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SUMMARY OF THE ANNUAL REPORTS
OF THE
FARM ADVISORS OF CALIFORNIA

For December 1, 1917, to December 1, 1918

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The thirty-five counties shown in solid black have farm bureaus and farm advisors.
SUMMARY OF THE ANNUAL REPORTS OF THE FARM ADVISORS OF CALIFORNIA

For December 1, 1917, to December 1, 1918

The prime requisites for the successful prosecution of the war were men, munitions, ships, finance, and food. It was impossible to discriminate between the importance of these primary war materials since all were absolutely essential; a serious shortage in any one would have caused the downfall of the entire enterprise. However, certain of these necessities were requisitioned by the government—Congress made it possible to draft as many men as might be needed; munitions were secured by contract, purchase or construction of munition factories; ships were built by taking over the shipbuilding industry without regard to cost or commercial consideration. But finance and food were left largely to the voluntary effort of the people. No attempt was made to tax the population directly to meet the entire expense of the war, nor was private property confiscated to bear its cost. The people voluntarily loaned their money to the government by buying Liberty Bonds. In like manner no proposal was made to have food produced under government contract, nor to ration it out to the people. The farmers were expected to grow all the crops they could if they knew what was needed and the best methods by which to do so. Both the production of food and the lending of funds were to be the personal contribution of the people of America. Necessarily under these circumstances, the morale of the citizenry of the country was of the highest possible importance to insure the success of Liberty Bond issues and the production and conservation of food materials. Under the government system in vogue the entire war machinery rested upon the belief that the people of America could be depended upon to lend their money to the government and to spend their efforts for food production to the utmost.

Two federal agencies were entrusted with the food problem: (1) the United States Department of Agriculture, which in general was
in charge of food production, and (2) the United States Food Administration, which in general was charged with the conservation and distribution of food.

Fortunately, the United States Department of Agriculture had in 1913 inaugurated a system whereby, in cooperation with the agricultural colleges of the several states, an agricultural extension organization was formed which would ultimately permeate every agricultural county in America by means of a local representative known as a farm advisor, or county agent, who would make available to the people of the counties the services of the agricultural institutions of the state and nation. These agents, of whom over fourteen hundred were at work when war was declared, were at once available to bring from the government to the people on the farms, the plans and purposes of the programme for increased agricultural production. It was because of the very efficiency and established purpose of this extension organization that less was heard of it than of some other war agencies which, because of their novelty and peculiarity attracted more attention in the popular mind. This organization extended so far into rural life that it worked with extraordinary efficiency throughout the states, keeping the farmers informed of the status of the national emergency so far as it affected crop production.

At the beginning of the war, this agricultural extension system numbered a total of 2149 persons throughout the United States, of whom 1461 were farm advisors and 143 were agricultural club workers. By the enactment of the Emergency Food Production Act of Congress, which allotted $4,348,400 for the purpose, the total number of extension workers was greatly increased with the object of immediately installing a county agent in every agricultural county of America. Thus the fulfillment of the Smith-Lever Act was pushed forward by the necessities of war-time. By July 1, 1918, the total number of extension agents had increased to 6216, including 3001 county agents, 2034 home demonstration agents and 1181 boys’ and girls’ club workers. The system was said then to reach 90 per cent of the farmers of America and 95 per cent of the agricultural production of the country. The farmers were thus placed in direct touch with the government’s agents and were thereby immediately informed of the latest developments in the national situation. The move was extremely successful because it was based upon the well-known patriotism of the American farmer; he was ready to make every effort within his power to increase his production in the direction desired by the government, provided he was sure that he was correctly advised as to what the government needed. Similar local agents or farm advisors
were at work in England, France, and Italy so that the allied countries had a practically uniform system which, while it had been established before the war, lost nothing of its success through that fact but rather became more efficient and more firmly entrenched in public opinion thereby.

In California, farm advisor work was started in July, 1913, in Humboldt County. It was aided by government funds of county, state, and nation under a plan whereby the federal and state agricultural institutions jointly paid the salary of the farm advisor whom they appointed and whose work they supervised, while the county paid his local office and traveling expenses to the sum of two thousand dollars per year. In 1915, the work was supplemented by the Smith-Lever Act of Congress and later by a state act meeting the requirements of the national law which provided that beyond an initial payment of ten thousand dollars, the Federal Smith-Lever funds were to be met by equal funds provided by the state government. The amount so appropriated was to gradually increase year by year until 1922 when it would reach its maximum and provide sufficient funds to place a farm advisor in every agricultural county of the state.

In California a special system was devised whereby no farm advisor would be placed at work in a county unless the farmers desired to have his services. To attest this it was required that at least 20 per cent of the farmers of the county should join a farm bureau of a definite type to which each paid dues of one dollar per year. The farm bureau so formed acted as a coöperating agency through which the farm advisor could reach a wide range of activities. Its primary purposes were to bring to the farm advisor the counsel and advice of the best farmers in the county as to what could be done and how to do it; to provide an organization to reach easily and quickly every community in the county; and to provide a plan for organized self-help by enlisting the coöperation of those farmers who are interested in promoting the best interests of their county and community.

At the beginning of the war, there were fifteen counties in California which had such a system. By December, 1917, the period at which this report begins, the number had increased to nineteen counties which included some of the most important agriculturally in the state of California. The dates on which these counties had started work were as follows:

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<tr>
<th>Month</th>
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<tr>
<td>July</td>
<td>1915</td>
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<td>March</td>
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<td>May</td>
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<td>San Joaquin County</td>
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<td>June</td>
<td>1914</td>
<td>Yolo County</td>
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In order to carry out the provisions of the Emergency Food Production Act which sought to provide a farm bureau and county agent in every agricultural county, it became suddenly necessary to complete in one year the expansion of the farm bureau and farm advisor system which had been laid out for the next five years under the gradually increasing appropriations of the Smith-Lever Act. The initiative to the movement was given by the Governor of the state who in the fall of 1917 called a meeting of the State Council of Defense at the Capitol to consider and promote the matter. As a result of that conference it was proposed to the farmers of twenty additional counties that they should form a county farm bureau and secure an appropriation from their boards of supervisors sufficient to pay the local expenses of a farm advisor in order that they might obtain the services of such an agent and thereby more easily cooperate with the federal government.

Between December 1, 1917, and December 1, 1918, sixteen additional counties qualified for farm advisors who were immediately installed; thus at this time there are thirty-five counties of California which have a uniform system of agricultural administration in direct touch with the state and federal institutions of agriculture. These thirty-five counties cover 85 per cent of the farms of California and their farm bureaus have a total paid membership of 19,748 persons. This is the largest agricultural organization west of the Rocky Mountains and is surpassed in only a few states of the Union.

Only five of the counties, in which it was planned to install a farm advisor, did not carry out that programme. These were Siskiyou, Colusa, Santa Clara, San Luis Obispo, and Santa Barbara. Of these, Colusa and San Luis Obispo successfully formed their farm bureau organizations but despite the requests of the farmers of the county,
appropriations for the farm advisor’s expenses were refused by the local boards of supervisors. In Siskiyou, Santa Clara, and Santa Barbara counties, the proposal did not meet with sufficient response from the farmers to make it a desirable expenditure of public funds. More recently several additional counties have applied for farm advisors which requests have been necessarily denied because the present appropriations are entirely allotted.

The sixteen counties which qualified within the last twelve months installed farm advisors on the following dates:

- December, 1917 - Contra Costa County
- December, 1917 - Los Angeles County
- December, 1917 - Santa Cruz County
- December, 1917 - Shasta County
- December, 1917 - Tulare County
- January, 1918 - El Dorado County
- January, 1918 - Kings County
- January, 1918 - Mendocino County
- January, 1918 - Sonoma County
- January, 1918 - Ventura County
- March, 1918 - Orange County
- March, 1918 - Sutter County
- April, 1918 - Monterey County
- June, 1918 - Yuba County
- August, 1918 - Butte County
- August, 1918 - Tehama County

It was the original intention of the Smith-Lever Act of Congress that the states should meet on a dollar-per-dollar basis the appropriation of the federal government for this work and it was so conducted until the declaration of war, but the Emergency Food Production Act brought large funds to the work through the United States Department of Agriculture, so that at present the federal government appropriates for work in California, four dollars for every dollar appropriated by the state. It is not likely that this condition will continue beyond the present fiscal year. Funds from federal sources are derived from three acts of Congress: (1) The Smith-Lever Act which automatically increases $9,197.88 per year until 1922, for the purpose of demonstrations in agriculture and home economics through the states; (2) the regular appropriation of Congress to the United States Department of Agriculture, a portion of which is allotted to the work of the Agricultural Extension Division in Berkeley. (During the present year this amounts to $10,704, divided as follows: farm advisor work $7,800, home demonstration $600, agriculture clubs $2,304), and (3) the Emergency Appropriation of Congress for
the increased production of food, which this year totals $148,560, divided as follows: farm advisor work $85,260, home demonstration $50,800, agriculture clubs $12,500. Funds from the state are derived from two sources. Beginning with the fiscal year, July 1, 1918, these appropriations are as follows: (1) the regular appropriation to the University of California of which $5,582 is used for this work, and (2) the Smith-Lever appropriation through the University, of $32,882.

Considerable difficulty was experienced in securing trained men to fill the increased number of positions in farm advisor work. At just the time when the expansion of the farm advisor system was required, large numbers of agricultural men were volunteering for the army and navy. In order to meet the shortage partially, six members of the faculty of the College of Agriculture were temporarily detailed from their regular work to the farm advisor service. As the war progressed, a new difficulty was experienced in the desire of many of the men to leave farm advisor work in order to go into the army and navy which were everywhere recognized as the supreme type of public service. The United States Department of Agriculture and the College of Agriculture called to the attention of the men that the farm advisor work was a necessary war enterprise and that neither their patriotism nor their usefulness could be doubted in this work for which they had been selected. Nevertheless twelve men left the service in order to enter the army and navy. The larger proportion remained at a considerable sacrifice of their personal desires, with the full understanding that it was probable that neither national preferment nor private commendation would come to them in such measure as it would if they followed their personal wishes and abandoned the work with which they were entrusted in order to enter the more hazardous though, to them, more attractive service at the front.

Immediately after the beginning of the war every farm bureau in California voted to transfer its activities from its past regular programme to one aimed primarily toward the aid of the national defense. Previous work of the farm bureaus had been local in character intending to increase the local knowledge of agricultural fact and to add to the facilities and improvements of agriculture through such means as irrigation, drainage, marketing facilities, better roads, schools, etc.

The war programme of the farm bureaus made all these local interests subservient to the national programme of work and throughout the entire period of the war they consistently held to this principle so that necessarily the annual reports of the California farm bureaus concern themselves chiefly with the local success of the broad general
programme requested from Washington. The farm advisors followed a similar purpose. While their previous activities had largely been those which centered about service to individual farmers, the war brought to them further burdens of many types and kinds so that they were compelled in a certain degree to omit some of these individual services because of the larger considerations involved. Nevertheless, the farm advisors in California during the past year visited 15,216 different farms on the request of farmers to give advice and made a total of 26,492 such farm visits. They held a total of 4,596 farm bureau center meetings with a total attendance of 205,662 persons.

On March 11, 1918, there was called at the University of California at Berkeley, the Annual Farm Bureau Conference at which were present three representatives from each of the farm bureaus of the various counties of California as well as the farm advisors and their assistants and certain representatives of the staff of the College of Agriculture. The conference was held for the purpose of planning the year’s work on those projects which were definitely indicated as being desirable from a federal standpoint. The day started with the reading of a telegram from the President of the United States, as follows:

The White House, Washington, D. C.

I am greatly interested in the emergency food production conference to be held at Berkeley. It is highly important that we do everything within our power to secure sufficient supplies for our own population and Army and for the nations with which we are associated. I trust the conference will find ways of overcoming the difficulties inherent in the situation and that its labors will be fruitful of large results and thereby aid in bringing this war to a successful termination. May I not suggest that you read to those assembled at the conference, as a message from me, the recent statement I made to the farmers of the Nation through the conference at Urbana?

Woodrow Wilson.

Plans for various projects were read to the delegates setting forth definite and detailed campaigns for those counties to which they might apply. Upon each one of these projects, the delegates voted their approval or disapproval so that when finally adopted, the projects represented the opinion of the representatives of the twenty thousand farmers in the farm bureaus of California. Seven major projects were laid out for the work of the forthcoming season which perhaps may be most briefly set forth by the telegram which the conference sent as a reply to the President’s message of the same date. The pages following show how the terms of this telegram to the President were fulfilled:
Berkeley, California, March 11, 1918.

The President, Washington, D. C.

The members of the emergency food production conference, representing the agricultural interests of the state through the 36 organized county farm bureaus, received your telegraphic message with great enthusiasm and have adopted the following state-wide program for the season of 1918:

1. To urge the building of a silo and planting of sweet sorghums for silage and for sirup on every dairy farm in California.
2. To put on 20,000 farms one good brood sow or two pigs in order to increase the amount of pork that state will raise. At least 40,000 more hogs will be so raised.
3. To develop boys' agricultural clubs in every community in California where supervision can be provided. Three thousand boys were already growing crops. Thousands more are to join from this campaign.
4. To bring the women of California who live on farms into active organization as a part of the county farm bureaus in order to increase food conservation.
5. To handle farm labor situation by eliminating unnecessary activities and working harder on essential ones; also further better distribution of labor by means of Federal employment stations and cooperation of farm bureaus.
6. To investigate immediately the seed supply of the State in order to be assured that an adequate amount is on hand to plant the 1918 crops.
7. To protect grain fields and grass ranges from fire by means of county-wide protective organizations under farm bureaus and thus eliminate a quarter of a million dollars annual loss in foodstuffs.

Please rest assured of our hearty cooperation for the successful prosecution of the war.

Following the conference at Berkeley, one hundred and forty-five of the delegates traveled by automobile through the San Joaquin Valley seeing farm bureau work. This traveling conference gave opportunity to the various delegates to become acquainted with the methods used in the several counties and created a strong personal contact between the men from widespread sections of the state. Immediately afterward, the various projects adopted were submitted to the farm bureau directors of each county and were there discussed with relation to the local situation. Later in the season, two additional state-wide campaigns were inaugurated, making nine in all that were operative during the season. These two later campaigns were (1) the maintenance of the sheep industry throughout the state by placing small flocks of sheep on farms, and (2) the increase in the acreage of wheat for the fall planting of 1918. The progress of these nine projects is hereafter discussed:
CAMPAIGN FOR INCREASED PORK PRODUCTION

Pork products were among the most essential food supplies for the United States and its allies. The war created an immense increase in the export of pork products during 1917 with a marked decrease in the amount of stock hogs in the United States. This was particularly true in California where the extremely high price of grain did not warrant the keeping of hogs at the prices then existing. Figures furnished in February by the United States Food Administration indicated that at least 33 per cent of the breeding stock in California had already been sacrificed and indications were that a still greater portion of the breeding stock would follow to the market. The entire hog industry of California, and therefore of the Pacific Coast, was threatened due to the lack of balance between the price of grain and the price of hogs. Because the large hog raisers could not be expected to raise great numbers of hogs at a loss, the plan was to distribute this loss and at the same time make for the permanency of diversified agriculture in the state by asking farmers to keep two pigs or one good brood sow on all farms of California and thus create a widespread demand to relieve the temporary situation which was appalling in its possibilities. Young pigs and brood sows were going to packers in great numbers. They were unfit material for the best quality of cured pork and since they represented the future of the industry, should never have been slaughtered. Germany had made a grave mistake in the early years of the war by sacrificing through government order 40 per cent of her hogs, thus reducing her pork supply causing a serious handicap from which she probably never fully recovered.

Under the project adopted, the board of directors of the farm bureau appointed a committee from their number and committees in each farm bureau center so that a complete canvas of the entire membership could be obtained. These were asked to sign a pledge to keep two “Liberty pigs” or one brood sow as a patriotic effort without regard to profit or loss. It was confidently believed that farmers would make a profit upon the enterprise because it was probable that the price of grain would decline and the price of hogs would increase before the hogs became of marketable age, but no assurance was given to the farmers of this fact in view of the ruling prices at that time. Thirty-two counties promptly voted to embark upon this project which became effective on March 18. Within fourteen days after the project went into effect the great stream of immature pigs and brood sows that had been going to the packing
houses was deflected to the farms of the state and within one month it was almost impossible in most localities to buy good young pigs or brood sows at any reasonable price. Five thousand one hundred and twenty-eight farmers definitely signed pledges for “Liberty pigs” from a patriotic standpoint, buying and keeping a total of 22,297 additional hogs because of this campaign. These twenty odd thousand hogs represented the margin between the demand and supply. They were effective not so much because of the actual number involved but because they were thrown onto the opposite side of the balance at a critical moment and thereby created public opinion sufficient to save the industry in the state. Thus large hog raisers who, because of current prices, had been discouraged over the hog outlook and planned to sell out their business, found farmers from all over the county coming to them to buy pigs and thereupon determined to stay in business. This campaign was remarkable for its simplicity and effectiveness. It strengthened the hog industry at a critical time, it put five thousand farmers to keeping a few pigs at small cost, and it helped to diversify California farming.

