AGRICULTURAL AND MECHANICAL COLLEGE
OF TEXAS, 1915-17.**

"Extension in agriculture and home economics" as commanded by the Smith-Lever Act of Congress, the purposes and terms of which have been accepted by joint resolution of the Texas legislature, covers the whole field of the material welfare of the farmer and his family. It comprehends the science of production, including both live stock and crops; the art of management, marketing and finance and the problems of family subsistence. It is to be accomplished by various methods, including teaching by demonstration, by lectures, by literature and by organization. In a field so large, with problems so varied and with methods so numerous, there is much danger of unwise and wasteful undertakings. Therefore, the law prudently requires that all expenditures must conform to definite plans or "projects" approved by the Secretary of the United States Department of Agriculture. These projects are adopted at the beginning of each fiscal year and no alteration or departure may be made without the approval of the Washington authorities.

Under the law and under the written memorandum of agreement between the College and the United States Department of Agriculture, the work is truly cooperative, as is proper in a service sustained by approximately equal appropriations from the Federal and State governments. In addition to the projects thus sustained under the Smith-Lever Act, the State enjoys the benefit of additional funds for farm demonstration work apportioned from the United States Department of Agriculture's separate appropriation, and receives free the services of several Department experts, but all these activities fall within the formal cooperative agreement.

In defining the projects to be conducted for the biennium of 1915-17, the guiding purpose was to emphasize the problems accentuated by the conditions imposed by the European war. That great calamity exhibited, as no teaching had been able theretofore to make effective, the un wisdom of a system of farming dependent chiefly upon cotton as the only or main source of income. Two lines of effort were adopted to this end. One was to demonstrate to farmers that a system of farming which makes food and feed its first requirement is the surest method of agricultural abundance and independence. The other was to demonstrate to bankers, credit merchants and business men generally that such a system of farming is the safest basis of credit and the best insurance of continuing prosperity in an agricultural State.

As evidence that these efforts have been measurably successful it may be stated that for two years the farmers of Texas on the whole have raised their food and feed supplies, that the volume of cotton has thus been automatically reduced, that more than a hundred banks and several hundred credit merchants have made food and feed in-

stead of cotton the prime condition of credit and that live stock of all sorts has been greatly multiplied.

It is not intended by this statement to boast an achievement. The Extension Service has been only an instrument—one of several instruments—in stimulating the clearer thinking of producers, in causing our whole people to think in terms of agricultural welfare and in breaking the all-cotton habit of fifty years. In this undertaking the bankers of Texas have been especially helpful.

The efforts for safe farming required rather more of campaigning by public meetings and otherwise than will probably be necessary after these exceptional conditions and opportunities have passed. The prevailing high price of cotton is a temptation which might deceive if experiences with large yields and low prices were not so recent, but with timely admonitions before the next planting season it is confidently believed that the unhappy lessons of the past will not be forgotten.

PROJECTS.

The projects conducted for the fiscal year 1915-16, with the distribution of funds, are shown in the following budget adopted and approved by the Washington authorities:

Appropriations.

U. S. Department of Agriculture for County Agents, Boys Club Work, Etc.	\$ 64,000.00
U. S. Department of Agriculture for Home Demonstration and Girls Club Work	7,500.60
U. S. Smith-Lever Fund	45,969.66
State Smith-Lever	35,969.57
Total	\$153,439.33

Disbursements.

Project	Federal	State
1. Administration	\$ 4,863.32	\$18,352.71
2. Printing and Distribution of publications	1,500.00	2,596.96
3. Farm Demonstration Work	64,000.00	5,420.00
4. Home Demonstration and Girls Canning Club Work	16,000.00	
5. Movable Schools	16,239.66	
6. Boys Club Work	1,900.00	
7. Farm Engineering Work		1,500.00
8. Negro Extension	4,900.00	
9. Farm Management and Rural Credits	4,950.00	
10. Rural Organization		8,100.00
11. Creamery Work	1,500.00	
12. Dairy Work	1,616.68	
	\$117,469.66	\$35,969.67
Grand Total	\$153,439.33	

The projects for the fiscal year 1916-17 approved by the Washington office and now in operation are as follows:

Appropriations.

