

CIRCULAR No. 118

JUNE, 1914

THE COUNTY FARM BUREAU

By B. H. CROCHERON

THE FUNCTION OF THE FARM BUREAU

A farm bureau is an organization of farmers and ranchers who combine to promote agriculture through co-operative study of farm conditions.

For many years there have been farmers' clubs, granges, institutes, unions, and alliances. These have been more or less successful but many have passed away, perhaps from lack of usefulness. Some of these organizations have not had a definite purpose and have therefore failed to find a permanent place in rural affairs.

The farm bureau is distinct from all of these. It is not primarily a social organization; neither is it essentially to unite farmers so as to lower prices of stuffs bought and to raise prices of products sold. But it is formed to bring together for mutual co-operation those farmers who want to investigate the fundamental problems that are involved in production on their farms.

Every state and territory has at least one "experiment farm" supported by federal and state funds. These have been exceedingly valuable because the results therefrom were noted by men whose business and interest it was to observe. The acreages of these farms were small; their crops were often meagre—and yet they have been worth millions beyond their cost because the records of productions and the conditions under which they were grown were known and noted.

Many of our farm problems are already solved on the farms of the nation. Individuals have found the solution of vexing questions that are agitating the experiment stations and agricultural colleges. But these solutions usually fall out of sight unnoted or are known only

to the man on whose farm they occur. If these unknown and unnoted experiments could be gathered they would at once add much to our view of agriculture.

In America there are on the average more than 100,000 farms to each "experiment farm." Obviously, if the results on some small



The farm bureau is composed of those persons in the county interested in agriculture who desire to promote its prosperity. Usually there should be at least one-fifth the farmers in its membership.

*(Paying in a dollar, San Diego County Farm Bureau meeting.
Boys of the agricultural clubs assisting.)*

percentage of these could be viewed from the same standpoint as at the experiment farm, the benefits would enormously outnumber the records achieved by the experiment stations. It is, of course, impossible to gather all this material or to note all the changing conditions on farms. But it may be possible to gather together in one county organization the wide-awake and interested farmers who will compare their results with those of others and, in a more or less scientific way, plan out experiments and demonstrations on their own farms. Such is a farm bureau.

Fundamentally, then, a farm bureau for the county can be collectively a sort of giant experiment station with several hundred observers who hold a monthly caucus to compare results.

The farm bureau has a trained man to aid it:—The Farm Adviser. It is his business to help interpret results, to point out new lines of work and to deduce conclusions from the evidence at hand. The farm bureau can be of greater value to the county than the farm adviser. Together, they can be of more benefit than either alone.



The most general method of starting a county farm bureau is to call a big meeting which is advertised in every way possible.

(San Diego County Farm Bureau.)

Other activities may concern the farm bureau besides local research into agricultural problems.

The farm bureau may be a sort of rural chamber of commerce and thus be the guardian of rural affairs. It can take the lead in agitation for good roads, for better schools, and for cheaper methods of buying and selling. Perhaps, most of all, it can help promote the social institutions of country life. Some rural neighbors are so starved for

recreational meetings that they will come out to anything from a patent-medicine show to a school meeting. The farm bureau can help put more recreation into rural life. Every country neighborhood ought to have some social gathering at least once a week. It is almost as much needed as the spiritual congregations at the church, or the educational assemblages of the children at the school-house.

But very surely and insistently, the farm bureau is not first and foremost for these—good and desirable as they may be. Perhaps, the farm bureau can help to buy cheaper and better seeds, can help to boost the local socials, can encourage the faltering school teacher, can get out and talk for good roads—but its first and surest function is to increase the local knowledge of agricultural fact.

THE GENERAL PLAN

The membership of the farm bureau is composed of those persons in the county interested in agriculture who desire to promote its prosperity through the formation of a county organization to which they pay a dollar a year each. Usually a successful county farm bureau should have at least one-fifth of the farmers in its membership.

The whole membership of the farm bureau meets together but once a year at its annual meeting in the fall. At that time the general officers are elected,—president, vice-president and four directors at large.

For practical purposes, the county organization is divided, along geographical lines, into ten or twelve centers. Each center that has ten or more members elects a director as leader. He acts as chairman of the meetings and represents the center on the board of the farm bureau.