SILO SORGHUM CAMPAIGN

Because of the dry season in 1917, there was an alarming shortage of rough feed. This coupled with the necessity for increasing livestock production as a war measure led to a campaign for an increased number of silos in California. Experience has shown that when a farmer builds a silo he is very likely to grow something to put into it. So silos lead to the planting of silage crops which in the farm enterprise usually represent materials additional to those that would otherwise be grown. At the same time there was a threatened shortage of sugar which seemed likely to become acute and which subsequently did pinch the people of the Pacific Coast in the fall of 1918. The plan was to plant various high-yielding sweet sorghums for silage and to urge this in sufficient acreage to create a surplus beyond that necessary for silage. The extra material might then be ground for sorghum sirup which, in a time of need, would act as a cheap and efficient sugar substitute for the people on farms. The silo-sorghum campaign could thus be waged with a double emergency purpose in view.

Fortunately in 1917, the extension service had conducted demonstrations with an inexpensive wood-hoop silo, known as the “farm bureau silo,” which had been extensively located throughout various portions of California and thereby become a visible demonstration of the possibility of a cheap silo on the average dairy farm. Unhappily, the dry season of 1917 was followed by a still drier one in 1918,
so that except where irrigation was available the raising of sweet sorghums was seldom practicable, although this could not be forecast in March when late rains were still looked for. However, 674 farmers planted sweet sorghums for silage with a total of 5077 acres, and 367 new silos were built upon the advice of the farm advisors, of which 273 were a direct result of this particular campaign. While the campaign was not a large success due to the dry season, which made it more difficult to grow sorghums than in any recent years, nevertheless it went far enough to demonstrate the practicability of silos and sweet sorghums as a permanent part in the farm system on California dairy farms and will undoubtedly be followed by widespread adoption of the idea in 1919.

**FIRE-PROTECTION CAMPAIGN FOR GRAIN FIELDS AND GRASS RANGES**

In the past, heavy fire losses have been regularly expected in grain fields and grass ranges during the dry season. When, because of the war, food production became a federal matter, food waste through grain and grass fires was recognized as directly opposed to national interests, and fire protection thereby became a necessary war measure. In 1917, at the request of the agricultural extension service, the United States Forest Service devised a scheme of rural fire companies which was inaugurated in two of the farm bureau counties with such success that it was deemed wise to give it state-wide application during 1918. The plan was that in each community where there was a farm bureau center, there would be formed a local rural fire company, the members of which would be expected to instantly respond to calls of fire. From among their number, they were to elect a “fire boss’’ who would be designated as “deputy state fire warden,’’ and another person to be known as a “fire despatcher” whose duty it was to remain at the telephone at the time of the fire and to call up all persons who might help. In addition, the farm bureau center was to possess a rural fire-fighting apparatus with which to combat the flames. This consisted of a trailer so simply built and with such complete equipment that it instantly appealed to everyone who saw it. It was obvious that if each farm bureau center in California had such an organization and such apparatus, fire damage could be greatly decreased.

The project was undertaken with the greatest enthusiasm, 374 local fire companies being organized in as many farm bureau centers of the state, 257 of which had complete trailer outfits for fire fighting, 6391 farmers voluntarily enlisted in these rural fire-fighting companies which protected 15,012 square miles of territory. The result was most
astonishing. Fires in grain fields from carelessness, or sparks from tractors or harvesters, were almost immediately controlled by the fire companies which came racing to the spot. Where a serious outbreak occurred, a call was telephoned to other fire companies in the county and sometimes as many as six or eight trailers would be at the scene of the fire in a few minutes.

Rumors of German attempts to fire hay stacks were rife throughout the state. The actual number of fires that broke out was certainly greater than for any previous year, due either to the exceptionally dry season or to the operations of disaffected persons. Despite this, the amount of damage from grain and grass fires was only about half that of previous years; whereby it may be safely assumed that at least a quarter of a million dollars' worth of foodstuffs was saved to the state by this simple and effective type of organization.

**PLAN FOR HANDLING FARM LABOR NEEDS**

During 1917 the farm advisors were called upon to assist in helping their communities secure farm labor. In some cases this took the form of actually conducting a farm labor employment bureau, as well as developing additional sources of farm labor and obtaining data on the exact state of affairs both during and at the conclusion of the season. It was evident, however, that in 1918 the securing of farm labor would be a large problem. Fortunately an increased number of seasonable local labor offices established by the federal and state employment service, took over a large portion of the work previously done by the farm advisors. These local labor offices were usually in close conjunction with the headquarters of the farm bureau and at all times the farm advisors were in consultation and cooperation with the local agents of the public employment services. Nevertheless, these local offices did not extend to all sections of the state and considerable actual work was done, as in 1917, in receiving applications from farmers for labor and in supplying to them laborers who happened to apply to the farm advisors' offices. During the season, 3536 farmers applied to the farm advisor or farm bureaus for labor, while a total of 12,302 persons applied for jobs on farms, either in the field or in household employment. Of these, 9490 were males and 2812 females. Of the total number of laborers who applied, or who were secured elsewhere, 12,800 farm laborers were actually supplied by farm advisors and farm bureaus to applying farmers. The extremely dry season decreased the threatened labor shortage so that crop losses from that source were small.
DEVELOPMENT OF BOYS' AGRICULTURE CLUBS

Since 1914, the Extension Service of the College of Agriculture has conducted boys' agricultural clubs throughout the state. In the early years these were largely confined to boys of high-school age because they were a smaller group and were of great importance since they would soon become farmers. But in later years these agriculture clubs have been extended to boys in the upper grades of the elementary schools, the necessary supervision being furnished through the co-operative employment of high-school teachers of agriculture.

In order that the farm bureau might become the agency for rural progress with all classes of people, the 1918 programme contemplated the placing of these agriculture clubs in each county under the direction of a committee of directors of the farm bureau. The projects to be undertaken by the boys were to be those already adopted by the farm bureau for the betterment of the county. Thus, where a hog campaign was in progress, the boys were enlisted in pig clubs which, because of the accurate reports which the boys kept, became demonstrations for bringing to the farmers those methods and means which resulted in the largest profit. Committees of farm bureau directors interested boys in many communities of the state to undertake this agriculture club work of growing crops and animals. Thus, while in 1917 there were 208 such boys' agriculture clubs, during the present season the number of clubs increased to 369. The total enrollment of boys in 1917 in these clubs, was 1879, but during the present year it increased to 2750 boys, a general increase over the state of about 50 per cent. The demonstrations conducted by these boys totaled 966 acres. They also raised 1855 pigs, 453 sheep, 28 calves and 3875 fowls. The valuation of produce raised by these boys was $67,321.

The agriculture club work is perhaps one of the most fundamental undertakings of the entire farm bureau system since it builds up a better knowledge of the most progressive agricultural practices and shows that careful farming pays real profits. There is little doubt but that members of the boys' agriculture clubs will furnish some of the best California farmers of the future.

DEVELOPMENT OF THE FARM HOME DEPARTMENTS OF THE FARM BUREAUS

The development of home demonstration work as provided under the Emergency Food Production Act appropriates funds for the employment of county home demonstration agents in the several states.
This work had already been under way in California through district agents, each covering several counties, but it was evident that if measurable results were to be attained, the problem was such as to require a definite county and community organization and the installation of county women agents.

The farm bureaus had always assumed in their organization that their work included the development and betterment of social, home, school, and church conditions in the county. Many women had become members of county farm bureaus and at all farm bureau meetings women were usually present and took part. It seemed desirable, however, to form a definite department of the farm bureau which would consider the special problems that centered about the farm home so that rural women might organize themselves into an agency for promoting the special projects in which they were interested. Twenty counties in California therefore adopted a plan creating a farm home department of the farm bureau, looking toward the creation of a large membership of farm women who should be especially interested in that particular department. These women joined the farm bureau exactly on the same terms as the men, but for their service this special branch of the organization was formed which holds separate meetings in each farm bureau center of the county. In nine counties the work has been so far developed that, before December 1, the boards of supervisors in those counties made appropriations of $1500 per year for the expenses of home demonstration agents to be appointed in the counties on the same basis as the farm advisors. These counties were San Diego, Imperial, Riverside, San Bernardino, Los Angeles, Kern, Alameda, San Joaquin, and Shasta. Seven of these home demonstration agents have already been appointed and others will follow at an early date. The home demonstration agents are located at the farm bureau office and travel from there about the county, meeting the members of the farm home department in the various centers on a regular schedule similar to that followed by the farm advisor. Their particular problems during the period of the war were to teach better methods of gardening and poultry raising on farms; to eliminate waste by demonstrating the utilization of waste products of the farm home and garden through canning, drying and other conservation methods; and to urge the adoption of labor saving devices for the housekeepers. There is no doubt that the work with farm women will, in the forthcoming years, reach as large a field of usefulness as that occupied by the departments especially designed for men.
BETTER SEED CAMPAIGNS

It was evident that in many crops, the quickest and cheapest increase in yields could be made through the use of better seed. This improved seed was secured either by field selection on the farms, or by purchase elsewhere.

In the fall of 1917, the farm bureaus where grain sorghums were an important crop, conducted an extensive campaign for the field selection of grain sorghum seed as an effort not only to secure higher yields but greater uniformity which makes for ease in harvesting. The plan was that farmers having good fields of grain sorghums should select enough for sale to the entire community. Two hundred and eight farmers carried out such field selections, securing in all enough selected seed to plant 52,276 acres of the 1918 crop. This selected seed was not always entirely used in the immediate locality but frequently farm bureaus in neighboring counties bought quantities of seed from farm bureaus that had an excess supply. In actual results, 1285 farmers planted 233,647 pounds of selected grain sorghum seed in 1918. It is difficult to state accurate results but some counties assert that the increase in yield so secured was as high as 20 per cent. Certain it is that the campaign was so successful that the practice of field selection will continue in after years.

A similar campaign was conducted in certain coast counties for the field selection of seed corn. One hundred and eighty-eight farmers so selected their seed which in 1918 was planted on 4597 acres. In the fall of 1918, 2902 bushels of corn were saved for seed which is to be used on the 1919 fields.

A widespread effort was made to secure better seed wheat for planting in the fall of 1918, the plan being for the farm bureaus to buy the best seed obtainable in carload lots which was distributed at cost to members throughout the county. Altogether 144,871 bushels of wheat seed were purchased and planted on 2663 farms in the fall of 1918. Similarly 21,270 bushels of seed barley were secured for 117 farmers.

The seed campaigns of the farm bureaus continued the entire season and have extended altogether to twenty-one crops, among which may be mentioned: potatoes, beans, cotton, rice, Sudan grass, alfalfa, clover, and vetch. Perhaps one of the most forward steps in the year's work has been the fact brought home to California farmers that good seed pays.
CAMPAIGN TO INCREASE MUTTON AND WOOL PRODUCTION

Sheep raising in California has so far been confined largely to big flocks, comparatively few sheep being raised in small bands on ordinary farms. Because of dry seasons, feed conditions during the summer of 1918 were such that it appeared likely some large flocks of sheep would have to be slaughtered in the fall. In all cases, herdsmen would cull their flocks more closely than usual because of the decrease in feed, and it even seemed probable in some instances that herds of sheep would starve. Meanwhile, the need for increased wool production was very evident since the United States was producing less than half the wool consumed in the country, and the demand was further increased by the army and navy. Wool supplies which normally reach the United States from other countries were now being used elsewhere so that as the size of the army increased, the needs of wool for the government became so great as to threaten a serious shortage. Therefore, a decrease in the number of sheep in California appeared a calamity which should be averted if possible.

It therefore seemed desirable to inaugurate a campaign to encourage the keeping of small flocks of sheep on farms where it was practicable. Farmers who maintained a small flock of sheep would render a distinct service to the country. While undertaking this purely as a patriotic effort, it would probably result in a considerable profit since a small flock of sheep is a valuable addition to almost any farm as they utilize weeds and wastes about the fields, fence corners and ditches, while returning a double cash crop yearly, of wool and lambs. Wherever possible, these sheep were to be obtained locally from large herdsmen who were planning to sell their flocks because of the shortage of feed but when such were not available, the Division of Animal Husbandry of the Department of Agriculture of the University agreed to assist in securing sheep from ranges or other places and to distribute them at cost to farmers.

In the late summer and early fall, the farm bureaus appointed committees in all centers where the plan was applicable and distributed pledges to keep "Liberty Flocks." On these the farmer signified whether he desired the farm bureau to secure the sheep for him or whether he would himself purchase them directly from sheep men. If the farm bureau was not able locally to buy the sheep, farmers were required to deposit funds in their local banks sufficient to cover the cost. In such cases, the Animal Husbandry Division was asked to secure the sheep needed which were shipped into the county at cost and divided among the farmers who had ordered them. The
total increase in the number of sheep in flocks on farms resulting from this campaign was 47,123, of which 30,038 were directly sent to the farmers by the farm advisors or farm bureaus. Most of this number were secured in or near the counties in which they were placed, it only being necessary to purchase through the Animal Husbandry Division a total of 2456 sheep.

While the early rains in the fall of 1918 undoubtedly saved large numbers of flocks that otherwise would have perished, the good done by the sheep campaign will remain a permanent feature in California agriculture through the many farmers who have started to keep small flocks of sheep as an integral part of their farm management enterprises.

CAMPAIGN FOR THE INCREASE OF WHEAT

In the fall of 1917, the farm advisors and farm bureaus conducted a campaign for the increase of wheat in California by urging farmers to convert part of their barley acreage into wheat. At that time, the price of barley ruled so much higher than wheat that farmers who embarked upon the project did so at a probable loss. Since, however, the federal government only asked for an increase of 88,000 acres of wheat in the state, this could be spread over a large number of farms by the farm bureau campaign, so that the difference between the selling price of wheat and barley, if barley still continued to rule higher, would represent but a small loss to an individual. The farm advisors and farm bureaus in 1917 secured actual signed pledges for an increase of 101,000 acres of wheat, thus overtopping the government’s request. Of this increase, however, probably only half was actually planted due to the dry season which in certain sections made it impossible to germinate the seed, or if so, to secure a material crop. Thus, while there was an actual increase in the wheat acreage of California, the 1918 harvest showed a decrease of over a million bushels.

For the fall and winter planting of 1918, the programme of the United States Department of Agriculture called upon California farmers to plant 538,000 acres of wheat which probably was an increase of about 122,000 acres over the 1918 acreage. Meanwhile, during the current year, the demand for barley had decreased due to the decline in brewing and the greater supplies of wheat available. The ruling price for barley had dropped accordingly, somewhat aided by the unified buying system of the allied governments whereby they avoided competing against one another in the open markets. Thereafter some farmers found it difficult to sell barley, while prices gen-
erally had not ranged higher than the corresponding prices for wheat. The farm bureau campaign thus started under more favorable circumstances than in 1917, since it was easier to convert farmers to a transfer from barley to wheat when the prospects indicated that both personal and national interests were coincident.

But the farm bureau campaign not only sought to transfer barley land into wheat where this was possible, but urged other methods of increasing the wheat yield, such as planting wheat on land formerly used for pasturage, by irrigating wheat lands which were formerly dry-farmed, by the treatment of wheat for smut, by the use of better seed, and by the early preparation of the land. Fortunately the early rains in September aided this programme so that while the farm bureaus started out to secure an increase of 122,000 acres over that of the previous season, pledges were actually signed for 151,783 acres of wheat increase, while the observed increase totaled 231,812 acres. While undoubtedly the campaign was made easier by the declining use of barley and the favorable season, nevertheless it was evident that the continued campaigns emanating from the federal government had not only redounded to the national welfare but to that of individual farmers, since the farm advisors were able to forecast with unusual success those crops which would be in demand and which therefore would bring exceptionally good prices. All this had been learned by the farmers of the state through past experience so that they now more willingly followed the leadership of the farm bureaus and farm advisors.