U. S. Department of Agriculture for County Agents,	
Boys and Girls Work, Etc.	\$ 67,000.00
U. S. Smith-Lever Fund	75,944.39
State Smith-Lever Fund	65,944.39
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	\$208,888.78

Disbursements.

Project	Federal	State	U. S. D. A.
1. Administration	\$21,479.38	1,620.62	\$ 500.00
2. Printing and Publications	4,593.33	2,500.00	
3. Farm Demonstration, Etc.	12,043.35	14,570.44	56,910.00
4. Rural Women's Work	3,020.00	1,200.00	
5. Movable Schools	14,908.33		
6. Boys Club Work	2,371.68	1,728.32	900.00
7. Girls Club Work	3,501.67	5,508.33	8,690.00
8. Plant Industry Work	3,416.65	13,066.68	
9. Animal Industry Work	2,100.00	8,400.00	
10. Rural Economics Work	3,703.34	9,616.66	
11. Negro Work	3,140.00	6,100.00	
12. Creamery Work	1,283.33	416.67	
13. Dairy Work	383.33	1,216.67	
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Grand Total	\$75,944.39	65,944.39	\$67,000.00

ADMINISTRATION.

1. It will be noted that the administration allowances for the last fiscal year and for the current fiscal year are nearly the same, notwithstanding the fact that the total expenditures for the current fiscal year are greater by nearly \$60,000.00, for the service is greatly enlarged. This is due to two facts; first, in the administration project for last year we included a rather large contingent or reserve fund for putting in new projects, which were contemplated but which could not at the time be defined; second, we have been able, as a result of two years' experience, greatly to reduce the proportion of administrative expense by the installation of efficient office devices and system. This has been a great problem, because the Service as now conducted is practically new, because it is expanding rapidly and because there has been heretofore no office experience upon which an intelligent system could be established. We have had to evolve and develop our own system, which at this time happily seems to be as economical and as efficient as could be expected. The administration project includes part salaries of the Director, Executive

Secretary, Editor of Publications, Contingent Fund, Janitor's service, Office supplies and the clerical help required in the central office.

Up to July of this year, the individual work of each man or woman employed by the Service was handled by the Director, or his representative, but as the force increased it was found that the Director would not be able to give personal attention to the work of each employee, and for that reason, effective July 1, the activities of the Department were split into divisions with a chief or leader at the head of each, through whom the Director deals with his employees. These divisions are:

1. Farm Demonstration Division (including the boys, girls and negro work.)
2. Rural Economics Division.
3. Animal Industry Division.
4. Plant Industry Division.
5. Rural Women's Division.
6. Movable School Division.

In addition to the chief, there are five District Agents, one Special Agent and ninety County Agents in the Men's Division of the Farm Demonstration Work at the present time; one State Agent, one Assistant Agent, two District Agents and thirty-five County Agents in the Girls' Division of the Farm Demonstration Work; one State Agent in charge of Boys' Agricultural Club activities and a leader in Boys' Animal Husbandry Club activities, also attached to the Farm Demonstration Division. There has been one Organizer, one Agronomist and one Home Economics Demonstrator in the Negro Division up to October 1st of this year, when two additional workers were engaged.

There are five men in the Rural Economics Division, five in the Animal Husbandry Division, exclusive of the government Hog Cholera Specialist who cooperates with them; five men in the Plant Industry Division; one woman in the Rural Women's Division and three women and one man specialists in the Movable School Division. In addition, there has been a number of temporary Specialists employed for various emergency problems from time to time.