Thus, if there are ten centers in the county, there ultimately may be fourteen directors on the board:—four at large and one from each center.

The directors usually hold a meeting once a month when reports are heard from the various centers and the general plans for the movement in the county are considered.

The officers elect a secretary-treasurer who holds the funds and keeps the records of the farm bureau.

The farm bureau is financed by dues of a dollar a year which its members pay into the organization. The expenses of the bureau are those of hiring offices, the carrying on of correspondence, printing of pamphlets, etc. Sometimes, but not usually, the farm bureau pays the expenses of the directors who come to the board meetings once a month.

THE GENERAL MEETING ONCE A YEAR

The annual meeting—at which the election of officers takes place—is held in the fall, usually at the county-seat. It should be so arranged as to make it a matter of considerable local interest and importance:—it may be an all-day gathering to which speakers of note are invited; it may sometimes take the form of a large public banquet.



The county is divided into ten or more districts called "farm bureau centers" and a director elected to represent each center. The board of directors holds a meeting once a month at which the policies of the farm bureau are determined.

(Directors' meeting, San Joaquin County Farm Bureau.)

or of a country picnic. The main effort is to have present a large proportion of the membership of the entire farm bureau in order that the officers elected may be adequately representative and that once a year the organization may realize its strength and its large membership.

THE DIRECTORS' MEETING ONCE A MONTH

The directors of the farm bureau meet every month,—usually on a Saturday,—at the farm bureau offices or at the farm adviser's offices. These meetings should be of such vital interest that the entire board of directors will be present. At these meetings the policy of the farm bureau should be determined, committees appointed, reports heard from each of the directors representing a farm bureau center, and a general consideration given to the plans of the farm adviser. The meetings may or may not be open to the public. In some cases, it has been thought wise to have the directors, at the conclusion of the morning meeting, lunch together at a local hotel or restaurant in order that there may be some social phase to the day's proceedings.

THE LOCAL MEETINGS ONCE A MONTH

The farm adviser, by appointment, may be present one day every month in each center of the farm bureau. Thus, if there are ten or twelve centers, he will have ten or twelve definite appointments each month for his local work. His usual method is to come at once to the home or office of the local director and to learn from him those who desire to have the farm adviser come to their farms on that day. He then spends his entire day going about the neighborhood seeing those who desire his services. The farm adviser never goes to any except those who so request. He never sets his foot on the land of a man who does not want him.

Usually the farm bureau center has its meeting the night when the farm adviser is there. These meetings may be open to the public, but should be serious discussions of questions pertinent to the farm prosperity of the neighborhood. To this end, it is proposed that some of the local meetings of the farm bureau centers be devoted entirely to a study of some one phase of agricultural practice. If lime is a pertinent question for the neighborhood, why not have the farm adviser explain in detail all the forms of commercial lime, using a blackboard if necessary to make it all clear. The members might bring notebooks and write down such points as they cannot remember. Other subjects such as "sprays and spraying," "balanced rations," and "methods of testing seeds" might well occupy one or several meetings in order to cover them in such a way that all can gain a true comprehension of the subject. It will take real old-fashioned study to do it. But that is the function of the farm bureau.

Sometimes, the members of a local center might go in automobiles for a well-planned day to see demonstration plots that showed definite results, to look at a well-built barn or a well-bred herd. Such a trip could be an inspiration as well as a source of more knowledge. But it must be undertaken with a serious purpose and not as a junket.



The farm adviser is present by appointment each month at each farm bureau center. He spends the day visiting farms to which he is called, and at night may hold a meeting of the members.

(Guinda Farm Bureau Center, Yolo County.)

Some of the meetings may be open to the public and take on a more distinctively social feature. But if, as often happens, the presence of others hampers freedom of discussion and a real promotion of the subject, it may prove better to discourage the attendance of persons not members of the bureau and to hold the "social meetings" at other times.

THE DEMONSTRATIONS ON SELECTED FARMS

In order to further promote an understanding of some of the methods advanced by the farm adviser, it may be desirable to have demonstrations of these located on scattered farms throughout the county. Usually, these demonstrations are placed with the most interested and active members of the farm bureau.