MISCELLANEOUS RESULTS

While the special emergency food production campaigns were going forward, the farm advisors were going from farm to farm on requests of farmers giving advice on certain agricultural practices. Some of the known results of this work are given hereafter:

**IN RELATION TO CROPS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farms selecting seed corn in fall on agents’ advice</td>
<td>188</td>
</tr>
<tr>
<td>Acres planted with fall-selected seed corn</td>
<td>4,797</td>
</tr>
<tr>
<td>Farms testing seed corn for germination</td>
<td>70</td>
</tr>
<tr>
<td>Acres of corn planted with tested seed</td>
<td>765</td>
</tr>
<tr>
<td>Farms growing corn for silage</td>
<td>400</td>
</tr>
<tr>
<td>Acres of corn grown for silage</td>
<td>5,443</td>
</tr>
<tr>
<td>Farms on which agents know that corn was grown on their advice, including all other lines of corn work than those above</td>
<td>246</td>
</tr>
<tr>
<td>Total acres of corn included in above</td>
<td>11,051</td>
</tr>
<tr>
<td>Farms on which the agents know that wheat was grown on their advice</td>
<td>986</td>
</tr>
<tr>
<td>Total acres of wheat so grown</td>
<td>151,783</td>
</tr>
<tr>
<td>Description</td>
<td>Acres</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Farms on which seed oats was treated for smut on advice of agents</td>
<td>439</td>
</tr>
<tr>
<td>Acres sown with treated seed</td>
<td>8,760</td>
</tr>
<tr>
<td>Farms on which agents know that oats were grown on their advice other than those included above</td>
<td>65</td>
</tr>
<tr>
<td>Total acres of oats grown on advice of agents</td>
<td>6,946</td>
</tr>
<tr>
<td>Farms on which agents know that seed potatoes were treated on their advice</td>
<td>447</td>
</tr>
<tr>
<td>Acres of potatoes planted with seed treated for disease</td>
<td>2,196</td>
</tr>
<tr>
<td>Farms on which agents know that potatoes were grown on their advice other than those above</td>
<td>211</td>
</tr>
<tr>
<td>Total acres of potatoes grown on advice of agents</td>
<td>3,071</td>
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<tr>
<td>Farms on which agents know that hay was grown on their advice</td>
<td>57</td>
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<tr>
<td>Total acres of hay so grown</td>
<td>754</td>
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<tr>
<td>Farms on which agents know alfalfa was sown on their advice</td>
<td>175</td>
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<tr>
<td>Total acres of alfalfa so sown on above farms</td>
<td>6,394</td>
</tr>
<tr>
<td>Farm on which agents know sweet clover was grown on their advice</td>
<td>180</td>
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<tr>
<td>Acres of sweet clover so grown</td>
<td>3,265</td>
</tr>
<tr>
<td>Farms on which agents know that soy beans were grown on their advice</td>
<td>15</td>
</tr>
<tr>
<td>Total acres of soy beans so grown</td>
<td>51</td>
</tr>
<tr>
<td>Farms on which agents know that cowpeas were grown on their advice</td>
<td>137</td>
</tr>
<tr>
<td>Total acres of cowpeas so grown</td>
<td>3,687</td>
</tr>
<tr>
<td>Farms on which agents know vetch was grown for grain on their advice</td>
<td>45</td>
</tr>
<tr>
<td>Acres of winter or hairy vetch so grown</td>
<td>1,120</td>
</tr>
<tr>
<td>Farms on which agents know barley was sown on their advice</td>
<td>121</td>
</tr>
<tr>
<td>Total acres of barley so grown</td>
<td>3,190</td>
</tr>
<tr>
<td>Farms on which agents know rye was grown on their advice</td>
<td>72</td>
</tr>
<tr>
<td>Total acres of rye so grown</td>
<td>830</td>
</tr>
<tr>
<td>Orchards cared for in whole or in part on advice of agents</td>
<td>1,621</td>
</tr>
<tr>
<td>Farms on which agents know red, alsike, or white clover were grown on their advice</td>
<td>393</td>
</tr>
<tr>
<td>Total acres of clover so grown</td>
<td>3,708</td>
</tr>
<tr>
<td>Farms on which agents know beans were grown on their advice</td>
<td>2,896</td>
</tr>
<tr>
<td>Total acres of beans so grown</td>
<td>147,644</td>
</tr>
<tr>
<td>Farms on which agents know that sugar beets were grown on their advice</td>
<td>50</td>
</tr>
<tr>
<td>Total acres of sugar beets so planted</td>
<td>2,000</td>
</tr>
<tr>
<td>Farms on which agents know that tomatoes were grown on their advice</td>
<td>6</td>
</tr>
<tr>
<td>Total acres of tomatoes so grown</td>
<td>120</td>
</tr>
<tr>
<td>Farms on which agents know that broom corn was grown on their advice</td>
<td>2</td>
</tr>
<tr>
<td>Total acres of broom corn so grown</td>
<td>125</td>
</tr>
<tr>
<td>Farms on which agents know that rice was grown on their advice</td>
<td>11</td>
</tr>
<tr>
<td>Total acres of rice so grown</td>
<td>425</td>
</tr>
<tr>
<td>Total acres seeded to pasture on advice of agents</td>
<td>1,005</td>
</tr>
<tr>
<td>Farms on which agents know that cotton was grown on their advice</td>
<td>43</td>
</tr>
<tr>
<td>Total acres of cotton so grown</td>
<td>2,290</td>
</tr>
<tr>
<td>Farms on which agents know that Sudan grass was grown on their advice</td>
<td>45</td>
</tr>
<tr>
<td>Total acres of Sudan grass so grown</td>
<td>245</td>
</tr>
<tr>
<td>Farms on which agents know that castor beans were grown on their advice</td>
<td>42</td>
</tr>
<tr>
<td>Total acres of castor beans so grown</td>
<td>1,382</td>
</tr>
</tbody>
</table>
Farms on which agents know that sorghums were grown for silage on their advice ................................................. 493
Total acres of sorghums so grown ........................................... 5,077
Farms on which agents know that grain sorghums were grown on their advice ................................................. 317
Total acres of grain sorghums so grown ........................................... 5,536
Farms on which seed sorghum was selected in fall on advice of agents .... 283
Total acres planted with fall selected seed ........................................... 52,276
Farms on which agents know seed wheat was treated for smut on their advice ................................................. 485
Total acres sown with treated seed ........................................... 67,800
Farms on which bean seed was selected on agents' advice ................. 14
Farms on which vineyards were cared for in whole or in part on advice of agents ................................................. 25

**In Relation to Livestock**

Farms on which agents know registered stallions were secured on their advice ................................................. 2
Farms on which agents know registered bulls were secured on their advice ................................................. 58
Total number of registered cows agents know were secured on their advice ................................................. 91
Total number of registered rams agents know were secured on their advice ................................................. 78
Total number of registered boars agents know were secured on their advice ................................................. 97
Total number of other livestock bought or sold on their advice ............ 75,856
Total number of cow-testing associations organized by agents or on their advice ................................................. 8
Total number of members in these associations ........................................... 224
Total number of cows tested or under test in 1918 for milk production in all such associations organized in 1918, or previously ........................................... 15,888
Total number of cows tested for milk production by individuals on advice of agents ................................................. 1,342
Total number of cows discarded as a result of test ........................................... 467
Farms on which balanced rations figured by agents are known to have been adopted ................................................. 351
Total number of livestock breeders’ associations organized by agents ................................................. 9
Total number of members in such livestock breeders’ associations ................................................. 679
Total number of animals tested for tuberculosis by agents, or on their advice ................................................. 2,278
Total animals treated for blackleg by agents or on their advice ................................................. 3,354
Total hogs vaccinated for cholera by agents ........................................... 998
Total hogs vaccinated for cholera on advice of agents ........................................... 4,133
Total cattle vaccinated against anthrax on advice of agents ........................................... 490
Total horses vaccinated against pneumonia on advice of agents ........................................... 415
Total fowls vaccinated for chickenpox on advice of agents ........................................... 18,590
Total silos secured on advice of agents ........................................... 367
Total coöperative hog auction sales held on advice of agents ........................................... 66
Total hogs sold at these sales ........................................... 25,771
Farms on which milch goats were raised on advice of agents ........................................... 3
Total milch goats bought on advice of agents ........................................... 7
Total goats treated for lung worm on advice of agents ........................................... 40
Total bee colonies examined for fowl-brood on advice of agents ........................................... 1,700
Total stands of bees increased on advice of agents ........................................... 100
IN RELATION TO SOILS, FERTILIZERS AND FERTILITY

Total crop-rotation systems planned and adopted on advice of agents .... 203
Total drainage systems planned and adopted on advice of agents ......... 63
Total acres included in these drainage areas .................................. 42,563
Total irrigation systems planned and adopted on advice of agents .......... 76
Total acres included in these irrigation areas ................................... 187,941
Farms on which manure was reenforced with acid phosphate or ground 85
rock phosphate on advice of agents .............................................
Farms on which chemical fertilizers were used on advice of agents ........ 327
Total tons of chemical fertilizer so used ....................................... 1,123\(\frac{1}{2}\)
Farms on which chemical fertilizers were home-mixed on advice or under 16
direction of agents .........................................................................
Total tons of such home-mixed fertilizers used ................................... 206
Total farms on which agents tested soil for acidity ............................ 435
Farms using lime on suggestion of agents ......................................... 620
Local sources of lime or limestone developed .................................... 3
Total limestone crushers or grinders introduced .................................. 1
Total tons of lime or limestone used on suggestion of agents ............... 1,280
Total acres of hay land and permanent pasture top-dressed (straw, 15,680
manure or fertilizer) on advice of agents ........................................
Total acres of clover and other legumes plowed under for green manure on advice of agents ................................................................. 10,294
Farms on which double crop plans were adopted on advice of agents .... 10
Farms on which trees and vines were planted on advice of agents ........ 40
Total acres manured on advice of agents ........................................... 400
Total lime deposits examined by agents for local supply of cheap lime ... 14
Total farms on which general soil examinations were made for alkali ... 129
Total tons of acid phosphate used on alfalfa on advice of agents ........... 75
Total farmers helped on soil management, soil fertility, etc. ................. 22
Total farmers using gypsum on alfalfa on advice of agents ................. 276
Total tons of gypsum so used ......................................................... 1,453

IN RELATION TO FARM HOMES AND FARM BUSINESS

Total farm account books placed in hands of farmers ....................... 1,059
Total farmers who kept such records throughout year ....................... 286
Total farmers assisted by agents in summarizing their accounts ........... 94
Total farmers who have made profitable changes in their business as a result of record keeping on advice of agents ........................................... 91
Total farmers’ exchanges organized by agents or on their advice in 1918 7
Total value of business done in 1918 through all such exchanges organi-
zed by agents or their predecessors .................................................. $2,067,450
Other purchasing and marketing associations organized in 1918 by agents or on their advice ................................................................. 14
Total value of business done in 1918 by all such associations organized by agents or their predecessors ................................................... $8,178,507.57
Total approximate savings effected in 1918 by all such associations or exchanges .......................................................... $627,415
Total farms supplied with laborers in 1918 through such associations or exchanges, or by county agents ................................................. 4,103
Total laborers so furnished to farmers .................................................. 8,643
Farms on which water supply and sewage disposal systems were introduced on advice of agents .......................................................... 240
Total pounds of wool pooled and shipped for small growers .................. 28,000
Total good-roads days held on advice of agents .................................. 10
Total value of work done on these days ............................................... $2,200
Total homes and farms on which landscape gardening was advised .......... 14

IN RELATION TO EXTENDING AGENTS’ WORK IN COUNTIES

Different farmers visited on their farms .............................................. 15,216
Total farm visits made ........................................................................ 26,492
Total calls on agents at office relating to county agent work ................. 50,231
Total meetings held under auspices of farm bureau or county agent ....... 4,596
Total of all meetings in which agent took part, including above ............ 5,420
Total attendance at such meetings, including above .............................. 205,662
Total membership in county farm bureaus (December 1, 1918) .............. 19,803
Total farmers’ clubs organized by agent in 1918 .................................. 48
Total membership in above clubs ....................................................... 1,827
Other associations organized for adults in 1918 .................................... 19
Total membership of all associations for adults organized in 1918 ......... 2,793
Total boys’ and girls’ clubs organized in 1918 through farm bureaus .... 159
Total membership in such clubs organized in 1918 .............................. 1,279
Total agricultural articles written by agent published in local papers .... 2,866
Total agricultural articles written by agent for county farm bureau news or other official publications of farm bureau .................................. 1,755
Total letters mailed (including original copies of circular letters) ......... 59,879
Total circulation of all such circulars and letters ................................. 224,926
Total agricultural observation parties conducted (auto trips, etc.) ......... 68
Total persons in all such parties .......................................................... 2,096
Total meetings or demonstrations held at which assistance was rendered by specialists ................................................................. 775

DEMONSTRATIONS ON FARMS

It has always been a fundamental part of the farm advisors’ work to locate demonstrations of desirable practices on farms of interested farmers, the idea being that these demonstrations shall act as a community example of the contrast between the improved method and that usually practiced in the community. When these demonstrations are at maturity, meetings are held in the field with farmers in the locality to show them the results attained. During the period of the war, the emergency food production campaigns necessitated a diminution of this work. Nevertheless, the farm advisors located 1420 such field demonstrations, at which they later held 870 field meetings with a total attendance of 22,354 persons. A list of these demonstrations follows:
<table>
<thead>
<tr>
<th>Field Demonstration</th>
<th>Total number of field demonstrations conducted</th>
<th>Number of counties in which conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deciduous pruning</td>
<td>120</td>
<td>22</td>
</tr>
<tr>
<td>Vine pruning</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td>Citrus pruning</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Fig management</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pear blight control</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Control of orchard tree diseases</td>
<td>33</td>
<td>2</td>
</tr>
<tr>
<td>Spraying</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Control of scaly bark</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Gommosis control</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Walnut codlin moth control</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Morning glory control</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Weed eradication</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Grape leaf hopper control</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Grasshopper eradication</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Insect control</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Fumigation control</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Red spider control</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Potato scab control</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Vine sulphuring</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Vine fertilization</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Sweet sorghum culture</td>
<td>44</td>
<td>8</td>
</tr>
<tr>
<td>Grain varieties test</td>
<td>8</td>
<td>4</td>
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<tr>
<td>Grain sorghum culture</td>
<td>61</td>
<td>4</td>
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<tr>
<td>Sorghum variety demonstrations</td>
<td>62</td>
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<tr>
<td>Seed wheat demonstrations</td>
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<td>1</td>
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<tr>
<td>Wheat culture on adobe lands</td>
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<td>1</td>
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<tr>
<td>Army worm control</td>
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<tr>
<td>Alfalfa culture</td>
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<td>Alfalfa fertilization</td>
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<td>Legume variety culture</td>
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<td>Bean seed selection</td>
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<td>Bean culture</td>
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<td>Blackeye bean culture</td>
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<tr>
<td>Soy bean culture</td>
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<td>1</td>
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<tr>
<td>Castor bean culture</td>
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<td>Corn culture</td>
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<td>Millet culture</td>
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<td>Grain smut control</td>
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<td>Cover crop culture</td>
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<td>Cotton culture</td>
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<td>Potato fertilization</td>
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<tr>
<td>Tree surgery</td>
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<td>1</td>
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<tr>
<td>Orchard management</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Liming</td>
<td>111</td>
<td>8</td>
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<tr>
<td>Ammonium sulphate on grain</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Gypsum on alfalfa</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Field Demonstration</td>
<td>Total number of field demonstrations conducted</td>
<td>Number of counties in which conducted</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Acid phosphate on alfalfa</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Land leveling</td>
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<td>1</td>
</tr>
<tr>
<td>Barley cover crop in preparation for beans</td>
<td>13</td>
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<tr>
<td>Fertilization of adobe lands</td>
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<td>1</td>
</tr>
<tr>
<td>Irrigation and preparation of land</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Fertilizer demonstrations</td>
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<td>1</td>
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ALAMEDA COUNTY

The county farm bureau work was carried forward by thirty-six permanent committees in the various centers. The membership was increased somewhat during the year but scarcity of labor and influenza retarded progress with this campaign. Thirteen farm bureau free labor employment offices scattered over the county enabled farmers to secure help when needed. Thirty-four ranchers kept farm business record books with very satisfactory results. The hog and sheep campaigns resulted in 1004 more hogs and about 1000 sheep were placed on farms. Five tons of Defiance wheat was also brought into the county for seed purposes. The wheat acreage was increased by 5428 acres for the 1919 crop and demonstrations were carried on with sorghums and corn for silage purposes. Smut control demonstrations were held in different places and 1200 pounds of copper sulphate were secured at cost for farmers. Rodent control work was an important feature in the activities of the farm bureau and poisoned grain was mixed and sold at cost to farmers, thereby providing poison at less than half the market price. Hundreds of families were induced to grow war gardens and 26,850 pounds of fruit pits were collected for gas masks for the army. Very successful morning glory control demonstrations were held in the county by means of spraying. Fertilizer and lime demonstrations were conducted on a number of farms and cover crops were proved valuable in orchards where moisture conditions are favorable. A successful municipal free market was established in Oakland which was supported by about a hundred farmers and several thousand customers were served daily. The farm home department succeeded in increasing the number of vegetable gardens in cities by 637 besides placing 38,665 additional hens on small farms and increasing the home canning of fruits and vegetables by 63,315 quarts. It also supplied 1000 meals to needy individuals during the influenza epidemic.

The county farm advisor and his assistant were active in assisting the farm bureau to conduct its campaigns. They formed a cow testing department with eight members and 625 cows. Advice and plans were made for the remodeling and construction of ten septic tanks in the county. Much help was given in the control of the grape leaf hopper on vines. Relief was also given in combating animal diseases and thirty-two demonstration meetings were held with attendance of 200 to show the value in following modern ideas along this line. Fifty-four poultrymen adopted improved methods of handling poultry as recommended by the farm advisor and during demonstrations 9000 chickens were vaccinated for chicken-pox. In addition to this 1500 animals were vaccinated for blackleg, 490 for anthrax, 529 for tuberculosis and 174 hogs for cholera. Calls for assistance among farmers required a traveling of nearly 27,000 miles by the farm advisor’s office.