The demand for specialist work over the State has been extremely heavy and, while the present force has done a vast amount of work, they have been totally unable to fill the requests made for their services. In this connection, it might be well to state that the work of the Specialists is being gradually interwoven with that of the County Agents in counties where there are agents, so that the agents who, heretofore, were able to conduct only a few lines of work are now enabled to establish definite, concrete demonstrations in practically every branch of agricultural and livestock development, through the aid furnished them by the various Specialists. In other words, the policy of the Department is to gradually stress definite demonstration and project work rather than propaganda work which conditions have demanded in the past.

The office scheme involves the handling of all correspondence, bulletins, circulars, itineraries, etc. by the central office, all letters being numbered, and where special questions are involved, referred to the Specialist handling that line of work for answer. The volume of correspondence is constantly increasing. The records show that from January 1 to September 1, 1916, 30,092 letters of inquiry were received and answered by the Service in addition to thousands of postal cards and other standard forms of handling a vast volume of correspondence. From July 1914 to December 1915, 386,990 circular letters of seasonal advice were issued and from December 1, 1915 to September 1, 1916, a total of 1,402,020 pieces of literature were sent out to the public.

PRINTING AND DISTRIBUTION OF PUBLICATIONS.

2. Our fund for printing and distribution is limited by the terms of the law to 5 per cent of the total appropriation. Experience shows that this allowance is ample, if proper economy is practiced in the distribution of bulletins. We make the rule to send bulletins only on request. We do not offer them for general distribution but use them only to afford information or to answer inquiries as to any particular problem. We make it a point to issue bulletins only on topics not sufficiently covered by bulletins from the Department of Agriculture, because as far as possible, we use the Department bulletins and we endeavor to so phrase our bulletins as to appeal to the understanding of persons not familiar with scientific terms.

For the fiscal year 1914-15, pieces of literature, including semi-monthly seasonal letters, weekly letters and miscellaneous circulars were sent out to the number of 230,525. For the five months, July 1, to December 1, 1915, total pieces of literature of the same character numbered 463,848.

For the period December 1, 1915, to October 1, 1916, the mailing room report is as follows:

Printed Bulletins mailed out	333,980
Multigraph copies printed and mailed out	725,472
Mimeograph copies printed and mailed out	342,568
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Total pieces of literature mailed out	1,402,020
Pieces literature folded	523,185
Envelopes addressed by machine	355,354
Envelopes addressed by hand	19,692
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Total	375,046

FARM DEMONSTRATION WORK.

3. It is an impossibility to give accurate figures on demonstration work conducted by our Agents at this time, owing to the fact that their project work is based on seasons and a project which is begun in the fall will not be completed until the following fall, when

reports are tabulated and submitted about January 1st of each year. A report for the calendar year ending January 1, 1916 gives details for that year and agents cannot submit additional figures until January 1, 1917. However, it may be said in passing that preliminary reports indicate the ratio of increase in the number of projects and results obtained are increasing at a rapid rate. The number of District Agents has been reduced to 5 from 6, although a Special Agent to assist in installing new Agents has been employed. On January 1st, there were 80 County Agents, while on October 1, 1916, this number had been increased to 90 with assurance of several additional agents before the end of the fiscal year.