If, say, the farm adviser desires to locate fifty demonstrations through the county, he may ask each of the directors representing a center to nominate five members with whom demonstrations may be placed. These members agree to undertake the management of one piece of land, section of orchard, or group of animals as directed by the farm adviser in order to demonstrate some fact of agricultural importance to the neighborhood.

Usually farms supplied with such demonstrations are called "demonstration farms" and the owner is known as a "demonstrator." Often the farm bureau supplies signs to be placed on the gate-post or a road-side tree on the farm where such a demonstration is located. These signs read "Demonstrator, County Farm Bureau."

HOW TO FORM A FARM BUREAU

The movement for a farm bureau usually starts from some interested persons in the county who feel it desirable to have such an organization to further its agricultural interests.

The College of Agriculture of the University of California does not take the initiative in forming farm bureaus, although it is willing to co-operate and furnish any possible assistance when so requested. The farm bureau is an organization of the people of the county and as such the initiative should originate with them.

Often it is the chamber of commerce that makes the start to call the matter to the attention of the people. Sometimes it is a small farmers' club, grange or farmers' union that issues the call for a county-wide organization. However the matter begins, the fundamental point is that it shall be a voluntary organization of farm people who realize the need for such a gathering of the rural forces of the county.

There have been two methods used to organize farm bureaus in this state.

The most general method has been to call a big meeting which is advertised in every way possible. Usually the invitations are sent.

out by a self-appointed committee who try to arouse all the people of the county. Sometimes these send out post-cards to every farmer in the county, getting the list from the office of the county tax assessor, or some other public place of record. Usually the meeting is held in some big hall or on a picnic ground; sometimes there is a brass band and social features to the occasion. Almost always it is



The farm adviser works with the director of the farm bureau center, who makes engagements for him and often accompanies him on his rounds.

(Farm Adviser, a director, and a member, San Diego Farm Bureau.)

an all-day meeting. If requested, speakers are sent from the College of Agriculture. At this meeting the constitution and by-laws are adopted; the members pay in a dollar each as their first year's dues; and a president, vice-president and four directors at large are elected. At some later time, these officers, meeting together, divide the county into ten or twelve geographical districts. The members of the county farm bureau living in each district may form themselves into a farm bureau center and elect a director to represent them on the board of the farm bureau. This method has been that most generally used and may, in most cases, prove most successful. It starts the organization off with a big day and calls it to the attention of all the people.

The other method is the opposite of this. A committee of interested persons, or a chamber of commerce, or a board of trade, holds small

meetings in different sections of the county that might become farm bureau centers. At these meetings those present, if they so desire, join the farm bureau, pay in one dollar, and afterward elect a director to serve on the board of the farm bureau. After the ten or twelve centers have been formed, the directors so elected meet together and call a general meeting at which a constitution and by-laws are adopted and a president, vice-president and four directors at large are elected. This method has been used in counties where the farmers did not have sufficient primary interest to come together at a large farm bureau meeting, or where the people of the county were so scattered as to make it difficult to bring them together at any one place.

Two published accounts follow of meetings to organize farm bureaus which were highly successful in gathering together a great number of people from the county. The first is that of the San Diego County farm bureau meeting held in San Diego on February 20, 1914. The second is that of the farm bureau of Yolo County held as a picnic at the village of Yolo on March 7, 1914.

FARMERS OF SAN DIEGO COUNTY UNITE UNDER FLAG OF PROGRESS

(Reprinted from *San Diego Union*, February 21, 1914)

Before a thousand as intensely interested persons as have sat in an assemblage of that size in this city in many a long day, the San Diego Farm Bureau was organized yesterday morning in the Spreckels Theatre with a paid-up membership of 383. When all the names are in and funds received, at a conservative estimate, it will exceed that figure by several hundred.

This is beyond comparison the biggest piece of agricultural business that has ever been put through in San Diego County. It means that the farmers scattered over miles of territory have at last united under one banner, that the farming industry has taken unto itself a backbone, and that from now on the progress of one will in a large measure mean the progress of all.

Within a few weeks the bureau will have its own agricultural adviser, a highly trained and scientific and practical man, whose whole time will be devoted, by man-to-man advice and assistance, to increasing the productivity of the farms and the profits of the farmer. The adviser will be, as Professor Crocheron put it in his speech, no less than the "trustee of the agricultural prosperity of this community."