Plans are under way to increase the lines of work for 1919. Some of the projects to be undertaken will be a special campaign to increase the use of silos and seven demonstrations are now being planned to this end. The agricultural survey of the county will be finished and campaigns inaugurated to increase potato production and the growing of summer crops. Increased pork production will also be continued and the work on farm business records greatly extended. Special attention will also be given to the extermination of rodent pests and in extending boys’ agriculture club work.

Membership in the farm bureau .................................................. 453
Total farm visits made ................................................................. 1,302
Calls at farm advisor’s office for information .............................. 5,453
Farm bureau meetings held ......................................................... 509
Attendance at farm bureau meetings .......................................... 7,008
Letters and circulars mailed ...................................................... 4,182
Miles traveled by farm advisor and assistant ............................... 26,995
BUTTE COUNTY

Work started August, 1918

The county farm bureau is just getting started with its work. Even before a farm advisor was placed in the county the organization had started campaigns to increase the number of hogs and sheep kept on farms and the acreage of wheat, all three campaigns being very successful. Active committees were appointed that succeeded in placing on farms many sows and pigs that otherwise would have gone to market and in having 3000 sheep placed in flocks on small farms. The wheat campaign was followed by a series of six demonstrations in various parts of the county on the treatment of seed to prevent smut. Butte County increased its wheat plantings by 10,000 acres, and about 15,000 acres were planted with treated seed. The influenza epidemic, which stopped all meetings, has interfered with organization work although seven active centers are in existence and others awaiting an opportunity to organize.

The farm advisor has given particular attention to orchard work, in addition to the food production campaigns and other work called for by the government. He has responded to many calls for information on fruit packing, pruning, spraying and general orchard management. A series of tree pruning demonstrations have been given in the fruit sections of the county. Much individual help has been given farmers in making out questionnaires and information was furnished the local draft board on deferred classification requests. Coöperation has been given the horticultural commissioner in the campaign to eradicate ground squirrels. He has also conducted tree pruning demonstrations for farm bureaus in adjoining counties.

The Butte County Farm Bureau is interested in many lines of work, such as land settlement, diversified farming, improvement of crops and livestock, development of more irrigation, and solving orchard problems. A comprehensive series of demonstrations on orchard practice and pruning has been laid out and work begun on them this fall. These demonstrations are located in the various fruit sections and will be carried on for several years. A committee has been appointed in each fruit center to cooperate with the farm advisor in working on the particular problems of that center. June drop of citrus fruits is a big problem in this county and a series of demonstrations on the control of this trouble is under way in the citrus districts. Demonstrations in the construction and use of silos are planned as well as associations to promote the more general use of pure bred livestock.

Membership in the farm bureau .............................................. 384
Farm visits made by the farm advisor ................................... 130
Calls at farm advisor’s office for information ......................... 162
Farm bureau meetings held .................................................. 21
Attendance at farm bureau meetings ...................................... 655
Letters and circulars mailed ................................................ 948
Miles traveled by the farm advisor ....................................... 6,349
CONTRA COSTA COUNTY

The county farm bureau instigated a campaign for the extermination of squirrels in this county and to this end cooperated in the mixing and distribution to farmers at cost of 25,977 pounds of poisoned grain and 552 gallons of carbon bisulphide. The infestation in the county is serious and it is estimated that $100,000 worth of food crops are thus destroyed each year. Remarkably good results have been secured to date and promise of practical extermination of this pest is assured. Six boys’ pig clubs were organized in the county during the year and very excellent results were obtained. The largest gain per pig for the 120 days of feeding was an average of 1.71 pounds per day. This work has done much to stimulate better methods in hog raising in the county. The hog campaign resulted in placing 587 additional pigs on farms. A very effective volunteer fire-fighting organization was perfected with twelve companies and 176 members. More than twenty fires were put out and one local outfit alone saved more during the year than the cost of the entire county equipment. The scarcity of wool and mutton caused the farm bureau to carry on a campaign to place more sheep in small bands on farms and resulted in 975 bred ewes being distributed among farmers. The need for more wheat resulted in a campaign to increase the acreage of this cereal and 140 tons of recleaned wheat seed of two varieties were secured and distributed among fifty-six farmers for fall planting. The campaign resulted in an increase of 200 per cent in the acreage planted to wheat in the county. Plans were also formulated and approved for an irrigation district at Knightsen to cover 10,000 acres of fertile land.

The county farm advisor cooperated with the farm bureau in promoting all of its projects. He succeeded in getting farmers to plant 178 acres of saccharine and grain sorghums. It was proven that Early Amber sorghum and Sudan grass are very good forage crops for the western part of the county. Six varieties of beans, two varieties of sweet sorghum, three of grain sorghum and four plats of Sudan grass were tried in the southern part of the county and several promising varieties were selected for propagation. Twenty field demonstration meetings were held during the year with an attendance of 1089 farmers. Smut control demonstrations were conducted in the county and 1600 pounds of bluestone were supplied for treating seed for fall planting. The farm advisor also took an important part during the year in advising on the management of forty-three orchards. He also supervised the drainage of sixty acres of land and saved nearly $1000 to the farm bureau in the purchase of squirrel poison and bluestone.

Future plans call for a more determined fight against rodents and the completion of the Knightsen irrigation district. Two other irrigation districts are also being outlined and an extension of the first control area is planned. Additional demonstrations are also being arranged to cover the main soil and climatic conditions in the county in order to locate the best adaptations so farmers may obtain the greatest possible returns from their efforts.

Membership in the farm bureau ........................................... 465
Total farm visits made .................................................. 719
Calls at farm advisor’s office for information ....................... 545
Farm bureau meetings held .............................................. 299
Attendance at farm bureau meetings .................................. 5,486
Letters and circulars mailed ............................................ 3,309
Miles traveled by farm advisor ......................................... 11,705
EL DORADO COUNTY

Work started January, 1918

The county farm bureau has been of service to farmers in demonstrating better methods of orchard practice, introducing better livestock into the county, securing good seeds, introducing new forage crops and encouraging the more general use of summer crops for livestock. In the increased food production campaign, hogs, sheep and cattle have been increased although little could be done with wheat production in the county. Various departments have been organized in the farm bureau to take care of the interests of particular industries, thus the potato growers' department is interested in securing good seed potatoes, prevention of potato diseases, and in grading and marketing the crop. A lime users' department has succeeded in securing lime for members at a reasonable rate. Lime has been proved beneficial in many parts of the county and its more general use is being promoted by this department. A Duroc Jersey Swine Breeders' Association has been the outgrowth of the introduction of a considerable number of pure bred Duroc Jerseys into the county through the boys' pig clubs. The membership is made up of the boys who retained their animals and of a number of interested farmers. A seed buying department has been successful in securing first-class seed for farmers. About forty demonstrations of various forage crops were put out through this department last spring. Demonstrations in orchard pruning, spraying and the use of cover crops have been carried on by the farm bureau. A fire protection organization of 250 members was organized last summer. Some 300 square miles were protected in this way and during the season fifteen fires were controlled. Some attention has been paid to securing good roads in the county and a good roads day was held last April at which time 125 men and thirty-four teams turned out to do repair work on the public roads.

The county farm advisor rendered particularly valuable service in assisting to control the pear blight of which there was a severe outbreak in the foothill counties last summer. A series of demonstrations in the control of this trouble were held as well as information and help given to many individual farmers on their farms. He has worked with the various departments of the farm bureau in carrying out their programmes. He has encouraged the securing of a considerable number of pure-bred animals for the county, has helped in the erection of a number of silos and has given particular attention to the introduction and use of forage crops for livestock. He represented the United States Employment Service in the county and conducted a threshers' survey for the Bureau of Markets.

The farm bureau has laid out a definite programme of work covering orchards, field crops and livestock. The county produces high class fruits, particularly pears, and the farm bureau is interested in developing this industry further. More forage crops, silos and co-operative grazing in the national forest is hoped to materially increase the output of livestock products for the county. An investigation is under way with a view to the organization of an irrigation district and increasing the irrigation facilities of the county.

| Membership in the farm bureau | 303 |
| Farm visits made by farm advisor | 497 |
| Calls at farm advisor's office for information | 135 |
| Farm bureau meetings held | 125 |
| Attendance at farm bureau meetings | 3,701 |
| Letters and circulars mailed | 1,224 |
| Miles traveled by the farm advisor | 9,166 |
FRESNO COUNTY

The county farm bureau served the dominant agricultural interest in the county through five pruning demonstrations in orchards and fifteen pruning demonstrations in vineyards, covering in all sixteen days and attended by 1520 persons. Four orchard meetings and demonstrations were held on the control of tree diseases, especially peach blight. Twenty cover crop demonstrations were located on farms belonging to farm bureau members and the results tabulated and reported upon. Two hundred orchardists attended the fig institute conducted by the farm bureau in cooperation with the College of Agriculture. Eleven hundred and thirty-four cows were tested through the cow testing department with the result that 197 inferior animals were eliminated from the herds in the county. Ten thousand jack rabbits were killed in the rabbit drives during the winter and spring with a total saving of at least $20,000 to the farmers of the county.

The county farm advisor with the help of two assistant farm advisors carried through the increased food production campaigns in addition to the routine office and field work. By giving information to farmers on the use of the seed wheat supply, on varieties of wheat and cultural methods adapted to Fresno County, and on the use of bluestone-lime treatment for smut eradication, the farm advisor has increased the prospects of a large wheat yield in addition to the work done in increasing the acreage planted. The farm advisor directed the work of six paid fire wardens during the three months' fire season. Two hundred and thirty farmers in the county responded to the campaign to increase pork production, conducted through the farm advisor's office. Sweet sorghum was introduced as a new silage crop on thirty-four farms, 465 acres being planted in all. One silo raising demonstration was conducted which resulted in the construction of twelve others. Eighty-seven specialists on agricultural subjects were brought into the county through the efforts of the farm advisor. Advice was given to over 250 men on the various problems involved in the successful handling of cotton, a new and important fiber crop for California.

The large investment in vineyards and orchards necessitates an extension of the work in pruning methods, cultural treatment and fertilization. Drainage is to be taken up as a fundamentally important problem. The work looking toward the improvement of the soil fertility in the county through the addition of organic matter will be extended, as will the work to control rodent, insect and plant disease pests through educational methods, control measures and through cooperative effort. The live-stock auction sales will be continued.

Membership in the farm bureau ........................................ 1,379
Total farm visits made .................................................. 1,508
Calls at farm advisor's office for information ....................... 2,340
Farm bureau meetings held .............................................. 173
Attendance at farm bureau meetings ............................... 6,844
Letters and circulars mailed ......................................... 31,898
Miles traveled by farm advisor and assistants .................. 43,821
GLENN COUNTY

The county farm bureau is particularly well organized and covers most of the county. The plans and projects of the farm bureau for the past year have in general been adopted as the practice of all the farmers in the county. The government’s increased production programme has received first consideration and the county has responded with an increase of 8000 acres above the normal acreage of wheat as well as increasing the number of hogs kept by 1500, and placing 1100 sheep in small flocks on farms. This farm bureau has a number of departments devoted to the interests of special industries. The swine growers, sheep raisers, poultry producers, rice growers and beekeepers each have a department of the organization devoted to their particular interests. A livestock grazing department was organized during the past season and a large number of farmers were enabled to cooperatively graze their stock in the national forest, thus increasing the producing capacity of their farms. The Glenn County bureau has devoted considerable attention to the introduction and improvement of grain sorghums, a big tonnage of selected seed being grown this year for which there is considerable demand in other counties. A grain fire protective organization was organized, seventeen rural fire companies equipped with fire fighting apparatus and a fire protection ordinance for the county were secured. Campaigns for the control of various pests have been conducted and methods of control demonstrated. Fifteen tons of poison material were used in the control of grasshoppers alone, and it is estimated that at least $75,000 worth of crops and young trees was saved. One carload of wool was collected and shipped direct to the government for small growers and the market department has been of much service to farmers in assisting them in marketing other products. Three new farm bureau centers have been organized this year.

The county farm advisor has been an active agent in all the work of the farm bureau. He has given special attention to the sorghum seed selection, the encouragement of diversified farming, orchard improvement, improvement of livestock, etc., etc. He has secured the aid of specialists from outside the county in controlling crop pests and in combating anthrax and hog cholera. Five hundred hogs were vaccinated against cholera and five anthrax control demonstrations were held. He has been of assistance in securing twenty-five new silos in the county this year, and in securing twenty pure bred sires for farmers. His office has been headquarters for the food administration work, farm loan association, etc., as well as for the farm bureau.

The farm bureau is interested in developing further irrigation in the county, a permanent system of farming for the rice area, better livestock and crops, and more efficient methods of marketing.

Membership in the farm bureau .................................................. 450
Farm visits made by the farm advisor and assistant .................... 774
Calls at farm advisor’s office for information .......................... 827
Farm bureau meetings held ...................................................... 211
Attendance at farm bureau meetings ......................................... 7,302
Letters and circulars mailed ................................................... 8,115
Miles traveled by farm advisor and assistant ............................ 31,134
HUMBOLDT COUNTY

The county farm bureau incorporated its marketing department during the year and greatly extended the scope of business done. This department did $90,000 of business during the year and greatly extended the range of products handled. A very successful dehydration contract for potatoes was also made with the government in which thirty tons of dried product were turned out. This netted farmers $1500 over local market prices. The annual mass meeting brought out from 2500 to 3000 people who spent the entire day listening to a programme covering local problems in agriculture. Rodent control work was organized and fourteen field demonstrations were given of the use of poisoned bait. Two successful apple packing demonstrations were conducted in the orchard districts and soil fertility problems were given special consideration. The placing of small bands of sheep on farms was continued and 198 head were so placed. The county farm bureau also emphasized the value of better breeds of livestock and many pure-bred animals were brought into the county and distributed among farmers for breeding purposes. In addition to these 755 other animals were either purchased or sold through the farm bureau.

The county farm advisor actively coöperated with the farm bureau in carrying on its campaigns. Two hundred and ninety-five cows were tested for tuberculosis, 325 hogs were vaccinated for cholera, and 377 head of stock treated for blackleg by him. These demonstrations were for the purpose of showing farmers how to handle such problems. The farm advisor assisted in the management of fifty orchards where the most modern methods of fruit culture were put into use. The soils on one hundred and twenty-seven farms were tested for acidity and 200 farmers used lime at the farm advisor's recommendation. Seed potatoes for 420 acres were treated for disease by fifty-seven farmers and eleven others planted 200 acres of alfalfa and 310 acres of corn for silage under his direction. Sixteen farmers were assisted in preparing balanced rations for their dairy cows and forty-nine followed his recommendations in planning crop rotations suited to local soil and climatic conditions.

An additional cow testing association is being planned for the county and an improvement is under way to make the county fair more educational. Plans are being arranged for more extended soil fertility studies and also for the improvement in cropping systems for the county. Further work is planned in animal diseases and also in securing better sires for breeding purposes. A study of the ranges is also being planned for the purpose of introducing better varieties of forage plants. A greater use of silos will also be emphasized and a campaign inaugurated to increase the number of bees kept in the county. Six drainage systems were planned covering 2340 acres of valuable farming land and work on them will be carried on in 1919.

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IMPERIAL COUNTY

The county farm bureau organized and conducted the largest cow testing association in California, over 5000 cows being included in the three units. The difficulty in keeping testers during the war period made it impossible to carry the work through as successfully as would have been the case in normal times. The marketing department of the farm bureau conducted one auction sale where six carloads of hogs valued at from $15,000 to $20,000 were sold, one car bringing $17.10 per cwt., which was the highest price paid in the state at that time. The programme for extending and unifying the irrigation system as outlined by the special commission appointed by the Interior Department and the University of California at the request of the farm bureau, has been carried on during the year, the farm bureau being represented in Washington at a conference called by the Secretary of the Interior to consider the details of the project. The farm bureau assisted the regularly constituted authorities in the handling of the labor problem which was especially acute. The farm home department of the Imperial County Farm Bureau was the first organized in California. An appropriation was secured for carrying on the work of the home demonstration agent. The farm bureau has actively assisted in the organization and conduct of the boys' agriculture clubs.

The county farm advisor has directed the food production campaigns in the county and in addition carried on the regular educational work of the farm bureau. The wheat area was tripled as a result of the wheat campaign. Three thousand acres were planted to sweet sorghums and over 100 silos constructed as a result of the silo-sorghum campaign. Seventy-five tons of milo maize seed were selected and 43,000 acres were planted with this selected seed. One hundred and fifty hogs were placed on farms as a result of the hog campaign. Through the enlistment of two farm advisors and three assistant farm advisors for direct service in the army, the work in the county has been discontinuous which has quite naturally affected the efficiency of the farm advisor office.