For purposes of distinct exhibit of farm demonstration work, I quote from the last annual report as follows: "Among the notable achievements of the Agents during the past year, besides their general work in farm demonstration and in promoting diversification, may be enumerated the following special efforts: The growing and storing of sweet potatoes, as a result of which it is estimated that a million bushels were put into houses for gradual marketing; an increase in the peanut crop and the crushing of peanuts by a dozen or more oil mills; the leadership of marketing associations, mentioned elsewhere in this report; the purchase of purebred live stock for breeding—24 stallions, 22 jacks, 91 brood mares, 162 bulls, 848 cows and heifers, 1631 boars, 1977 gilts and sows, besides a large number of grades for breeding purposes—1125 hog herds started; 99 poultry demonstrations; 963 farms improved; 181 dipping vats erected; 368,141 head of cattle dipped; 21,549 cattle treated for blackleg; 38,773 cattle treated for ticks; 15,112 hogs treated for hog cholera; 14,153 farmers instructed in the use of fertilizers; 198 fertilizer demonstrations; 172 tons of fertilizer bought cooperatively; 3,900 farmers instructed in the use of manure; 643 manure sheds built; 184 manure spreaders bought; cover crops—1,055 acres barley, 4,955 acres oats, 3,083 acres rye, 751 acres wheat; 599 orchards inspected, 73,246 trees inspected; 289 farm buildings erected; 698 farm buildings painted; 221 water systems installed; 547 silos built; 460 silos caused to be built; 654 pastures established; 180 pastures renovated; 811 farms terraced, with an acreage of 56,486; 205 farmers organizations promoted with a membership of 7,955; 21,589 visits to farm demonstrators; 14,190 visits to farm cooperators; 4,991 visits to other farmers and business men; 12,225 visits to club members; 1820 general meetings with an attendance of 13,538; 726 field meetings with an attendance of 5,539; 156 short courses held with an attendance of 22,272; 62,272 railway miles traveled; 203,561 team miles traveled; 163,101 bulletins distributed."

HOME DEMONSTRATION AND CANNING CLUB WORK.

4. The results of the girls work in the State cannot be given at this time, until the annual reports from County Agents are received. It may be said, however, that the membership in the Clubs has slightly

increased over 1915 and a splendid showing of the results of the girls work has been made at the Dallas Fair and at the Waco Cotton Palace, in addition to many local County Shows conducted by the Agents in various portions of the State. For more particular exhibit of this work. I quote from the annual report for last year: "This service is conducted by a state leader, one assistant, two temporary district agents, and thirty-two county women agents in the main division of what is generally known as the Girls' Canning Club Work. There is another division conducted by one leader and one assistant, consisting of the organization of adult rural women for the study and practice of home economics. The first division of the Girls' Canning Club Work is maintained chiefly by appropriations from the Department, and is a part of the general service of the United States Department of Agriculture. Like the regular farm demonstration work, it is supplemented by local appropriations from county commissioners and commercial clubs in the employment of county agents. The number of girls enrolled in the thirty-two counties is 5,213. Total number of tin cans put up 53,068, estimated value \$3,701.11. Total number of glass jars and other containers 26,936, estimated value \$8,734.00. Total number of pounds of tomatoes raised by Club Girls on one-tenth acre plats 366,095, total estimated value at five cents a pound, \$18,365.50. Largest yield from one county 44,028 pounds, value \$2,201.40. Total value of garden products other than tomatoes \$11,764.25. The largest net profit by a single girl was \$242.00 on 1730 cans of tomatoes and peaches, and 200 glass jars of berries and other products. The largest yield by a single girl on a tenth of an acre of tomatoes was 6,845 pounds. Under the direction of these county agents 4,370 dozen eggs were marketed through nine egg circles in Dallas county from May 1 to October 30. Similar results, though on not so large a scale, could be reported from nearly every one of the other counties."

MOVABLE SCHOOLS.

5. From January 1914 to January 1, 1916, 60 three-day movable schools had been held with an attendance of 7,500 and 1916 one-day neighborhood meetings with an attendance of 135,810. For the period January 1 to October 1, 1916, 47 three-day schools, 4 two-day schools, and 92 one-day schools, or a total of 143 were held in practically every populous county in the State, with a total attendance of 16,321 students. From 2 to 7 lecturers from our Specialist and County Staff were used in these schools, depending on the subjects given.

In the past it has been deemed wise to use these schools largely in the way of missionary work, in arousing interest in better agricultural methods, but we now hold to the belief that this work has largely been accomplished and in future these schools will be specialized more and more.

BOYS' DEMONSTRATION AND CLUB WORK.

6. This service is conducted by two agents, one for the agricultural clubs and one for the animal husbandry work. Up to January 1916 a total of 7,028 boys were enrolled in various club activities, while on October 1, 1916, the enrollment had reached 9,369. One feature of this work for the past two years has been the holding of encampment schools, particularly at Dallas and Waco, which have attracted wide attention and been of untold value in arousing interest in the work and in encouragement to the boys.

