Annual Report of the Extension Division for the Year Ending June 30, 1918

C. Larsen
I. Johnson
H. Dawes
R. McNiell

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Annual Report

OF

THE EXTENSION DIVISION

For the Year Ending June 30, 1918

SOUTH DAKOTA STATE COLLEGE OF
AGRICULTURE AND MECHANIC ARTS

C. LARSEN, Director

Map Showing Organization of the State for County Farm
Bureau Work, June 30, 1918

Cooperative Extension Work in
Agriculture and Home Economics,
South Dakota State College and
U. S. Department of Agriculture
Cooperating

Brookings, S. Dak.
President E. C. Perisho,
South Dakota State College,
Brookings, S. Dak.

Dear Sir:

In accordance with your request I submit herewith the annual report of the Extension Division for the fiscal year ending June 30, 1918.

Respectfully yours,

C. LARSEN,
Director of Extension.
INTRODUCTION

The past year has been one of unusual activity along the various phases of agricultural extension. South Dakota had a program of extension mapped out in accordance with the provisions of the South Dakota law enacted in 1915 and 1917, and also in accordance with the federal Smith-Lever Act passed by Congress in May, 1914.

With the declaration of war, Congress and those officials in immediate responsibility realized the great importance of supplying our armies and allies with food.

In order to speed up the food production program, Congress made an emergency appropriation. This enabled the States Relations Service to finance men who are capable organizers and expert farmers and also home demonstrators, and boys' and girls' club workers in counties of South Dakota not already organized under our state law. These men thus in charge of the food production work are known as emergency demonstration agents, the ladies, as home demonstration agents, and those in charge of the junior extension as boys' and girls' club leaders.

The work of the Extension Division as now carried out may be grouped under the following heads, an arrangement which is in accordance with cooperative project agreements between the States Relations Service, United States Department of Agriculture and the Extension Division of the South Dakota State College:

- Project No. 1—Administration.
- Project No. 2—County Agent Demonstrations.
- Project No. 3—Short Courses.
- Project No. 4—Boys' and Girls' Club Work.
- Project No. 5—Home Demonstration Work.
- Project No. 6—Dairy Demonstrations (Factory.)
- Project No. 7—Farm Management.
- Project No. 8—Live Stock Improvement.
- Project No. 9—Agricultural Engineering.
- Project No. 10—Horticulture.
- Project No. 11—Animal Diseases.
- Project No. 12—Fertility and Field Crops.
- Project No. 13—Grasshopper Control.
- Project No. 14—Increased Pork Production.
- Project No. 15—Smut Prevention.
- Project No. 16—Rust and Barberry Eradication.
- Project No. 18—Poultry Production.
Project No. 1  ADMINISTRATION  C. Larsen, Director

The administrative work may be grouped under the following chief heads:

1. Directing and coordinating work of the different branches of state agricultural extension.
2. To correlate and connect federal and state extension work within South Dakota.
3. To project and account for all funds in such a way as to meet with the approval of the county, state and federal authorities.
4. To select and recommend capable extension workers.
5. To address public meetings and discuss subjects of value and interest to rural people.
6. To answer and assign letters and inquiries coming to the state extension division.
7. To meet in conference with the different extension workers and people in the state.
8. To make out the various state and federal reports.

During the last year there have been many changes in the personnel of the Agricultural Extension Division. This has been due first, to voluntary enlistments and to induction into military service, and second, to better financial attractions in agricultural extension service in other states.

G. W. Randlett resigned as Director of Extension to accept a similar position in North Dakota, his resignation taking effect March 1, 1918. The writer began his work as Director of Agricultural Extension for South Dakota, April 1, 1918.

The agricultural extension service is a cooperative enterprise among the specially created organizations of the government, of the states, and of the counties. It is supported by funds appropriated by the United States government, by the states, and by the counties within the states. Likewise, the control as to what kind of work shall be done, and how the money shall be expended is lodged in the joint organizations of the county, of the state, and of the States Relations Service, United States Department of Agriculture.

The agricultural extension movement is nation-wide. It has been hastened by the federal emergency appropriation. Wherever capable workers have been employed, the agricultural extension program has met with great success.

Cooperation of the Press.

The public press occupies a very important relation to the success of agricultural extension. It shapes favorable agricultural sentiment. It carries important agricultural truths to the people. It dignifies and elevates farm work.

The South Dakota press has always been found willing to cooperate by devoting space to worthy agricultural information coming from the state extension service.
The agricultural extension work is based upon the needs of the farms and rural homes.

Foundation for Organized Agricultural Extension.

First. The farmer and his work. This phase of extension is carried on chiefly through the county agent and the various specialists. There are now fourteen county agents and thirty emergency demonstration agents.

Second. The homekeeper and the home. This part of extension is planned and conducted by women home demonstrators, of whom there are now eleven at work in South Dakota.

Third. The children and their work. This phase of extension is conducted by the boys' and girls' club leaders. About 20,000 boys and girls are now enrolled in pig clubs, sheep clubs, calf clubs, corn clubs, garden clubs, etc. The work is supervised by six leaders.

These three main groups of work are designated and their relative weights are determined by the executive board of the county farm bureau. The various specialists assist in outlining their respective lines of work in the different counties of the state. The county agent, the home demonstration agent, the boys' and girls' club leader, and the specialists supervise the execution of the plans.

The duty of the county agent and other county workers is not to show each farmer how to run his farm, how to run the home, or how to bring up the children, but rather it is to organize the various agricultural forces of the county in such a way as to obtain cooperation for more profit and more satisfying rural life.

Agricultural extension is cooperative. The work of the various specialists and leaders is correlated in much the same manner as is the work of the farmer, the homemaker and the children in the same home.

I desire to express my appreciation to the different members of the extension staff for the ability, industry and enthusiasm which they are putting into their work, and also for the cooperation given me as a new worker among them.

The following is a statement of the expenditures of extension funds for the year 1917-18:
EXTENSION FUNDS
Statement of Expenditures by Projects, 1917--1918

<table>
<thead>
<tr>
<th>Projects</th>
<th>Total</th>
<th>Smith-Lever</th>
<th>State</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Federal</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>$13,356.95</td>
<td>$4,915.45</td>
<td>$8,002.66</td>
<td>$438.84</td>
</tr>
<tr>
<td>County Agents</td>
<td>39,221.74</td>
<td>4,104.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short Courses</td>
<td>10,070.13</td>
<td>1,919.54</td>
<td>6,957.94</td>
<td>1,192.65</td>
</tr>
<tr>
<td>Boys' and Girls' Clubs</td>
<td>2,471.00</td>
<td>2,471.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Economics</td>
<td>1,739.92</td>
<td>1,739.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy</td>
<td>847.79</td>
<td>847.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm Management</td>
<td>2,164.77</td>
<td>2,164.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live Stock</td>
<td>2,977.48</td>
<td>2,977.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Engineering</td>
<td>1,276.73</td>
<td>1,276.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td>1,388.92</td>
<td>1,388.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal Disease Control</td>
<td>2,948.42</td>
<td>2,531.76</td>
<td>416.66</td>
<td></td>
</tr>
<tr>
<td>Agronomy</td>
<td>1,175.06</td>
<td>107.29</td>
<td>1,067.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$79,645.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Expenditures</td>
<td></td>
<td>$26,445.03</td>
<td>$16,445.03</td>
<td>$14,871.62</td>
</tr>
<tr>
<td>Unexpended Balance</td>
<td></td>
<td>$6.31</td>
<td>$6.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$879,645.22</td>
<td>$26,445.03</td>
<td>$16,445.03</td>
</tr>
</tbody>
</table>

Summary Statement of Expenditures for Extension Work by Items of Expense and Sources of Funds, 1917--1918

Receipts for 1917--1918 . . $879,645.22 $26,445.03 $16,445.03 $14,871.62 $21,883.54

EXPENDITURES.

| Projects                                | Total          | Smith-Lever     | State | County |
|                                        |                | Federal        | State |        |
|                                        |                |                |       |        |
| Salaries                                | $40,643.94     | $13,061.86     | $5,903.20 | $8,129.58 | $13,549.30 |
| Labor                                   | 13,478.80      | 4,535.38       | 4,323.46 | 2,050.98 | 2,565.98 |
| Printing of Pub.'l.                     | 242.09         | 72.94          | 158.30 | 4.06    | 6.79 |
| Stationery, Etc.                        | 2,392.92       | 905.42         | 772.61 | 493.18  | 821.71 |
| Postage, Tel., Exp.                     | 2,720.19       | 356.18         | 191.75 | 591.33  | 852.93 |
| Heat, Light, Power                      | 51.51          |                |       | 19.32   | 32.19 |
| Supplies                                | 788.95         | 221.50         | 214.53 | 148.34  | 214.58 |
| Library                                 | 58.10          | 15.85          | 20.59 | 8.73    | 14.57 |
| Tools and Machinry                      | 202.80         | 38.30          | 128.25 | 13.59   | 22.66 |
| Furniture and Fixtures                  | 896.82         | 172.79         | 337.96 | 319.23  | 617.44 |
| Sci. Apparatus and Supp.                | 48.45          | 39.65          | 8.80  | 3.30    | 5.50 |
| Traveling Expense                       | 16,634.24      | 7,009.41       | 3,666.92 | 2,760.66 | 3,197.25 |
| Contingent Expense                      | 876.10         | 14.75          |       | 323.01  | 538.34 |
| Balance                                 | 6.31           |                |       | 6.31    |        |
|                                        |                | $879,645.22     | $26,445.03 | $16,445.03 | $14,871.62 | $21,883.54 |
RECOMMENDATIONS.

For extension work in South Dakota during the next biennial period the following appropriation is recommended:

<table>
<thead>
<tr>
<th></th>
<th>1919-20</th>
<th>1920-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>To offset federal Smith-Lever</td>
<td>$26,500</td>
<td>$32,000</td>
</tr>
<tr>
<td>To provide state money in county supervision fund for the 16 counties now organized @ $1,000 (Representing 40% of county appropriation.)</td>
<td>16,000</td>
<td>16,000</td>
</tr>
<tr>
<td>For 15 new permanent counties first year</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>For 8 new counties the second year</td>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>$57,500</td>
<td>$71,000</td>
</tr>
</tbody>
</table>

Project No. 2--COUNTY AGENT WORK AND EMERGENCY DEMONSTRATION WORK.

September 1, 1917, to June 30, 1918, I. B. Johnson, State Leader.

During the fiscal year fifteen of the agents have entered active military service. These men are:

<table>
<thead>
<tr>
<th>Name</th>
<th>County</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. V. Ausman</td>
<td>Clark</td>
<td>July 15, 1917.</td>
</tr>
<tr>
<td>Joseph H. Drury, Asst.</td>
<td>Spink</td>
<td>March 15, 1918.</td>
</tr>
<tr>
<td>McDonald T. Greene, Asst.</td>
<td>Clark</td>
<td>May 15, 1918.</td>
</tr>
<tr>
<td>Lester Thompson, Asst.</td>
<td>Brookings</td>
<td>May 25, 1918.</td>
</tr>
<tr>
<td>Charles Gilbert</td>
<td>Faulk</td>
<td>June 2, 1918.</td>
</tr>
<tr>
<td>H. C. Lende</td>
<td>Potter</td>
<td>June 12, 1918.</td>
</tr>
<tr>
<td>Joseph M. Smith</td>
<td>Bon Homme</td>
<td>June 13, 1918.</td>
</tr>
<tr>
<td>M. A. Lindsay</td>
<td>Gregory</td>
<td>June 21, 1918.</td>
</tr>
<tr>
<td>H. M. Tasker</td>
<td>Tripp</td>
<td>June 22, 1918.</td>
</tr>
<tr>
<td>Chester Tate</td>
<td>Perkins</td>
<td>June 26, 1918.</td>
</tr>
<tr>
<td>Lloyd Holliday</td>
<td>Custer</td>
<td>June 26, 1918.</td>
</tr>
<tr>
<td>A. W. Tompkins</td>
<td>Hyde</td>
<td>June 30, 1918.</td>
</tr>
<tr>
<td>E. C. Anderson</td>
<td>Deuel</td>
<td>June 30, 1918.</td>
</tr>
<tr>
<td>O. Leon Anderson</td>
<td>Haakon</td>
<td>June 30, 1918.</td>
</tr>
</tbody>
</table>

The Development of the County Bureaus.

The agricultural counties of South Dakota, like similar counties in other states, have been confronted with the gigantic task of increasing their food production and food conservation since the entry of the United States into the world war. This task has become the more difficult on account of the increased labor shortage.
To meet more fully the production problem in every agricultural county, Congress passed the Food Production Act in August, 1917, thereby enabling every agricultural county that was not at that time employing a county agent, to employ such an agent for the period of the war, the government assisting in meeting the finances involved by such arrangement.

At the beginning of the past fiscal year, July 1, 1917, there were twelve organized farm bureau counties employing county agricultural agents. These counties were:

**Regular Farm Bureau Counties.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914</td>
<td>Spink</td>
<td>Codi nton</td>
</tr>
<tr>
<td>1915</td>
<td>April</td>
<td>Beadle</td>
</tr>
<tr>
<td>1915</td>
<td>July</td>
<td>Clark</td>
</tr>
<tr>
<td>1915</td>
<td>Douglas</td>
<td>Lyman</td>
</tr>
<tr>
<td>1915</td>
<td>August</td>
<td>Day (discontinued Nov. 1916.)</td>
</tr>
<tr>
<td>1915</td>
<td>September</td>
<td>Lawrence</td>
</tr>
<tr>
<td>1915</td>
<td>October</td>
<td>Kingsbury</td>
</tr>
<tr>
<td>1916</td>
<td>January</td>
<td>Hughes</td>
</tr>
<tr>
<td>1916</td>
<td>April</td>
<td>Stanley</td>
</tr>
<tr>
<td>1916</td>
<td>August</td>
<td>Fall River</td>
</tr>
<tr>
<td>1917</td>
<td>April</td>
<td>Miner</td>
</tr>
</tbody>
</table>

Jones county voted on the county agent question at the last general election, the vote cast favoring the work. An agreement was made to take up the work on January 1, 1919. Three additional counties organized for farm bureau work during the fiscal year. These were:

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>July</td>
<td>Haakon</td>
</tr>
<tr>
<td>1918</td>
<td>June</td>
<td>Jerauld</td>
</tr>
<tr>
<td>1918</td>
<td>June</td>
<td>McCook</td>
</tr>
</tbody>
</table>

As no more state funds were available for farm bureau work no other counties could complete the permanent organization.

**Emergency Agricultural Bureaus.**

The remaining agricultural counties of the state were quick to avail themselves of the opportunity for bureau work afforded by the Food Production Act. They completed their emergency agricultural bureau organizations as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>October</td>
<td>Minnehaha</td>
</tr>
<tr>
<td>1917</td>
<td>October</td>
<td>Davison</td>
</tr>
<tr>
<td>1917</td>
<td>November</td>
<td>Deuel</td>
</tr>
<tr>
<td>1917</td>
<td>November</td>
<td>Hamlin</td>
</tr>
<tr>
<td>1917</td>
<td>December</td>
<td>Day</td>
</tr>
<tr>
<td>1917</td>
<td>December</td>
<td>Sanborn</td>
</tr>
<tr>
<td>1917</td>
<td>December</td>
<td>Walworth</td>
</tr>
<tr>
<td>Month</td>
<td>Counties</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>Aurora, Clay, Grant, Jackson, Lake</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>Moody, Butte, Edmunds, Hanson, Lincoln, McCook, Pennington, Perkins, Potter, Roberts, Union, Yankton</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>White River District - Washington, Shannon, Washabaugh, Todd, Bennett, Mellette (Reorganized in June as Mellette County.)</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>Bon Homme, Brookings, Brown, Brule, Campbell, Charles Mix, Faulk, Custer, Gregory, Hand, Marshall, Meade, Sully, Tripp, Turner</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>Timber Lake Dist., including Corson, Dewey, portion of Ziebach and Armstrong counties.</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>Hutchinson, Hyde, McPherson</td>
<td></td>
</tr>
</tbody>
</table>
The bureau organization in each of these counties has adopted the name of Emergency Agricultural Bureau, which corresponds to the regular farm bureau organization. It differs only in the method by which the work is financed, the emergency bureaus receiving emergency federal aid in addition to the local appropriation, while the farm bureaus receive both state and regular federal aid besides the county appropriation.

Federal funds available through the Food Production Act permitted the employment of assistants to the state leader to carry on the bureau organization work in the state and the added responsibilities of the state office. These assistants were:

R. L. Patty ............Sept. 1, 1917, to April 1, 1918.
F. E. McCall ............Sept. 1, 1917, to April 1, 1918.
R. C. Pollock ..........Jan. 1, 1918, to June 15, 1918.
A. W. Tompkins .........Feb. 1, 1918, to June 30, 1918.
W. W. Underwood .........May 1, 1918, to June 30, 1918.

The emergency funds also enabled the regular farm bureau counties to employ assistants to the agents in order better to carry on their increased activities. The present status of the work in South Dakota is shown by the map on the cover of the report.

The Bureau Organization Plan.

In brief the county farm bureau organization consists of a central directing body known as the board of directors in the regular county farm bureau, which in the emergency agricultural bureau is known as the executive committee.

Each member of this directing body is designated as the county leader of some one of the farm problems that confronts the county, and of which he is qualified to serve as leader. A committee of from three to five farmers is appointed for each of the interested communities of the county, each committeeman in turn being the local leader of some one of the community farm problems of which he is qualified to lead. The county leader of a given problem together with the community committeemen who are local leaders of the same problem, constitute what is known as a project committee. This body outlines the work of the bureau and of the agent, along that particular line, similarly in other lines of farm bureau work.

The Special War Emergency Activities of the Bureaus.

Since the recognition of the county and emergency agent work, as one form of war work, the bureaus have organized their program of food production for the most effective results for the nation and its allies. The federal government through the Department of Agriculture, the Food Administration, and the National Council of Defense has called upon the bureaus to assist in the war emergency campaigns that have become national necessities. This war work, as it has developed during the year, might be grouped under eight different heads, in addition to the eight lines of regular work adopted
at the county workers last annual conference. These special lines are:

1. Fall grain campaign of 1917.
2. Increased pork production campaign.
3. Agricultural survey.
5. Increased flax production.
7. Grain saving work.
8. Committee work for the Liberty Loan drives, the Y. M. C. A., and Red Cross drives and the County Council of Defense work.

The fall grain campaign of 1917 resulted in a greatly increased acreage of winter rye in the bureau counties then organized. In a number of counties the acreage was more than doubled and greatly exceeded the percentage increase requested by the Government.

The pork production work resulted in a similar increase, the Government asking for a 10 percent increase while surveys made in the organized counties in January showed that the farmers had patriotically increased their pork production 15 percent.

To enable the Department of Agriculture in obtaining a closer check on production, an agricultural survey was made by the federal labor representative detailed to this state. In a number of instances the county bureaus rendered active assistance in getting this survey to the attention of the farmers of the communities.

Some of the bureaus assisted in a campaign for treating seed potatoes for scab.

A campaign for increased flax production was carried on by many of the bureaus. Several of them assisted in increasing the acreage devoted to flax by obtaining flax seed for the farmers.

In the barberry eradication campaign reports show that 7,662 plants and hedges of the common barberry were located and removed through the efforts of the bureau and specialists.

In almost every county the agents have served on committees for Liberty Loan drives and Y. M. C. A. and Red Cross drives. In some instances they have been taking the leading part in County Council of Defense work, but as this has taken so much of their time from the other important activities to which they have been assigned by their bureaus and the government, they have relinquished this leadership, but have willingly served on any of the council committees to which they were appointed.

As the present fiscal year closes the agents have just been appointed by the State Food Administrator to serve on a grain-saving committee with a member of their local County Council of Defense and one of the local threshermen. This committee will not only assist in creating a general sentiment for the utmost care in saving grain at threshing time, but will also compile the results showing the exact amount and kind of grain threshed within the county.
Regular Bureau Activities.

The last annual conference of agents resulted in the adoption of the following lines of work as the more important activities for the ensuing year:

1. Organization.
2. Pure farm seed production and distribution.
3. Community effort in preventing the spread of contagious diseases.
4. Farm labor.
5. Home demonstration work.
6. Boys' and Girls' club work.
7. Livestock improvement.
8. Exchange and marketing.

Organization.

The organization work in a county refers not only to the development of a greater interest in farm bureau activities, but also the organization of farmers' clubs, purebred livestock associations and marketing associations.

As a part of the farm bureau development program all the bureaus have agreed to make a composite exhibit of farm bureau activities at the coming state fair. Such an exhibit will display the work of the bureaus and what they have accomplished thus far.

During the series of district conferences held in June, at which time representatives of the various bureaus and the agents were invited into conference, it was agreed to designate one week as a state-wide membership week for all counties. The choice of all counties resulted in the selection of the week of November 11, 1918. At this time a bureau membership campaign will be carried on by all communities of the state, and it is expected that the present membership will be greatly increased. During the past year bureau membership in South Dakota has increased from 1,466 to 10,017 members.

Fourteen of the bureaus began the printing of a monthly four-page leaflet known as the Farm Bureau News. The state office cooperates in putting out this leaflet by supplying the composition for and printing the two inside pages. This office attempts to get news material that will be of state-wide and national farm bureau interest for these two pages. This monthly paper is mailed out by the agents to the members of their bureau.

Pure Farm Seed Production and Distribution.

The most serious situation confronting increased food production in the early part of the calendar year was the shortage of good seed corn throughout the corn belt. Good seed corn was also scarce in this state. Fully realizing the situation the bureaus set about to relieve this condition, and they not only obtained a sufficient
amount of good seed corn for the farmers of South Dakota but they also assisted in relieving the shortage in other corn belt states. Complete seed corn surveys were made in nearly every corn producing county. The results of the survey gave definite index to the local situation.

Campaigns were conducted for a more universal testing of seed corn with the result that 2,717 farmers, who had not tested their corn previously, became interested in the ear testing of their seed. The bureaus themselves ear-tested 7,296 bushels of corn for the farmers, making a slight charge in most cases to cover the expense of this service. The bureaus also made a composite test of an additional 39,822 bushels of corn. In order to assist further in relieving the seed shortage the bureaus located, obtained and distributed a total of 25,640 bushels of first-class seed corn for the farmers of the state.

Additional work conducted for a greater pure seed production and distribution has been the marketing and purchasing of alfalfa seed, seed wheat, seed oats, and seed for forage crops.

Variety tests are being conducted in a number of the counties to determine the varieties best adapted to the section, and farmers have been interested in cooperating with the bureaus for a purer seed production through the maintenance of seed breeding plots.

Animal Disease Prevention Work.

There has always existed a vital need for some local body to develop a community spirit for preventing the spread of contagious animal diseases. The agents have been directed to assist in the location of such diseases and to cooperate with the individual and the community in checking its further spread. The bureaus do not expect their agents to do veterinary work but insist upon the agent notifying the farmers of a community when a contagious disease outbreak occurs there, and then conducting a community campaign for thorough disinfection and the use of sanitary measures. All illustrations of the method might readily be found in the animal disease prevention work of Haakon county.