In taking this step and by their enthusiasm and demonstration of practical interest making it possible for the government to give them an adviser, the San Diego County farmers have leaped into the front rank of agricultural progressiveness in the country.

The new organization was launched into being with Judge W. R. Andrews, as president; George P. Hall, vice-president, and H. Culbertson, T. H. Slingsby of Mission Valley, H. H. Bawden of the Little Landers colony at San Ysidro,

and W. E. Alexander of Escondido, as directors-at-large. A secretary and treasurer will be elected at the first meeting of officers.

There are many kinds of enthusiasm, the noisy, the frivolous, the emotional, the highly amused. Then there is the tense, impatient, somewhat scrappy kind that people display when vital issues are at stake, where there is big business to be done. And this last is the kind with which the atmosphere in the Spreckels Theatre in the morning and the Savoy Theatre in the afternoon vibrated.



The farm adviser may locate demonstrations on farms throughout the county. The farm bureau supplies signs to be placed on the gate-post or roadside tree of the farm where such a demonstration is located.

(Humboldt County Farm Bureau.)

Men had traveled far to attend this meeting that meant so much to them and their destinies, in the face of unfavorable conditions and inclement weather. Many had left their little farms and large families at a time when they could ill afford to do so. Others, unable to leave their families at home and determined not to be foiled in their wish to make history, had brought their families with them.

An inspiring gathering they made, these farmers. Every type was there, from the modern, prosperous agriculturist, he of the great crops, modern

methods and automobiles, to the simple man of all times and countries, who with his devoted wife in centuries gone by rocked the cradle that contained the destinies of a great nation.

Fathers and sons and grandsons came together, and a few mothers with rosy, eager, excited children. There was a sweet-faced farm woman there with her blind husband, and the gentle solicitude with which she led him to his seat and perfect understanding with which they made one pair of eyes do work for two was a revelation and a blessing.

But with all the novelty of the experience to many of those present, the prevailing note of the meeting from start to finish was business.

The audience began filing into the big theatre shortly before ten o'clock, but it was after half past ten before the meeting was called to order. Meanwhile, the band from the Industrial Fair struck up "I Love You, California," and followed it with two or three popular tunes.

When the speakers, Dean Thomas F. Hunt of the College of Agriculture of the University of California; Dean H. E. Van Norman of the University Farm School at Davis and president of the National Dairy Association; B. H. Crocheron, state leader in the Office of Farm Management; Dr. H. J. Webber, Director of the Riverside Experiment station, and O. H. Benson, head of the boys' and girls' agricultural club work, had arrived, Carl H. Heilbron, vice-president of the Chamber of Commerce, opened the meeting with a few words of welcome to the farmers and guests.

Mayor Charles F. O'Neill, the first speaker, was introduced by Mr. Heilbron, as a "boy from the farm." The mayor spoke most earnestly of the purpose for which his hearers gathered and of its far-reaching effects in other localities. . . .

The business session really began when R. C. Allen, acting chairman, called upon Professor Crocheron to read the constitution adopted by the farm bureau of Humboldt County. This constitution, with a few proposed minor changes left open for final settlement by the directors-at-large, was finally adopted. During all the subsequent proceedings of the day H. A. Weinland, county horticultural commissioner, acted as temporary secretary. . . .

To the delight of every one, the \$2000 cow from Walter Dupee's dairy at Santee, after many vicissitudes en route, finally arrived in good condition. A magnificent specimen of the pure-bred Guernsey, the animal walked on the stage with most creditable calmness and surveyed the audience over the footlights with as much composure, though not perhaps the same satisfaction, that she might be fed in her own home stall. . . .

When the point of who should have a vote in the election of officers arose it was decided that all those who had not enrolled and paid their dollar should step upon the platform and do so. Three hundred and eighty-four dollars were taken in in a very few minutes and then the voting went forward. Ballots were distributed and to avoid possible "ringers" each voter was asked to sign his name and the locality which he represented. . . .