From January 1, to September 1, 1916, the Boys' Division of the Service held 125 public meetings at which 120 set lectures were given with a total attendance of 13,313.

The distribution of membership for the last fiscal year was as follows: Corn clubs 3,212, Grain Sorghum 1,112, Peanuts 853, Cotton 471, Pigs 1,068, Baby Beeves 212. This distribution for the current fiscal year will show a somewhat larger proportion of boys in Pig Clubs and Baby Beef Clubs.

I quote from the last annual report: "As evidence of the value of this work to the rising generation, it may be recorded that the average yield of corn by club boys was 35.6 bushels to the acre, while the average number of bushels by farmers in the same neighborhoods was 24.7. The average yield of seed cotton per acre by the boys was 1178 pounds compared with 759 pounds by the farmers in the same neighborhood. The average profit of the boys on a single hog was \$7.73 and the average profit on a baby beef was \$26.18"

NEGRO EXTENSION.

7. The negro staff of 3 up to October 1, 1916, has been enlarged with an additional lecturer on agronomy and a woman on home economics. Reports for the work of the 3 negroes from January to September, 1916, show the organization of 113 negro clubs for agricultural advancement, with a total membership of 3,919; 70 field demonstrations were given during this time with an attendance of 820 and 98 meetings were held with an attendance of 9872 negroes.

RURAL ECONOMICS AND RURAL CREDITS.

8. In addition to the outline given in the 1915 report, this Division of the work has established the following projects:

Kind of Projects	Number of Projects	No. Local Members
Egg Circle	59	672
Farmers Clubs	4	216
Ginners Associations	1	125
Melon Growers Associations	1	78
Credit Groups	2	209
Poultry Marketing	1	78
Farm Management	89	89
Sweet Potatoes	50	
Bankers rate sheet adopted	176	

The men of this division from January to September, 1916, conducted 115 public meetings, with a total attendance of 4,615.

Particular attention is called to the last item "Bankers Rate Sheets adopted" in the foregoing table. This represents the work to which allusion is made in the introduction to this report concerning the campaign for safe farming on the basis of food and feed supplies. Through the efforts of this division 176 banks in the cotton belt of Texas approved and used, to greater or less extent, the farmers credit rate sheet prepared by our Mr. R. L. Bennett and approved by the Federal Reserve Bank and by the conference of Southern Bankers. It is a device for exhibiting farmers' assets, sources of income and farming operations, and its chief purpose is to afford the food and feed farmer the cheaper credit to which he is entitled as compared to the all-cotton farmer who depends upon the income from cotton to buy his food and feed. This plan has the approval also of several members of the National Federal Reserve Board and there is reason to hope that that body will recommend it as the basis of agricultural short term credit throughout the United States, for the perils of one-crop farming, whether the one crop be cotton or wheat, are the same everywhere.

CREAMERY AND DAIRY EXTENSION.

9. In this division two specialists have conducted several set demonstrations in various portions of the State during the past year, visiting them in regular order, and under the new plan of project work through county agents have greatly enlarged their activities this year. These two specialists are attached to the Animal Husbandry Division. The Poultry Specialist is also attached to this Division and the records show the establishment of eight county poultry associations with a membership of 310, 10 public demonstrations held with 235 attendance, 22 public meetings held with an attendance of 4,326. The records show a total for the Animal Husbandry Division of 118 public meetings held, 139 lectures delivered, 408 trips of investigation made and an attendance at meetings of 13,207 people.

In addition to the services thus defined, the members of the Animal Husbandry Division staff have been successful in a score or more undertakings whereby local bankers or commercial bodies advanced the money to their farmers for the purchase of dairy cattle and hogs in carload lots. The most recent example of this work was the purchase of 10 carloads of Holstein dairy cattle for groups of farmers in Lubbock and Hale Counties. In like manner, our Pig Club Agent has been instrumental in the purchase and distribution of many lots of hogs for the Pig Club boys. As reflecting the increase of the live stock industry during the last two years, attention is called to the greatly increased receipts of live stock, especially hogs, at the stock yards of this State.