The bureaus have procured and distributed to their livestock farmers 86,338 doses of government blackleg vaccine during the year; 16,763 cattle have been vaccinated for anthrax upon the suggestions of the agents; 7,658 hogs have been vaccinated against hog cholera upon the agents’ suggestions; and 3,497 animals have been treated for hemorrhagic septicemia as a result of the agents’ recommendations. The agents have been concerned with 3,072 cases of necrobacillosis and have assisted the owners of the infected herds in adopting the necessary sanitary precautions.

Livestock Improvement.

The livestock interests have been developed further by the bureaus, thru the organization of community livestock shipping associa-
tions; by the establishment of an exchange at the bureau office; by
the assistance rendered farmers in securing purebred livestock; by
the organization of special livestock days in the county; by the for­
mation of county livestock breeders associations where they have
not already existed; by assistance rendered farmers in securing bet­
ter balanced rations; and by the organization of boys’ livestock
clubs for the breeding of purebred animals or for their better feed­
ing. During the past fiscal year there were 14 livestock shipping
associations organized by the bureaus, thru which smaller producers
and feeders may cooperate together and ship their livestock to the
central markets in carload lots. All of the associations are doing
a good volume of business.

Farm Help.

A service that has been universally appreciated by the farmers
has been the labor work carried on by all of the bureaus. The agent
was responsible for getting a local labor organization built up in
different parts of his county, in order that the requests for farm
labor could all come through such an organization and the laborers
obtained distributed through it. The agent would obtain as many
laborers as could be secured from the central labor office to meet
the wants of the farmers. Up to the close of the fiscal year this
plan had been able to take care of very nearly all of the requests for
farm help. The number of farm laborers placed up to that time was
4,446. With the approach of the harvest season this number would
be greatly increased.

Home Demonstration.

The home demonstration work of the bureaus has been detailed
to the district home demonstration agents working under the home
economics project, and the results of this bureau project may be
found there. The agents have assisted in getting the conservation
program before the communities of their counties.

Boys’ and Girls’ Clubs.

The boys’ and girls’ club activity of the bureaus has resulted
in an enrollment of 18,857 juniors in the different clubs adopted by
the organization. The district club leaders sent out by the state
club department have aided greatly in getting the work organized,
and in maintaining the interest of the boys and girls enrolled. In
order to secure still greater results from the work there should be
more community leaders throughout the county so that the work
of the boys and girls might be followed up more closely and still
greater results obtained.

Exchange and Marketing.

The bureaus have not merely considered the production pro­
blem alone, but have also given attention to the marketing and dis­
distribution problem. Under the present world shortage of food products naturally the production problem has been the all important one. This is especially true inasmuch as the Food Administration has accomplished so much for a more equitable distribution and marketing. The marketing problems of the bureaus have been more local in their application, such as the organization of an exchange at the bureau office, where farmers might list their farm seeds, pure bred livestock, or machinery for sale. Periodical lists of these items would then be sent to all the farmers in the county with a view of getting buyer and seller together. As previously mentioned 14 livestock shipping associations were formed during the year. Eight other marketing associations have also been formed, all of them being cooperative in character.

AURORA COUNTY.—A. L. Bushey, Emergency Demonstration Agent.

When Aurora county organized for agricultural bureau work the farmers felt that the following lines of effort should be stressed during 1918:

1. Organization.
3. Seed corn.
4. Livestock improvement.
5. Labor.
6. Boys' and girls' club work.
7. Home demonstration work.

There were 173 members of the bureau representing the farmers from all sections of the county. The organization has gradually been extended during the year through the organization of community committees.

The first problem that confronted the agent when he started work in Aurora county was the seed corn situation. The bureau immediately organized a central seed corn testing station and established others throughout the county. During the month of March 50 bushels of ear-tested seed corn were turned out each week by the testing station. Upon advice of the bureau 14 farmers secured their own seed corn for Aurora county. Eight hundred bushels of seed corn were ear-tested by the bureau, 155 farmers were influenced to test their own corn and 318 bushels were obtained and distributed within the county by the organization.

The animal disease prevention work was another problem demanding the attention of the bureau. Animal disease prevention meetings were held throughout the county during March. During the spring months 1,875 doses of blackleg vaccine were distributed among the farmers. A few outbreaks of hog cholera occurred and the bureau immediately detailed the agent to post such premises. By pursuing this method and notifying the farmers surrounding the affected area the outbreaks were stamped out.
The boys' and girls' club work has received a great amount of the bureau's attention and the interest of this work on the part of the boys and girls of the county is shown in the fact that there are 586 members.

The farm help question has been an important one. Ninety farm laborers were placed in the county during the spring and early summer.

In accomplishing the foregoing work during the six months that Mr. Bushey has been at work in the county, he has spent 82 days in the field and 64 days in the office. While at the office he has received 446 calls from farmers in the county and has written 560 letters. His duties in the field have been in the nature of farm visits and meetings. Visits were made to 323 farms, 12 demonstrations have been inspected and 19 meetings have been held throughout the county with an attendance of 838 farmers.

**Beadle County.**—O. P. Drake, County Agent.

Garrett Dokter, Assistant, Jan. 15 to Mar. 30.

Lynn Hutton, Assistant, after March 20, 1918.

The farm bureau work in Beadle county has made great progress during the past fiscal year. The membership in the organization has very nearly doubled and the various communities of the county have been organized for active farm bureau work. The membership totals 322 at the present time. The problems being given attention by the bureau in Beadle county are:

1. Marketing, insurance and farm loans.
2. Crops.
4. Organization.
5. Livestock improvement and animal disease prevention.
6. Potatoes.
7. Home demonstration work.

In addition to extending the farm bureau organization into all communities of the county, three farmers' clubs have been organized making a total of seven farmers' clubs for the county. One farm excursion was held at which time the better farm practices of the county were inspected. Several farmers' picnics were held. A Farmers' Mutual Insurance company was organized by the bureau during the past year. The various bureau committees that have been appointed in the communities are also organized for war emergency work in cooperation with the County Council of Defense. These committees represent the rural workers of the Council of Defense.

Soils and crop work have been important features of the bureau program. Drainage has been the big soil problem. Preliminary surveys have been made for several farmers relative to installing a thorough drainage system. In the southern part of the county one of the farmers carried on a drainage demonstration in which he se-
cured an outlet for considerable undrained area by making a wide shallow ditch with his road grader and tractor. This took off the surface water very quickly with the result that he was able to work this soil as early in the season as any other on the farm and it is today yielding a very promising crop.

Variety tests of corn are being carried on in different parts of the county, but as yet no definite recommendations are made as the bureau wishes to carry on this work for a period of years in order to secure the best average for all seasons.

Variety tests of potatoes are also being carried on. Thus far Irish cobblers have shown up to the best advantage. In addition to the variety tests some farmers are also carrying on "tuber selection" demonstrations for the bureau. During the spring 2,500 pounds of alfalfa seed were obtained and distributed for the farmers.

The livestock improvement work has been in the nature of locating purebred livestock for farmers desiring such stock. A great deal of time has been devoted to increasing the interest in the county Purebred Livestock Breeders' association and in the sale of this association.

The animal disease prevention work commanding the attention of the bureau has been mostly hog cholera work. During the past season there have been only 9 outbreaks of hog cholera. There have been no epidemics as compared with 3 epidemics and 51 outbreaks of hog cholera during the season before this.

As a measure of food conservation the bureau inaugurated a series of Mother-Daughter clubs during the summer and fall of 1917. These clubs through regular meetings of the mothers and their daughters studied the problem of better drying and canning methods and as a result of their efforts have put up 8,696 quarts of fruit, vegetables and meats during that season.

Last spring the bureau sought to interest a greater number of boys and girls in the regular club work with the result that 74 juniors are now organized for greater production.

The agent has given much time to the farm help problem this spring. The communities were organized and approximately 200 laborers were obtained for farmers of the county at the close of the fiscal year.

In order to accomplish the foregoing work the agent has spent 155 days in the field and 122 days in the office. Requests from 349 farmers came for the agent's services through calls at the office; 290 letters were sent out; 396 farm visits and 7 demonstration visits were made during the year, and 92 meetings were held with a total attendance of 2,339 farmers.

BON HOMME COUNTY.—J. M. Smith, Emergency Demonstration Agt.

Bon Homme county completed its agricultural bureau organization work in March and employed J. M. Smith as Emergency Demon-
The farm problems needing the attention of the bureau in the county were:

1. Organization.
2. Livestock improvement.
3. Crop improvement.
4. Farm help.

The livestock improvement problem was undoubtedly the most important one of the four. The bureau arranged to carry on an exchange list for the service of the members and other interested farmers in the county, whereby purebred livestock for sale and pure-bred livestock wanted could be listed free of charge.

The farm help problem was second in importance, and the communities of the county were organized so as to be able to handle this problem in the most effective way during the summer months. Fourteen farm laborers were placed for spring work.

On June 12, Mr. Smith was called to military service, and no one was appointed to complete his work at the time on account of the difficulty in finding experienced men qualified to serve as agent.

During the portion of the three months that the bureau work was in active progress, Mr. Smith spent 30 days in the field and 33 days in the office. One hundred seventy-six farmers called at the bureau office for definite information; 155 letters were sent out in answer to inquiries; 87 farm visits were made; two meetings were held and 31 boys and girls were enrolled in club work.

BROOKINGS COUNTY.—P. V. Finley, Emergency Demonstration, Agt.
Lester Thompson, Assistant for one and one-half months.

Since South Dakota State College of Agriculture and the State Experiment Station are located in Brookings county it was one of the last counties in which the bureau organization was proposed. The interest on the part of the farmers, however, was not lacking, for in a two-week membership campaign 270 members were secured for the agricultural bureau. At the organization meeting the farmers outlined the following lines of work for the attention of the bureau:

1. Organization.
2. Improvement and distribution of seed.
3. Livestock improvement.
5. Weed eradication.
6. Farm help.
7. Boys' and girls' club work.

The emergency demonstration agent has been at work for the bureau for three months during the fiscal year. During this time he has been in the field 39 days and in the office 31 days; 76 farmers have called upon him at the office for his services; 361 letters have been sent out; 55 farm visits have been made and 41 meetings have been held with a total attendance of 2,004.
The livestock improvement work has received the greater part of the attention of the bureau thus far. Three livestock shipping associations have been organized during the foregoing period and each one of them is actively and successfully engaged in the shipping of livestock for farmers of the respective communities. A farmers' club has also been organized in one section of the county.

The interest in boys' and girls' club work throughout the county has been rather keen, 762 having been enrolled in the club membership. On account of the interest Lester Thompson was secured as an assistant to Mr. Finley and was detailed to give most of his time to war garden work and club work during the period employed. He was called into military service in the middle of June.

The farm help problem has been as acute in Brookings county as in other counties of the state. The bureau office has been able very nearly to supply all of the calls for farm help, 95 laborers having been obtained for the farmers up to the close of the fiscal year.

BROWN COUNTY.—Roy E. Smith, Emergency Demonstration Agent.

Brown county agricultural bureau has laid out the following work for its agent:
1. Organization.
2. Livestock improvement.
3. Crop improvement.
4. Boys' and girls' club work.
5. Farm help.

Mr. Smith assumed his duties during the month of April and since that time has spent 45 days in the field and 25 days in the office. He had 102 calls for specific information; has sent out 144 letters in answer to inquiries made of the office; 163 farms were visited, and 5 meetings were held with a total attendance of 105 farmers.

The seed corn situation was one of the first problems to demand the agent's attention. The bureau aided in every way possible to locate the available local sources of good seed corn and to assist in the seed corn testing work. At the close of the year plans were under way relative to the organization of a Potato Growers' Shipping association.

The livestock problem and the animal disease prevention work are also leading projects of the bureau, but no definite results have been accomplished during the early part of the summer. The bureau however, has made plans for a great increase in purebred livestock and a greater interest in its development. No serious outbreaks of animal diseases had occurred which necessitated the united action of any of the communities of the county.

The bureau has perfected plans relative to completing its organization at the beginning of the ensuing year, and community
committees have been appointed throughout the county. The organiza-
tion has a total membership of 262 farmers.

Boys' and Girls' Club work came in for its just attention with
888 boys and girls enrolled for greater production and conservation.
The service of a district club leader has been obtained to work in
the interest of this work.

BRULE COUNTY.—Ira S. Johnson, Emergency Demonstration Agent.

The farmers of Brule county organized for greater production
during the spring of 1918, completting their agricultural bureau or-
ganization in March with a total membership of 205.

At their organization meeting it was felt that the following
lines of work should receive the agent's attention.

1. Farm labor.
2. Crop improvement.
3. Finance.
4. Boys' and girls' club work.
5. Livestock improvement.

A seed corn survey was conducted throughout the county and
an exchange list was made up from the results obtained from the
survey. This list was then out so that the farmers who were in
need of seed corn could get in touch with other farmers who had a
surplus on hand. A sufficient amount of seed corn to supply Brule
county's needs was obtained.

The livestock improvement work has resolved itself into mostly
animal disease prevention activities. The bureau has secured and
distributed several hundred doses of blackleg vaccine to the farm-
ers who made request for it.

The agent assumed his duties a little too late in the year in or-
der to give much attention to the boys' and girls' club work with
the result that no such clubs were perfected.

The farm help problem was felt to be one of the minor pro-
blems in the county, and at the close of the fiscal year 32 farm labor-
ers had been placed by the bureau.

BUTTE COUNTY.—O. H. Barnes, Emergency Demonstration Agent,

February 1 to April 1.

H. E. Gregory, after May 16.

Butte county completed its agricultural bureau organization dur-
ing the month of February with a membership of approximately 100.
Its organization meeting was held later in the season when the fol-
lowing lines of work were adopted for the ensuing year:

1. Alfalfa and forage crops.
2. Sugar beets.
3. Livestock improvement.
4. Dairying.
5. Farm accounts.
6. Standardizing and marketing of grains and seed.
8. Boys' and girls' club work.

In order to carry out the foregoing program the agent has spent 28 days in the field and 10 days in the office. During this time he had 122 office calls, sent out 160 letters in reply to inquiries made by the farmers, made 227 farm visits and held 6 meetings with an attendance of 146.

Permanent bureau community committees have been perfected in most sections of the county. An alfalfa-seed-marketing association has been started at Newell. The bureau members are now forming a local farmers' telephone exchange in and about the community of Vale. Two of the communities have cooperated in buying their sheep dip which has meant a great financial saving to the farmers of the community.

As a part of the nation-wide campaign against the barberry six such plants were located and destroyed by the bureau in Butte county.

A junior club of 165 boys and girls has been organized for greater production and conservation.

CAMPBELL COUNTY.—Alfred E. Nord, Emergency Demonstration Agent.

On organizing for agricultural bureau work the farmers of Campbell county felt that four more important pieces of work should receive their attention. These were:

1. Organization.
2. Livestock improvement.
4. Farm help.

When Mr. Nord assumed his duties as agent for the bureau the farmers requested some assistance on the seed corn problem. A seed corn testing station was arranged for and an exchange was built up. Sixty bushels of seed corn were ear-tested by the bureau and a composite test was made of an additional 80 bushels of seed. Twenty-five farmers were influenced to test their own seed and 25 bushels of seed corn were distributed by the bureau.

Another problem that has also called for more or less of the agent's attention has been the animal disease prevention work.

The farm help problem has also been the work of the bureau. At the close of the fiscal year, twenty-four laborers had been obtained for the farmers of the county.

During the two months that the work has been organized the agent spent 16 days in the field and 34 days in the office, made 55 farm visits, received calls by 121 farmers for definite requests in the office and wrote 77 letters in reply to inquiries received.
CHARLES MIX COUNTY.—Harvey F. Johnson, Emergency Demonstration Agent.

The agricultural bureau work was first organized in Charles Mix county this spring. On account of the rush of farm work when the bureau closed its membership campaign, no organization meeting had been held to the close of the fiscal year, but the agent had been directed to give attention to some of the outstanding problems confronting the communities. These problems were:

1. Organization.
2. Livestock improvement.
3. Crop improvement.
4. Farm help.
5. Boys' and girls' clubs

During the three months of active duty on the part of the agent, 1,350 cattle were vaccinated for blackleg on his suggestion. Several cases of necrobacillosis in hogs were called to his attention, and definite assistance was given in sanitation and preventive measures.

The labor problem was handled by the bureau by completing its county labor organization and the registration of all the available local help for emergency work. Fifteen farm laborers were obtained outside the county. Variety tests of the more important crops were also arranged for in certain communities.

Assistance was given to the local leaders interested in boys' and girls' club work. At the beginning of the bureau work in the county there were approximately 341 club members and the bureau has been assigned a definite part in the development of the club work among these junior members.

During the period mentioned above, 54 days were spent in the field and 18 days in the office, 201 office calls were received by the agent, 231 letters were sent out; 160 farm visits were made and 26 meetings were held with a total attendance of 1,313.

CLARK COUNTY.—L. V. Ausman, County Agent, July 1 to July 15, 1917.

A. J. Dexter, County Agent, from September 26, 1917.

McDonald T. Greene, Asst. for one and one-half months.

Farm bureau activities in Clark county have been divided into the following 7 lines of work:

1. Meetings, picnics, field excursions, publicity, and publications.
2. Soil management, crop management.
3. Livestock improvement, disease prevention.
4. Organization affairs, membership.
5. Boys' and girls' club work.
6. Farm management, marketing.
7. Poultry demonstrations, potato production.
The farm bureau has a total of 243 members at present. The bureau committees are at work in very nearly all of the communities of the county. The bureau contemplates a federation of the various farmers' clubs of the county sometime during the ensuing year.

The livestock improvement program has perhaps received the greater amount of attention. The bureau is now carrying on a livestock exchange at its office. It has assisted in organizing one livestock shipping association; has revived an interest in the county purebred livestock association and has been instrumental in getting the purchaser of purebred livestock into immediate touch with the seller. Of the contagious disease prevention problems hog cholera stands foremost. There were a number of outbreaks of cholera in the county last fall and upon the initiative of the agent, the bureau arranged for 8 hog cholera meetings in the various communities where outbreaks were encountered.

At these meetings 260 farmers were reached at which time preventive measures were discussed and farmers urged to cooperate to stamp out the outbreak in the community. Upon the suggestion of the agent, 780 hogs have been vaccinated for cholera and 160 cattle vaccinated for blackleg.

The seed corn situation demanded much of the bureau's attention last spring. A county-wide survey was made showing that the demand for good seed corn was much greater than the local supply. The bureau was able to secure 1,150 bushels of seed corn and to distribute it among the farmers desiring the seed. The bureau ear-tested 150 bushels of seed corn and interested 450 farmers in the testing of their own seed.

Other crop work organized by the bureau was in the nature of crop demonstrations. One flax demonstration is being carried on by one of the farmers contrasting the nonwilt resistant flax with the wilt resistant flax; two smut demonstrations have been organized; 14 farmers are cooperating in conducting potato demonstrations, and in keeping with the national and state program of barberry eradication the bureau located and destroyed 20 common barberry plants in the county.

The bureau is giving attention to the farm management work and the improvement of farmstead and building. Two septic tanks have been planned for farmers, two water systems for farms and several plans for modern barns and hog houses have been secured for the farmers desiring them.

Boys' and girls' club work has been one of the important features of the bureau program. One hundred fifty-six juniors have been organized for the work for 1918. The farm help problem is another activity that has come in for serious consideration. At the close of the fiscal year, 73 farmers in one county had been supplied with laborers.

In order to carry on the foregoing activities, the agent has
spent 107 days in the field and 90 days in the office, has had 184 calls at the office and has written 603 letters in reply to inquiries received. Seventy-five meetings have been held, reaching a total of 3,922 farmers.

CLAY COUNTY.—H. E. Skott, Emergency Demonstration Agent.

At the beginning of the agricultural bureau work in Clay county there were 210 farmers as members of the organization. When the agent assumed his duties, the immediate problem for consideration was the seed corn situation. The agent was actively engaged in the seed corn testing campaign before the general organization meeting had been held. In conducting the campaign, a complete survey was made of the situation in Clay county and as a result a seed corn testing station was established at Vermillion, in order to test corn for farmers who otherwise could not get their seed corn tested. The bureau made a charge of 1 cent an ear for the corn tested at the station. There were 32 farmers in the county who availed themselves of the service of the seed corn testing station. One hundred ninety-two bushels of corn were ear-tested and 154 composite samples tested, few of which were good for seed. The bureau carried on a series of meetings at which the testing of seed corn was demonstrated, and the rag doll tester was distributed throughout the communities through local schools.

At the meeting of the bureau the following activities were considered of major importance for 1918. They were:

1. Organization.
2. Crop improvement.
3. Livestock improvement—animal disease.
4. Club work.
5. Home demonstrations.
7. Orchard improvement.

In the barberry campaign conducted throughout the county the hearty cooperation of all people was secured and barberry bushes and hedges were removed. A campaign for greater flax production was inaugurated by the bureau and the attention of the farmers of the county was called to the importance of the crop through newspaper publicity and appropriate posters. The bureau further supplemented this by securing seed for the farmers desiring the same.

The farm help problem has been a very important activity confronting the bureau. All the local available help in the different townships of the county was registered, and up to the close of the fiscal year has been responsible for securing 165 laborers for the farmers.

To accomplish the foregoing lines of work, the agent has spent 46 days in the field and 58 days in the office, receiving 242 office calls and sending out 342 letters. Nine demonstration visits have
been made and 219 farmers visited to consider some definite production work, and 73 meetings have been held with an attendance of 278.

CODINGTON COUNTY.—A. W. Palm, County Agent. Harmon Kopperud, Assistant.

The activities of the Codington county farm bureau may be grouped as follows:

1. Organization.
2. Livestock improvement.
4. Soil and crop improvement.
5. Boys’ and girls’ club work.
6. Farm help.

During the past fiscal year more stress has been placed on the war emergency activities. The agent has acted as secretary of the County Council of Defense and has been active in the Liberty Loan drive, Y. M. C. A. work and Red Cross work. The bureau plans the organization of bureau committees throughout the communities of the county.

The soils and crop work has been one of the important features of farm bureau work. Fertility tests have been carried on, on different types of soil, the results of which are not as yet available. Variety tests of the grains are being conducted throughout the county. Last year 1,000 acres of sugar beets were started through the efforts of some of the local organizations. During the past spring 1,528 bushels of seed corn were located and distributed through the efforts of some of the farm bureau members. The organization cooperated in the national and state campaign for barberry eradication and was successful in destroying the common barberry bushes and hedges in the county.

The livestock improvement work has been another strong activity of the bureau. One livestock shipping association was formed. A purebred livestock directory was compiled by the bureau and the bureau has been active in the various county purebred livestock sales that have been held.

Boys’ and girls’ club work has been another bureau enterprise. There are 452 juniors enrolled for greater production and conservation during 1918. As a result of the club work of the past year, there were 2 members of the Codington county boys’ and girls’ club who won state honors, and together with two members of the Hughes county club represented the state in an inter-state canning contest at Sioux City, and as a part of the state team carried off the honors for the northwest states.

As an outgrowth of the interest in greater production, a local garden association was formed at Watertown for more intensive gardens and plans were underway for a community canning and drying plant.
The farm labor question has been an important one and the bureau has through its county wide organization, endeavored to fill the requests for farm help. Up to the close of the fiscal year, 110 farm laborers had been placed for the farmers of the county.