The farm bureau has already arranged for a drainage survey of the valley as a part of the programme for the coming year. The solution of the water problem will involve many new problems in crop production which will require the establishment of demonstrations in irrigation and soil management. The selection of milo maize and cotton seed will be emphasized, as will also the improvement of livestock through a reorganization of the cow-testing department and the continuance of auction sales.

| Membership in the farm bureau | 650 |
| Calls at farm advisor’s office for information | 1,562 |
| Farm bureau meetings held | 108 |
| Attendance at farm bureau meetings | 5,960 |
| Letters and circulars mailed | 1,150 |
| Miles traveled by farm advisor and assistant | 17,903 |
KINGS COUNTY

Work started January 1, 1918

The county farm bureau saved the farmers of the county over $20,000 through the organization of its marketing department which did $186,856 worth of business during the year. Eight thousand hogs have been sold at farm bureau auction sales; 11,000 pounds of selected milo maize seed were purchased from the University and sold to farmers in the county, and ninety-five tons of hog feed were purchased for farmers at a saving of $950. One hundred thousand acres of valuable grain and grass land were protected from fire damage by an efficient fire organization including eight squads of 198 members, covering 700 square miles. Seven hundred cows have been under test in the cow testing department of the farm bureau. Jack rabbit drives started early in the spring, resulted in the killing of some 5000 rabbits. Two thousand pounds of honey sorghum seed were distributed through the farm bureau, and as a result of the sorghum campaign two sorghum mills were brought into the county and have so far produced 4000 gallons of sorghum syrup.

The county farm advisor, in addition to carrying on the regular work of conducting meetings, making farm calls and tending to office work has directed the special food production campaigns in the county. The wheat area was very largely increased and through demonstrations, personal visits, meetings and by the distribution of circulars, the grain growers have been furnished facts regarding the proper treatment of seed for smut as well as facts regarding varieties, seed supplies and cultural methods. One hundred and twenty-five farmers purchased 625 hogs and five farmers purchased a total of 251 sheep as a result of the campaign to increase pork and wool production. Special assistance was given to farmers who were growing seven hundred and fifty acres of castor beans. He also by personal visits and meetings furnished information to cotton growers regarding the handling of this new crop. Alfalfa variety tests and demonstrations on the control of the army worm and grasshoppers were conducted by the farm advisor.

The development of the Pine Flat project on Kings River will very largely increase the need for farm bureau work in this region. Plans are being made to utilize larger areas on the west side by the more extensive use of dry farming methods. Departments of the farm bureau will be organized for grain growers, swine raisers, dairymen, fruit growers and others to bring more efficient service. A campaign is planned to locate a silo on every dairy farm in the county. Thirty-two were built during the last season. Work so far done in marketing is a step in the right direction and will be followed up by further efforts as the needs demand. The farm bureau plans to improve the drainage conditions through cooperative effort with the irrigation authorities.

Membership in the farm bureau ........................................ 499
Total farm visits made .................................................. 278
Calls at farm advisor's office for information ....................... 944
Farm bureau meetings held ............................................ 78
Attendance at farm bureau meetings .................................. 2,239
Letters and circulars mailed .......................................... 8,182
Miles traveled by farm advisor ....................................... 13,396
KERN COUNTY

The county farm bureau through its marketing department has held eighteen livestock auction sales, has handled forty-five tons of poisoned barley valued at $22,789, purchased 15,416 pounds of seed of beans, corn, milo maize, sweet sorghums, and 311 sacks of potatoes and secured supplies of seed wheat for thirty grain growers, making an estimated saving of $19,000 to the farmers of the county on the $233,394 worth of business done. The farm bureau committees actively assisted in the food production programme in the county. The farm bureau has coöperated with the farm bureau of Kings and Tulare counties in the organization of the California Farm Bureau Marketing Association which is handling $100,000 worth of farm products a month. The water conservation committee of the farm bureau through the Office of Irrigation Investigations of the United States Department of Agriculture secured an engineer for a detailed investigation of the irrigation and drainage situation in the county. The farm home department of the farm bureau was organized and an appropriation secured for the expenses of a home demonstration agent.

The county farm advisor, with the help of an assistant farm advisor, has directed the food production campaigns of the county in addition to carrying on the numerous duties incident to the regular farm bureau work. Two hundred and five farmers responded to the pork production campaign which resulted in placing 937 pigs on farms. Five demonstrations of the bluestone-lime method of treating seed for smut were conducted as a part of the wheat campaign, sixty-eight farmers attending these demonstrations. The wheat acreage was increased by 2245 acres. Forty-nine farmers secured small flocks of sheep as a result of the sheep campaign. Ten pruning demonstrations were attended by ninety-six vineyard men representing 50 per cent of the grape growers in the county. The farm advisor gave special assistance to those interested in cotton and castor beans, two new crops in the county. Two demonstrations were held at which the county veterinarian demonstrated the use of vaccine for control of pneumonia in horses, resulting in an estimated saving of over $6000 to the county. Twelve farmers were induced to select milo maize seed and to offer this for sale while twenty-five farmers were induced to select seed for their own use. Nineteen silos were erected as a result of the silo campaign and sweet sorghums were introduced into the county as a new silage crop of which 175 acres were planted. The farm advisor coöperated with the United States Employment Agent in Bakersfield in supplying labor to the farmers in the county.

The programme for the future involves general problems of soil fertility, drainage, increased production, improvement of crops through selection and the introduction of better varieties, improvement of livestock through breeding associations, and the selection of better animals as well as the broader problem of land settlement involved in the extension of the irrigated area.

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</table>
LOS ANGELES COUNTY

The county farm bureau has been of particular value during the year in bringing the people in this thickly settled area into closer touch with the activities of the food production and food conservation branches of the federal government. One meeting of over five hundred farmers was held in order to adjust difficulties regarding the marketing of farm products, especially beans. Fire fighting organizations were perfected in the outlying areas and through the activity of the farm bureau a strong fire protection ordinance was passed by the Board of Supervisors; signs were posted in the areas where fires are apt to occur as a part of the campaign. A cow testing department was organized among the dairymen of the county and 1163 cows were put under test. The farm home department of the farm bureau has been organized and funds provided for carrying on this work. The farm bureau has initiated a movement looking toward the establishment of a system of permanent agriculture including livestock in the San Fernando Valley area.

The county farm advisor with the help of three assistant farm advisors has attended to an immense amount of detailed work in meeting requirements for farm and office calls, meetings and answering special letters of inquiry in addition to conducting the food production campaigns in the county. Since Los Angeles is not primarily a livestock or grain center, other products which were the dominant agricultural interests of the county required the greatest attention of the farm advisor’s office. Nineteen pruning demonstrations were held with an attendance of 589 people. Five demonstrations for the control of scaly bark were conducted with very gratifying results. Fifteen fertilizer demonstrations on potato plats were carried through with the result that the advantage of organic fertilizer was very clearly shown. Fifty new silos were erected in the county, sixteen as a direct result of the campaign. Three demonstrations were held on the control of chicken-pox by vaccination, forty-seven poultrymen attending. Seven farmers carried through the farm bookkeeping project. The general need for improving soil fertility through the use of cover crops both in orchards and on land devoted to annual crops was urged at meetings and by personal visits. The wheat acreage of the Antelope Valley was increased and grain men were given instruction on the best method of treating seed for smut. One hundred and thirty-six pigs were placed on farms as a result of the hog campaign.

The calls upon the farm advisor for advice on special problems have very greatly increased since the office was first established and shows a distinct need for a continuance of the work. The control of diseases such as scaly bark, gumosis, the correction of unfavorable soil conditions, more efficient irrigation and drainage, seed and bud selection are among the problems to be taken up in the future.

Membership in farm bureau .................................................. 2,250
Total visits made .................................................................... 2,121
Calls at farm advisor’s office for advice .................................. 2,816
Farm bureau meetings held ..................................................... 251
Total attendance at farm bureau meetings ............................. 9,603
Letters and circulars mailed .................................................... 20,184
Miles traveled by farm advisor and assistants ......................... 57,821
MADERA COUNTY

The county farm bureau conducted a campaign to eradicate Russian thistle which was carried through successfully during the late summer, some 15,000 acres being covered during the period of the campaign. The farm bureau and the farm advisor initiated the movement but were assisted by both the county supervisors and the horticultural commissioner. A series of jack rabbit drives were held during the winter and spring months with very effective results. The first month's shipment of rabbits from the county amounted to seventeen tons and the number of rabbits killed during the season totalled over 50,000. The beneficial effects of this work are shown by the material decrease in damage done by rabbits during the fall months. Farm bureau auction sales were started in November, $13,000 worth of stock being handled to date. Farm bureau committees have assisted in wheat, sheep and hog campaigns, and in the conduct of the tractor school held at Madera. Twenty-eight tons of wheat seed were secured through the farm bureau office and 300 laborers were placed on farms.

The county farm advisor has concentrated on the special increased food production campaigns. As Madera County is a grain center the wheat campaign was especially effective. In addition to securing an increase of 10,000 acres in wheat, the farm advisor held one smut control demonstration and advised many grain growers individually on the best methods of treating seed. One hundred and thirty thousand acres were planted to treated seed as a result of this work. One silo was constructed as a result of the silo campaign and honey sorghum was introduced into the county as a new silage crop. Twelve hundred sheep were placed on farms as a result of the sheep campaign. One hundred and fifty farmers were given advice on storing fruits and vegetables; fifty bushels of milo maize were selected and saved for seed; 100 acres were planted to orchard cover crops following the farm advisor's direction. The farm advisor vaccinated 3300 hogs and advised on the care of eleven orchards. The work during the year was handicapped somewhat by the change of farm advisors in July.

The farm bureau has endorsed the plans for the creation of an irrigation district to include some 300,000 acres of land to be irrigated by water developed through storage in the San Joaquin River. This development will be pushed by the farm bureau during the year. The problem of land settlement and intelligent subdivision of the property are important factors to be considered. The grain growers' department of the farm bureau plans intensive fire protection in 1919, as well as the carrying out of a programme for the bulk handling of grain. The mountain center plans to make charcoal out of the large amount of waste wood in the mountains. The marketing department of the Madera County Farm Bureau expects to continue to hold auction sales and will join the San Joaquin Valley Marketing Association of the allied farm bureaus as soon as the business warrants such a move.

Membership in the farm bureau .............................................. 105
Total farm visits made .................................................. 400
Calls at farm advisor's office for information ...................... 600
Farm bureau meetings held ............................................... 140
Attendance at farm bureau meetings .................................... 7,500
Letters and circulars mailed ........................................... 4,596
Miles traveled by farm advisor .......................................... 20,493
MENDOCINO COUNTY

Work started February, 1918

The county farm bureau instituted a system of livestock sales through its marketing department which promises great relief to the livestock interests. The system consists of pooling shipments and conducting them to packing plants. Six carloads of hogs have been marketed in this manner and careful records kept of every detail from producer to packer. The sales during the year amounted to $15,458 and brought farmers $875 over local market offerings. Much interest was shown in the boys' agriculture club work and a senior club was organized for the feeding of hogs according to most modern methods. Twenty tons of poisoned barley were mixed and distributed among farmers at cost in the squirrel extermination campaign which was conducted in cooperation with the County Horticultural Commissioner. Three demonstration silos were constructed in a campaign to meet the needs of dairymen, corn being raised for ensilage purposes. Plans have been formulated to irrigate an area of 8000 acres in Potter Valley and a tax levied to complete a survey of the project. An increased pork production campaign resulted in the placing of 666 more hogs on farms than normal. Two volunteer fire fighting companies were formed and equipped by farmers. A total of 3000 sheep were placed on farms to prevent them from being slaughtered because of a shortage of feed. A pear marketing department was organized which sold 2000 tons of pears with an increase to farmers of $18,000 over local market prices.

The county farm advisor rendered much assistance to the farm bureau in carrying through its projects. He also secured a soil and drainage survey of Little Lake Valley covering an area of about 6000 acres for the purpose of developing a plan to relieve this valuable land of excess water. Demonstrations were carried on with soy beans, sorghum, corn, blackeye beans and cover crops. Corn proved to be the best crop for ensilage purposes in this region. Over 500 cows were tested for tuberculosis, 600 hogs were vaccinated for hog cholera and valuable assistance rendered by his discovery that many deaths among range hogs were due to eating tent caterpillar cocoons. More than $10,000 was saved in this item alone to farmers by removing their animals from infected pastures. About fifty tons of seed grain were secured for fall planting. Twenty-six field demonstrations and five demonstration meetings with an attendance of 314 occurred in the county. Seven of these were on pruning. The farm advisor also gave expert help in the caring for forty-five orchards in the county during the year.

Livestock marketing will be greatly extended in 1919 and further work done toward the drainage of Little Lake Valley and in the irrigation of Potter Valley. Rodent control work will be extended with a plan for complete extermination. More silos will be urged among dairymen and cover crops planted by orchardists. Soil fertility problems will receive special consideration and poultry improvement will be taken up.

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<thead>
<tr>
<th>Membership in the farm bureau</th>
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**MERCED COUNTY**

The county farm bureau has carried on projects started last year in addition to giving special attention to the desires of the government in the increased food production campaigns. It is estimated that the county has increased its wheat acreage by 50,000 acres. Over 700 sheep were placed in small flocks on farms. This farm bureau originated rural fire protection organizations in California. Last year this scheme was put in operation in only part of the county and the results were so apparent when compared with the unprotected districts that this year the organization covered practically the entire valley area of the county. The different districts were organized with captains and fire bosses, fire fighting equipment was distributed and fire damage was materially reduced. This farm bureau also inaugurated systematic work looking toward jack rabbit control. Shooting squads were organized in the various farm bureau centers and systematic drives were conducted. Last season some 35,000 rabbits were destroyed. About forty tons of meat and hides were sold for a total of $3500. This money was used for the purchase of ammunition. A cow testing association has been formed and the auction sale of hogs introduced into the county. The farm bureau has been interested in the formation of a large irrigation district in Mereed which will result in greatly enlarging the irrigated area of the county.

The county farm advisor has been conducting a series of demonstrations in the use of fertilizers on alfalfa; twenty-six different demonstrations located in various parts of the county and covering the use of several different kinds of fertilizer have been carried on all summer, careful weighing and checking of the results being done. The assistant farm advisor has devoted much time to this work. Vine and tree pruning demonstrations attended by 225 people were conducted during the fall. Much personal attention was given to the increased food production campaigns. Pledges were secured from 185 different farmers to raise 943 more hogs. Several carloads of sheep were brought into the county and placed on twenty-five different farms. The various farm bureau centers were organized to assist in clearing labor information and 345 laborers were placed through this clearing house. In addition much time was given to the various war work drives and in assisting the local draft board on deferred classification of men engaged in agriculture.

The farm bureau is just now devoting considerable energy to the formation of a proposed Mereed irrigation district. Plans for the district have been completed and approved by state and federal engineers. Petitions calling an election are already in the field. The organization of this district will mean much to the agriculture of Mereed County.

Membership in the farm bureau ........................................... 550
Farm visits made by farm advisor and assistant .......................... 682
Calls at farm advisor’s office for information ........................... 1,535
Farm bureau meetings held .................................................. 202
Attendance at farm bureau meetings ...................................... 12,652
Letters and circulars mailed ................................................ 3,225
Miles traveled by farm advisor and assistant ............................ 37,182
MONTEREY COUNTY

Work started April, 1918

The county farm bureau directed its main efforts during the war toward increasing the acreage of wheat production. This was accomplished by securing rust resistant varieties, by aiding farmers in the control of smut, and by the attractive prices paid for grain. Twenty-five hundred bushels of improved wheat seed were obtained and distributed among farmers of the county and 14,865 additional acres of wheat were planted as a result of the wheat campaign. In addition to this about four tons of selected barley seed were secured and distributed among six farmers. The need for increased mutton and wool and the value of a small flock of sheep on the farm were set forth in a special campaign which resulted in the placing of about 1800 sheep on twenty farms. The first farm bureau cattle auction sale in the state was conducted by the marketing department of the farm bureau in June and seven carloads of fat cattle were sold for $10,610. This meant an average increase of about $15 per head over local market prices to farmers. A hog campaign was also carried on and resulted in the placing of seventy-one brood sows and 191 pigs on fifty farms. Only part of one month was available for this work so greater results were not possible. An increased use of silos was advocated in the dairy and cattle districts with a result that three demonstration silos were built. The favorable results obtained from the campaigns conducted convinced farmers that the organization filled a great need in the county and a membership campaign was inaugurated which resulted in more than half the farmers of the county joining the farm bureau.

The county farm advisor actively coöperated with the farm bureau in carrying through their programme for the year. He secured pure seed of varieties adapted to local conditions and imported pure bred sires for breeding purposes for those interested in animal production. A special study of the lime requirements of soils throughout the county was made and sixty tons of lime were distributed among farmers for demonstration purposes. Some time was also spent in locating limestone deposits in the nearby mountains for agricultural use. He organized the Boys’ Working Reserve and coöperated with the federal labor agent in securing help for the harvesting of crops. In addition to numerous miscellaneous farm and office calls covering all lines of farm problems, the farm advisor attended thirteen center meetings and one directors’ meeting each month.

The programme outlined by the farm bureau for 1919 consists of (1) a detailed prospecting of the nearby mountains for limestone deposits for agricultural purposes, (2) a study of range conditions with regard to proper stocking and desirable varieties for forage plants, (3) a plan for a wider use of silos, (4) the importance of pure seed, smut control and summer fallow in grain production, (5) lime requirements of the county soils, (6) a cow testing association, and (7) a systematic rodent control campaign.