RURAL WOMEN'S DIVISION.

10. One organizer and one office assistant are employed. The work has been carried on through two channels: (1) by regular written lessons, mimeographed and sent out as used; (2) by practical demonstrations given the various clubs by our Home Economic Demonstrators. Records up to September 1, 1916, give 185 clubs organized, with a total membership of 2845. About two-thirds of these clubs are active and use the lessons regularly. Plans of the division for this year's work embrace a regular course of demonstrations in home economics to these clubs by staff specialists.

PLANT INDUSTRY DIVISION

11. The subjects of orchards and gardens, entomology, plant diseases, agronomy and pecans are represented in this Division. Twenty-eight field demonstrations with an attendance of 129 have been held since January, 1916, six fixed orchard projects established, with many more being outlined, while 105 lectures have been delivered at 26 meetings, attendance 1507. Special attention is called to the packing, marketing and canning campaign conducted by this Division in June, 1916, in cooperation with the State Department of Agriculture and M. K. & T. Ry. Company of Texas. Twenty meetings were held in this campaign, scattered throughout the fruit belt of Texas, actual demonstrations in pruning, spraying, etc., were given in orchards at each stop, and 1215 interested farmers were addressed along the lines of better production, packing, canning and marketing.

SUMMARY.

12. Following is a summary of the staff force and service, not including the work of farm demonstration agents and home demonstration agents.

Central Office Force.

22 white male specialists	Chief Clerk
5 white women specialists	Correspondence Clerk
3 negro men specialists	Foreman Mailing Room and 2 assistants
2 negro women specialists	Bookkeeper
Executive Secretary	Agents' Report Clerk
Editor Publications	7 Stenographers

Literature of all kinds issued 1,789,010 pieces.

Staff lectures	1,600	Organizations and Clubs	
Meetings held	1,250	Boys	9,469
Attendance	108,018	Girls	5,318
Investigations	1,150	Women	2,845
Demonstrations	16,350	Farmers	11,171
Movable schools held—		Poultry	310
Number	Attendance	Negroes	3,919
2099	158,416		

Special Projects Established.

Creamery	2	Dairy	2
Poultry	6	Orchards	6
Egg Circles	59	Ginners Assn.	1
Melon Growers	1	Credit Groups	2
Poultry Marketing	1	Farm Management	39
Sweet Potato Houses	50	Bankers	176
		(adoption rate sheet.)	

Following is a summary of farm demonstration work for the last fiscal year, and the service for the current fiscal year in all respects enumerated will exceed that of last year by 10 to 20 per cent:

Farms under demonstration, 3,589, with an increase in corn yield of 12.7 bushels an acre, compared with other yields in the neighborhood, and an increase of 341 pounds of seed cotton per acre, and an increase of 8 bushels of wheat to the acre, with like increases in grain sorghums, Sudan grass, peanuts, potatoes, etc.

Purebred livestock caused to be purchased for breeding purposes 5,021.

Dipping vats caused to be erected 181.

Cattle dipped under direction, 369,141.

Cattle treated for blackleg, 21,549.

Hogs treated for cholera, 15,112.

Farms terraced, 811; acreage 56,486.

Farmers organizations by neighborhood and county for various purposes of concert of cooperative marketing, 203; with a membership of 10,955.

The expenditures under these two budgets, as under preceding budgets, have been made in accordance with federal fiscal regulations or State fiscal regulations, accordingly as the funds disbursed are derived from State or Federal appropriation. An auditor from the United States Department of Agriculture annually audits all accounts, including State expenditures. The last auditing was completed in September of this year.

CLARENCE OUSLEY,

College Station, Texas, November 1, 1916.

Director.