During the past 12 months the agent's time has been divided as follows: 188 days have been spent in the field and 112 days in the office; 2,230 calls have been made upon the agent's time while in the office, and 1,240 letters have been sent out in reply to inquiries; 289 farm visits have been made, and 36 meetings held with an attendance of 1,275.

CUSTER COUNTY.—Lloyd H. Holliday, Emergency Demonstration Agent.

As a major part of the greater production campaign in Custer county, the agricultural bureau there adopted the following lines of work for 1918:
1. Organization.
2. Livestock improvement.
4. Boys' and girls' club work.
5. Crop improvement.
6. Road improvement.

In carrying out the foregoing program of work the agent during his three months of service for the bureau has put in 47 days work in the field and 23 days in the office. He received 60 office calls and wrote 232 letters. Sixty farm visits were made in various parts of the county and 14 meetings held with an attendance of 277.

The livestock improvement work has resulted in a 5 percent amount of attention up to the close of the fiscal year. A campaign has been under way for the testing of dairy cattle in the county, the actual testing being carried on by the local creameries. Some boys' and girls' club work has also been started in the county, but the interest in this activity has not been as fully developed as in the other lines of work inaugurated by the bureau.

DAVISON COUNTY.—W. M. Brennan, Emergency Demonstration Agent.

J. E. Bishop, Assistant, April 15th to June 15th.

In Davison county the activities of the agricultural bureau are grouped into seven distinct lines of work:
1. Animal disease prevention.
2. Corn improvement.
3. Organization.
4. Farm management.
5. Livestock improvement.
6. Home demonstrations and boys' and girls' club work.
7. Labor.
The corn improvement work, the livestock work through livestock improvement and animal disease prevention, the boys' and girls' club work, and the farm labor problem have been the most important activities of the bureau thus far. A seed corn survey of the county revealed to the bureau that this problem would demand a great deal of attention. Six hundred fifty bushels of seed corn were obtained and distributed by the bureau for the farmers within the county, and practically all demands for good seed corn were supplied by the bureau. Farmers in commenting on seed corn work state that this field activity alone has more than paid for the cost of the agent's services to the county.

Outbreaks of hog cholera have occurred in various sections of the county and the agent has been instrumental in developing community cooperation in stamping out the different outbreaks. A wool growers' association was formed in the spring of 1918.

The farm help problem has demanded the serious attention of the bureau, 387 farm laborers having been placed by the bureau to date.

The boys' and girls' club activity shows a total enrollment of 1,070 members. This work developed to such an extent that it required the assistance of a boys' and girls' district club leader in order to carry on the work successfully.

In conducting the work of the bureau in Davison county for the past 8 months, it has required 94 days in the field and 81 days in the office. Eight hundred sixty-nine office calls have been received and 1,208 letters written; 346 farm visits have been made, and 23 meetings have been held with an attendance of 1,004 farmers.

DAY COUNTY.—John A. Gunning, Emergency Demonstration Agent.

After waiting for the services of a qualified agent for at least three months, the work of the Day county agricultural bureau was begun in March. The activities outlined for the agent were:

1. Noxious weeds and their eradication.
2. Improvement of livestock and grains.
3. Control of animal disease.
4. Boys' and girls' club work.
5. Winter wheat.
7. Corn.

During the three months of work by the bureau, Mr. Gunning has spent 60 days in the field and 18 days in the office; received 128 calls at the office; wrote 153 letters; made 89 farm visits in addition to 25 visits to the demonstrations the bureau had organized, and held 18 meetings with an attendance of 1,253 farmers. The boys' and girls' club activity has received the greater amount of attention, there being 717 juniors enrolled in the club work. The animal disease prevention work has been in the nature of community activities
on stamping out any contagious animal diseases. Four hundred twenty-five head of cattle have been vaccinated upon the suggestion of the agent.

The seed corn situation demanded a portion of the bureau's time, as 25 bushels of seed corn were ear tested by the organization, 10 farmers were influenced to ear test their own seed, and 15 bushels of seed corn were distributed by the bureau.

Several purebred sires have been obtained by the bureau for farmers within the county. A number of farmers have been listed as active cooperators for eradicating quack grass and other noxious weeds. The farm help problem has been given due attention and 24 farm laborers have been received by the farmers of the county.

DEUEL COUNTY.—Eldon C. Anderson, Emergency Demonstration Agent.

The Deuel county agricultural bureau began its organization activities in November, 1917, with a total membership of 245 farmers. While no definite lines of work were adopted by the organization at that time, the work of the agent during the past 8 months would be classified in the following five groups:

1. Organization.
2. Livestock improvement.
3. Animal disease.
4. Boys' and girls' club work.
5. Crop improvement.

Mr. Anderson spent 172 days in field work and 79 days in office work, received 382 calls in the office and wrote 392 letters. One hundred fourteen farm visits have been made and 5 meetings held with an attendance of 56.

The livestock improvement work has resulted in a 5 per cent increase in pork production through the pork production campaign of the bureau last January, and the bureau also gave a great deal of attention to the spring sale of the Deuel livestock breeders' association.

A county wide survey of the seed corn situation showed a shortage of 750 bushels of good seed corn. One of the bureau's activities was the locating and distributing of good seed corn. One flax demonstration and three alfalfa demonstrations have also been started.

The boys' and girls' club work shows a membership of 61 juniors. Twelve farm laborers have been obtained for farmers in the county.

DOUGLAS COUNTY.—E. C. Bird, County Agent.

Geo. Van Der Werp, Asst., July 1 to Nov. 15, 1917.

The farm bureau work of Douglas county for the fiscal year might readily be grouped into the following six activities:
1. Organization.
2. Livestock improvement.
4. Farm management.
5. Farm help.
6. Boys' and girls' club work.

The marketing work of the bureau has shown some very effective results. The bureau has been conducting an exchange list for the benefit of the farmers of the county upon which they may list their products, livestock or machinery for sale or wanted. Last fall a carload of apples consisting of 787 bushels was located by the bureau of the farmers' union or assisted in obtaining the same.

This spring 7,000 pounds of clover seed was obtained for the farmers at a saving of from 3 cents to 5 cents a pound. Livestock shipping associations have been organized by the bureau during the past year and have met with great success. A livestock special train of 25 cars was run from Douglas county to Chicago. A commission firm of Sioux City reports that the Armour livestock shipping association is the largest shipper in the state. There are 200 members in this association and a large amount of business is transacted annually. Forty-five farmers have been assisted in keeping farm accounts.

The soil problem that has demanded the attention of the bureau for the past year was that of soil drainage. In one section of the county there was a large undrained area of 1,000 acres of which the bureau directed the agent to make the necessary preliminary survey to find whether drainage was a practical proposition for that section. The survey was made and recommendations were made by the agent that the community obtain the services of a civil engineer and the drainage of this area be undertaken. At the present time this area which was formerly 1,000 acres of unproductive soil is now producing maximum crops. During the winter a seed corn survey was made in Douglas county and a seed corn exchange carried on for the benefit of the farmers.

The livestock improvement that has demanded the attention of the bureau has been in the nature of animal disease prevention work through community cooperation, the livestock shipping association work, as has already been mentioned, and assistance rendered the annual sales of a livestock breeders' association. No contagious livestock diseases have developed to any extent during the past year. Upon the suggestion of the agent 928 hogs have been vaccinated for hog cholera, 735 cattle have been treated for blackleg and 342 animals for hemorrhagic septicemia.

The boys' and girls' club work has received the attention of the bureau and there are 564 members enrolled for greater junior production and conservation. The farm help problem has also been given due attention, 415 farm laborers having been secured for
the county during the past fiscal year. The local available sources of labor have also been registered and the bureau has endeavored at all times to do its utmost in relieving the large farm help shortage.

The bureau has also given attention to the road problem, with a view of improving the roads in order to make the rural sections more accessible to the markets.

Through the efforts of the bureau, 313 farmers have been influenced to ear test their seed corn. The organization has ear tested 1,240 bushels of seed and has made a composite test of 3,070 bushels. One thousand six hundred seventy-six bushels of good seed corn were obtained and distributed through the bureau.

During the early part of the fiscal year the agent has been engaged in a great deal of war emergency work such as Council of Defense work, Liberty Loan drives, etc.

In order to carry on the foregoing activities the agent spent 168 days in the field during which time he has made 711 farm visits and held 33 meetings with an attendance of 1,595 farmers. Ninety-four days have been spent in the office during which time 1,791 farmers called at the office for definite information and 620 letters were written in reply to inquiries from people within the county.

EDMUNDS COUNTY.—R. R. Buchanan, Emergency Demonstration Agent.

The farmers of Edmunds county in organizing for greater production set forth the following problems as demanding the serious attention of the agricultural bureau:
1. Organization.
3. Crop improvement.
4. Farm help.

In developing this program of work 31 days have been spent in field activities by the agent during which time he made 48 farm visits and held 2 meetings with an attendance of 215 farmers. Thirty-four days have necessarily had to be spent in office work, in taking care of 211 calls on the agent at the office and in writing 179 letters in reply to inquiries.

The seed corn situation was the biggest problem of crop improvement and one that demanded the bureau's immediate attention. There were 500 bushels of seed corn obtained by the agricultural bureau, which was bought for from $4 to $10 a bushel and distributed to the farmers for $7, all of it having to be shipped in from neighboring counties. Two thousand three hundred fifty dollars worth of millet and flax seed were obtained and distributed by the bureau.

A barberry campaign was carried on during which time the common barberry bushes were located and destroyed.
The attention of the bureau was called to a few cases of necrobacillosis in hogs, but the major calls on animal disease prevention work were for contagious abortion. Pamphlets and literature were sent out to those having infected herds, and the owner's attention was called to the sanitation problems in assisting to keep down the outbreaks.

FALL RIVER COUNTY.—Ralph E. Johnston, County Agent.
Leonard O. Fenn, Assistant for 3 months.

The Fall River county farm bureau has outlined the work of the agent along nine distinct lines:
1. Organization.
2. Crop improvement.
3. Livestock disease prevention.
4. Soil management.
5. Orchard and poultry management.
6. Boys' and girls' club work.
7. Farm management.
8. Meetings and excursions.
9. Publicity and publications.

In developing the foregoing program of work the agent has during the past 12 months spent 191 days in the field and 182 days in the office. He has had 354 office calls and has written 847 letters. While in the field he has made 177 farm visits, held 64 meetings with an attendance of 2,698 farmers, and for the present year has 265 boys and girls organized for greater production and conservation in the junior club work.

There are 75 members in the bureau and a few of the communities of the county have their regular bureau committee. Last winter a boys and girls club fair was held at a central point in the county and the work of the club members displayed. Twenty-nine farm account books were distributed to interested farmers who were encouraged to keep accurate farm accounts. Nine blackleg vaccination demonstration meetings were held and 14,855 doses of Government blackleg vaccine were distributed. Anthrax put in its appearance four times during the year but on account of quick detection, proper vaccination, and thorough disinfection the losses from the disease were held to a minimum.

The bureau completed 6 wheat demonstrations with Kubanka wheat. Twenty acres of wheat were included in the demonstration producing a yield of 12½ bushels to the acre or an increase of 2½ bushels an acre over the yield of the common wheat, showing an increased profit of $5 an acre. Six oat demonstrations with Sixty Day oats were conducted in different parts of the county, including 31½ acres which yielded 27 bushels to the acre or an increase of 7 bushels over the ordinary varieties, which was an increased acre profit of $4.20, valuing oats at 60 cents a bushel. A great deal of
stress was placed upon forage crop work in order to create interest in producing a larger amount of winter roughage for the livestock. Demonstrations were arranged with 28 farmers for Dakota Amber sorghum production. Despite the hot dry summer the sorghum yielded well and a much larger acreage was planted in 1918. Sixty bushels of this seed were obtained for farmers by the bureau this spring. Thirty-six samples of alfalfa seed were collected and tested for farmers. The bureau directed the sale of 2,100 pounds of alfalfa seed to eastern farmers.

In order to insure further a larger, steadier and better supply of feed for livestock a pit silo campaign was inaugurated. A survey was made of the situation in the county and full information obtained from the 25 owners of pit silos. This information was compiled into a circular and sent out to the interested farmers. The bureau also provided tools for assistance in the construction of these silos.

A feature that might well be followed by more bureaus in the state was the "Rural School Bulletin Library" that was compiled by the bureau. Each set consists of 115 different station and government bulletins treating all phases of county life. An index was made for each set and to date 58 such sets have been sent out to rural schools for the use of the pupils and patrons of the school district.

**FAULK COUNTY.—Charles J. Gilbert, Emergency Demonstration Agent.**

Faulk county was another one of the counties to complete its agricultural bureau organization work during the early spring months. The farm problems were outlined under seven different activities and the agent was directed to give his attention to these lines of work:

1. Small grain and corn.
2. Animal disease control.
3. Improvement of livestock.
4. Alfalfa.
5. Boys' and girls' club work.
6. Home demonstration work.
7. Labor.

Mr. Gilbert was at work in the county for practically three months' time and while so engaged spent 31 days in field activities, making 76 farm visits and holding 7 meetings with a total attendance of 665. He spent 26 days in the office during which time 191 office calls were answered and 255 letters written. He entered military service June 5, 1918.

Boys' and girls' club work was also organized for the year with a total membership of 9 junior workers.

The farm labor problem became one of the most important ones within the county. A county wide organization was completed and
reports show that 115 farm laborers had been secured for farmers in the county.

Two hundred thirty-five bushels of seed corn were located and distributed, and seed corn was tested for farmers who desired the service.

GRANT COUNTY.—J. I. Swedberg, Emergency Demonstration Agent.

The emergency agricultural bureau members of Grant county felt that the following lines of work should receive the attention of the organization during the present year:

1. Farm labor.
2. Boys' and girls' club work.
3. Home economics.
5. Seed corn.

The seed corn problem was the one that first demanded the attention of the organization. An electric tester with a capacity of 3,600 ears was installed in the bureau office. In addition to this there were also 23 other small testers holding 100 ears. Besides a central testing station there were two others established in the county, these having a total capacity of 7,300 ears of corn. The way this service was appreciated by the farmers of the county was shown by the fact that the stations were running full capacity during the later winter and early spring. In order to take care of the expenses that necessarily had to be incurred in extending this service the bureau charged 80 cents for every 100 ears of corn that were tested. In all there were 67,000 individual ear tests made by the bureau and 4,000 bushels of corn upon which composite tests were made. Three hundred farmers were interested in the testing of their own seed corn. There was not enough seed corn within the county to supply the demand and the bureau was able to secure 250 bushels of strong tested corn from outside the county. The services rendered in assisting to solve the seed corn shortage problem was worth many thousand dollars to Grant county.

In carrying on the barberry campaign the bureau located and removed 1,500 of the common barberry plants.

Eight hundred seventy-four boys and girls have been enrolled for a greater food production and conservation through the junior club movement.

The home demonstration work, one of the lines of the bureau, has been organized throughout the county by the assistance of the home demonstration agent, and drying and canning schools have been held in various sections.

The farm help problem has also demanded the serious attention of the bureau, 210 laborers were obtained for farmers of the county.

To carry on the above program it has necessitated 96 days of the agent's time in the office where he answered 560 office calls,
wrote 929 letters in reply to inquiries and attended to other clerical duties of the office. Fifty-seven days were spent in developing the field activities during which time 114 farm visits were made, 11 demonstrations arranged for and 36 meetings held with an attendance of 1,643.

GREGORY COUNTY.—M. A. Lindsay, Emergency Demonstration Agent.

Gregory county completed its agricultural bureau organization during the month of March. The services of M. A. Lindsay as emergency demonstration agent were secured the latter part of that month. While the bureau had not held its final organization meeting the work could be classified into four different lines:

1. Organization.
2. Crop improvement.
3. Livestock improvement.
4. Farm help.

In carrying out these lines of work during the three months of service in the county, Mr. Lindsay spent 26 days performing his field activities and 43 days in the office. He had 307 office calls and wrote 241 letters to farmers within the county in reply to requests for information. Two hundred sixty-nine farm visits were made and 9 meetings were held with a total attendance of 307.

The seed corn situation demanded the attention of the bureau prior to the corn planting season, 200 bushels of seed corn being located and distributed by the bureau. Seventy bushels of alfalfa seed were tested by the bureau office.

Livestock came in for the attention of the agent, the particular problem being that of animal disease prevention through community cooperation.

Mr. Lindsay was called to military service on June 24.

HAAKON COUNTY.—O. Leon Anderson, County Agent.
O. G. Tracy, Assistant for two months.

The Haakon county bureau started its work on the first day of the fiscal year. At the very outset of the year's work the problem of contagious animal disease prevention was the one demanding the bureau's entire time.

After the membership campaign, carried on by the bureau in the early winter at which time 121 members were secured, the organization held its annual meeting and outlined the work, for the agent under the seven following activities:

1. Bureau organization—membership.
2. Meetings—publicity.
3. Animal disease.
4. Livestock improvement.
5. Boys' and girls' club work.
6. Alfalfa seed production and marketing.
7. Farm accounts.

During the year five outbreaks of anthrax appeared in different communities of the county and all have been effectively controlled through community cooperation, vaccination and the use of sanitary measures. The Medicine creek outbreak might well be taken as an example.

This outbreak occurred during the month of July and covered an area of approximately two townships. Three thousand head of cattle were exposed. No adequate place could be found on the range for corralling and vaccinating this number of cattle, consequently the Chicago and Northwestern railroad company was appealed to and the stock-yards at Powell were obtained for the purpose. The cattle were rounded up and vaccinated for anthrax. The losses ceased as soon as the vaccination had had time to act and the total loss amounted to only 58 head or less than 2 percent of the animals exposed. This was considered an exceptionally light loss under range conditions. A committee of ranchers was appointed to keep the cattle away from the diseased carcasses and infected water holes, while another committee was appointed to dispose of the dead carcasses. The entire cost of this service to the farmers of the community amounted to only 25 cents an animal. These committees were engaged in active duties until the entire range had been cleaned up. In addition to stamping out the outbreak of anthrax, 11,000 doses of blackleg vaccine were obtained for farmers of the county.

In the pork production work the results show an increase of 15 percent for the year. In one section of the county farmers are now contemplating organizing a livestock shipping association.

The work carried on in relation to crops was in the nature of a seed corn survey this spring after which the school children were interested in the testing of seed corn, and rag doll testers were sent out to the schools of the county. Two and one-half tons of alfalfa seed were marketed by the bureau and plans have been formulated for the organizing of an alfalfa seed marketing association.

The farm help problem has come up for consideration and the most feasible method of solving it has appeared to be the registration of all the available local labor and calling upon this labor during the rush season.

Interest in boys' and girls' club work has developed during the year as is shown by the enrollment of 260 boys and girls in the junior clubs adopted by the bureau.

In developing this program of work the agent has spent 185 days in the field during which time he has made 218 farm visits, held 6 demonstrations and 100 meetings with an attendance of 1,772 farmers; the office work has necessitated 122 days time, 658 office calls have been received and 1,129 letters written.
HAMLIN COUNTY.—L. M. Caldwell, Emergency Demonstration Agent.

In organizing the county wide production work of the agricultural bureau in Hamlin county the membership thought that the following lines of work should receive the attention of the organization:

1. Organization.
2. Horticulture.
3. Farm help.
4. Livestock improvement.
5. Crop improvement.
6. Boys' and girls' club work.

In developing this program of work during the past seven months the agent has necessarily spent 100 days in the field during which time 116 farm visits have been made and 22 meetings held with an attendance of 545 farmers. Sixty-five days have been spent in the office in order to take care of the clerical work, to answer 111 office calls and 251 letter of inquiry.

In developing the livestock improvement work a county livestock breeders' association has been formed, and the agent has been called upon to assist in developing community action for the prevention of contagious animal diseases.

The bureau has maintained a seed corn exchange for the benefit of the farmers of the county.

The farm help problem has required the attention of the organization and 15 farm laborers have been obtained for the farmers during the period.

Boys' and girls' club work has been organized in the county and an enrollment of 821 has been secured.

At the close of the fiscal year an agricultural bureau picnic was held at which time a greater interest was developed in the work of the organization.

HAND COUNTY.—N. C. Risjord, Emergency Demonstration Agent.

In Hand county the work of the agricultural bureau has developed along five lines:

1. Organization.
2. Livestock improvement.
4. Club work.
5. Farm help.

The animal disease prevention work has been in the nature of demonstration meetings at which communities have been urged to cooperate to stamp out contagious diseases through proper vaccination and disinfection.
In June a two-day auto tour was held, some of the better livestock herds of the county were inspected and a greater interest created in better livestock for Hand county.

The farm help problem has been attacked by securing labor organization throughout the county and thus far 128 farm laborers have been obtained for the farmers.

In developing interest in home demonstration work the assistance of the home demonstration agent has been obtained and 12 meetings have been held throughout the county.

Boys' and girls' club work has also been started and 42 junior members are now enrolled.

The agent thus far has spent 23 days in the office in taking care of 204 office calls and replying to the 172 letters of inquiry sent to the bureau office, 28 days were spent in the field during which time 73 farmers were visited and 18 meetings held with an attendance of 322.

HANSON COUNTY.—Geo. R. Mayland, Emergency Demonstration Agent.

The agricultural bureau work in Hanson county has thus far been developed along the following lines:

1. Organization.
2. Corn improvement.
3. Livestock improvement.
4. Boys' and girls' club work.
5. Farm help.

Mr. Mayland has been at work in the county during the past four months and while thus engaged has spent 63 days in the field making 235 farm visits and holding 31 meetings with an attendance of 755 farmers. Thirty-seven days have been spent in the office, at which time 351 office calls have been received and 539 letters sent out.

The corn improvement work has been in the nature of locating available sources of high testing seed corn and distributing any supplies of seed obtained. A personal campaign was made relative to seed corn by appointing leaders in divisional areas along township lines and having each leader responsible for his territory. The leaders appointed assistants giving each specified area to cover, as a result 857 bushels of seed corn were obtained which gave a satisfactory germination test. The information was also passed on to the farmers who were on the market for 489 bushels of seed corn. In addition to obtaining seed corn for farmers the bureau has also obtained 650 pounds of alfalfa seed, 400 pounds of sweet clover seed and 240 pounds of red clover seed.

Livestock improvement work has resulted in the wool growers marketing their wool cooperatively, 13,000 pounds of wool being shipped together by the growers.
Boys' and girls' club work has required a certain amount of the bureau's attention owing to the great interest shown in this activity by the 421 members enrolled.

The farm help problem has also commanded the time of the bureau and to date 74 farm laborers have been obtained for Hanson county.

HUGHES COUNTY.—W. W. Underwood, County Agent to May 1, 1918.

N. T. Nelson, County Agent after May 1, 1918.

The activities of the Hughes county farm bureau are incorporated under seven distinct projects:

1. Farm accounts.
3. Alfalfa and marketing.
4. Boys' and girls' club work.
5. Corn.
6. Organization.
7. Livestock improvement.