Membership in the farm bureau ........................................... 600
Total farm visits made .................................................. 348
Calls at farm advisor’s office for information ......................... 107
Farm bureau meetings held ............................................. 77
Attendance at farm bureau meetings .................................. 9,358
Miles traveled by farm advisor ........................................ 13,162
NAPA COUNTY

The county farm bureau succeeded in placing 1199 hogs on farms and it is estimated that 2000 others not reported by pledges were additionally kept by farmers. The need for more wool and mutton was met by placing 4539 bred ewes in small-bands on farms. A fire-fighting organization was formed to protect grain fields and pastures from loss by fires in which twenty-three rural fire units were organized and equipped. The work of this organization resulted in the saving of many thousands of dollars in food products during the year. Active cooperation resulted in the placing of 5651 laborers on farms for harvest needs. Three varieties of sweet sorghums and several of grain sorghums were tested as a possible source for more succulent feed for dairy cows. Of these Red Amber proved most desirable under irrigation and twenty tons per acre were produced. One silo was built as a demonstration and others are now being planned. One hundred and sixty-four septic tanks were built during the year making a total of over 1000 in the county to date for this campaign. Over six tons of poisoned barley were mixed and sold to farmers at cost for squirrel eradication and thirteen farmers pledged to keep seventy-five stands of bees in the county as demonstrations. The wheat campaign and smut control work resulted in increasing fall planting by over 5000 acres. Soil tests showed the need of lime and 214 farmers applied lime at the farm advisor’s recommendation. The county was also prospected for limestone deposits. A dredging of Napa River resulted in preventing the flooding of much valuable land.

The county farm advisor and his assistant performed valuable service in aiding the farm bureau to conduct its campaigns. In addition his office carried on a system of water analysis of the lower Napa River to determine its suitability for irrigation. A number of successful pruning demonstrations were held and instruction was given on bud selection, orchard planting, fruit packing, orchard blasting, dehorning of cattle, the prevention of land slides and also the control of bean weevil, tent caterpillar, limb canker, and red spider. Eight drainage systems were installed covering 279 acres of land and eighty-four farmers kept books of their farming operations under the supervision of the farm advisor’s office. Semi-daily weather reports were supplied to farmers during the period of prune drying which saved many tons of prunes from damage by rain. A Boys’ Working Reserve with sixty-two members greatly relieved the labor situation during harvest. The farm advisor aided in the purchase and sale of 5638 head of livestock and in addition treated 248 animals for blackleg and thirty-eight hogs for cholera. Cover crops on 756 acres of orchard land were grown and plowed under to improve the soil. The work was greatly handicapped by the withdrawal of the assistant farm advisor to enter the army in midsummer.

Analysis of the Napa River water will be continued during next year and special efforts will be made to extend the use of silos and the growing of silage crops. More sheep and hogs on farms and squirrel extermination work will also receive greater attention. Beekeeping will be extended and a spray chart covering Napa County conditions will be given attention. Seed selection and better breeds of livestock will also be continued.

Membership in the farm bureau .............................................................. 577
Total farm visits made ......................................................................... 562
Calls at farm advisor’s office for information ...................................... 4,253
Farm bureau meetings held ................................................................... 246
Attendance at farm bureau meetings .................................................. 24,962
Letters and circulars mailed ................................................................. 33,310
Miles traveled by farm advisor and assistant ....................................... 29,195
NEVADA COUNTY

The county farm bureau this year conducted an agricultural survey of the county, fairly complete information on the entire agricultural area of the county being secured, as well as information regarding labor requirements. This information has been of great benefit in the campaigns for increased production. Naturally this county could not grow a large acreage of wheat, but the numbers of both hogs and sheep kept on farms were increased. Farmers agreed to increase the hogs kept by 500 breeding animals, and 700 sheep were placed in small flocks on farms. In cooperation with the forest service a comprehensive fire fighting organization of thirteen districts was built up and operated throughout the fire season. Due to this organization no serious losses by fire occurred this year. In view of a threatened shortage of fruit packers, a school in fruit packing attended by forty-eight people was conducted the latter part of July. A number of these students were hired by fruit men immediately upon the close of the school, which proved to be considerable assistance in solving the packing problem. Two cattle auction sales were held to enable owners of small lots of stock to market their cattle. At the first sale 159 head of cattle were offered and at the second 276 head were handled. These were sold to the mutual advantage of both buyer and seller. The farm bureau marketing committee has enabled farmers to get better seeds, and to secure lime at a rate at which it is profitable to use it on the soil.

The county farm advisor has cooperated with the farm bureau in its various activities and has given much individual help to farmers. He has worked with the orchard men in controlling pear blight, and assisted in ten demonstrations in the control of this trouble. He also conducted demonstrations in tree pruning and in the control of hog cholera, blackleg and anthrax. Three hundred animals were vaccinated against blackleg. He was instrumental in introducing the more general growing of forage crops and in having three silos erected. He has placed twelve demonstrations on the effect of liming the soil and fifteen cover crop demonstrations in orchards.

The farm bureau is giving much attention to the development of the fruit industry, to which this county is adapted, and to the increase in livestock production. It is interested in planting orchards with regard to preventing erosion and in specializing on certain varieties of fruit. A cooperative grazing plan is under way to enable the owners of foothill farms to take advantage of the adjacent national forest, and the more general use of forage crops and silos is encouraged.

Membership in the farm bureau ........................................ 303
Farm visits made by the farm advisor .................................. 187
Calls at the farm advisor's office for information .................. 1,050
Farm bureau meetings held ............................................. 140
Attendance at farm bureau meetings .................................. 7,402
Letters and circulars mailed ........................................... 2,475
Miles traveled by the farm advisor .................................... 6,355
ORANGE COUNTY

Work started March, 1918

The county farm bureau has organized a state-wide movement for the capping of artesian wells where the water is not being properly utilized. Several thousand acres of good land have been made useless through flooding and the underground water supply has been wasted by the constant flow of artesian wells which have been allowed to remain uncapped during the fall and winter months. A bill providing for the correction of this condition has been drawn up and presented to the State Water Commissioner for his approval and to the farm bureaus of the state and will be introduced at the next meeting of the legislature. As fruit and truck crop interests predominate in Orange County it was impossible to get large results in the wheat, sheep and hog campaigns.

The county farm advisor has served the important agricultural interests in the county through special demonstrations; three were held on the control of scaly bark as a result of which 850 trees have been treated in the county following the recommendations given; four demonstrations were held on the control of gummosis; one pruning demonstration was attended by two hundred orchardists—these were followed by seven similar demonstrations conducted by the farm advisor; there were five well attended demonstrations on the control of codling moth, which has become a very important factor in the walnut industry; five demonstrations were held of interest to poultry men, three for the control of chickenpox by vaccination, and two on the control of insect parasites; a demonstration was conducted on the control of European foul brood, attended by a hundred and fifty bee men; and four tractor demonstrations were held as a part of the work done to solve the labor problem through the use of labor-saving machinery; three demonstrations were held on the control of Johnson grass, Bermuda grass and wild morning-glory. One-quarter of the farm calls met by the farm advisor were on soil problems especially on the control of alkali in the beet and bean fields. One demonstration was held on irrigation methods and was attended by two hundred and fifty orchardists, followed by several minor farm meetings on the same problem.

The work of the farm bureau and the farm advisor in the future will include special problems in soil management, in the control of tree diseases such as gummosis, scaly bark and oak root fungus, control of insect pests, irrigation and drainage problems, rejuvenation of old orchards, bud and seed selection as well as the problems involved in farm management in a section where land values are unusually high and where specialized industries are the rule. The necessity for individual advice to farmers is here perhaps even more important than in the more newly developed sections of the state.

Membership in the farm bureau ................................................. 704
Total farm calls made .............................................................. 440
Calls at farm advisor's office for information .............................. 534
Farm bureau meetings held .......................................................... 118
Attendance at farm bureau meetings ............................................ 4,307
Letters and circulars mailed ....................................................... 8,833
Miles traveled by farm advisor .................................................... 8,702
PLACER COUNTY

The county farm bureau has devoted its entire attention for the past year to activities directly connected with war work. In addition to increased food production campaigns, the Liberty Bond campaigns, Red Cross drives, and other war activities were handled throughout the rural districts by this organization. The bureau has continued to grow and gain added strength during the year and is the most representative organization in the county. Some of the major projects adopted were those to handle the labor needs of the county, increase the number of hogs, sheep and poultry kept on farms, the increase in the wheat acreage and a grain fire protection organization. The farm bureau committee arranged for placing a labor agent in Newcastle with assistants in Auburn and Roseville and with 570 applications for labor these agencies were successful in supplying 545 laborers. Available labor was kept distributed and busy thus preventing loss of labor and loss of crops. Wheat plantings were increased by 4000 acres, and 1078 additional hogs were kept on farms. A fire protective organization of twenty-four rural companies was perfected, and an ordinance of fire regulations prepared which was adopted by the county supervisors and a county fire warden appointed. The fire loss in the county was reduced to a minimum. In addition the farm bureau has many other activities. Demonstrations in various methods of orchard practice, such as pruning, spraying and cover crops are being carried on. A number of excursions of farmers both local and from other counties have been conducted through the orchard districts. A farm home department has been organized through which the women are working along lines of interest to them.

The county farm advisor has been of big value to the county in demonstrating improved methods of pruning orchard trees. It is estimated that Placer County made several thousand dollars last year through the general adoption of this practice in the orchard districts. He noted that thrips were the cause of big losses that were occurring in peaches each year and demonstrated how this pest could be controlled by spraying. He demonstrated the value of lime on various soils, and is carrying on a series of demonstrations of the use of fertilizers. Three hundred tons of lime were put on the land during the past year, 450 cattle were vaccinated against blackleg and 130 hogs vaccinated for cholera. Boys' and girls' agriculture clubs organized during the year have a membership of 146.

At this time the farm bureau is interested in the organization of an irrigation district and securing a more stable and abundant supply of water for the county. A community packing house is being tried out to secure more uniform and efficient methods of packing fruit.

| Membership in the farm bureau | 544 |
| Farm visits made by the farm advisor | 793 |
| Calls at farm advisor’s office for information | 1,597 |
| Farm bureau meetings held | 205 |
| Attendance at farm bureau meetings | 5,944 |
| Letters and circulars mailed | 7,733 |
| Miles traveled by the farm advisor | 15,502 |
RIVERSIDE COUNTY

The county farm bureau through active committee work has stimulated the production of livestock both as a part of the state-wide programme and as a means of improving the fertility of the soils in the county. Eleven hundred and fifty-five cows have been tested through the cow testing department. The organization of a drainage district covering about 1000 acres in the west Riverside section, which was started last year, has been carried forward. Fire protection for the grain and brush lands was put into the hands of the farm bureau by the county supervisors who employed one fire warden. In the rodent control campaign 8352 pounds of poisoned grain were distributed to farmers in the county. The value of business done by the farm bureau amounted to $31,500. One grain elevator for the bulk handling of grain was constructed at Murietta by members of the farm bureau largely as a result of the publicity given this matter during the spring conference. The farmers of the Nuevo district were given assistance in the organization of a potato growers’ association. Daily market reports have been posted in public places in each farm bureau center. The farm home department of the farm bureau was organized and funds were provided for carrying on this work.

The county farm advisor, with the help of one assistant, has directed the food production campaigns for the county in addition to carrying on the routine work of the farm bureau. Although Riverside is not a livestock or wheat county good results were secured in the wheat, sheep and hog campaigns. Demonstrations on the control of smut were held in connection with the wheat campaign and the area devoted to wheat was increased by 1800 acres. One hundred and twenty-six orchardists were reached through deciduous pruning demonstrations. Two olive pruning demonstrations were attended by forty-nine people. One silo filling demonstration was conducted by the farm advisor and four silos were constructed as a result of the silo campaign. Twelve farmers selected milo maize seed following the directions of the farm advisor. Ten demonstrations of judging, feeding and general management of dairy cattle, and three demonstrations of the use of self-feeders for hogs were held by the farm advisor; 125 people attended these later demonstrations. Two demonstrations of the problem of culling of poultry flocks, three demonstrations of the control of chickenpox and insect parasites, and six demonstrations of poultry management were conducted by experts brought into the county. Seventeen alfalfa fertilization demonstrations were located in the county.

Work for the future involves the improvement of soil fertility through the increased introduction of livestock into the agriculture of the county, the providing of marketing facilities for the miscellaneous products of the county, and the improvement of the conditions of the citrus and deciduous orchards through pruning, cultural and irrigation demonstrations. The project for the control of gummosis and scaly bark has been adopted and will be carried on.

Membership in the farm bureau .................................................. 768
Total farm visits made ............................................................ 396
Calls at farm advisor’s office for advice ................................... 2,237
Farm bureau meetings held ....................................................... 141
Attendance at farm bureau meetings ......................................... 4,457
Letters and circulars mailed ................................................... 1,928
Miles traveled by farm advisor and assistant .............................. 32,755
SACRAMENTO COUNTY

The county farm bureau has devoted most of its energies to the problems of the colonists and the smaller farmers in the county, in addition to the government’s increased food production campaign. A big acreage of wheat for the 1919 crop has been promised although the increase in livestock production is relatively small. Poultry production has been stimulated to a considerable extent largely through demonstrations conducted with poultry clubs. The farm bureau has taken an active part in fostering boys’ and girls’ agriculture clubs throughout the county, making this one of its major projects. Some forty-three different clubs have been organized and have successfully demonstrated the practicability of keeping pigs and poultry and the growing of vegetables on the small farms. The pig clubs have shown an average net profit of $10 per pig for the ninety-one members concerned. A total profit of $2380 was shown by the agriculture clubs of the county. Various other demonstrations have been conducted, including orchard pruning, the use of lime and control of hog cholera. One tractor demonstration was conducted in which seven different tractors were used. The acreage of grain sorghum was increased from 500 to 2000 acres. One hundred and fifty acres of sweet sorghum were planted to demonstrate the value of this crop for use in silos. Several farm bureau silos were erected. Five earloads of lime have been secured for members and forty-six demonstration plots on the use of lime started in various sections of the county. One cow testing association has been formed which at present has thirty-two members and is testing 1000 cows.

The county farm advisor has promoted the various projects of the farm bureau. In addition to the many individual calls for information and advice he has conducted several surveys for the government. A complete thresher survey of the county was made showing the acreage and yield of the grain crops in the county. Two hundred and fifty hogs were vaccinated for cholera, sixty cattle were vaccinated against blackleg, and 200 cows were tested for tuberculosis. He ran a series of demonstrations in control of poultry troubles, during which 1300 hens were vaccinated for chickenpox. The farm advisor’s office was of considerable help in solving the labor problem and 375 boys were enrolled in the Boys’ Working Reserve. These boys were sent out to farms during the summer. In addition many younger boys were sent out on Saturdays, particularly during fruit picking. The assistant farm advisor has devoted a large portion of his time to the boys’ and girls’ agriculture clubs, the value of which has already been demonstrated.

The farm bureau is interested in securing better transportation and market facilities for the smaller farmers in the county, and in the proper development of large tracts of land that are being subdivided. A new center is being organized in the city of Sacramento that will work in close touch with the county Chamber of Commerce.

Membership in the farm bureau .......................................................... 300
Farm visits made by the farm advisor and assistant ...................... 1,565
Calls at farm advisor’s office for information .......................... 1,846
Farm bureau meetings held ................................................................. 269
Attendance at farm bureau meetings ........................................... 10,866
Letters and circulars mailed ............................................................... 44,429
Miles traveled by the farm advisor and assistant .......................... 35,318
SAN BERNARDINO COUNTY

The county farm bureau initiated a movement looking toward the organization of a drainage district covering 4000 acres of water-logged land just west of the city of San Bernardino. Six fire fighting units were organized through the farm bureau, five for fighting brush fires and one for grain areas; two auto trailers equipped for fire fighting work were purchased and three fires were put out which bid fair to cause considerable damage in the San Bernardino watershed. Poisoned barley was handled by the farm bureau at the request of the Horticultural Commissioner and was sold at cost to farmers. Three hundred and fifty cows were tested by an arrangement with the cow testing association of the Riverside County Farm Bureau. A grasshopper campaign in Victor Valley resulted in the saving of several hundred tons of hay which otherwise would have been destroyed through the ravages of this pest. Four or five hundred acres of land were burned over by distillate spray and the young grasshoppers exterminated on the breeding grounds. The farm home department of the farm bureau was organized and funds provided for carrying on the work.

The county farm advisor found some difficulty in urging the statewide crop production campaign in a county where 80 per cent of the farm produce is citrus. The area of wheat, however, was increased in the general farming area. Two hundred and fifty-one hogs were placed on farms through the hog campaign, and 375 sheep were placed on farms in bands of from ten to forty, and general livestock improvement was accomplished through demonstrations in judging and selecting animals. Twenty-one farmers planted one hundred acres of selected sorghum as a result of the sorghum campaign. Two silo demonstrations were conducted by the farm advisor resulting in the construction of five others. Farmers in the desert sections were given assistance in leveling their land and preparing it for irrigation. Seven poultry demonstrations were conducted for the purpose of improving feeding methods, introducing the practice of culling flocks at stated periods and of breeding from the best birds for greater egg production. Four hundred and forty-six fruit men attended eleven pruning demonstrations, conducted through the farm advisor’s office and a general project for the control of scaly bark and gummosis was adopted.