The livestock improvement and animal disease prevention work consumed the greater amount of time. Eighty-one purebred head of livestock were obtained for farmers within the county. During the year, seven one to two-day veterinary schools were held throughout the county to which farmers were invited to discuss methods of preventing the spread of contagious animal diseases. One thousand three hundred fifty cattle were vaccinated for anthrax upon suggestion of the agent and 10,000 head of cattle vaccinated for blackleg. There were in addition 11 blackleg and anthrax vaccination demonstration meetings in the county. There were 210 head of hogs vaccinated for cholera and two community dipping tanks were arranged for, each one serving four townships. This now makes a total of five community dipping tanks in the county. The latest report of the animals dipped for scabies and lice in these communities was 13,025.

The alfalfa seed production and marketing work of the bureau has been another one of the strong activities. During the past year 2,000 bushels of alfalfa seed was marketed at an increased price of $1.80 a bushel to the producers. Hand in hand with the alfalfa seed production work has been the grasshopper control work, which included renovating 40 percent of the alfalfa fields in the county to destroy the egg masses. It is estimated that the number of hoppers was reduced at least 45 percent by this work.

The seed corn problem demanded the attention of the bureau during a portion of the year. Sixty-two bushels of seed corn were ear tested by the bureau and a composite test was made of 3,210 bushels of corn. In addition to this 15 farmers were interested in the testing of their own seed corn and 240 bushels of corn were located for farmers within the county.
There were 81 farmers given assistance in keeping an accurate check on their farm business. The income in the fall of 1917 averaged $2,300 a farm as compared to $1,385 in 1916. By the close of the fiscal year, 56 farmers more had been interested in the keeping of farm accounts, making a total of 137 account books in use in the county. Two federal farm loan associations were organized during the year.

During the summer of 1917, 45 community meetings had been held relative to canning and drying work. A number of the boys and girls in the junior club work had also been interested in this feature of the conservation problem. The county sent a canning team to the state fair and as a result of the good work demonstrated, two members of the team were chosen to represent the state with two members from the Codington county team. This state canning team as before mentioned won the honors of the Northwest at the Inter-state contest held at the Sioux City fair. This year the interest in club work has increased and there are 295 boys and girls enrolled in the county.

The farm help problem has demanded a certain amount of the bureau's time on account of the farm help shortage throughout the county. There have been 12 laborers obtained for farmers within the county.

The foregoing activities have required 178 days in the field during which time 242 farm visits have been made, 31 demonstrations visited and 101 meetings held with an attendance of 5,793 farmers. It has also required the spending of 127 days in the office taking care of the clerical work and answering 1,217 office calls in addition to 1,911 letters.

**HUTCHINSON COUNTY.—Frank L. Fleming, Emergency Demonstration Agent.**

The agricultural bureau organization was completed in Hutchinson county during the month of April and the agent was obtained the fore part of May. The work of the bureau during this short period has been along the following program:

1. Organization.
2. Livestock improvement.
3. Crop improvement.
4. Farm help.
5. Weed eradication.

Two meetings were held relative to organizing a wool growers' association.

A barberry campaign was carried on during which time common barberry plants were located and destroyed.

The labor organization was also completed throughout the county preparatory to relieving the farm help shortage during the harvest season.
With the assistance of the district club leader the bureau secured an enrollment of 249 boys and girls in the junior club work for the year.

The agent has spent 16 days in the field during which time 5 farm visits were made and 3 meetings held with an attendance of 88 farmers, and 8 days have been spent in the office during which time 25 office calls have been received and 46 letters written.

**HYDE COUNTY.—A. W. Tompkins, Acting as Emergency Agent during June.**

The agricultural bureau of Hyde county was unable to start active work on its program due to the fact that a qualified man for Hyde county conditions had not been found until the latter part of the year. At this time A. W. Tompkins who was serving as an assistant in the state office, was detailed to organize the work and develop the bureau activities within the county, these activities consisting of:

1. Organization.
2. Livestock improvement.
4. Crop work.
5. Farm help.

During the one month that Mr. Tompkins was detailed as agent for the county, 35 office calls were received and 28 letters written and 14 farm visits were made.

There were 11 laborers obtained for farmers in the county.

On June 24 Mr. Tompkins was called for military service.

**JACKSON COUNTY.—Glenn Hoon, Emergency Demonstration Agent.**

The Jackson county agricultural bureau completed its organization with 144 members. The lines of work that were most important in the county were:

1. Livestock improvement, animal disease control, better classes of stock, feeding and silos.
2. Farm crops, increased acreage of alfalfa, better varieties of corn, increased acreage of spring wheat.
3. Home demonstration—canning and drying.
4. Boys’ and girls’ clubs.

The farm crop improvement program demanded assistance with the seed corn problem. The bureau ear tested 20 bushels of seed corn and made six composite tests for farmers. There were 50 farmers interested in the testing of their own corn and 200 bushels of corn were obtained and distributed for the farmers.

The livestock improvement problem has demanded the greater amount of time of the bureau thus far. The bureau has obtained and distributed 4,415 doses of blackleg vaccine and a number of
blackleg vaccination demonstrations have been scheduled by the bureau.

Twenty-one boys and girls have been interested in junior club work and 5 farm laborers have been obtained for farmers within the county.

During the 5 months in which the agent has been at work for the Jackson county agricultural bureau, 33 days have been spent in field activities, 7 meetings held with an attendance of 71 farmers and 112 farm visits made; 64 days were spent in the office, 170 office calls have been received and 221 letters mailed.

JERAULD COUNTY.—H. E. Rilling, County Agent. Norman Dakin, Assistant for 5 months.

The Jerauld county farm bureau started its work July 7, 1917. The lines of work most important to the agriculture of the county were:

1. Livestock.
2. Crops and weed control.
4. Boys' and girls' club work.
5. Home economics, home and community life.
6. Membership and programs.

The insect control work carried on by the bureau during the early part of the year was one of the most effective activities. The bureau interested a number of farmers in grasshopper control work through the use of the hopper catcher and the poison bait. At one of the demonstration meetings three bushels of hoppers were caught on five acres of alfalfa. At another meeting where the hopper catcher was used, 15 bushels were secured from 18 acres. In the use of the poison bran bait a demonstration was arranged for in one community and the crop of a 60-acre corn field in which the bait was distributed was saved at a cost of only 17 cents an acre. The yield of the corn in this demonstration field was 43 bushels an acre as contrasted with the yield of 12 bushels an acre in an adjacent field where the bait was not used. The crop in another 100-acre field where the bait was used was also saved.

The animal disease prevention work of the bureau was that of interesting the farmers of the communities to stamp out the outbreak of contagious animal diseases. Two outbreaks of anthrax occurred during the year and the bureau gave active assistance in developing the community effort for prevention. There were 2,500 head of cattle vaccinated for anthrax by a qualified veterinarian upon the suggestion of the bureau, and 600 doses of government blackleg vaccine were procured for farmers.

This spring a seed corn survey was made in the county with the result that 300 bushels of corn were ear tested for farmers, while composite tests were made from an additional 3,000 bushels of
Three hundred farmers were interested in testing their own corn and approximately 8,000 bushels of seed corn has been located and distributed for the farmers.

Another problem for greater production was the reclamation of several acres of land by the eradication of prairie dogs. All the prairie dogs were killed at a cost of 20 cents an acre for poison distributed.

This year there are 122 boys and girls enrolled in junior club work. Four of the boys enrolled have purchased purebred sows ranging in price from $74 to $170 each and plan to get their start in purebred hog business from this initial purchase.

Seventy-one laborers have been obtained for farmers within the county.

Mr. Riling has spent 126 days in the field developing the foregoing program of work. During that time 295 farm visits have been made, 20 demonstrations have been visited and 47 meetings held with a total attendance of 1,167. The office duties during the 193 days spent in the office have been the regular clerical work necessitated by the bureau activities in attending to the 1,573 office calls and answering the 1,061 letters of inquiry.

KINGSBURY COUNTY.—A. R. Wije, County Agent until March 1, 1918.
Dick Lewallen, County Agent after May 1, 1918.
Victor Basart, Assistant.

The principal activities of the Kingsbury county farm bureau during the year have been:

1. Livestock—animal disease control, livestock improvement.
2. Farmers' clubs, meetings, field excursions, institutes, and short courses.
3. Finance, Farm Bureau News, publicity, farmers' exchange, membership, farm labor, farm management.
4. Women's work.
5. Crops, alfalfa and clover, corn breeding, potato improvement, improved grain varieties, soils, drainage, fertilizer tests.
6. Farmstead improvement, building construction, silo building, improvement of home grounds.
7. Boys' and girls' club work.

The livestock improvement program has consisted of an exchange conducted by the bureau for the farmers of the county. One hundred seventy-five registered sires have been transferred by the bureau and it has further directed the agent to give assistance in the development of the county livestock breeders' association sales. During the year there have been 11 outbreaks of hog cholera. The total loss being less than 50 hogs. Upon the suggestion of the
agent 798 hogs have been vaccinated for cholera in contrast to the results of the past year have been the results of 1916 and 1917. In 1916 there were 16 outbreaks with a loss of 154 head while in the year previous there were 93 outbreaks with a loss of 1,080 hogs. In addition to the hog cholera work the bureau has put in a great deal of time at vaccination demonstrations for anthrax and blackleg, where some 2,200 head of cattle have been vaccinated. Four cooperative livestock shipping associations have been formed during the year.

The crop improvement program has resulted in an increase of 3,000 acres of alfalfa within the county. Thirty-four farmers have been cooperating in the extermination of quack grass and Canada thistle and 35 farmers have been cooperating in a campaign for better varieties of grain such as Kubanka wheat, Odessa barley, Sixty Day oats and wilt resistant flax. There have been 30,000 pounds of alfalfa seed distributed by the bureau. The county-wide seed corn survey has been conducted and farmers have been assisted in procuring good seed corn, 200 bushels have been shipped in from outside the county.

Boys' and girls' club work has been another important activity of the bureau. Last season there were ten boys in the pig club contest each raised a purebred sow and litter of pigs. These were then sold in a fall hog sale conducted by the members of the club. This year 18 boys have been raising purebred ewes with a view of obtaining their start in sheep production from the ewes and lambs raised. There are now 40 boys and girls enrolled in junior club work.

One hundred twenty-eight farmers have been assisted in keeping farm accounts. Assistance with farm building construction and soil drainage work has been rendered 61 farmers. There have been 32 farmers cooperating in an "Improved Farmstead and Home Campaign." Two new farmers' clubs have been organized, making a total of 20 such clubs in the county. A federation picnic was held during the summer at which a total of 8,000 farmers were in attendance.

The farm help problem has also come into the activities of the bureau. To date they have obtained 36 laborers for the farmers of Kingsbury county.

During the year 142 days were spent in developing the field activities, such as making the 962 farm visits, making 574 inspections of the various demonstrations and the holding of 125 meetings with an attendance of 8,202 farmers. There were 133 days spent in the office and 1,730 office calls were received and 890 letters mailed out.
LAKE COUNTY.—I. J. Bibby, Emergency Demonstration Agent.

In Lake county the agricultural bureau outlined the following lines of work for the agent:
1. Organization.
2. Livestock improvement.
3. Corn improvement.
4. Boys’ and girls’ club work.
5. Farm help.

During the five months that the agent has been on the job in the county 63 days have been spent in the field and 69 days in the office, 401 office calls have been received and 341 letters written. There has been 398 farm visits made and 25 meetings held with an attendance of 2,213.

The corn improvement problem demanded serious attention of the bureau during the early part of the year and a great deal of corn was shipped in by the bureau for the farmers of the county. This seed corn was obtained from counties in the central western part of the state.

A county livestock breeders’ association has been formed, a farmers’ shipping association organized, and 148 boys and girls interested in junior club work. The purebred sow and litter contest work has been taken up by 13 boys who paid from $150 to $200 for the sows they purchased.

Up to date 375 farm laborers have been obtained for the farmers within the county.

LAURENCE COUNTY.—Wm. Lyman, County Agent to Aug. 1, 1917.

W. F. Kumlien, County Agent after Aug. 1.

Wilbur Seubert, Assistant for three months.

The farm bureau in Lawrence county consists of 101 farmers as members. Their farm problems for the ensuing year were divided into the following groups:
1. Organization.
2. Livestock.
3. Animal disease.
4. Soils and crops.
5. Meetings.
7. Farm accounts.
8. Home economics and club work.

The livestock improvement work has undoubtedly demanded the greater attention of the bureau thus far. Last fall 78 vaccination demonstration meetings were held by the bureau at which 3,232 cattle were treated for blackleg. Of the blackleg demonstrations held last fall the bureau has not had to make a single duplicate this spring. A total of 4,190 doses of blackleg vaccine have been
obtained and distributed to the farmers this spring. In the campaign for increased pork production results show that the farmers increased their pork production by 4 percent.

The bureau was called upon to give some attention to the seed corn problem early in the year when 29 bushels of seed corn were ear-tested by the organization and 10 farmers were influenced to test their own corn. The bureau also obtained and distributed 15 bushels of seed corn.

Boys’ and girls’ club work has taken a great deal of the bureau’s time as there are 399 boys and girls enrolled for junior club production and conservation. Eighty farmers have been assisted in keeping farm accounts. The bureau has maintained an exchange list for the services of the farmers of the county and at the close of the fiscal year the labor problem also demanded a great share of the bureau’s time. Seventeen farm laborers have been obtained thus far. The business men of Lead and Deadwood made the farm bureau a very fine offer relative to labor, agreeing to lend one hundred men from the mines and mills for one week’s work during the busy harvest season.

In developing the work of the bureau, 136 days were spent in the field making the 171 farm visits, inspecting the 19 demonstrations and holding the 81 meetings which reached 1,567 farmers. There were 134 days in the office necessitated by the 418 office calls, the 712 letters sent out and the regular work of the organization.

LINCOLN COUNTY.—Russell C. Jensen, Emergency Demonstration Agent.

In Lincoln county the work of the emergency agricultural bureau is being developed along the following lines:
1. Organization.
2. Crop improvement.
3. Livestock improvement.
5. Boys’ and girls’ club work.
6. Home demonstration.
7. Farm help.

Thus far the agent has spent 44 days in the field making 222 farm visits and holding 8 meetings with an attendance of 401 farmers. Sixty days have been spent in the office during the past four months, 241 office calls have been received and 151 letters written.

The interest in the activities of the bureau may be shown by the total membership of 293 farmers who are behind the work in Lincoln county. To date one livestock shipping association has been organized by the bureau. Immediate attention was given to the three outbreaks of hog cholera that occurred in the county. The farmers surrounding the outbreaks have been interested in thorough disinfection and sanitary measures and thus far the disease has not
spread. Upon the agent's suggestion, 175 hogs have been vaccinated for cholera, 500 cases of necrobacillosis have been encountered and assistance rendered the owners of the infected herds in inaugurating a thorough practice of disinfection and sanitation.

The seed corn problem was handled by the bureau, there being 60 bushels of seed that was ear-tested by the organization while a composite test was made of an additional 125 bushels. Seven hundred bushels of good seed corn were also obtained and distributed by the organization.

A total of 225 farm laborers have been secured for farmers and 424 boys and girls have been enrolled in junior club work for the year.

LYMAN COUNTY.—Dick Lewallen, County Agent until May 1, 1918. J. E. Wells, Presho, Assistant and County Agent after May 1, 1918.

The farm problems that demand the attention of the Lyman county Farm Bureau during the ensuing year are:
1. Finance.
2. Livestock improvement.
3. Roads.
4. Labor.
5. Markets.
6. Boys' and girls' club work.
7. Animal disease control.

The livestock work has no doubt comprised the greater share of the bureau's attention. One livestock shipping association has been formed in the county. Fully 3,500 cattle were treated for blackleg upon the agent's suggestion and 2,800 were treated for anthrax. A peculiar disease known as the "alkali disease" has been investigated by the bureau during the year, but as yet no definite recommendations can be made as a result of the investigational work.

The bureau has established a bulletin in each of the banks of the county. Twenty-six farmers have been assisted with farm accounts, and 409 boys and girls have been enrolled for boys' and girls' club work.

In developing the program it has required 117 days of field work during the year, 222 farm visits having been made and 45 meetings held with an attendance of 1,236. A total of 188 days were necessarily spent in the office, there having been 1,084 calls upon the agent in the office and 578 letters written.

MARSHALL COUNTY.—Garrett H. Dokter, Emergency Demonstration Agent.

The Marshall county agricultural bureau outlined the year's work as follows:
1. Boys' and girls' club work.
2. Animal disease control.
4. Livestock improvement.
5. Weed eradication.
6. Field crops and rotation.
7. Home demonstration work.

During the 4 months that the agent has been on active duty for this bureau, 51 days have been spent in the field and 33 in the office; 130 office calls have been received and 183 letters written; 126 farm visits have been made, and 26 meetings held with an attendance of 1,756.

The bureau has obtained 1,430 pounds of alfalfa seed for the farmers of the county and has distributed 972 doses of blackleg vaccine and held a few vaccination demonstrations.

The labor organization has been perfected throughout the county, and to date 28 farm laborers have been obtained for the farmers of Marshall county.

McCOOK COUNTY.—George L. Winright, Emergency Demonstration Agent.

The farmers in McCook county completed their agricultural bureau organization during the early spring season. There were more than two hundred members in the bureau and the interest during the year has developed to such an extent that during the month of June the organization became a permanent farm bureau.

The lines of work outlined for the agent are:
1. Horticulture.
2. Farm crops.
3. Drainage.
4. Boys' and girls' club work.
5. Organization.
6. Farm help.

Seed corn amounting to 280 bushels has been obtained and distributed to farmers in the county, 30 bushels of which was a special variety introduced into the county. Eleven farmers were secured as local demonstrators for the variety test of corn. The activities of the bureau has brought the corn acreage up to within the 10 percent of the normal amount.

The barberry campaign has also been waged in the county during which time the bushes and hedges of common barberry were located and destroyed.

The bureau has assisted in the prevention of contagious animal diseases. Several meetings have been held in different sections of the county in which the farmers have been urged to cooperate for the effective stamping out of any such diseases. Forty-six farmers cooperated in the marketing of their wool, shipping 17,125 pounds.

There are 662 boys and girls who have been interested in
junior club work and who are now doing effective work in their respective clubs.

Eighty-nine laborers have been obtained for farmers in the county. Some drainage projects are now under development by the bureau.

In carrying on the foregoing program of work for the past three months, the agent has spent 42 days in the office and 33 days in the field. He has had 471 office calls, has written 516 letters, has made 143 farm visits and inspected 25 of the local demonstrations, besides the several meetings that have been held.

McPHERSON COUNTY.—F. J. E. Persun, Emergency Demonstration Agent.

The agricultural bureau work in McPherson county was carried on for the last two months of the year with 100 farmers as members of the organization. The activities of the bureau during this period were as follows:
1. Organization.
2. Livestock improvement.
3. Crop improvement.
4. Farm help.

The livestock exchange list was inaugurated by the bureau office.

During the period of activity the greater part of the agent's time was spent in field work during which time 118 farm visits were made and 4 meetings held with an attendance of 261 farmers. Twenty-three office calls were received and 45 letters written.

Seven laborers were obtained for the farmers of the county.

MEADE COUNTY.—J. L. Jordan, Emergency Demonstration Agent.

The agricultural bureau for Meade county did not complete its organization until late in the spring. Seventy-five members have been secured. The work of the bureau until the close of the fiscal year had been directed along the following four activities:
1. Organization.
3. Livestock improvement.
4. Boys' and girls' club work.

The bureau made a seed corn survey of the county and arranged for the testing of seed corn for the farmers in the bureau office. The wool growers were also urged to cooperate and ship their wool together.

A total of 184 boys and girls were interested in junior club work.

During the three months of service the agent spent 42 days in the field and 36 days in the office, received 81 office calls and wrote 119 letters. The field duties consisted of 98 farm visits and 13 meetings held with an attendance of 455 farmers.
MELLETTE COUNTY.—C. H. Blakely, Emergency Demonstration Agent.

The Mellette county agricultural bureau was completed during the last month of the fiscal year. Prior to this time the work had been carried on in a district bureau comprising the counties of Mellette, Todd, Washabaugh, Shannon, Washington and Bennett.

The work carried on by the organization might be grouped as follows:

1. Organization.
3. Corn improvement.
4. Livestock improvement.
5. Exchange.

Six alfalfa demonstration meetings have been held in various part of the county and farmers have been interested in the bureau work in a number of meetings held. The most important feature of the bureau work to date, however, has been the animal disease prevention work in which 8,016 doses of government blackleg vaccine have been obtained for the farmers of the county and a county-wide campaign has been made for blackleg vaccination. This campaign is to be completed during the early fall months and definite information can then be presented as to the results of the work.

Plans are also in formation for the organization of a local branding association, the purpose of such organization being the standardization of the brands and the publishing of lists of stray animals.

During the three months the agent has been on duty in the county the work in the field and the office has been very evenly divided, 486 office calls having been received, 169 letters written, 147 farm visits made, and 36 meetings held with an attendance of 1,027.

MINER COUNTY.—R. O. Swanson, County Agent.

W. R. Stewart, Assistant for three months.

The Miner county farm bureau, an organization of 118 farmers, has grouped its activities under the following heads:

1. Organization.
2. Silos and farm buildings.
3. Boys and girls' club work.
4. Animal disease control.
5. Livestock improvement.
6. Publicity and Farm Bureau News.
7. Crops and drainage.

During the year three farmers' clubs have been organized in the county. A silo campaign was carried on during the month of June and interest was created by the bureau in the sale conducted by the County Livestock Breeders' association.
Upon the suggestion of the agent 254 hogs have been treated for cholera and 103 head of cattle treated for blackleg.

This spring a seed corn survey was made in the county and the bureau was instrumental in locating 1,500 bushels of seed for the farmers of the county. The bureau also purchased 20 bushels of alfalfa seed for farmers and 200 pounds of Sudan grass seed. Thirteen farmers have also been obtained to demonstrate the advisability of growing Kherson oats. During the barberry campaign, 70 bushes of the common barberry were located and destroyed.

The farm help shortage has also been one of the problems of the bureau, 220 farm laborers for the farmers of the county having been placed.

In the junior clubs 686 boys and girls have been enrolled for greater production and conservation.

This program of work has necessitated 119 days of field work and 172 days of office work. The field work has consisted of 255 farm visits, 13 visits to demonstrations, and the holding of 19 meetings with a total attendance of 835 farmers. In the office, 1,155 calls were received and 1,044 letters written.

MINNEHAHA COUNTY.—George B. Kennard, Emergency Demonstration Agent.

Minnehaha county was one of the first counties to complete its agricultural bureau organization last fall. The bureau felt that the following activities would mean the most to the agriculture of the county during the ensuing year:

1. Soils
2. Farm help.
3. Seed corn.
4. Boys’ and girls’ club work.
5. Livestock.

The livestock work has been in the nature of assisting communities in the stamping out of contagious animal diseases. Upon the suggestion of the agent 1,206 hogs have been vaccinated.

As a result of the increased pork production carried on by the bureau a survey reveals the fact that farmers increased their number of hogs at least 20 percent.

The seed corn situation demanded the undivided attention of the bureau for a certain period during the fore part of the year. A seed corn survey was made of the county and 2,500 bushels of seed corn were tested, the bureau having interested 625 farmers in the testing of their seed corn. One hundred samples of corn were tested by the agent.

The farm help situation was another vital problem, there having been 272 laborers placed by the bureau to date.

The interest in boys’ and girls’ club work in the county is shown by the total enrollment of 1,792 juniors. This work is en-
tirely too large for one man's attention and consequently a club leader was detailed to assist the bureau in developing its boys' and girls' club work.

During the nine months of service in the county, 90 days have been spent in the field and 129 days in the office. There have been 890 office calls received, 1,104 letters written, 511 farm visits made, and 94 meetings held, reaching a total of 3,294 farmers.

**MOODY COUNTY.—H. B. Wilson, Emergency Demonstration Agent.**

The emergency agricultural bureau of Moody county consists of a membership of 221 farmers. Its activities for the ensuing year are outlined as follows:
1. Organization.
2. Crop improvement.
3. Smut eradication.
4. Livestock improvement.
5. Farm help.
6. Boys' and girls' club work.

To carry on this program of work for the past five months, 71 days have been spent in the field and 70 days in the office. During this time, 473 office calls have been received, 570 letters written, 194 farm visits made and 36 meetings held with an attendance of 2,275 farmers.

In crop improvement work, consisting of a county-wide seed corn survey to determine any shortage of seed, 275 bushels of seed corn were located and distributed by the bureau. A carload of Marquis wheat was located for seed. On account of the rush of other work during the spring, the plans for a smut eradication campaign in the county had to be suspended for the year.

Thirty-three farmers have been assisted in the keeping of farm accounts.

Two carloads of wool have been marketed cooperatively by the farmers of the county.

The bureau has obtained 119 farm laborers to relieve the farm help shortage.

There are 536 boys and girls enrolled in the boys' and girls' club work.

The bureau secured 315 doses of government blackleg vaccine for farmers.

**PERKINS COUNTY.—Chester F. Tate, Emergency Demonstration Agent.**

The work of the Perkins county agricultural bureau has been along three lines of activity:
1. Organization.
3. Livestock improvement.

The organization consists of 112 members.
During the three months that the agent has been in the service of the bureau, 46 days have been spent in field work, 57 office calls have been received and 78 letters written. The agent has during that time made 274 farm visits and held one meeting.

PENNINGTON COUNTY.—Harry H. Gardner, Emergency Demonstration Agent.

The Pennington county agricultural bureau has outlined the farm problems of the county and directed the agent to give his attention to the following activities for the year:
1. Organization.
2. Livestock improvement.
5. Boys' and girls' club work.

The bureau has extended its organization into the various communities of the county, 8 communities now being completely organized with bureau committees at work.

The farm help shortage has been felt and 25 farm laborers have been obtained by the bureau for the farmers of the county.

The animal disease prevention work has been mostly the securing of 1,220 doses of blackleg vaccine for the farmers in the past three months.

Boys' and girls' club work is one of the strong activities of the bureau. The district club leader at Rapid City with the assistance of the agent secured an enrollment of 564 boys and girls for junior club work.

Thirty-six days were spent in the field during which time 95 farm visits were made and 50 meetings held with an attendance of 1,722 persons. In the office 258 letters have been written and 250 calls received.

POTTER COUNTY.—H. C. Lende, Emergency Demonstration Agent.

The Potter county agricultural bureau, an organization consisting of 230 farmers, has directed the work of its agent along these lines:
1. Organization.
3. Livestock improvement.
4. Boys' and girls' club work.
5. Farm help.

A seed corn survey was made in the county and a seed corn exchange maintained by the bureau office.

Upon the suggestion of the agent 110 head of cattle were vaccinated for blackleg. The bureau has carried on an active campaign for the proper disposal of carcasses.
The interest in boys' and girls' club work is shown by the enrollment of 369 juniors for greater production and conservation. Six laborers have been obtained for the farmers of the county.

Mr. Lende was called for military service on June 12, but during his period of service for the Potter county agricultural bureau, 50 days were spent in the field with 125 farm visits and 25 meetings with an attendance of 870 farmers. Thirty-four days was spent in the office, where there were 165 calls upon the agent for specific information and 176 letters were written.

ROBERTS COUNTY.—H. D. McCullough, Emergency Demonstration Agent.

The agricultural bureau of Roberts county organized its activities for the ensuing year into the following divisions:
1. Organization.
2. Livestock improvement.
3. Alfalfa production.
4. Boys' and girls' club work.
5. Farm help.

In developing the livestock program, a silo and livestock tour was held late in the year, including stops at six of the best farms in the county. In addition to this, evening meetings were held relative to silos and livestock.

The farm help problem has been well handled by the organization thus far, 26 farm laborers having been obtained for the county.

Boys' and girls' club work represents one of the strong activities of the organization, as there are 850 boys and girls enrolled for junior production and conservation.

During the three months of service for this bureau the agent has spent 37 days in the field making 83 farm visits and holding 48 meetings with an attendance of 3,947. Thirty days have been spent in office work during which time 264 letters have been written and 105 office calls taken care of.


The Sanborn county agricultural bureau has outlined its program under the following heads:
1. Organization.
2. Livestock improvement, animal disease prevention.
3. Seed corn improvement.
4. Boys' and girls' club work.
5. Farm help.

The seed corn improvement program was the one that demanded the bureau's first attention. A county survey was made of the situation and this was followed by a seed corn testing campaign resulting in 294 farmers becoming interested in the testing of their own corn. A total of 375 bushels of seed corn was tested by the bureau.
and a composite test was made of an additional 7,000 bushels of corn. One thousand eight hundred bushels of seed corn have been obtained and distributed through the organization.

The wheat acreage of the county was increased by 4,000 acres. The bureau was also instrumental in securing the planting of 100 acres to cane to be grown for sorghum in order to economize on the local demand for sugar.

Upon the suggestion of the agent, 75 hogs have been vaccinated for cholera. Necrobacillosis has been found in 120 hogs. The agent has suggested a thorough disinfection and a cleaning up in order to prevent the further spread of the infection.

The farm help problem has been met by the bureau, 271 farm laborers having been obtained to date.

There are 312 boys and girls enrolled for club work during the year.

During the six months of work in Sanborn county, the agent has spent 88 days in field activities, 166 farm visits having been made and 40 meetings held with an attendance of 2,510. Seventy days were spent in the office during which time 451 office calls were received and 996 letters written.

SPINK COUNTY.—E. W. Hall, County Agent.


Guy Thein, Assistant after March 16, 1918.

The activities of the Spink county farm bureau, an organization of 270 farmers, might well be grouped under the following lines of work:

1. Organization.
2. Livestock improvement.
4. Crop improvement.
5. Boys' and girls' club work.
6. Farm help.

The livestock work of the bureau has been one of the most important activities. The bureau office maintains an exchange list for purebred livestock for sale or wanted. During the year the bureau loaded and shipped to the Chicago market a car of wool weighing 28,000 pounds. The organization also assisted the livestock breeders association in promoting the interest of purebred livestock and furthering the purposes of the breeders' organization.

Upon the suggestion of the agent, 881 cattle have been vaccinated for anthrax and 1,101 head for blackleg. Five hundred cases of necrobacillosis in hogs have been encountered and the agent has assisted the owners of the infected herds in adopting more sanitary measures to prevent its further spread. Upon the further suggestion of the agent, 2,294 hogs have been vaccinated for cholera.

The crop improvement program has resulted in 2,195 bushels of
seed corn being purchased and distributed by the bureau to the farmers of Spink county. The organization has made an ear-test of 800 bushels of seed corn and a composite test of 7,200 bushels. A seed exchange maintained by the bureau has resulted in the purchase and distribution of 9,611 pounds of alfalfa seed, 3,821 pounds of sweet clover seed, 4,900 pounds of brome grass, 1,200 pounds of blue grass seed, 250 bushels of millet seed and 300 bushels of seed potatoes.

One hundred twenty-six farmers in the county have been assisted in the keeping of farm accounts, 582 laborers have been obtained and 168 boys and girls enrolled for junior work.

The foregoing program has necessitated 187 days spent in the field and 118 days in the office. In the office 1,577 calls have been received by the agent, and 2,368 letters have been written in answer to inquiries. A total of 617 farm visits were made and 32 meetings held with an attendance of 3,443 farmers.

STANLEY COUNTY.—Vey J. Valentine, County Agent.

H. D. White, Assistant.

The Stanley county farm bureau organized its work for the ensuing year and directed the agent to assist in the development of the following program:

1. Organization.
3. Livestock improvement.
4. Crop improvement.
5. Boys' and girls' club work.
6. Farm help.

The livestock work of the organization has been the strongest feature; 14,890 doses of government blackleg vaccine have been obtained and distributed by the bureau; 6,000 cattle have been vaccinated for anthrax upon the suggestion of the agent, and 860 animals have been treated for hemorrhagic septicemia. Eight animal disease schools have been held in the different sections of the county and the farmers were encouraged to cooperate together for the stamping out of any contagious animal diseases. Forty head of purebred cattle have been brought into the county on the initiative of the organization and a "Better Stallion" day was inaugurated by the bureau this last year.

As a part of its crop improvement program, the organization has interested the farmers in a greater alfalfa acreage with the result that there has been an increase of 500 acres of this crop during the year. A seed corn survey was made in the county, in which 120 farmers were interested in ear-testing their seed corn. Twenty-five bushels were ear-tested by the bureau and a composite test was made of an additional 2,000 bushels of seed corn. The organization obtained and distributed 1,020 bushels of seed corn.
The bureau has completely organized Stanley county for increased production, there being an active bureau committee in each of the ten communities. Fifty-four farmers have been assisted in the keeping of farm accounts, and 11,663 pounds of alfalfa seed have been marketed through the central South Dakota Alalfa Seed Growers' association. At the close of the year, 10 farm laborers had been obtained for the county.

The boys' and girls' club work has also received the attention of the organization there being 386 boys and girls enrolled for work this year.

In developing this work 130 days have been spent in the field and 145 days in the office. The agent has received calls from 1,176 farmers at the office, has written 1,621 letters in response to inquiries, has made 238 farm visits, has inspected 71 demonstrations and held 79 meetings with an attendance of 1,180.

SULLY COUNTY.—Axel L. Peterson, Emergency Demonstration Agent.

In Sully county the work of the agricultural bureau has been grouped under the following heads:
1. Organization.
3. Livestock improvement.
4. Farm help.

The bureau has obtained 425 doses of government blackleg vaccine for farmers in the county and vaccination demonstrations in cooperation with the veterinarian have been arranged in the communities infected.

Poultry demonstrations have been held in the county demonstrating the greater conservation of poultry products.

During the three months service for the bureau, the agent has spent 42 days in the field making 82 farm visits and holding 15 meetings at which 88 people have been reached. In the 28 days spent in the office, there have been 169 office calls and 84 letters written.

TIMBER LAKE DISTRICT.—Oscar Hermstad, Emergency Demonstration Agent.

The agricultural bureau for the Timber Lake district has directed the work of its district agent along the following activities:
1. Farm records and accounts.
2. Boys' and girls' club work.
3. Livestock improvement.
5. Grain and forage crops.
6. Dairying and silage.
7. Home economics.

During the two months of service, the agent spent 20 days in the
field during which time 38 farm visits were made and 8 meetings held with an attendance of 350 persons. Twenty-five days were spent in the office, where 45 farmers called for specific information, and 59 letters were written in reply to inquiries received.

The bureau has organized boys' and girls' clubs for greater production and conservation for the year, there being 250 members in the junior clubs.

One horticultural demonstration was held in one community in the district. The farm bureau organization has been extended to a few of the communities.

Some attention was given to the seed corn problems as the local germination tests had shown rather poor seed. The bureau located the available local sources of good seed corn and called these to the attention of the farmers.

TRIPP COUNTY.—H. M. Tasker, Emergency Demonstration Agent.

The Tripp county agricultural bureau has a membership of 235 farmers. For the ensuing year they directed the work of the agent along these lines:
1. Organization.
2. Crop improvement.
3. Livestock improvement.
4. Farm help.

During the two months service, for the bureau the agent spent 22 days in the field and 34 days in the office. The office work was especially heavy on account of seed exchange maintained by the organization. Ninety-six office calls were received and 25 letters written. While in the field 35 farm visits were made and 19 meetings were held with an attendance of 973 farmers.

The seed exchange work of the bureau stands out as the strongest feature of the work. There were obtained upon request by the farmers, 221 bushels of good seed corn, $1,908 worth of flax seed, $175 worth of millet seed and $20 worth of alfalfa seed.

Twelve farm laborers were obtained for the county.

Mr. Tasker was called to military service on June 24.

TURNER COUNTY.—C. C. Miller, Emergency Demonstration Agent.

The work of the Turner county agricultural bureau during the latter part of the fiscal year was directed along the following five lines:
1. Organization.
2. Livestock improvement.
4. Boys' and girls' club work.
5. Farm help.

Government blackleg vaccine has been obtained for the farmers
requesting same and 290 hogs have been vaccinated for cholera upon the suggestion of the agent. The bureau has made further arrangements for the cooperative marketing of wool.

Fifteen farm laborers have been obtained for the farmers of Turner county.

In the junior club work 786 boys and girls are enrolled. This enrollment, however, was secured before the agent assumed his duties for the organization.

During the two months of work in the county, 30 days have been spent in the field and 21 days in the office. Forty-two farm visits have been made, 27 meetings held with an attendance of 971, 152 calls by farmers have been received by the agent at his office and 112 letters have been written in response to inquiries.

UNION COUNTY.—P. J. Crandall, Emergency Demonstration Agent.

The agricultural bureau work in Union county has thus far been directed along the following activities:

1. Organization.
2. Crop improvement.
3. Livestock improvement.
4. Boys' and girls' club work.
5. Farm help.

The general seed corn shortage did not confront the farmers in Union county as there apparently was no shortage nor call for seed corn until at the very last minute at planting time when the bureau through its activities was able to locate and obtain 150 bushels of seed corn for the farmers needing it.

The farm help problem has demanded a certain amount of the bureau's attention. Seventy-five farm laborers have been obtained for the county.

The organization was also instrumental in getting the wool producers to cooperate in marketing their wool, 4,000 pounds being thus shipped cooperatively.

The boys' and girls' club work is being developed. For the ensuing year 91 boys and girls are enrolled for junior club work.

During the 5 months of service in the county, the agent spent 62 days in field activities, during which time 62 farm visits were made and 42 meetings held with an attendance of 2,353 farmers. During the 50 days of office work, 465 farmers have called upon the agent for specific information and 620 letters have been written.

WALWORTH COUNTY.—Colman H. Wagner, Emergency Demonstration Agent.

The Walworth county agricultural bureau, an organization of 202 farmers, has outlined its activities under the following heads:

1. Organization.
2. Animal disease control.
3. Boys' and girls' club work.
4. Farm management.
5. Livestock improvement.

The bureau obtained 330 doses of blackleg vaccine for the farmers of the county.

Eighty-five bushels of seed corn were supplied to farmers upon request.

A barberry eradication campaign located and destroyed 15 plants.

Seventy-four farm laborers were secured for the farmers of the county.

In the junior club work 200 boys and girls have been interested during the year.

In the six months of service for the organization, the agent has spent 46 days in the field and 106 days in the office. Eighty-one office calls have been received, 184 letters written, 32 farm visits made and 35 meetings held with an attendance of 1,546 persons.

YANKTON COUNTY.—D. L. Keck, Emergency Demonstration Agent.

The agricultural bureau in Yankton county has organized its work for the year under the following activities:
1. Best crop to help the United States.
2. Farm help.
3. Boys' and girls' club work.
5. Animal disease prevention.
7. Agricultural engineering.

The Better Seeds program of the bureau incorporated the seed corn work. There were fifty farmers interested in the testing of their own seed corn and 300 bushels of seed were ear tested by the organization, and another 300 bushels of seed corn were obtained and distributed in the county.

During the barberry campaign some 6,000 plants were located and destroyed.

The livestock program consisted of the community work in preventing the spread of animal diseases. Three outbreaks of hog cholera have occurred and the agent has cooperated in each instance in obtaining the united efforts of the community for the stamping out of the outbreak.

Sixty-five farm laborers have been obtained for the farmers of the county.

There are 937 boys and girls enrolled for junior club work and the bureau has secured paid leaders for thirty of these local junior clubs.

During the three months of service for the bureau the agent has spent 45 days in the field and 26 days in the office. There have been 177 office calls, 313 letters written, 117 farm visits made and 24 meetings held at which 583 have been reached.
BUREAUS AWAITING THE APPOINTMENT OF AGENTS.

At the close of the year there are 9 counties on the waiting list for agents: Stanley, Hyde, Bon Homme, Deuel, Potter, Tripp, Gregory, Custer and Haakon counties. Vey J. Valentine, who has been serving as county agent for Stanley county, resigned to take up active duties on a ranch immediately after June 30, 1918. Qualified men will be located as rapidly as possible for these counties in order that their program of work may be carried out.

THE CHANGE IN EMERGENCY AGRICULTURAL BUREAU FINANCES.

With the beginning of the next fiscal year, it is imperative to make some change regarding the financial arrangement with the emergency agricultural bureaus, on account of a reduction in the state's allotment of emergency funds from the Department of Agriculture. The suggestion made by the Department of Agriculture was that no more than $1,800 be allotted to any one emergency bureau, and that the county be asked to raise the remainder of the local budget either by taxation or by subscription. The situation was placed before the executive committees of the different bureaus, and they in turn placed the proposition before their county commissioners with the result that the sums varying from $1,000 to $2,500 are being raised in each county.

ORGANIZATIONS DESIRE TO BECOME PERMANENT.

One of the most encouraging features of the year's work is the manner in which the farmers of the various counties supported the bureau work. Many of the bureaus that are now organized as emergency bureaus have stated that they wish to become regular farm bureaus as quickly as state funds are available; that their county was making as large appropriations as was necessary under the state law, and they would like to become permanently set for the work.

As the eve of the new fiscal year approaches, the county bureaus are busily trying to solve the farm help problem, making plans for increasing the rye acreage of the county at least 23 percent, and the winter wheat acreage in the winter wheat counties at least 12 percent, as has been requested by the government. This work will be followed by county-wide demonstrational meetings for the early selection of seed corn. In November, the bureaus plan a state-wide membership campaign with a view to increasing the membership and interest in bureau activities.

All of the extension work is to increase food production and to make rural life more profitable and more pleasant. It gives a better understanding of rural problems and it dignifies and elevates and makes farm life more satisfying.
EXAMPLES OF FARM BUREAU BUDGET.

In considering the amount of funds necessary to finance the farm bureau work in South Dakota it is well to consider the amount that has actually been appropriated and expended by two of our representative counties, Kingsbury, east of the river, and Lyman, west of the river.

**RECEIPTS:**

<table>
<thead>
<tr>
<th></th>
<th>Kingsbury</th>
<th>Lyman</th>
</tr>
</thead>
<tbody>
<tr>
<td>County appropriation</td>
<td>$2,000.00</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>State aid (60 percent)</td>
<td>1,200.00</td>
<td>900.00</td>
</tr>
<tr>
<td>Federal aid</td>
<td>600.00</td>
<td>600.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,800.00</strong></td>
<td><strong>$3,000.00</strong></td>
</tr>
</tbody>
</table>

**EXPENDITURES:**

<table>
<thead>
<tr>
<th></th>
<th>Kingsbury</th>
<th>Lyman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent's salary (including use of auto)</td>
<td>3,000.00</td>
<td>2,250.00</td>
</tr>
<tr>
<td>Traveling expenses</td>
<td>471.00</td>
<td>495.84</td>
</tr>
<tr>
<td>Office expenses</td>
<td>329.00</td>
<td>254.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,800.00</strong></td>
<td><strong>$3,000.00</strong></td>
</tr>
</tbody>
</table>

At the present time there are 40 counties organized for emergency bureau work for the period of the war. These with the 15 farm bureau counties and Jones county (a Farm Bureau county on Jan. 1, 1919), make a total of 56 organized counties in South Dakota. When war ceases and emergency federal funds are no longer available, there will be at least 25 of these emergency organizations that will desire to become permanent, as these counties are each already making an appropriation of from $1,000 to $2,500.00 annually. An average good budget for a county bureau would be:

**RECEIPTS:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>County appropriation</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>State aid (60 percent)</td>
<td>1,200.00</td>
</tr>
<tr>
<td>Federal aid (after war)</td>
<td>300.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,500.00</strong></td>
</tr>
</tbody>
</table>

**EXPENDITURES:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent's salary</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>(Straight salary, not including auto service, as this should be figured on mileage basis.)</td>
<td></td>
</tr>
<tr>
<td>Stenographer hire</td>
<td>600.00</td>
</tr>
<tr>
<td>Office expense</td>
<td>150.00</td>
</tr>
<tr>
<td>Traveling expenses:</td>
<td></td>
</tr>
<tr>
<td>Railroad and living</td>
<td>110.00</td>
</tr>
<tr>
<td>Automobile mileage (figured on basis of 8,000 miles traveled a year at an allowance of 8 cents a mile)</td>
<td>640.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,500.00</strong></td>
</tr>
</tbody>
</table>
Project No. 3--SHORT COURSE—H. E. Dawes, Leader

The state law provides that at least four days short courses shall be given in each county having no county agent. When the emergency demonstration agents were put into different counties the question came up whether the state law still applied. Attorney General Caldwell was asked for an opinion on this point. He decided that inasmuch as an emergency agent does the same kind of work in a county, and works in the same kind of a local organization as a county agent, that the state law making short courses mandatory would not apply to counties in which there were emergency demonstration agents.

This however, does not decrease the short course work. In fact the demand for short courses and conferences of farmers and farmers’ wives increases in counties having agents rather than decreases.

There were three corps of short course workers during the winter. These workers held 383 meetings with a total attendance of 26,618. The average attendance at each meeting was almost 70. Twenty-five meetings failed on account of storms.

H. E. Dawes was assistant superintendent and G. W. Randlett, superintendent. For the coming year, Mr. Dawes has been appointed leader of short courses and is in direct charge of this phase of extension work.