The work planned for the future contemplates an extension of service to the orchard districts of the county. Pruning demonstrations will be continued and the project for the control of gummosis and scaly bark will be carried forward. Demonstrations of the use of both winter and summer cover crops will be located and later a campaign for increasing plantings will be inaugurated if the demonstrations indicate the advisability of the practice. The drainage project will be carried on and work undertaken looking toward the permanent improvement of soil fertility.

Membership in the farm bureau ........................................... 591
Total farm visits made .................................................. 699
Calls at farm advisor’s office for information ....................... 913
Farm bureau meetings held ............................................. 115
Attendance at farm bureau meetings ................................. 3,690
Letters and circulars mailed ........................................... 4,222
Miles traveled by farm advisor ........................................ 15,496
SAN DIEGO COUNTY

The county farm bureau assisted in the marketing of 20,000 bags of beans through the organization of a bean growers' association. A three-day food production trip was conducted through the county; nine different farm bureau centers being visited for the purpose of acquainting the members of the farm bureau with the results of farm bureau demonstrations. Effective fire fighting units were organized in all sections of the county with the result that practically no loss occurred this year. A land-leasing campaign was initiated for the purpose of increasing the average period of tenure from one year to three or four years in order to give the lesors of land an opportunity for improving their soils by the adoption of rotation of crops. The farm home department of the farm bureau was organized and an appropriation secured for the expenses of a home demonstration agent.

The county farm advisor, with the help of an assistant farm advisor for a portion of the year, carried through the special food production campaigns in addition to meeting the demands for farm calls, meetings and miscellaneous work. The grain growers were instructed in the use of bluestone-lime method for treating smut as well as given advice regarding varieties and cultural methods. Seven flocks of sheep were placed on farms as result of the sheep campaign. Four silos were constructed and 200 acres of sweet sorghums planted as a result of the silosorghum campaign. Methods of vaccinating for chickenpox were demonstrated at twelve meetings of poultrymen. Six meetings in addition to a week's short course were held for bee men where methods of controlling European foul brood were demonstrated. A series of deciduous pruning demonstrations was conducted. Twenty cover crop demonstrations were located by the farm advisor in an endeavor to find out what cover crops could be most successfully used in adding the very greatly needed organic matter to the upland soils. The farm advisor assisted in the handling of the labor problem through cooperation with the regularly constituted authorities.

Plans for the future work include the extended use of demonstrations of methods of increasing the organic content of the soils. The work done in the past in providing nutritive grasses for the range sections of the county will be carried forward. Seed selection, the use of fertilizers and the adoption of better cultural methods will be urged for the general field crops. Pruning demonstrations will be continued and an effort will be made to correct the existing evils in land subdivision.

Membership in the farm bureau ........................................ 490
Total farm visits made .................................................. 1,162
Calls at farm advisor's office for information ....................... 809
Farm bureau meetings held ............................................. 358
Total attendance at farm bureau meetings .......................... 4,308
Letters and circulars mailed .......................................... 2,011
Miles traveled by farm advisor and assistant ....................... 21,458
SAN JOAQUIN COUNTY

The county farm bureau has taken an active interest in organization work among farmers. The California Bean Growers' Association had its inception in the farm bureau of this county and active cooperation has been extended to many other farmers' associations throughout the state. Cream pooling associations were formed in the farm bureau and later were absorbed by the California Milk Producers' Association. Food production and conservation campaigns were handled through the farm bureau, the president of the farm bureau being also food administrator for the county. The quota of increased wheat acreage was practically doubled and big results were obtained in the increase of both hogs and sheep. Three thousand two hundred and twenty sheep were placed in small flocks on farms. The organization has for some time been interested in more livestock production and diversified agriculture. The number of silos in the county has been increased from forty-seven in 1916 to 113 at the present time, and a number of forage and silage crops have been introduced. Special meetings have been held for the growers of specialized crops, particularly tomatoes and sugar beets and the acreage of these crops was greatly increased. A keen interest has been taken in the development of the irrigation districts in the county. Demonstrations of various kinds have been conducted including vine and tree pruning, spraying and methods of preparing land for irrigation. A comprehensive series of demonstrations of the use of fertilizers on alfalfa is being conducted on the county farm. Hog cholera has practically been brought under control in the county.

The county farm advisor and two assistants have been unable to keep up with the demands made upon them. One of the assistants had direct charge of the increased livestock campaigns while the other had charge of the silo sorghum campaign, agriculture clubs and looking after the war gardens in the county. Nine agriculture clubs with a total membership of sixty-three were organized. The farm advisor was able to be of considerable help to farmers in the new irrigation district at Tracy planning a number of irrigation systems for farmers and giving information as to the proper applications of water to the land. Largely through his influence a considerable acreage of forage crops was grown in this district this summer. He assisted in establishing a branch of the Women's Land Army at Lodi to provide labor during fruit picking season. Many calls for information from outside the county were taken care of and no less than thirty-seven special reports were rendered to either state or government officials.

The question of drainage is beginning to be of importance in the older irrigated sections and plans for two drainage systems are before the farm bureau at this time. The organization is also interested in diversifying the agriculture of the Island district where various conditions prevent truck cropping going on indefinitely. The acreage of Indian corn in this section increased from 8000 acres in 1917 to 25,000 in 1918. It is also hoped to further increase the acreage of irrigated land in the county.

Membership in the farm bureau ........................................ 763
Farm visits made by farm advisor and assistants ..................... 2,197
Calls at farm advisor's office for information ......................... 3,599
Farm bureau meetings held .................................................. 219
Attendance at farm bureau meetings .................................... 10,899
Letters and circulars mailed .............................................. 8,630
Miles traveled by the farm advisor and assistants .................... 50,169
SANTA CRUZ COUNTY

The county farm bureau placed 1000 sheep in small bands on farms and also 1200 additional hogs among farmers as part of the campaigns to increase food production. The soils of the county were examined for acidity and fifteen liming demonstrations were started. A survey was also made of the nectar bearing plants of the county which indicated a possible increase of 10,000 stands of bees in the county. Farm bureau members inaugurated a good roads day and performed $2200 in work on the county roads free. They also formed a voluntary fire fighting organization for the protection of grain fields, pastures and forests from fire and as a result losses from this source were reduced to one-third that of any year since 1912. Nine silos were built in the county and the grain acreage was increased about 600 per cent as a result of campaigns along these lines. The farm home department succeeded in placing 16,000 additional hens in small flocks on farms besides providing a means for the canning of 26,799 quarts of fruits and vegetables as a result of its special campaigns.

The county farm advisor gvaе assistance to the farm bureau in all of the projects which were undertaken. He held a series of pruning demonstrations and supervised the handling of 100 orchards where the most modern methods were followed in their care. He also organized a Boys’ Working Reserve of 200 members who with 225 transient laborers, also secured by him, assisted greatly in the harvesting of crops. A poisonous plant survey was made along the coast and resulted in the isolation of several plant varieties which had been causing the death of many cattle and sheep in that region. Pastures and grazing areas were studied for the purpose of increasing their carrying capacity and to introduce grasses which will give more feed. Many other minor investigations along the lines of plant diseases, crop rotation, better methods of tillage and rodent control were conducted which resulted in a large saving of crops. In addition to the above, the farm advisor attended twelve center meetings and one directors’ meeting each month, besides answering numerous farm and office calls. The success of the farm bureau may be better understood when it is known that the membership nearly doubled during the year without any special effort to bring in new members.

Plans are now under way for the development of an effective marketing department and a continuation of the work on liming will be carried on in 1919. Demonstrations in beekeeping will also be continued as will also a comprehensive plan for the improvement of poultry. Morning glory control work on about 1000 acres of badly infested land will be an important future project as will also work in exterminating rodents. Continued work on the reclamation of 400 acres of marsh land started this year will be continued and also special attention to strawberry diseases in the Pajaro Valley.

Membership in the farm bureau .................................................. 500
Total farm visits made ............................................................ 455
Calls at farm advisor’s office for information ............................... 1,012
Farm bureau meetings held ....................................................... 142
Attendance at farm bureau meetings ......................................... 6,318
Letters and circulars mailed ..................................................... 7,675
Miles traveled by farm advisor ................................................ 14,338
SHASTA COUNTY

Work started December, 1917

The county farm bureau covers a large territory and has centers on both sides of the mountains. Perhaps the most outstanding result of farm bureau work has been the bringing of farmers in closer touch with each other and giving them a better acquaintance with the agricultural problems of the county and uniting their efforts to increase agricultural efficiency. Farmers all over the county have worked together to further the government's programme for increased food production. The acreage in wheat has been increased, more hogs and sheep are being kept on farms, sweet sorghums have been introduced, one mill to manufacture sorghum syrup has been built, better seed has been procured for farmers and a fire protective organization of 350 members has been perfected. Labor committees have been appointed in the various farm bureau centers to coöperate with the United States Employment Service. One far-reaching piece of work has been the conducting of demonstrations in the proper preparation of land for irrigation on the County Hospital Farm near Redding. United States irrigation engineers supervised the work and farmers were shown proper methods of levelling and checking land, construction of ditches, headgates, etc., and proper methods of applying water. A free market has been established in Redding by which both the producer and consumer have profited. The farm bureau has furnished an organization through which the Food Administration could work in solving the wheat situation in the Fall River Valley. Community hog auction sales have been inaugurated, the first sales being held at Cottonwood on December 3. A farm home department has been organized in the farm bureau and has a large membership among the women of the county. An appropriation was secured from the supervisors to cover the expenses of a farm home demonstration agent and one has been appointed for the county.

The farm advisor has given much information and help to individual farmers throughout the county. He has had a particularly large number of calls from farmers in the new Anderson-Cottonwood Irrigation District. He has introduced a more general growth of summer crops throughout this district to assist farmers in tiding over until the land is prepared and a stand of alfalfa secured. He has been active in assisting farmers to market their products, particularly livestock. Under his direction the members of the Fall River center collected and marketed 800 hogs at one time to the mutual advantage of both buyer and seller. He has coöperated with the county horticultural commissioner in the campaign to eradicate ground squirrels and to secure help for farmers in the county to control the outbreak of grasshoppers last summer. He has assisted in the construction of five farm bureau silos in the county.

The farm bureau is interested in the further development of irrigation in the county, in increasing the livestock carrying capacity by the introduction of more forage crops, use of silos, the improvement of range conditions and enlarging marketing facilities for the farmer.

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SOLANO COUNTY

The county farm bureau saved many thousands of dollars to farmers by suppressing grain and range fires. This was accomplished by an effective fire fighting organization with equipment furnished by the county supervisors and distributed at danger points throughout the county. As a result of the hog campaign 988 additional hogs were placed on farms to help meet the shortage in pork. Commercial fertilizer was tried on the adobe soils in the Montezuma hills but unfavorable weather conditions made the results obtained unreliable. Wheat planting was increased by several thousand acres for the 1919 crop and about 3800 bushels of seed were brought in the county and distributed among farmers. Special smut control demonstrations were held throughout the county and resulted in the using of a large amount of bluestone and lime in order to reduce losses from this source. The campaign to increase mutton and wool succeeded in getting many farmers to place small flocks of sheep on their farms. Very successful results were secured in the control of rodents and it is now held that 75 per cent of this pest has been exterminated in the county. The county farm bureau also urged farmers to secure better breeds of livestock and active work along this line resulted in bringing a large number of pure bred animals into the county for breeding purposes. Five hundred and twenty-five head of livestock were handled by the marketing department.

The county farm advisor conducted a wheat seed selection campaign and isolated two desirable strains of club wheat which are to be propagated. Very satisfactory results were secured in the eradication of wild artichoke and certain other perennial weeds by the use of a low grade distillate. Several hundred acres of wild artichokes were entirely destroyed during the year by this method. Considerable attention was also given to the study of soil fertility problems and many lime demonstrations and fertilizer tests were outlined. The farm advisor cooperated with local labor agencies in meeting the demands of farmers for harvest needs and no serious results from this source occurred. Thirteen field demonstrations covering lime, fertilizers, tillage, subsoiling and wheat selection were conducted during the year in the county and will be continued through 1919. The farm advisor secured an increase of twenty-five per cent in yield of wheat from plots under special treatment.

Plans for future work includes a continuation of wheat selection, further work in the control of rodents and the introduction of more livestock on farms. Soil fertility problems will receive consideration and special methods of tillage and subsoiling will be carried on. Fertilizer tests and liming demonstrations will be extended and further work will be done in the control of weeds. Spraying and cover crop projects will be conducted in the orchard districts and a source of limestone sought for local agricultural needs.

Membership in the farm bureau .......................................................... 320
Total farm visits made ................................................................. 355
Calls at farm advisor’s office for information .................................. 471
Farm bureau meetings held ............................................................ 33
Attendance at farm bureau meetings ................................................ 718
Letters and circulars mailed ........................................................... 4,506
Miles traveled by farm advisor ........................................................ 12,922
SONOMA COUNTY

The county farm bureau conducted a series of campaigns important among which was a plan to increase pork production. This resulted in the placing of 1501 more hogs on farms than ordinarily would have been kept. A successful fire protection organization was also effected and twenty-six local fire companies formed. They put out fifteen fires and reduced the loss from fire very materially over that for 1917 notwithstanding the present year was the driest on record. The call for more mutton and wool was met by the farm bureau placing more than a thousand sheep in small bands on farms. The need for more wheat enlisted the attention of the farm bureau and about 2500 additional acres were planted for the 1919 crop as a result of this campaign. Poultry is the largest single industry in the county, and plans have been outlined for the scientific improvement of this great industry. Farm labor demands were successfully met by cooperation with the county labor agent who placed 3982 laborers on farms to meet harvest needs. Three farm bureau demonstration silos and two other silos were built during the year and sixty acres of corn planted to supply silage material. A farm bureau monthly was published dealing with important agricultural needs in the county. A cow testing association was started with 1200 cows and an apple growers’ union was organized, and capitalized at $25,000. This gave increased returns to the growers of not less than $5000 during the year.

The county farm advisor and his assistant actively coöperated with the farm bureau in the promotion of its campaigns. This office also conducted 175 demonstrations on farms and held twenty-seven field demonstration meetings with an attendance of 378. These covered orchard pruning, the control of fruit tree pests, sweet sorghum tests, cover crops, animal diseases and poultry culling. Thirteen boys’ agriculture clubs were organized in cooperation with local agricultural high school teachers and the state leader’s office. Over sixty hogs were entered. Fifteen farmers kept books of their farming operations under the direction of the farm advisor’s office and very satisfactory results were secured. A survey was made of the county to locate limestone deposits to supply local agricultural needs. Fourteen such deposits were investigated and plans were outlined for the development of the most promising ones. The farm advisor brought about the organization of the Sonoma County Cattlemen’s Association and indications point to it becoming a strong factor in the development of the livestock interests. During the year 150 animals were tested for tuberculosis.

Plans are laid for extensive demonstrations covering poultry improvement for the immediate future and a much greater extension of the fire fighting organization. An investigation of farm management problems will also be undertaken and special emphasis will be laid on the importance of cover crops in orchards and soil fertility problems. The cattlemen’s organization will be extended and emphasis laid upon a more extended use of silos among dairymen. The cow testing department will be completed and placed in operation and an attempt will be made to develop local limestone deposits.

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<td>Miles traveled by farm advisor and assistant</td>
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STANISLAUS COUNTY

This county farm bureau secured especially satisfactory results in the increased food production campaigns. These were conducted largely through committees appointed in the various farm bureau centers who took the responsibility for canvassing their districts. In the ‘‘keep a pig’’ campaign 493 farmers signed pledges to keep a total of 3000 additional hogs. In the sheep campaign conducted later 3165 sheep were distributed in small bands on farms. In this connection one carload of wool was pooled by farmers through the farm bureau and consigned direct to the government. One hundred and eighty-two farmers have pledged themselves to sow more wheat than was sown last year, making a total of over 42,000 which is an increase of over 36,000 acres over the 1918 crop. This county had perhaps the largest rural fire fighting organization in the state—twenty-six rural companies were organized, each captained by a deputy state fire warden. These companies coöperated with a motor reserve corps organized in the city of Modesto. These organizations fought thirty-one fires and it is estimated saved over $68,000 worth of foodstuffs from destruction by fire. The cow testing department of the farm bureau has a membership of ninety-one and is testing 2500 cows. The auction sales system of marketing hogs has been introduced, several successful sales having been held at Tegner in coöperation with the Merced county farm bureau.

The county farm advisor and assistant conducted an agricultural survey of the county with a view of outlining increased crop production for 1919. The assistant farm advisor gave particular attention to the introduction of honey sorghum as a silage crop and to encourage the more general use of silos in the county. Two demonstration wood hoop silos were erected and as a result of the campaign nine other silos of this type were built and twenty-two of other types. Twelve hundred pounds of honey sorghum seed was distributed through the farm advisor’s office and in the neighborhood of 500 acres were planted in the county. Special meetings have been arranged for both rice and bean growers in the county. The farm advisor secured the coöperation of the food administration in getting needed water for the rice men which saved the rice crop from a partial failure. Demonstrations of various kinds including the use of various fertilizers on alfalfa, use of lime in fig orchards, variety tests of wheat and barley, tree and vine pruning, etc., have been conducted. Nine agriculture clubs with a membership of 112 have been organized.