The following is a detailed report by counties:

<table>
<thead>
<tr>
<th>County</th>
<th>No. of Meetings Held</th>
<th>Total Attendance</th>
<th>Average Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aurora</td>
<td>7</td>
<td>422</td>
<td>60.3</td>
</tr>
<tr>
<td>Bon Homme</td>
<td>10</td>
<td>907</td>
<td>90.7</td>
</tr>
<tr>
<td>Brookings</td>
<td>18</td>
<td>1366</td>
<td>75.88</td>
</tr>
<tr>
<td>Brown</td>
<td>12</td>
<td>833</td>
<td>69.42</td>
</tr>
<tr>
<td>Brule</td>
<td>4</td>
<td>74</td>
<td>18.5</td>
</tr>
<tr>
<td>Buffalo</td>
<td>5</td>
<td>302</td>
<td>60.4</td>
</tr>
<tr>
<td>Butte</td>
<td>14</td>
<td>1151</td>
<td>82.2</td>
</tr>
<tr>
<td>Campbell</td>
<td>4</td>
<td>596</td>
<td>149.</td>
</tr>
<tr>
<td>Charles Mix</td>
<td>9</td>
<td>442</td>
<td>49.1</td>
</tr>
<tr>
<td>Clay</td>
<td>1</td>
<td>93</td>
<td>93.</td>
</tr>
<tr>
<td>Corson</td>
<td>6</td>
<td>291</td>
<td>48.5</td>
</tr>
<tr>
<td>Custer</td>
<td>15</td>
<td>746</td>
<td>49.75</td>
</tr>
<tr>
<td>Davison</td>
<td>7</td>
<td>397</td>
<td>56.71</td>
</tr>
<tr>
<td>Day</td>
<td>7</td>
<td>864</td>
<td>123.43</td>
</tr>
<tr>
<td>Deuel</td>
<td>6</td>
<td>944</td>
<td>157.33</td>
</tr>
<tr>
<td>Dewey</td>
<td>5</td>
<td>235</td>
<td>47.</td>
</tr>
<tr>
<td>Edmunds</td>
<td>8</td>
<td>597</td>
<td>74.63</td>
</tr>
<tr>
<td>Faulk</td>
<td>7</td>
<td>554</td>
<td>79.14</td>
</tr>
<tr>
<td>Grant</td>
<td>7</td>
<td>259</td>
<td>37.</td>
</tr>
<tr>
<td>Gregory</td>
<td>12</td>
<td>593</td>
<td>49.42</td>
</tr>
<tr>
<td>Hamlin</td>
<td>6</td>
<td>342</td>
<td>57.</td>
</tr>
<tr>
<td>Hand</td>
<td>2</td>
<td>117</td>
<td>58.5</td>
</tr>
</tbody>
</table>
The subjects presented and discussed varied according to interest and need in the particular community.
**Project No. 4--JUNIOR EXTENSION—Boys' and Girls' Club Work**

W. M. Mair, State Club Leader.
Agnes Morton, Assistant State Club Leader.
P. J. Scarbro, Emergency State Club Leader.

The boys' and girls' club work is one of the very valuable and interesting phases of extension work. During the year covered by this report great increase in the enrollment and progress in the work have been made. There are now nearly 20,000 boys and girls taking an active and organized interest in some phase of food and garment production and in the conservation of foods.

Upon the resignation of Mr. Mair, P. J. Scarbro has been elected state leader in this particular line of work.

The following is a report of the clubs organized, total enrollments, and project requirements, June 1, 1918:

<table>
<thead>
<tr>
<th>Project</th>
<th>No. of clubs organized</th>
<th>Total Enrollment</th>
<th>Date enrollment closed</th>
<th>Date reports are due in office</th>
<th>Requirements club projects as size of plat; No. eggs, Etc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>11</td>
<td>366</td>
<td>May 1 Nov. 1</td>
<td>1 acre</td>
<td></td>
</tr>
<tr>
<td>Potato</td>
<td>3</td>
<td>588</td>
<td>May 1 Nov. 1</td>
<td>1/4 acre</td>
<td></td>
</tr>
<tr>
<td>Home Garden</td>
<td>64</td>
<td>3858</td>
<td>May 1 Nov. 1</td>
<td>1 sq. rod</td>
<td></td>
</tr>
<tr>
<td>Canning</td>
<td>16</td>
<td>1130</td>
<td>May 1 Nov. 1</td>
<td>50 quarts</td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td>9</td>
<td>733</td>
<td>May 1 Nov. 1</td>
<td>set 30 eggs</td>
<td></td>
</tr>
<tr>
<td>Pork and Crop Production</td>
<td>9</td>
<td>315</td>
<td>May 1 Nov. 1</td>
<td>sow-pig project; feeding</td>
<td></td>
</tr>
<tr>
<td>Baby Beef</td>
<td>0</td>
<td>21</td>
<td>Mch. 1 Sep. 1</td>
<td>6 mo. feeding</td>
<td></td>
</tr>
<tr>
<td>Bread, Liberty Food</td>
<td>2</td>
<td>128</td>
<td>May 1 Nov. 1</td>
<td>10 bakings; feeding project</td>
<td></td>
</tr>
<tr>
<td>Sewing or Garment Making</td>
<td>28</td>
<td>875</td>
<td>May 1 Nov. 1</td>
<td>Make 5 pieces</td>
<td></td>
</tr>
<tr>
<td>Sheep</td>
<td>2</td>
<td>30</td>
<td>May 1 Nov. 1</td>
<td>1 to 10 ewes</td>
<td></td>
</tr>
<tr>
<td>Garden and Canning</td>
<td>56</td>
<td>1525</td>
<td>May 1 Nov. 1</td>
<td>1 sq. rd.; 50 qts.</td>
<td></td>
</tr>
<tr>
<td>Mixed Membership</td>
<td>312</td>
<td>7307</td>
<td>May 1 Nov. 1</td>
<td>same as above</td>
<td></td>
</tr>
<tr>
<td>Statewide</td>
<td>1</td>
<td>872</td>
<td>May 1 Nov. 1</td>
<td>same as above</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>512</td>
<td>17808</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Four counties of the state have paid leaders on full time, fifteen on part time.
2. Five hundred and twenty local volunteer leaders are directing club work.
3. Fourteen counties of the state are regularly organized on the Farm Bureau plan.
4. Thirteen paid leaders are employed cooperatively by the college and the United States Department of Agriculture. Twelve paid leaders are employed by the local communities only.
5. A written county project agreement is used under which the
boys' and girls' club work in the county is outlined.

6. Thirty training conferences for club leaders have been held since the first of March.

7. From $100 to $200 per county has been donated for prizes, premiums, educational trips and short courses.

8. Four hundred boys attended the junior short course at the State College the first week in June.

The towns and cities of South Dakota have desired to provide a paid leader for the club work during the summer months. A larger number would have been employed but qualified leaders could not be secured. Boards of education, city councils, and commercial clubs have supplied funds for the work thru the state. The following is a list of cities that have had paid club leadership:

<table>
<thead>
<tr>
<th>TOWN</th>
<th>COUNTY</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen</td>
<td>Brown</td>
<td>1</td>
</tr>
<tr>
<td>Wagner</td>
<td>Charles Mix</td>
<td>1</td>
</tr>
<tr>
<td>Milbank</td>
<td>Grant</td>
<td>1</td>
</tr>
<tr>
<td>Lead</td>
<td>Lawrence</td>
<td>1</td>
</tr>
<tr>
<td>Sioux Falls</td>
<td>Minnehaha</td>
<td>2 (1 man and 1 woman)</td>
</tr>
<tr>
<td>Gettysburg</td>
<td>Potter</td>
<td>1</td>
</tr>
<tr>
<td>Yankton</td>
<td>Yankton</td>
<td>2 (1 man and 1 woman)</td>
</tr>
<tr>
<td>Watertown</td>
<td>Codington</td>
<td>1 (part pay by city)</td>
</tr>
<tr>
<td>Pierre</td>
<td>Hughes</td>
<td>1 (part pay by city)</td>
</tr>
<tr>
<td>Flandreau</td>
<td>Moody</td>
<td>1</td>
</tr>
</tbody>
</table>

In the Junior extension work of South Dakota it is our plan to organize each county on a 100 percent basis. This means every group of five or more boys and girls organized in a definite club group. President, vice-president, and secretary are elected with an adult in the community acting as local leader. The following counties are organized on a 100 percent basis:

<table>
<thead>
<tr>
<th>County</th>
<th>Enrollment</th>
<th>Clubs</th>
<th>Volunteer Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beadle</td>
<td>77</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Brookings</td>
<td>460</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Brown</td>
<td>735</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Davison</td>
<td>1129</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Day</td>
<td>673</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Hanson</td>
<td>430</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Jerauld</td>
<td>90</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lake</td>
<td>148</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>McCook</td>
<td>661</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Minnehaha</td>
<td>1710</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Pennington</td>
<td>564</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Roberts</td>
<td>850</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Sanborn</td>
<td>262</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Walworth</td>
<td>200</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Yankton</td>
<td>766</td>
<td>45</td>
<td>45</td>
</tr>
</tbody>
</table>
Enrollments

The enrollments for 1918 increased more than 100 percent. In fact the number of boys and girls of South Dakota who wish to do club work is greater than we have equipment and office help to care for efficiently. The following is the enrollment by projects:

<table>
<thead>
<tr>
<th>Project</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewing</td>
<td>1613</td>
</tr>
<tr>
<td>Liberty Food</td>
<td>449</td>
</tr>
<tr>
<td>Canning</td>
<td>1812</td>
</tr>
<tr>
<td>Garden</td>
<td>8742</td>
</tr>
<tr>
<td>Corn</td>
<td>1114</td>
</tr>
<tr>
<td>Potato</td>
<td>1132</td>
</tr>
<tr>
<td>Sheep</td>
<td>163</td>
</tr>
<tr>
<td>Pig</td>
<td>1065</td>
</tr>
<tr>
<td>Baby Beef</td>
<td>123</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19027</strong></td>
</tr>
</tbody>
</table>

Community Canning and Drying Plants.

From the fact that the conservation of food is one of the principal war measures, the club department managed the establishment of community canning and drying plants. Sioux Falls, Pierre, Watertown and Milbank established such centers. The garden people of these communities bring their garden products and fruits to the central plant to do the work. An expert who understands the work is in charge of the kitchens. Several thousand quarts of vegetables and fruit have been conserved at the time of this report. The quota for the club members of South Dakota for this summer is 750,000 quarts of vegetables and fruits.

Junior Short Course.

The first week of June was given to the junior short course for boys. The entire extension force, assisted by the College faculty, gave the boys elementary courses in crops, livestock, farm management, general agricultural education and military tactics. The 430 boys who attended were accompanied by their county agents and club leaders. The enrollment in June, 1917, was 217.

During the coming year junior short courses will be held at the State Normal at Spearfish, the government farm at Ardmore, State Normal school at Aberdeen and State university at Vermillion.

War Projects and Demonstration Work.

The following projects have been developed in the boys' and girls' club department as special war measures for the year 1917-18:

1. Production of sheep.
2. Production of baby beef.
3. Production of pork.
4. Study and use of foods in cooperation with the Food Administrator.
This is known as the Liberty food club work. More emphasis is being placed on the food conservation work, especially that of canning and drying. In 1917 South Dakota developed championship team in canning, earning this honor over Minnesota, Nebraska and Iowa in the Inter-state contest held at Sioux City. The State Fair board of South Dakota voted to give the Boys' and Girls' Club department a budget of $890, this fund to be expended in maintaining a camp for girls. Membership to the camp is limited to club members and each county is allowed to send a demonstration team in Liberty food, sewing and canning and club work. The program for the week consists of demonstrations given by the various teams, instructions in club work and games and play contests. Prizes are offered to the members in each project.

The champion canning team in the state will represent South Dakota at the Inter-state contest to be held at Sioux City with representatives from ten different states competing.

The State Fair board is giving an exhibit to the baby-pork-club members. A large number of awards are offered for this exhibit.

A number of counties will be represented by stock judging teams who will contest for state honors. The team winning the championship will represent the state at the Inter-state fair at Sioux City and the International Livestock exposition at Chicago. Arrangements have been made with the State Fair Board for an exhibit of baby beef at the 1919 State fair.

Project No. 5--HOME ECONOMICS

Roberta McNeill, Emergency State Home Demonstration Leader.

The organization for doing the best home economics work in South Dakota during the last year has been lacking. This is due, chiefly, to changes of leaders and workers. The need of and the demand for this line of work is great.

Though the appointment of a state leader was made by the state, it was never ratified by the government. Miss Mary A. Dolve and Miss G. Erickson were the two field workers in home economics.

When the federal emergency appropriation was made, additional money became available for South Dakota to be used along home economic lines. On February 1, Miss Roberta McNeill was appointed emergency state leader. Since that time the organization of home economics work has steadily and successfully progressed.

The home economics extension work for 1917-18 may be reported under the following heads:


The canning work was carried on during the summer by Miss Mary A. Dolve and Miss Gertrude Erickson. The latter worked with the county agents and organized counties, while the former went into other parts of the state. The records do not show the num-
ber of meetings held but from the reports of the work we get from the field, we feel that it was well worth while.

2. Fair Exhibit.

The home economics extension was represented at the State fair in the Woman's building. The exhibit was arranged and supervised by Miss Dolve and Miss Erickson. It consisted of two kitchens, one well equipped, conveniently arranged, and the other the reverse. The exhibit attracted much attention and could not help but drive home many helpful suggestions. Miss Erickson left the department on October 1.

3. Short Courses.

Each of the three short course corps had a home economics representative. Miss Dolve discussed the question of food production and conservation. Mrs. Welch discussed food conservation and general topics dealing with the farm-home and Mrs. Kotrba specialized on poultry. In the majority of cases there were separate sessions for men and women, but in some instances there were joint sessions. While sometimes weather conditions and lack of advertising necessitated cancelling meetings or resulted in small attendance, on the whole the interest was good. In all, 183 days short course work were given in this division with an aggregate attendance of 12,794. Sometimes two sessions would be held in the day, other times only one and occasionally three.


The first home demonstration agent, Mrs. A. W. Palm, was appointed August 15, with a territory including Coddington, Roberts, Grant and Deuel counties. Laura Jones was appointed on October 7 with Kingsbury, Brookings, Hamlin and Clark counties as her territory. No other appointments were made until February 1, when Roberta McNeill was appointed as state leader. Mrs. Ralph Johnston was appointed at the same time to do part time work in Fall River, Custer, Pennington, and Lawrence counties. Until June 30, the following comprised the home economic workers, all being paid from federal emergency funds:

Feb. 1—Roberta McNeill, State Leader.
Aug. 15—Mrs. H. G. Palm, Coddington, Grant, Roberts, Deuel.
Oct. 7—Laura Jones, Brookings, Beadle, Kingsbury, Hand.
Feb. 1—Mrs. R. Johnston, Fall River, Custer, Pennington.
April 1—Mary A. Dolve, Minnehaha, Moody, Lincoln.
May 1—Selma Rongstad, Jerauld, Sanborn, Miner, Lake.
June 1—Dorthea M. Daugherty, Lawrence, Butte, Meade.
June 1—Kate Slightam, Haakon, Stanley, Sully, Hughes.
June 1—Victoria Jordan, Brule, Jackson, Jones, Lyman.
June 1—Edith Sloan, Brown, Marshall, Day, Roberts.
June 1—Ruth Snell, Potter, Faulk, Spink, Clark.
June 1—Marjorie Sims, Aurora, Davison, Hanson, McCook.
June 1—Henrietta Dodge, Turner, Yankton, Clay, Union.

The plan for the work was to have each worker spend one week each month in each county.

The agents worked with the Food Administration in carrying on wheat saving, meat substitute and fat and sugar reducing campaigns. In June, work was started on the canning campaign. During the year 260 demonstrations were given with an aggregate attendance of 10,443; and 99 lectures were given, attendance 2,170. In addition to this 327 homes were visited.

5. Publications.

Believing that the press is a very valuable means of getting in touch with the public, the members of the home economic corps are urged to write articles. During the year thirty articles have been reported. There have also been published an eight-page bulletin, "Home Canning, One-Period Cold Pack Method" and a four-page canning timetable.

Cottage Cheese.

In connection with the home demonstration agent work during May and June, Sidonia Hast, a special worker, carried on a cottage cheese campaign. In this work seven counties were visited and fifty-four meetings held with an aggregate attendance of 1,657. The object of the campaign was to show the food value of cottage cheese, the possibilities of making it into attractive, easily prepared dishes, and also to show the importance of conserving skim milk for human food.

Project No. 6—CREAMERY EXTENSION—T. A. Meehan, Specialist

South Dakota has about sixty-three local creameries, most of which are owned cooperatively by farmers. These local institutions are of great value to the different communities in which they are located.

While the number of these local creameries were gradually decreasing, the number of dairy cows and dairy products increased. Many of the local creameries were closing because of lack of cooperation, because of strong competition from central plants, because of poor business management and loose methods of accounting, because of poor quality of cream, because of lack of uniform amount of cream throughout the year, because of change of capable operators for cheaper help, and because of poor marketing facilities.

By proper guidance some of these causes of creamery failures and improper management, resulting in losses to the farmers, could be eliminated. With these improvements in view, the federal dairy division and the state entered into a cooperative agreement on the half-and-half basis. T. A. Meehan is the specialist employed in this work.
Creameries Cooperating.

Mr. Meehan has cooperated with the following creameries: Farmers' Cooperative creamery, Astoria; Farmers' Cooperative creamery, Winner; Farmers' Cooperative creamery, Trent; Farmers' Cooperative creamery, Murdo; Farmers' Cooperative creamery, Avon, and Farmers' Cooperative creamery, Ethan.

The specialist has made forty-nine visits to these creameries and remained several days with each to help with its problems.

The nature of work was chiefly as follows:
1. Devising and superintending system of accounts.
2. Improving creamery heating and ventilation.
3. Improving ice storage and refrigeration.
4. Preventing molds in butter by paraffining.
5. Installing water systems.
6. Utilization of exhaust steam for heating building, for pasteurization, and for boiler water.
7. Improving quality of butter by neutralization and pasteurization of cream.
8. Assisting in organization and equipping of new plants.

In addition Mr. Meehan did the following:
1. Attended twenty-two meetings of board of directors.
2. Compiled a system of creamery accounts.
3. Distributed 200 circular letters to creameries and ice-cream factories on Cream Cooling Tanks.
4. Attended the fall conference of extension workers at Pierre for two days.
5. Attended National Creamery Buttermakers' Association convention at Milwaukee for three days.
6. Attended annual conference of extension workers at Brookings for one week.
7. Attended State Buttermakers' and Dairymen's convention at Sioux Falls for two days.
8. Attended meetings of stock-holders of the Farmers' Cooperative creamery at Oelrichs, South Dakota, for one day.
9. Attended annual meeting of stock-holders of Farmers' Cooperative creamery at Spearfish for one day.
10. Attended annual creamery picnic held by the Farmers' Cooperative creamery at Lodgepole, for one day.
11. Visited Clark creamery for two days to learn their system of handling eggs as a side line. There were many requests from creameries for this information.
12. Distributed about 2,000 circulars and bulletins pertaining to cream production among patrons of creameries with which he cooperated.
13. Assisted A. P. Ryger, state dairy expert, with exhibit at State Fair for two days.
Project No. 7—FARM MANAGEMENT

Ward Ostrander, Farm Management Demonstrator.
A. E. Miller, Assistant Farm Management Demonstrator.
W. C. Boardman, Labor Specialist.

Farm management work in South Dakota from July 1, 1917, to June 30, 1918, has had as its chief aims:

First, to demonstrate to farmers, in connection with their own farms, a practical and efficient method of summarizing and analyzing their farm business as a means of measuring the profit and loss incurred in conducting it, and helping them to decide upon a readjustment that promised to increase their net income and efficiency.

Second, to assist farmers in figuring their income tax in cooperation with the Internal Revenue office and county agents.

Third, to assist the State Public School administration in placing farm accounts in rural arithmetic.

Fourth, to assist in the handling and distribution of harvest help and other farm labor in South Dakota.

Fifth, to work in cooperation with the School of Agriculture in teaching and demonstrating to farm boys a method of keeping and studying farm accounts.

Sixth, to work with the home demonstration agent in trying to perfect a home account book.

Seventh, to work with the Boys' and Girls' club leaders in compiling accounts for their projects and carrying on their club members in farm accounts after they are too old to be enrolled in junior work.

Work With County Agents.

Cooperation with county agents has been the primary object of the work, altho no community was rejected where a good local leader could be found. With the rapid increase of emergency demonstration agents this past year, work is being carried on in cooperation with farmers in 55 of 69 counties of the state. A year ago farm demonstration work was represented in about one-third of that number.

Farm Record Books.

The number of account books has been more than doubled. In 1916 there were about 395 books in use. In 1917 there were 1,356, and now, as near as can be estimated, something over 3,300. This office has account of 2,968 farmers who have received and are using our record books. This does not include the names of many farmers to whom bankers gave books during the past year.

There were 450 follow-up visits made last fall in cooperation with county agents. These visits were to individual farmers, talking over their account books personally with them.

The number of records analyzed last winter, of which we have an account, was 315. Many more farmers analyzed and summarized
their own records, but their returns on these are not in at this time.

There were 274 meetings held explaining farm management demonstration work and putting out farm account books.

Thirty-six separate articles were printed in the press of the state, with an average circulation of better than 34 papers.

About 13,500 follow-up letters were sent out by this department to farmers who keep account books. These letters were mailed at nine different times, 1,500 on each occasion. These aided materially in helping farmers carry thru their work during the year.

Six hundred letters were sent out on Boys' Working Reserve.

An effort was made with our various farm bureaus to have a county committeeeman selected to have charge of farm management demonstration work in his county. This plan was carried out in 12 of the counties.

Efforts have also been made to obtain local committeemen in each locality where we have books who get together for meetings with the men interested in farm management demonstrations, and who act as leaders in follow-up work in each community.

A successful conference of the county agents was held last spring at which it was decided to have each county supply its own books for the coming year, the state office not to supply books free to the whole state as heretofore.

**Bankers Cooperate.**

A policy was established last winter of urging the banks and especially the bankers associations not to make a campaign to put an account book in the hands of every farmer, because it was believed to be a waste of effort, paper, and money. Many farmers are not yet ready to keep accounts of farm transactions. It is deemed better to place few books into the hands of farmers who will keep them, than it is to put out too many and have them thrown away or only partially kept.

The Bankers' association was asked to wait until the beginning of 1919, when with the pressure of the Internal Revenue department, a larger percent of the books could then be kept. Excellent cooperation was given and the banks have agreed to put out 34,100 account books in the coming year.

The distribution of farm record books is handled thru the county as a unit. Each county agent interviews his own bankers and determines the number that will be put out in that county. The banks buy the book, printing their cards on the outside cover if they so desire, and supplying the book to the farmer, either free or charging for it.

The county farm bureau also has some books on hand with which to supply farmers who might want books, and whom the banks did not reach.
Cost Account Book Enterprise Record.

In the analysis of the account books last winter, the conservation of feed and labor were the two principal factors brought out to the farmers because of the war conditions. At that same time efforts were made to have the farmers keep a cost estimate sheet on some one enterprise, hoping that in this way he might obtain some reasonably accurate figures that would help him to find more of the detailed leaks and also the gains in that enterprise.

This work was carried further by endeavoring to have at least three farmers in each county keep a cost account enterprise record. This comprised a feed and labor and a general expense and receipt record of some enterprise of importance in that county. This was for the purpose of having some reliable figures on the cost of production to place before a price-fixing committee that might be called. It was felt that each farm bureau thus represented in the state could carry considerable weight toward a just price being fixed, the farmers being satisfied that they were represented in a business-like way. The farmer would also find just what it cost to produce that farm product.

A bulletin is now in press which, it is hoped, will give assistance and guidance to the county agents and leaders in analyzing and keeping proper farm records.

Advantages of Uniform Account Books.

County meetings have been held over the state explaining the work to the bankers and as a result 34,100 of the farm account books have been ordered by the banks for the year beginning 1919.

First. This arrangement saves the bankers considerable money many of whom paid as high as 30 cents each for books last year. According to present plans they will be supplied this coming year with books at about 6½ cents each.

Second. It places a uniform account book in South Dakota which will make the figuring of income tax much simpler.

Third. By doing this work early and reaching all the banks, which are the main source of distribution of account books to farmers, any undesirable books in the state will be headed off without any antagonistic publicity or attitude.

Fourth. The banks obtain an account book such as the farmers need.

Fifth. It is forming close cooperation between the extension work of county agents and the bankers.

Sixth. Some of the farmers keeping records will need assistance in summarizing the year's business. This department, county agents, bankers and local leaders will assist.

Systems of record keeping in the household are being introduced through the home demonstration specialists.

Through the boys' and girls' club department a number of boys
are becoming interested in the keeping of farm records and some of these boys in turn are interesting their parents in keeping records of all farm transactions.

Labor.

During the summer months it was necessary for the farm management demonstrator to act as farm help specialist. A great amount of that time was spent in this work. The harvest help was distributed largely through the farm help specialist in each town with the cooperation of the Department of Labor and the county agents.

On December 1, W. C. Boardman was detailed by the government as farm help specialist. This relieved the farm management demonstrator of much of the detail work.

Some work has been done on the public service reserve encouraging county agents to register men in their counties that might be available for farm work.

Articles have been sent out and letters have been written trying to keep farmers in touch with the labor supply and how to obtain it. Efforts have also been made to keep the Department of Labor in touch with our needs and conditions within the state.

Mr. Ostrander was appointed state director of the boys' working reserve and asked boys between 16 and 21 to enlist for some useful work. County and city school superintendents and public school teachers were asked to cooperate. As near as can be ascertained from the records sent in, there are about 2,300 boys in South Dakota so enrolled, probably over 2,000 of these working on the farms and the others in some productive work in town.

Rural Arithmetic.

The farm demonstration department feels that farm accounting should begin in the public school. At the present time there are very few practical farm problems in our school books.

The state superintendent of public instruction was consulted on this point. He agreed as to the importance of incorporating more rural arithmetic in the courses of study.

This plan was presented to the state teachers' meeting at Sioux Falls and to the joint teachers' institutes at Pierre and Mitchell.

It is hoped that sufficient time may be had to guide this phase of the work, but it must not take the place of other important work already in progress.

The farm management work may be summarized as follows:

Account books put out .................................. 3300
Follow-up visits ............................................. 450
Farm records analyzed .................................. 315
Teachers institutes ...................................... 4
Farm management meetings .......................... 274
Project No. 8--LIVESTOCK IMPROVEMENT—G. E. Morrison, Specialist

South Dakota is particularly well adapted to the raising of high class livestock. More than this, conditions are such that livestock raising is important in order that the farmers may obtain the greatest yield from the soil and the greatest profit from their crops.

The livestock business is very responsive to skill in breeding and selection and to good care and management. Likewise, it readily responds to poor care and management.

Guy E. Morrison is the extension specialist in livestock. His duties are to assist in livestock development, improvement and standardization. This may be done by organization or by working through individuals.

Like the work of other specialists, most of the livestock development work was done through the county agents and through the short courses.

During the last year assistance was given in the selection of 200 purebred sires and dams.

The livestock at several of the local and county fairs was judged.

Better stallion days and fall colt shows have been encouraged and several such shows have been held as a result.

Special livestock information was given to the boys' and girls' club department.

Sheep have been encouraged. Through the Wyoming and Montana Exchange a number of sheep have been placed in South Dakota.

Wool shipping associations have also been encouraged and have worked out successfully.

The specialist wrote 37 articles on livestock topics for the press; took part in 136 meetings including the short course meetings with an attendance of 7,373; attended to 250 office calls; wrote 300 letters; mailed 2,740 circular letters, and traveled 9,153 miles by rail and 4,308 miles by auto.

In carrying out the duties of the work, Mr. Morrison spent 144 days in the field and 126 days in the office.
Project No. 9--AGRICULTURAL ENGINEERING—
R. L. Patty, Specialist

On account of the urgent need of experienced organizers, necessitated by the federal emergency appropriation, R. L. Patty, the agricultural extension engineer, has been at his special line of work only five months during the year. The remaining seven months were devoted to organization of counties for emergency food work. During this time Mr. Patty's salary and expenses were paid from emergency funds.

Drainage.

Twenty-four drainage demonstrations have been completed during the year or are in the process of construction. These are all properly installed as far as they have been checked up and serve as excellent examples of farm drainage. In some cases the crops raised this year very nearly pay for the expense. Fifteen additional preliminary surveys have been made, many of which will develop into demonstrations soon. Some of these demonstrations include three or four miles of drain tile. Every rod is laid to grade by means of targets and "checked up" after being laid.

Twelve meetings were held in connection with this drainage work, mostly in the field, with an average attendance of six persons.

Farm Buildings.

The demonstration buildings that are actually built are difficult to check up. At least five demonstration hog-houses have been built in different parts of the state according to plans and specifications supplied by us, and these have in time led to the building of others. At least ten demonstration barns have been built or are in the process of construction.

About one hundred interviews have been held with prospective builders and with those planning on remodelling their barns. Ventilation systems have been planned for many of these.

Many investigations have been made of the sand and gravel in different parts of the state for construction purposes.

Five stock plans of farm buildings have been drawn during the year. These buildings are especially designed to suit local conditions. The county agents are taking over considerable work along this line in their respective counties. Construction of extensive building is not being urged at this time, but it is the time to be getting some demonstrations started that will encourage building after the war.

Considerable work in concrete construction has been done, mostly in the field. Several failures have been investigated. Other work in concrete construction has been carried on in cooperation with the American Portland Cement association.
Home Conveniences.

Only five public talks or demonstrations have been made on home conveniences during the year. Many interviews have been held with parties and recommendations made. Many talks on the various phases of farm engineering have been made in connection with short courses. Eight water supply demonstrations have been installed during the year, including one gravity supply system along White River in the West River territory.

Six septic tank systems for the disposal of sewage on the farm have been installed as demonstrations. These have been completely staked out and checked up by us and are working nicely.

One stock plan of this septic tank has been drawn up and blueprints distributed to demonstrators.

A few electric lighting plants have been inspected.

Bulletins and Pamphlets.

One 32-page bulletin has been prepared for the press containing five working plans for hog house construction.

One 5-page pamphlet has been prepared, to accompany the blueprint plan of the septic tank on the construction and action of this tank.

Approximately four hundred letters have been written during the five months, half of which have been replies to inquiries. Many of these have been answered in person.

From the foregoing it will be noticed that at least three-fourths of the specialist's time has been spent in the field getting the demonstration work actually done.

Project No. 10--HORTICULTURE—F. E. McCall, Specialist

During the year the extension horticulturist devoted only five months to the regular horticultural work, July, August, April, May and June. The remainder of the year was used in the organization of counties for emergency demonstration agents. The latter was carried on with emergency funds.

This interfered considerably in the completion of some of the projects already planned on marketing, storing and grading of fruit and vegetables and pruning and grafting demonstrations.

The work in horticulture dealt chiefly with food production and conservation of foods. War gardens, storage of vegetables and fruits, marketing the same and pruning and spraying the existing orchards were given chief consideration.

Specialties in Horticulture.

The following is a resume of the work done during the five months in horticultural extension work:

Fifty-six pruning demonstrations with a total attendance of 336.

Thirty-one spraying demonstrations with a total attendance of 124.
Forty-three lectures on horticultural subjects with a total attendance of 2,258.

Sixty-three individual farm plans drawn where the specialist was on the ground with the owner at the time of planning. Besides these, 108 general farm plans were mailed out upon request. The reports show that 14 of these are being used in remodeling or building up farmsteads in the state.

Twenty-six landscape plans were drawn for private home grounds and four others for public school grounds.

Fifty-three new windbreak demonstrations were started in which the owner either planted the trees this season or is this year preparing the ground to plant next season.

A survey of the existing windbreaks in the dry land section of the state has been started and a very large number of good windbreaks have been located.

A delayed war garden campaign was started after April 1. The mediums used were the press, boys' and girls' club department, county agents and public schools. Garden plans and suggestions were provided for the boys' and girls' club department and sent out to all the gardeners enrolled in the boys' and girls' club work throughout the state.

Plans and timely suggestions on gardening were sent also to about 12,000 adults through the county agents, schools and various community organizations. Also several thousand farmers' bulletins on gardening were distributed.

Twenty-four garden lectures were delivered to 1,628 persons.

In the proper season a press campaign against plant pests was carried on. This was followed by pruning and spraying demonstrations. The result was an increased interest in the case of the existing fruit trees in the home orchards.

There is a marked interest in horticultural projects throughout the state. More trees, both fruit and shade or for windbreaks, are being planted and the care of the tree is receiving more attention.

As long as the war continues, food crops will undoubtedly receive most attention. However, as occasion demands and time will permit, all the regular projects will receive due consideration.

**Emergency Work.**

During the period, Sept. 1, 1917, to March 30, 1918, while acting in the capacity of assistant county agent leader, emergency agricultural organizations in the following sixteen counties were started, nine of which were completed: Minnehaha, Davison, Hanson, Sanborn, Jackson, Jones, Custer, Pennington, Butte, Meade, Roberts, Marshall, Brown, Edmunds, Perkins and Faulk.

One hundred eleven days were spent in the field, 44 in the office and 70 meetings were held with a total attendance of 2,724.
In general, the farmers of the state were quite receptive to the organization of their various districts and showed their interest in helping push the organization through quickly. Many were disappointed at the time because available agents could not be secured at once, but as soon as more were on the job this disappointment disappeared. Throughout the whole year 242 days were spent in the field and 163 meetings were held with a total attendance of 4,982.

As near as the estimate can be made there are about 40,000 war gardens in the state this season with a total of 5,000 acres. This does not include the boys' and girls' club gardens nor the many home gardens grown.

Project No. 11--ANIMAL DISEASE CONTROL

Dr. J. T. E. Dinwoodie, Specialist.

Dr. G. S. Weaver, Emergency Hog Cholera Specialist.

On account of an unusual interest in the various phases of animal disease control, Dr. J. T. E. Dinwoodie, the animal disease specialist, has been unable to attend to all of the calls for assistance. South Dakota is not generally supplied with capable veterinarians. In some districts of South Dakota veterinary help cannot be secured within a radius of fifty miles. Such districts usually emphasize livestock and large droves and herds are kept. Contagious diseases are especially injurious under such conditions. The county and district agents, by the advice and assistance of the animal disease specialist, have been able to obtain excellent results.

With the support of federal emergency funds, Dr. G. S. Weaver was stationed in South Dakota to work especially on hog cholera control. Doctor Weaver has personally attended to many outbreaks of hog cholera and for several months was a member of one of the short course corps. At these meetings hog cholera was the subject explained and discussed.

Altho the demand for specialists along the lines of animal disease control comes from all over the state, the calls from the western part of the state are most numerous. As soon as the finances permit it is hoped that an additional man may give his full time to the territory west of the Missouri river.

During the past year, four and one-half months of the specialist's time were spent on short course work, and the remainder of the year chiefly with the county agents.

In the seven and one-half months devoted to county agents, 61 days were spent in the office and 130 days in the field.

During the year 127 farm visits were made and 39 meetings were held with a total attendance of 1,531. At these meetings, the following talks were delivered:
Whenever possible, use was made of demonstration material.
The 127 farm visits were occasioned by the following reported disease outbreaks, in some instances, two or more of the diseases listed being found on one farm:

Hog cholera .................................. 16
Anthrax .................................. 5
Blackleg .................................. 12
Necrobacillosis .................................. 13
Glanders .................................. 1
Goose septicemia .................................. 1
Pneumonia (hogs) .................................. 1
Hemorrhagic septicemia (cattle) .................................. 6
Influenza .................................. 1
Abortion (sheep) .................................. 2
Abortion (cattle) .................................. 4
Tuberculosis (cattle) .................................. 2
Pyobacillosis .................................. 1

To establish diagnosis in the foregoing farm visits, the following post mortems were held:

Blackleg .................................. 9
Anthrax .................................. 6
Necrobacillosis .................................. 4
Hog cholera .................................. 9
Goose septicemia .................................. 2
Pneumonia (hogs) .................................. 2
Hemorrhagic septicemia .................................. 4
Malignant oedema .................................. 1
Worms (hogs) .................................. 2

The time spent in the field was divided among the counties as follows:

Beadle county .................................. 11 days
Haakon county .................................. 31 days
Miner county .................................. 1 day
Jerauld county .................................. 12 days
Lyman county ........................................ 5 days
Douglas county ......................................... 3 days
Lawrence county ....................................... 6 days
Brown county ......................................... 1 day
Hughes county ........................................ 8 days
Spink county ........................................ 5 days
Kingsbury county .................................... 2 days
Aurora county ......................................... 6 days
Turner county ......................................... 2 days
Davison county ........................................ 1 day
Minnehaha county ................................... 2 days
Brookings county ................................... 1 day
Yankton county ....................................... 3 days
Lincoln county ....................................... 3 days

No attempt was made to divide the time equally among all counties, but the time devoted to each county was governed by the disease situation.

Special efforts were exerted in some counties toward the prevention of disease that were particularly common in those localities. The entire week of October 6 was spent in Lawrence county with county agent W. F. Kumlien, in holding blackleg vaccination demonstrations. Six demonstrations were held with a total attendance of fifty-four, 448 cattle being vaccinated.

**A Severe Anthrax Outbreak.**

During the opening weeks in August, practically the entire time of the specialist was devoted to a rather extensive anthrax outbreak in Haakon county, in which 2,478 animals were exposed before preventive procedures were instigated. The cattle were owned by about thirty ranchmen who were called together and the exact situation explained. As a result of this meeting, the thirty owners agreed to the following procedure as suggested, i.e., that they organize and buy all necessary materials cooperatively, and, further, that they form separate groups for distinct work. One group had charge of handling the herd at night, the second in assisting and handling the cattle during vaccination, the third disposed of carcasses and the fourth constituted a night shift. As a result of this cooperative organization and group action, the death loss was held to 2 ½ percent, an extremely low percent for anthrax. Fifty-one animals were lost and the carcasses were disposed of within twenty-four hours after death. All contaminated water holes and areas that could not be disinfected were fenced off. The yards used for vaccination were also disinfected. The total cost of all operations did not exceed 26 cents a head. After the infected group was vaccinated and deaths had ceased, all of the cattle ranging on areas surrounding this infected ground were vaccinated. This brought the total number of animals vaccinated in this particular outbreak to over 5,000 head. Although
it is not the intention of this department to vaccinate animals except as a demonstrational measure, it was found necessary in this emergency for Dr. Dinwoodie, the extension specialist in animal disease prevention to vaccinate about a thousand head.

**Blackleg Gives Trouble.**

In the month of April, a special blackleg disease prevention week was put on in Stanley county with the assistance of County Agent Valentine and Assistant County Agent White. During this week nine meetings were held with a total attendance of 166. This attendance constituted about one-third of the rural population in Stanley county.

During the week of April 28, a series of blackleg demonstrations were held in Haakon county. Nine demonstrations were given with a total attendance of 62, and 782 cattle were vaccinated.

**Dipping Tanks.**

During the week of January 26, a special campaign for the purpose of stimulating the construction of dipping tanks was inaugurated in Hughes county. The meetings were interfered with by rather adverse weather conditions. However, four successful meetings were held, with a total attendance of 102. Lantern slides dealing with dipping vat construction and the characteristics of the scab mite were used. As a result of this campaign, two new dipping outfits were constructed and two old tanks repaired, and practically every animal infected with, or exposed to scab, was dipped this spring.

In cooperation with Dr. Weaver, the federal hog cholera specialist, a series of meetings of one week's duration were held in Jerauld and Aurora counties. At these meetings prevention of animal diseases common in those particular localities were dealt with.

**Work Other Than with County Agents.**

The following state meetings were attended by Dr. Dinwoodie, Corn and Grain Growers' convention at Redfield, and the State Live Stock association meeting at Huron. At both of these meetings talks suitable to the occasion were delivered.

Through the courtesy of Dr. C. C. Lipp, college veterinarian, it was possible for this department to obtain the exhibit prepared by the veterinary department for State Fair purposes which was exhibited at the Lyman county fair held at Kennebec. At this particular fair special emphasis was placed on the anthrax display, since this town is in the center of a badly anthrax-infected area.

As time and occasion would permit, visits were made to the "alkali disease" area in Stanley and Lyman counties. This particular term "alkali disease" is a local terminology for a condition exhibited by livestock, the characteristic symptoms of which are sloughing off the hoofs or claws, and the falling out of the hair in mane and tail. This condition, heretofore, has caused a rather severe loss in
all classes of livestock, so much so that many ranches are abandon-
ed and land values have greatly depreciated. As a result of meet-
ings held through this area a year ago, a committee was appointed
to try to obtain investigational assistance from the Bureau of Ani-
mal Industry. As a result of the endeavors of the committee the
Bureau of Animal Industry delegated a toxicologist to survey the
situation. Following his visit, the Bureau of Animal Industry prom-
ised to instigate investigational work and at one time did have a man
working, but on account of war conditions, the bureau found it ne-
cessary to use this man elsewhere.

Aside from the work done by the South Dakota Experiment
Station on the effect of alkali water on cows no definite experimental
work has been carried on to reveal the cause of this rather peculiar
condition, which in all probabilities is due to ergot poisoning. Dur-
ing years characterized by luxuriant grass crop, ergot is very com-
mon on the heads of western rye and wheat grass. During the past
year this area was rather dry with a relatively poor grass crop and
a correspondingly decrease in death from "alkali disease."

Office Work.

In the sixty-one days the specialist spent in the office is includ-
ed the time which he attended the county agent conference and the
emergency county agent school and boys' week. This time also in-
cludes assistance given to Dr. Lipp in preparing the State Fair and
Kennebec Fair exhibit, together with routine office work and the prep-
aration of short articles for the press. Several special articles were
prepared which appeared in the Dakota Farmer and one bulletin on
"Parasites in Hogs."

Short Course Work.

During the four and one-half months of farmers' short courses,
Dr. Dinwoodie acted as director of crops No. 1, and all meetings held
by this corps. Assistant Superintendent Dawes outlined the work for
northwestern South Dakota. This particular area, judging from past
experience, is one that has been rather backward in attending farm-
ners' institutes, but as a result of making special emphasis on live-
stock conditions, the courses were successful. At 45 meetings there
was an attendance of 3,508 or an average of 73 at each meeting.

Project No. 12--FERTILITY AND FIELD CROPS

Manley Champlin, Field Crop Specialist.

J. G. Hutton, Soil Fertility Specialist.

Field Crops.

Field crop extension work naturally divides itself into seven-
sections as follows:

1. Location of sources of seed of proper varieties.
2. Answering personal inquiries on crop problems.
3. Arrangement of demonstration fields.
4. Preparation of informational circulars.
5. Assisting county agents, short course lecturers and club leaders in arranging programs, charts and other material having to do with crop improvement.
6. Acting as secretary for the voluntary crop improvement organization, the South Dakota Experiment association.
7. Lecturing and judging exhibits at farmers' clubs, field meetings or short courses.

Location of Seed Sources.

Lists of those having seed of recommended pure varieties of field crops were prepared and mailed to all county agents, members of the experiment association and to others upon request. A war emergency seed corn growers list was issued on which no one was listed whose seed corn did not test at least 75 percent. Tests of nearly 1,500 samples were made by Matthew Fowlds, agronomy seed analyst, in order to secure a list of 58 names. These lists were supplied to all inquirers and aided materially in relieving the seed corn situation.

Personal Inquiries.

A total of 2,423 letters were written in answer to inquiries. No record was kept of the number of circulars used in this connection, but 5,000 is a conservative estimate. There were approximately 800 visitors who called at the office for crops information during the year.

Circulars giving cultural directions, etc., of some of the principal crops have been prepared.

Demonstration Fields.

In order to demonstrate the value of varieties which have given best results on the State College experiment farms five series of major demonstrations were arranged, three with wheat, one with oats and one with barley. The wheat demonstrations were designed to show the value of Kubanka, Marquis, and Acme wheat. The oat demonstrations were planned to show the value of Sixty-day oats, and the barley demonstrations to prove the worth of Odessa barley. A number of miscellaneous demonstration fields were arranged with drouth resistant barley, flax, rye, corn and forage crops. The results of the major demonstrations are assembled in tables following.

The general plan of this work consists in securing a cooperator who will plant a field of the variety recommended near to or under approximately similar conditions to any other variety. The size of the field and the selection of the other variety to use is left to the cooperator. In some instances where the cooperator did not wish to risk growing two varieties on his own farm for fear of mixing, a comparison was made with fields in the neighborhood.

County agents, A. R. Wije of Kingsbury, A. W. Palm of Codington, R. E. Johnston of Fall River, A. J. Dexter of Clark and E. W.
Hall of Spink are to be especially commended for the interest they have shown and the work they have done in the interests of field crop improvement and the arrangement of field demonstrations. It was at first intended to ask the cooperators to report to the county agents and they in turn to the agronomist in charge, but this plan proved to be too complicated and had to be abandoned except in the case of Kingsbury county. In the light of this year's experience, it seems best to conduct the special demonstrations for the state as a whole, directly with the cooperator, securing such assistance as may be convenient for the county agent to render in the way of personal visits to cooperators, etc., and in return to give the county agents any assistance possible in the location of seed stocks, etc., for any local demonstrations which they may arrange.

The following is a summary of average results of field crop demonstrations with wheat, oats, and barley in 1917:

<table>
<thead>
<tr>
<th>CROP and VARIETY</th>
<th>Average Bu. Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>KUBANKA durum wheat</td>
<td>21.2</td>
</tr>
<tr>
<td>Other varieties</td>
<td>12.9</td>
</tr>
<tr>
<td>MARQUIS spring wheat</td>
<td>18.3</td>
</tr>
<tr>
<td>Other varieties spring wheat</td>
<td>15.3</td>
</tr>
<tr>
<td>ACME durum wheat</td>
<td>25.8</td>
</tr>
<tr>
<td>Other varieties wheat</td>
<td>14.7</td>
</tr>
<tr>
<td>SIXTY DAY oats</td>
<td>51.2</td>
</tr>
<tr>
<td>Other varieties oats</td>
<td>49.2</td>
</tr>
<tr>
<td>ODESSA barley</td>
<td>35.6</td>
</tr>
<tr>
<td>Other varieties barley</td>
<td>30.5</td>
</tr>
</tbody>
</table>

Field crop demonstrations with the different varieties of grain were made in the different counties as follows:

- Union county .......... 1 demonstration field
- Bon Homme county ...... 1 demonstration field
- Charles Mix county ..... 1 demonstration field
- Douglas county ......... 1 demonstration field
- Lincoln county ......... 1 demonstration field
- Davison county ......... 1 demonstration field
- Lake county ............ 1 demonstration field
- Sanborn county .......... 1 demonstration field
- Jerauld county .......... 1 demonstration field
- Brookings county ...... 3 demonstration fields
- Kingsbury county ...... 1 demonstration field
- Beadle county .......... 1 demonstration field
- Hamlin county .......... 2 demonstration fields
- Codington county ...... 1 demonstration field
- Clark county .......... 3 demonstration fields
- Day county ............ 2 demonstration fields
- Marshall county ...... 1 demonstration field
- Brown county .......... 1 demonstration field
- McPherson county ...... 1 demonstration field
- Dewey county .......... 1 demonstration field
Assisting Agents, Lecturers, Etc.