The farm bureau is particularly interested in solving the drainage problem of Stanislaus County. The rising water table in many districts is causing serious damage and the farm bureau hopes through coöperation with the various districts to plan a comprehensive system of drainage which will solve the problem for the county. It is also working through the various departments to improve the amount and quality of livestock produced, and to bring about a more diversified and therefore a more permanent type of agriculture.

Membership in the farm bureau ........................................ 537
Farm visits made by farm advisor and assistant ........................ 1,990
Calls at farm advisor’s office for information ........................ 2,806
Farm bureau meetings held ............................................ 210
Total attendance at farm bureau meetings .............................. 7,058
Letters and circulars mailed ........................................... 11,526
Miles traveled by farm advisor and assistant .......................... 31,298
The county farm bureau has done much to further increased food production by increasing the acreage of wheat in the county and the number of hogs and sheep kept on farms. In the fire protection work rural fire companies were not organized, but a fire control ordinance was presented to the county supervisors, which was adopted, and each farmer was asked to keep fire fighting equipment on his own place; 294 farmers signed pledges to secure fire fighting equipment, all but 100 of them agreeing to secure fire extinguishers which were purchased coöperatively at a considerable saving and distributed through the farm bureau centers. A campaign was inaugurated to grow more forage crops for livestock and erect silos. Honey sorghum seed was secured for a number of farmers and one demonstration silo of the farm bureau type was erected. Two automobile excursions for orchardists were conducted to other parts of the state to investigate orchard practice. Seventy men took advantage of these trips and visits were made to the orchards in Placer County where the parties were guests of the Placer County Farm Bureau and shown through the orchards of that county. A series of pruning demonstrations was conducted the latter part of November and were attended by 215 people.

The county farm advisor has given personal attention to the food campaign and to the various requests from the government for information. He conducted a labor survey of the county in September. His office was of much service in securing fire extinguishers, seed, etc., for the farm bureau. He has been interested in introducing Tennessee winter barley into Sutter County and this fall secured ten tons of seed which he distributed to seven different farmers. The pig club which he organized secured and grew thirty-four pure bred Berkshire pigs to the financial benefit of the club members and to the general benefit of the county in securing good stock. He assisted in the control of red spider outbreaks in orchards and bean fields. He has a series of twelve demonstrations of cover crops in orchards that have been planted.

The farm bureau is interested in the reclamation work going on in the county and in the further development of the fruit and livestock industries. The growth of more forage crops for livestock, erection of silos and more diversified farming is encouraged. A farm home department for the women members of the farm bureau is being organized.

<table>
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<th>Category</th>
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<td>Miles traveled by farm advisor</td>
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TEHAMA COUNTY

Work started August, 1918

The county farm bureau is one of the youngest in the state and has hardly had time to get on a good working basis. At the first meeting of the board of directors, however, steps were taken to get behind the government increased food production campaigns and plans to increase particularly the livestock production in the county were adopted. Committees were appointed to work on an increase of both hogs and sheep on farms and to secure a large acreage in wheat in the county. On this latter project comparatively little effort was necessary as the county was already a considerable producer of wheat and conditions were particularly favorable for a large acreage being sown in the fall. The organization has interested itself in the problems of the barley growers and has taken steps looking towards an organization of the grain men. The bureau is also very much interested in the development of irrigation in the county and is co-operating with other organizations in an endeavor to develop the Iron Canyon project.

The county farm advisor has been working with grain growers in all parts of the county in assisting them to secure good seed and in the handling of seeding machinery. He has had many calls from the alfalfa districts on the east side of the river where difficulty has been experienced by farmers in getting the land to properly absorb water. He has started a series of demonstrations in handling the soil with particular relation to this water problem. Two irrigation systems were planned for farms. A series of pruning demonstrations have been held in the orchards in the Corning district and specialists brought in to investigate certain problems and provide information on insect and disease control.

The farm bureau is particularly interested in the development of irrigation facilities for the county, and is naturally using all its resources to bring about the development of the Iron Canyon project. This would bring a big acreage of land in the county under ditch and would mean a large increase in agricultural production. The organization is also interested in the marketing of farm products and plans for a marketing department of the farm bureau were under way. Outlying districts are particularly in need of better marketing facilities and it is proposed to secure a man to devote his entire time to promoting co-operative marketing of farm products. Tehama County has big opportunities for development through a more diversified agriculture, improvement in crops and livestock, irrigation and drainage, and the farm bureau proposes that all sections and all interests shall work together to this end.

Membership in the farm bureau .............................................. 95
Farm visits made by the farm advisor .................................... 96
Calls at the farm advisor's office for information ...................... 118
Farm bureau meetings held .................................................. 19
Attendance at farm bureau meetings ..................................... 286
Letters and circulars mailed ................................................ 700
Miles traveled by the farm advisor ....................................... 3,308
The county farm bureau through its marketing department has saved members some $40,000 through the sale of 8,648 head of hogs valued at $204,969. An inter-county association has now been formed for the purpose of coordinating the activities of the marketing departments of the counties in the southern part of the San Joaquin Valley. The farm bureau secured a special investigation of a serious situation in the citrus groves of the county resulting in a constructive recommendation to the orchardist regarding the handling of the situation. Twelve firefighting units were organized in the valley area and ten fire-fighting units were organized in the mountain area through the work of the farm bureau. Several fires which started were put out quickly by the use of this apparatus at a saving of approximately $6,000 to the county. Rabbit drives were organized during the spring and four to five thousand jack rabbits killed. Two hundred and twenty farmers attended farm bureau pruning demonstrations, conducted at six different vineyards. Selected milo maize seed was secured by the farm bureau and sold to farmers in the county, resulting in an estimated increase of 20 per cent in the yields secured.

The county farm advisor, with the help of an assistant since July 1, 1918, has directed the special food production campaigns in the county in addition to carrying on the routine work of the farm advisor’s office. The farm advisor held eight demonstration meetings on the control of smut, 137 grain men being present at these demonstrations. Twenty farms responded to the call for increased wool production by the purchase of 546 sheep, while 102 farmers purchased a total of 682 pigs as a result of the pork production campaign. Twenty-five laborers secured positions through the activity of the farm advisor’s office. Five silo-raising demonstrations were held with the result that thirty other silos were constructed. A tractor school of one hundred was conducted by the farm advisor cooperating with the school authorities in Visalia.

The agricultural problems in Tulare County are becoming more acute and the need for agricultural extension work more real as the vacant land is more closely settled and the agricultural practice becomes more intensive. Seed selection, the use of fertilizer and the adoption of better methods of culture will be urged for the general field crops of the county. Efforts will be made to improve livestock through cow testing work, through the use of pure bred animals, and by a campaign to construct a silo on every dairy farm in the county. The auction sale system which has been started is a step in the right direction and will be followed up in order to perpetuate the results so far secured. Pruning demonstrations will be continued in both orchards and vineyards.

| Membership in the farm bureau | 900 |
| Total farm visits made | 727 |
| Calls at farm advisor’s office for information | 734 |
| Farm bureau meetings held | 159 |
| Attendance at the farm bureau meetings | 7,015 |
| Letters and circulars mailed | 3,400 |
| Miles traveled by farm advisor and assistants | 28,866 |
VENTURA COUNTY

The county farm bureau organized ten voluntary fire fighting organizations and secured $2500 from the county supervisors for the equipping of six stations which were located throughout danger zones in the county. This with the equipping of warehouses with extinguishers has materially aided in checking damage from fires. Two thousand sheep and about fifty hogs were brought into the county as a result of campaigns along these lines. A labor survey was made and 300 laborers imported for harvest needs. This was augmented by the Boys' Working Reserve and Women's Land Army which enabled the saving of crops without loss for lack of help. A campaign was also carried on to improve housing conditions for laborers and resulted in the construction of about 200 modern cottages in the county. The farm bureau saved several hundred head of cattle during the drought of 1917 by purchasing thirty tons of cottonseed cake and 330 tons of other feed and selling it at cost to cattlemen. Twenty-nine demonstration meetings with an attendance of 535 were held covering pruning, the control of orchard pests, the growing of sorghums and corn, and morning glory control work. A drainage project covering the reclamation of about 12,000 acres of land was placed under way and will be continued next year. Six hundred quarts of fruit were canned, 200 dozen eggs stored and 5000 pounds of dried fruit put up by the farm home department. Fifteen thousand pounds of poisoned grain were distributed at cost to farmers for rodent control work.

The county farm advisor induced forty-one farmers to plant sweet sorghum and it was found that this crop yielded double that of Indian corn for feed. It should be grown from five to fifteen miles from the coast, however, for best results. Demonstrations with five varieties of non-saccharine sorghums gave very promising results in the warmer parts of the county. Twenty varieties of beans were tested near the coast for home garden purposes and several varieties were selected for propagation. Other tests with limas, blue pods and Indian corn were made throughout the county with very successful results. Demonstrations for the control of scaly bark and control methods for the corn ear worm on lima beans received much attention. An inspection of the bee pasturage indicated that the county is only about half stocked with bees and plans were made for expansion in this line. A crop index for the county is also being prepared showing the principal commercial crops grown. The farm advisor prepared a booth with 200 exhibits for the county fair which was very successful and purely of an educational nature.

The plan of work for 1919 will continue the improvement of housing conditions for laborers, bean selection work and more beef cattle to be kept on farms. Three demonstration silos are planned and a continuation of pruning demonstrations will be undertaken. Crop index work for the county will be continued and a greatly increased acreage of grain hay will be planted in the hilly parts of the county. Sugar beet culture will be stimulated in areas suited to this crop and bee culture will be greatly increased. A special effort will be made to stimulate winter vegetable growing because of the suitability of the soils and climate for this purpose. Rodent control and special work on general farm crop and fruit pests will also receive special attention as will also a continuation of the work of reclaiming of lowlands for crop growth.

| Membership in the farm bureau | 342 |
| Total farm visits made | 350 |
| Calls at farm advisor's office for information | 1,755 |
| Farm bureau meetings held | 101 |
| Attendance at farm bureau meetings | 4,696 |
| Letters and circulars mailed | 6,109 |
| Miles traveled by farm advisor | 14,037 |
The county farm bureau was very active in the food production and conservation campaigns. Immediately when attention was called to the threatened shortage of pork last spring, farm bureau committees were appointed to secure from farmers pledges to keep more hogs than they otherwise would have done and interviewed hog buyers and others to prevent the shipment of sows and pigs to market. In this way the flow of breeding stock to market almost immediately stopped and the hogs maintained on farms in Yolo County. Likewise considerable success was met with the sheep campaign and nearly 2000 sheep were placed on farms. The wheat campaign was also successful and the Yolo County allotment of 7000 acres was far exceeded, the total increase secured being 27,000 acres. This campaign was followed by a series of demonstrations on the proper treatment of seed wheat for smut control and a large part of the wheat planted was treated by the bluestone-lime formula as recommended. Fire protection was begun a year ago but the organization was increased this year and loss from grain fires in the county was far below normal, according to insurance companies. This farm bureau has been conducting demonstrations in tree and vine pruning for some time. The trellising of Thompson seedless grapes has been particularly successful in increasing the yield of grapes and this practice has been adopted by about 60 per cent of the growers in the county. Material improvement has been made in the bean yield in the river section through demonstrations in the selection of bean seed and in the preparation of the seed bed. This county has succeeded in introducing Tennessee winter barley which has proved on the average to yield considerably higher than common barley and this fall seed for approximately 4000 acres has been distributed for the coming season.

The county farm advisor has been particularly active in giving information and help to individual farmers. He has vaccinated large numbers of hogs against hog cholera and due to this work and demonstrations with hog-cholera control this disease is entirely under control in the county. He introduced and fostered the system of trellising Thompson seedless grapes in the county. He introduced honey sorghum as a silage crop and increased yields have resulted. He has conducted demonstrations on the control of red spider in orchards and bean fields and on the control of the grape leaf hopper in vineyards.

The county farm bureau is at present considering the development of further irrigation water for the county. Lack of water is the limiting factor in the further development of a more diversified agriculture. The farm bureau is working for the growth of more alfalfa and other forage crops, the building of silos and the production of more livestock in the county. It is also endeavoring to work out a system of rotation for the rice fields in the western part of the county and render that a more permanent form of agriculture.

Membership in the farm bureau .................................... 425
Total farm visits made ............................................. 603
Calls at farm advisor's office for information .................. 343
Farm bureau meetings held .......................................... 111
Attendance at farm bureau meetings ............................... 3,069
Letters and circulars mailed ....................................... 950
Miles traveled by farm advisor .................................... 15,228
YUBA COUNTY

Work started July, 1918

The county farm bureau was organized primarily to assist in food production campaigns and began work before the farm advisor was placed in the county. The campaign to increase pork production was successful in keeping a larger number of pigs on farms and later some 1200 sheep were placed in small flocks on farms. A rural fire fighting organization of five units was completed and equipped partially by an appropriation provided by the supervisors and partially by money contributed by the farm bureau, each unit being equipped with a trailer complete with fire extinguishers and other fire fighting apparatus. The county easily increased its acreage of wheat for the 1919 crop by 10,000 acres over that planted for 1918. The organization has interested itself in the extension of irrigation in the county and has secured the cooperation of the government for an investigation with a view to enlarging the Browns Valley irrigation district.

The county farm advisor has been of much help to farmers in some of the outlying sections of the county in assisting them to find a market for their products. He has taken a particular interest in the development of irrigation in the county and has secured the cooperation of the government engineer located at Orland. He conducted a series of demonstrations in the treatment of seed wheat to prevent smut and has introduced the growing of legumes to build up the soils in the county. He has brought in three carloads of lime which have been distributed among the farmers. He has been the means of bringing a number of pure bred animals into the county and has organized one cooperative bull association, probably the first association of its kind in the state. He has been appointed the war garden director for the county and has started a project of planting trees along the public highways.

Many lines of work are being considered by the farm bureau. Yuba County has many opportunities for agricultural development. Large tracts of land will become much more productive with the development of further irrigation water for the county and this is one of the things which the farm bureau is most interested in at the present time. It hopes to greatly extend the rice area of the county as well as fruit, livestock and dairy production. Due to the fact that the busy season of increased food production work was followed by the suspension of all meetings on account of the influenza epidemic little organization work has been done and there are but seven farm bureau centers in the county.

| Membership in the farm bureau | 121 |
| Farm visits made by farm advisor | 262 |
| Calls at farm advisor’s office for information | 253 |
| Farm bureau meetings held | 20 |
| Total attendance at farm bureau meetings | 401 |
| Letters and circulars mailed | 472 |
| Miles traveled by the farm advisor | 3,713 |
278. Grain Sorghums.
279. Irrigation of Rice in California.
280. Irrigation of Alfalfa in the Sacramento Valley.
281. Control of the Pocket Gophers in California.
282. Trials with California Silage Crops for Dairy Cows.
283. The Olive Insects of California.
284. Irrigation of Alfalfa in Imperial Valley.
286. Commercial Fertilizers.
287. Potash from Tule and the Fertilizer Value of Certain Marsh Plants.
288. The Drop of Washington Navel Oranges.
289. Green Manure Crops in Southern California.
290. Sweet Sorghums for Forage.
291. Topping and Pinching Vines.
292. The Almond in California.
293. The Seedless Raisin Grapes.
294. The Use of Lumber on California Farms.
295. Commercial Fertilizers.
296. California State Dairy Cow Competition.
297. Control of Ground Squirrels by the Fumigation Method.
298. Grape Syrup.
300. The Influence of Barley on the Milk Yields of Cows.

CIRCULARS

No. 168. Spraying for the Control of Wild Morning-Glory within the Fog Belt.
169. The 1918 Grain Crop.
170. Fertilizing California Soils for the 1918 Crop.
172. Wheat Culture.
173. The Construction of the Wood-Hoop Silo.
174. Farm Drainage Methods.
176. Hog Cholera Prevention and the Serum Treatment.
177. Grain Sorghums.
178. Factors of Importance in Producing Milk of Low Bacterial Counts.
181. Control of the California Ground Squirrel.
182. Extending the Area of Irrigated Wheat in California for 1918.
183. Infectious Abortion in Cows.
184. A Flock of Sheep on the Farm.
186. Poultry on the Farm.
187. Utilizing the Sorghums.
188. Lambing Sheds.
189. Winter Forage Crops.
190. Agriculture Clubs in California.
191. Pruning the Seedless Grapes.
195. A Study of Farm Labor in California.
196. Revised Compatibility Chart of Insecticides and Fungicides.
197. Dairy Crops for Feal.
198. Suggestions for Increasing Egg Production at a Time of High Feed Prices.
199. Syrup from Sweet Sorghum.
200. Growing the Fall or Second Crop of Potatoes in California.
201. Floral Hints for Egg Raisers.
203. Peat as a Manure Substitute.
204. A Handbook of Plant Diseases and Pest Control.
205. Blackleg.
206. Jack Cheese.
207. Neufchatel Cheese.