Charts have been prepared showing value of varieties and proper crop rotations and furnished for the use of short course lecturers. Every inquiry or request for information has been answered. Whenever possible requests for lecturers, exhibit judging, etc., have been honored. Twenty such meetings were attended during the year with a total attendance of 4,700. In addition to the foregoing crops instruction was given at the State Fair to about 50 members of the boys' camp, made up of contest winners from the various counties, the national corn show in connection with the Aberdeen harvest festival was judged and about three weeks was spent with the short course crews in Charles Mix, Yankton and Minnehaha counties.

SOIL FERTILITY DEMONSTRATIONS.—J. G. Hutton, Specialist.

This project consists in field demonstrations of the value of manure and phosphorus in increasing soil fertility and in increasing crop yields.

Cooperators.

Work on this project began March 1, 1917. During the months of April and May demonstration fields were established in cooperation with the following farmers:

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Location of Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmon Kopperud</td>
<td>Lake Preston</td>
<td>Kingsbury county</td>
</tr>
<tr>
<td>Edgar McFadden</td>
<td>Webster</td>
<td>Day county</td>
</tr>
<tr>
<td>Gale F. Peppers</td>
<td>Groton</td>
<td>Brown county</td>
</tr>
<tr>
<td>H. Mathieson</td>
<td>Watertown</td>
<td>Codington county</td>
</tr>
<tr>
<td>W. H. Smith</td>
<td>Henry</td>
<td>Codington county</td>
</tr>
<tr>
<td>Joseph Paulson</td>
<td>Brandt</td>
<td>Deuel county</td>
</tr>
<tr>
<td>Charles Gilbert</td>
<td>Clark</td>
<td>Clark county</td>
</tr>
<tr>
<td>A. E. Plagens</td>
<td>Garden City</td>
<td>Clark county</td>
</tr>
<tr>
<td>M. N. Bolles</td>
<td>Brookings</td>
<td>Moody county</td>
</tr>
</tbody>
</table>

Method of Establishing Demonstration Fields.

Each demonstration field was established under the personal direction of the leader. The soil was carefully inspected and an area of as nearly uniform character as possible was chosen. Wherever practicable three plots, each one an acre in area, were accurately measured and permanent stakes established at least one end of the series. In each case the surveying was done by the leader assisted by the cooperating farmer and in some cases assisted by the county agent representing the farm bureau of the county.

The manure and rock phosphate were applied by the cooperating farmer, after which the acre plots were considered a part of the field and plowed, harrowed, planted and cultivated with the remainder of the field.

Harvesting.

At harvest time the leader visited each demonstration field and assisted the cooperator in harvesting the crop and in weighing the grain from each plot. In some instances the county agent also assisted in harvesting.
## Results

The following table gives the results obtained on the several demonstration fields:

<table>
<thead>
<tr>
<th>Cooperator</th>
<th>County</th>
<th>Plats Dimension</th>
<th>Crop</th>
<th>Acre Yield For</th>
<th>Acre Yield For</th>
<th>Acre Yield For</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. Kopperud</td>
<td>Kingsbury</td>
<td>4 rdx40 rd.</td>
<td>Corn</td>
<td>32.57 bu.</td>
<td>34.49 bu.</td>
<td>34.38 bu.</td>
</tr>
<tr>
<td>G. Peppers</td>
<td>Brown</td>
<td>66 ftx440 ft.</td>
<td>Corn</td>
<td>20.44 bu.</td>
<td>22.82 bu.</td>
<td>23.27 bu.</td>
</tr>
<tr>
<td>J. Paulson</td>
<td>Deuel</td>
<td>66ftx440ft.</td>
<td>Corn</td>
<td>30.67 bu.</td>
<td>36.02 bu.</td>
<td>36.84 bu.</td>
</tr>
<tr>
<td>C. Gilbert</td>
<td>Clark</td>
<td>4rdx40rd.</td>
<td>Corn</td>
<td>37.70 bu.</td>
<td>32.70 bu.</td>
<td>45.00 bu.</td>
</tr>
<tr>
<td>A. E. Plagens</td>
<td>Clark</td>
<td>2rdx80rd.</td>
<td>Potatoes</td>
<td>90.00 bu.</td>
<td>113.00 bu.</td>
<td>135.00 bu.</td>
</tr>
<tr>
<td>H. Mathieson</td>
<td>Codington</td>
<td>4rdx10rd.</td>
<td>Corn</td>
<td>Cut for silage because of immaturity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. N. Bolles</td>
<td>Moody</td>
<td>5rdx32rd.</td>
<td>Corn</td>
<td>Drowned out and destroyed by cattle.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. S. McFadden</td>
<td>Day</td>
<td>30ftx315ft.</td>
<td>Alfalfa</td>
<td>To be cut in 1918.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. S. McFadden</td>
<td>Day</td>
<td>90.2ftx165ft.</td>
<td>Alfalfa</td>
<td>To be cut in 1918.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average yield of corn .................................................. 30.86 bu. 33.05 bu. 35.74 bu.  
Average yield of potatoes .............................................. 90.00 bu. 113.00 bu. 135.00 bu.

*One row in this acre was in a dead furrow and was very poor while several square rods at one corner were damaged by water. No corrections were made for these differences.*
From the table it may be seen that the average increase in yield of corn per acre for manure was 2.19 bushels and the average for phosphorus and manure over manure alone was 2.69 bushels. The total increase over the untreated land was 4.88 bushels or 15.8 percent. In addition to the increase in yield per acre the use of phosphorus and manure has increased the amount of plant food in the soil so that several crops may be removed before the soil will be in as poor condition as it was at the beginning of the demonstration. For this reason increased crops may be expected for several seasons from the plots treated with manure and phosphorus, and owing to the fact that phosphorus in the form of rock phosphate is slowly available, larger results may be expected from it a year or two after its application.

The yield of potatoes was increased 4.5 bushels per acre by the use of manure and phosphorus, 2.3 bushels of the increase being due to manure and 2.2 bushels to phosphorus.

The results secured in 1917 were not all that could be desired because of the very immature condition of the corn when it was killed by the frost. However, when considered in connection with yields from similar fields in past years and with the results from the soil fertility investigations at Brookings, they demonstrate that for most soils in the parts of the state having heavier rainfall, the yields may be increased by the use of manure and the yields still further increased by the use of phosphorus.

The fact is also demonstrated that the phosphorus content of many soils in South Dakota is too low to meet the requirements of growing crops and that the amount must be increased by purchasing it, because in no system of farming where much feed is not bought is it possible to increase the phosphorus supply without purchasing it, or by supplying it in the form of manure.

**Demonstration Fields in 1918.**

Owing to difficulty in securing rock phosphate on account of the war situation it was decided to use acid phosphate in the demonstrations established for the year 1918. Before the season closed it was impossible to secure acid phosphate and the number of new fields was limited. The following farmers have cooperated to establish demonstration fields on their farms:

- P. F. Gabhart, Wessington Springs, Jerauld County
- J. T. Gurney, Spencer, McCook
- P. P. Kleinsasser, Freeman, Hutchinson
- A. J. Svenson, Ethan, Davison
- Lyman Merry, Dell Rapids, Minnehaha
- Albert Hanson, Elk Point, Union
- Emmet Bush, Colome, Tripp
- Carroll Stitt, Hitchcock, Beadle
- J. G. Overby, Mellette, Spink
- P. H. Markle, Java, Walworth
Professors Champlin and Hutton are each devoting 2 months per year to agronomy extension work. The remainder of the time is given over entirely to college work. The extension work of these two men has been excellent. On account of the importance of this line of work and on account of the government's objection to the use of Smith-Lever funds for specialists in joint service, the present arrangement will probably be changed to conform to the policy of the government, and also to obtain more complete service in the field of crops and soils.

Project No. 13--INSECT CONTROL
A. H. Sherwood, Specialist.

Beginning January 1, 1918, A. H. Sherwood was employed on emergency funds as specialist in the control of insects injurious to crops.

On account of the prevalence and injury of grasshoppers Mr. Sherwood's efforts were confined chiefly to the control of this pest. He answered all inquiries and correspondence pertaining to insect control. However, his work consisted chiefly of cooperating with the different county agents.

Grasshoppers destroy many thousands of dollars worth of crops every year in South Dakota. They are more numerous in some counties and sections of the state than in others. Control is exercised by cultivation certain times of the year, by catching them in hoppers and by poisoning. The latter method appears the most successful. However, poisoning is not an entire success unless farmers in one community cooperate and all spread the poisoned bait at the same time. If only one or two fields in a community are treated, the hoppers, from neighboring fields not so treated, will come in.

To make poisoning of grasshoppers fully effective there should be a law permitting the county commissioners to make special appropriation and also to compel individual unwilling farmers to do their share of the work, or to pay for it. Such a law is endorsed by H. C. Severin, state entomologist, and also by Mr. Sherwood, extension insect specialist.

Mr. Sherwood resigned at the close of the fiscal year for military service.

Project No. 14--INCREASED PORK PRODUCTION
Joe Hill, Specialist.

Bacon and lard constitute two important foods for our armies. They are concentrated and nonperishable. Considerable of the emergency money was set aside to stimulate increased pork production in South Dakota which is one of the leading hog producing states.
From the emergency appropriation $6,000 was set aside to be used in the South Dakota campaign for increased pork production. Joe Hill was appointed Swine Husbandry Specialist on December 1, 1917. On account of urgent need for help on his father's farm Mr. Hill resigned April 1, 1918. Matt Ginsbach and C. W. Stanley were temporarily employed in this campaign at $8.00 per day.

On account of inability to secure experienced help not in the draft age this work has been discontinued. The work as far as carried on was successful and it is the intention to continue the work as soon as another capable specialist can be secured.

**Project No. 15--GRAIN SMUT AND BLIGHTS**

**C. S. Reddy, Specialist.**

The government Food Administration is making a strong appeal for the conservation and prevention of waste food stuffs. The loss of grain from smut is an absolute waste. Yet the formalin seed treatment for prevention of smut, that has been in common use for a number of years, is simple, inexpensive and sure. With little effort and practically negligible cost it is possible to prevent stinking smut of wheat, covered smut of barley, oat smut and rye smut. Prevention will mean not only more food for our nation and our allies, but bigger profits for the producer.

If we sow treated wheat and the season is favorable for wheat, then wheat will be harvested.

If we sow smut and the season is favorable for smut, then smut will be harvested.

The campaign this year for treating seed grain was started too late to be of maximum benefit.

There is considerable smut in the grain fields of South Dakota. By proper treatment of the seed grain smut can be prevented.

The government specialists are now taking a survey of the parts of the state infected with smut. They, together with the county agents, will then be in a good position to plan for the proper treatment of the seed to be sown in the districts infected with smut.

The formalin treatment of seed is not a "cure all," and cannot take the place of strong seed and good preparation of the soil. However, if the treatment is properly administered much food, otherwise lost by smut, can be saved.

**Project No. 16--RUST AND BARBERRY ERADICATION**

**A. N. Hume, Leader.**

**H. C. Gilbert, Specialist.**

The barberry campaign in South Dakota was started by C. W. Hungerford and Harry O'Brien, who early in April began an educational campaign through the newspapers and public schools. They visited several of the larger towns and enlisted the cooperation of the mayors, park superintendents, school superintendents, commer-
cial clubs and public institutions. The campaign was presented to Governor Norbeck who issued a proclamation making barberry eradication a part of the Arbor Day celebrations. To each nursery in the state was sent a resolution for them to sign. This resolution stated that they agreed to destroy all common barberries in stock and not to buy more nor offer any for sale.

On April 20, a field assistant was placed in South Dakota to carry on the work which had been so well started. A temporary office was located at the State College, at Brookings. The educational side of the campaign was kept up especially through the newspapers which printed many news items and notes on the work.

Late in May a second field assistant was assigned to South Dakota. These men visited all but a few of the counties east of the Missouri and made one trip to the Black Hills.

Four thousand post cards on barberry from the United States Department of Agriculture were mailed to people in the eastern part of the state. Not enough cards for the entire mailing list were available. Three thousand reprints on barberry from the United States Department of Agriculture were distributed through the county and emergency demonstration agents. A circular was also published similar to one from Minnesota and three thousand of these distributed through the agents.

About one thousand of the large posters from the United States Department of Agriculture were also sent out and posted all over the state.

All but a few of the counties in South Dakota east of the Missouri river, where most of the wheat is grown, have either a county agent or an emergency demonstration agent. Through the extension department of the college, the aid of these men was secured in putting on a county barberry eradication campaign. In counties where there were no agents, bankers and a few other interested men were asked to cooperate. The campaigns in the counties were promoted by the educational work first started in April. In many counties the aid of the boy scouts was enlisted in finding barberries. In many towns barberry plants were displayed with posters and explanations in public windows. In most of the counties the towns were canvassed personally by the agent or visiting field assistant.

In June, to secure a report of the work, questionnaires were sent to each of the agents. On these the data given later in this article were reported. An effort was made to keep a record of all common barberries found, with the names and addresses of the owners.

Between June 18 and 26, three district conferences of the county and emergency demonstration agents were held in the eastern part of the state, at Mitchell, at Aberdeen and at Huron. These were attended by the field assistant in the interest of the barberry campaign. The conference at Rapid City for agents west of the Missouri was not attended by the field assistant.
Counties and Number of Barberries Reported.

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Barberries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beadle</td>
<td>925</td>
</tr>
<tr>
<td>Bon Homme</td>
<td>201</td>
</tr>
<tr>
<td>Brookings</td>
<td>147</td>
</tr>
<tr>
<td>Brown</td>
<td>200</td>
</tr>
<tr>
<td>Butte</td>
<td>50</td>
</tr>
<tr>
<td>Campbell</td>
<td>40</td>
</tr>
<tr>
<td>Clay</td>
<td>500</td>
</tr>
<tr>
<td>Coddington</td>
<td>1203</td>
</tr>
<tr>
<td>Day</td>
<td>125</td>
</tr>
<tr>
<td>Davison</td>
<td>250</td>
</tr>
<tr>
<td>Edmunds</td>
<td>50</td>
</tr>
<tr>
<td>Fall River</td>
<td>225</td>
</tr>
<tr>
<td>Beadle</td>
<td>925</td>
</tr>
<tr>
<td>Bon Homme</td>
<td>201</td>
</tr>
<tr>
<td>Brookings</td>
<td>147</td>
</tr>
<tr>
<td>Brown</td>
<td>200</td>
</tr>
<tr>
<td>Butte</td>
<td>50</td>
</tr>
<tr>
<td>Campbell</td>
<td>40</td>
</tr>
<tr>
<td>Clay</td>
<td>500</td>
</tr>
<tr>
<td>Coddington</td>
<td>1203</td>
</tr>
<tr>
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</tr>
<tr>
<td>Davison</td>
<td>250</td>
</tr>
<tr>
<td>Edmunds</td>
<td>50</td>
</tr>
<tr>
<td>Fall River</td>
<td>225</td>
</tr>
<tr>
<td>McCook</td>
<td>400</td>
</tr>
<tr>
<td>Mellette</td>
<td>100</td>
</tr>
<tr>
<td>Hand</td>
<td>400</td>
</tr>
<tr>
<td>Miner</td>
<td>110</td>
</tr>
<tr>
<td>Gregory</td>
<td>9</td>
</tr>
<tr>
<td>Minnehaha</td>
<td>6000</td>
</tr>
<tr>
<td>Hughes</td>
<td>75</td>
</tr>
<tr>
<td>Moody</td>
<td>1000</td>
</tr>
<tr>
<td>Hutchinson</td>
<td>90</td>
</tr>
<tr>
<td>Sanborn</td>
<td>90</td>
</tr>
<tr>
<td>Hyde</td>
<td>60</td>
</tr>
<tr>
<td>Pennington</td>
<td>12</td>
</tr>
<tr>
<td>Jerauld</td>
<td>50</td>
</tr>
<tr>
<td>Spink</td>
<td>300</td>
</tr>
<tr>
<td>Kingsbury</td>
<td>200</td>
</tr>
<tr>
<td>Turner</td>
<td>400</td>
</tr>
<tr>
<td>Lake</td>
<td>450</td>
</tr>
<tr>
<td>Union</td>
<td>5</td>
</tr>
<tr>
<td>Lawrence</td>
<td>300</td>
</tr>
<tr>
<td>Yankton</td>
<td>6462</td>
</tr>
<tr>
<td>Marshall</td>
<td>600</td>
</tr>
<tr>
<td>Total</td>
<td>21047</td>
</tr>
</tbody>
</table>

Counties with no Barberries Reported.

- Aurora
- Brule
- Charles Mix
- Custer
- Douglas
- Faith District
- Faulk
- Haakon
- Hanson
- Jackson
- Lyman
- Meade
- McPherson
- Perkins
- Potter
- Roberts
- Stanley
- Sully
- Timber Lake District
- Tripp

Table of Rust Infections on Barberry.

<table>
<thead>
<tr>
<th>Town</th>
<th>County</th>
<th>Date</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vermillion</td>
<td>Clay</td>
<td>May 8</td>
<td>1</td>
</tr>
<tr>
<td>Brookings</td>
<td>Brookings</td>
<td>May 15</td>
<td>4</td>
</tr>
<tr>
<td>Woonsocket</td>
<td>Sanborn</td>
<td>May 15-25</td>
<td>3</td>
</tr>
<tr>
<td>Sioux Falls</td>
<td>Minnehaha</td>
<td>May 20</td>
<td>3</td>
</tr>
<tr>
<td>Dell Rapids</td>
<td>Minnehaha</td>
<td>May 21</td>
<td>1</td>
</tr>
<tr>
<td>Madison</td>
<td>Lake</td>
<td>May 24</td>
<td>4</td>
</tr>
<tr>
<td>Wentworth</td>
<td>Lake</td>
<td>May 24</td>
<td>2</td>
</tr>
<tr>
<td>Howard</td>
<td>Miner</td>
<td>May 25</td>
<td>3</td>
</tr>
<tr>
<td>Mitchell</td>
<td>Davison</td>
<td>May 27</td>
<td>4</td>
</tr>
<tr>
<td>Salem</td>
<td>McCook</td>
<td>May 28</td>
<td>3</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>McCook</td>
<td>May 28</td>
<td>3</td>
</tr>
<tr>
<td>Ipswich</td>
<td>Edmunds</td>
<td>June 1</td>
<td>3</td>
</tr>
<tr>
<td>Wessington Springs</td>
<td>Jerauld</td>
<td>June 1</td>
<td>5</td>
</tr>
<tr>
<td>Webster</td>
<td>Day</td>
<td>June 3</td>
<td>2</td>
</tr>
<tr>
<td>Burke</td>
<td>Gregory</td>
<td>June 3</td>
<td>2</td>
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Most of the towns in South Dakota have done little or no landscape gardening. This state is comparatively new in such work. No barberries have been found growing wild. In Minnehaha county barberries over thirty-five years old were found, but such old plantings are few. The total number of barberries eradicated is small compared to the number in other states, yet these were widely distributed over the state. Probably ninety percent of the barberry plantings in the state have been destroyed. Few plantings on farms have been found.

Summary.

Briefly, the following notes give the interesting points in the work:

A total of 21,047 plants have been found and listed. All of these are reported destroyed. This is estimated to be about 90 percent of all barberries in the state as reported from thirty-four counties. Twenty-one counties reported no barberries found. The largest number of plants was found in Yankton county because of a large nursery in the city of Yankton. Minnehaha county was next, being one of the oldest settled and containing the large city of Sioux Falls. All the nurseries of the state have agreed not to buy, propagate nor sell any of the common barberries.

In the list of infections it will be noticed that the first infection was found at Vermillion, in the southeastern part of the state. The most severe infections this year came between May 20 and June 15. The normal period of infection on barberry in South Dakota is from May 1 to June 30.

At the State College nursery in Brookings a number of varieties of barberries have been grown for years, some of them being imported from Europe. The original plan with these was to cross them to secure, if possible, a hardy, attractive and yet immune hybrid. Consequently these plants were not immediately destroyed but watched closely and removed only as they were found infected and thus proven not immune. The following list gives the species and varieties found infected and consequently destroyed. However, because of its beautiful habit and very hardy nature as proven by this last hard winter in which many shrubs were winter-killed, but in which this variety was uninjured, two plants were saved of the b. vulgaris imarginata for the purpose of crossing with b. thunbergii next spring. To prevent spread of rust these two plants were inspected daily and rust infections removed. All of these varieties that proved susceptible to rust have leaves of the serrated common barberry type. In fact none but the berberis thunbergii proved immune.
Varieties of Barberries Found Infected with Rust by Natural Infection at the State College Nursery
Brookings, South Dakota.

B. vulgaris
B. vulgaris purpurea
B. vulgaris imarginata
B. vulgaris spathulata
B. vulgaris japonica
B. Cretica
B. Caroliniana
B. Heteropoda
B. Siberica
B. Laciflora
B. Amurensis (Siebaldi)

While the barberry campaign in South Dakota has been fairly successful and the results encouraging, yet the work is not complete. No doubt it will be several years before all the barberries will be removed. Practically all the work this year has been hurried and late.

The following criticisms and suggestions come from the county and emergency demonstration agents and the field assistants in behalf of the campaign next spring.

1. Profiting by this year's experience, it should be started early, say in March.
2. Simple accurate and illustrated posters and literature should be sent to the public schools.
3. Mounted specimens and full information on black stem rust and barberries should be sent to all agents for their use.
4. A bulletin on barberry and rust should be mailed to all persons on the extension bulletin list, in April.
5. Through proper authorities see that the state weed law is posted and used where necessary against barberries.
6. Revisit all places where barberries were destroyed this year to be sure none are sprouting again.
7. Organize the work more thoroughly and keep complete records of the work done. All of the work this year should be continued.

Project No. 17--POULTRY HUSBANDRY
Ed L. Hayes, Specialist.

Ed L. Hayes, poultry specialist for South Dakota, began his work December 1, 1917. His salary and expenses are paid by the government.

Since his arrival there has been much demand for assistance along poultry lines. The State College has had no poultry specialist and therefore much of the correspondence and inquiries on poultry
problems from all over the state have come into the hands of Mr. Hayes.

He cooperates with the poultry raisers very closely, also with poultry associations, the press and the county agents.

Mr. Hayes informs me that the poor housing facilities for poultry cause big losses. Cholera has been prevalent, and lice on poultry have been very bad during the last year. Through the guidance of the poultry specialist many of these troubles have been overcome and losses greatly reduced.

Organized poultry improvement work has been done in 40 counties.

The poultry specialist traveled 6,127 miles by rail, 780 miles by auto and visited 82 different points. He delivered 75 poultry lectures and each meeting had an attendance of 42.

Mr. Hayes visited 118 farmers and poultry plants having special poultry troubles requiring personal inquiry. There is only one poultry plant in the state handling baby chicks commercially. This plant filled orders for 12,000 baby chicks this spring. Some farms raise from 7,000 to 10,000 baby chicks yearly.

Replies were written to 711 inquiries; 11 circular letters, each with an average distribution of 3,530 were sent out and 3,200 poultry posters and 20,000 circulars and bulletins were sent out.

The poultry specialist has strongly advocated back-yard poultry raising. In addition farm poultry raising has greatly increased.

Considering the need of our government for our stable supply of meat and pork, the increase of poultry and eggs for home consumption is important.
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