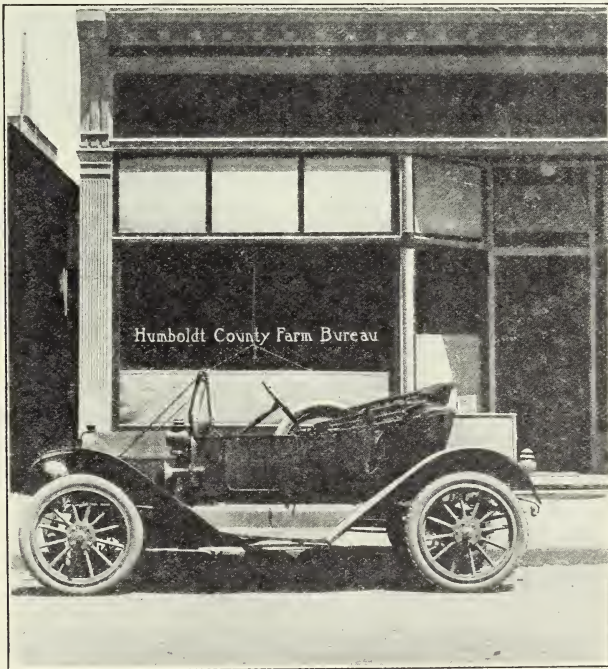
While the ballots were being counted Mr. Benson gave a most interesting address, illustrated by colored lantern slides, for the particular benefit of the boys of the various agricultural clubs of the county high schools who were there with a good delegation. . . .

THE FARMERS' DAY AT YOLO

(From *The University of California Journal of Agriculture*,
by PAUL I. DOUGHERTY, '14)

Across the warm green plains, past the blossoming almond orchards and the gray olive trees, fifteen hundred country people came to the little town of Yolo to organize the Yolo Farm Bureau and to picnic through the pleasant March day. The bent, gray couple meeting one more spring together, the sun-tanned farmer and his wife, the bright-eyed children bubbling over with outdoor life and spirits, all were glad to leave the farms a little while and spend the holiday together.

The last train carrying besides the farmers a handful of happy students, came in at eleven, and the gay procession, headed by the Winter's Brass Band, mareded up the grass-bordered road to the town hall. The moving picture camera and the care free "Bossy-Cow-Cow" yell of the students added a touch of the outer world, perhaps not entirely unwelcome to the quiet crowd.



Often the farm bureau becomes so active and effective that offices at
the county seat are desirable.

(*Humboldt County Farm Bureau.*)

The little hall, set close to the white orchards, was soon crowded to the doors. The State Leader in the Office of Farm Management spoke of the Farm Adviser's work and of his opportunity. He told how hundreds of such trained "Farm Doctors" had come at the request of the farmers to as many counties in the nation, connecting every ranch with the University experiment stations and the federal department of agriculture. He suggested that the Farm Advisers' work was not alone to promote better crops, but also to help country people to work together, and to live more interesting and broader lives. The Head of the Soil Survey told how the soils of the Sacramento Valley have been mapped and the value of such knowledge in crop adaptations. Then, outside, near the country school, the Dean of the University Farm spoke of the need of cattle in permanent agriculture and showed what points to look for in a dairy cow and explained the relation of each to production and profit.

The crowd spread their dinners out in the tall green grass in a neighboring field. The high-stacked platters of fried chicken and the numberless cakes, as seen at every farmers' picnic, put yet another aspect on country living for the passing student, and he pictured in his mind the day when he, too, should have such a place in his community.

After this hour in the warm noon sun, various farmers spoke, county issues, such as state highway bonds, were discussed, the band played, the Woodland Quartet sang and a happy holiday spirit prevailed. Yet beneath it all rang the motto of the meeting "Knowledge + Economy = Efficiency," and the outcome of the day was the organization of the Yolo Farm Bureau, with its object "to assist the Farm Adviser in his work in the county and to aid him in the development of agriculture, and such allied industries as may properly come within his province, including betterment of social, home, school, and church conditions in the county."

After the serious work of the day, in the late afternoon, the benches were cleared from the hall and the band played waltzes and two steps, and the young people had their hour, until the sun sank behind the blue Coast Range. Then in the early dusk the crowd scattered, each family to its own little homestead out in the wide darkening valley.

So, in the California spring time, when the almond petals were drifting softly down, the Yolo Farm Bureau was formed and one more step taken in Yolo County towards a fuller and richer country life.

The following constitution and by-laws (Re-print, with some corrections, from Circular 112 on The County Farm Adviser) is that which has been adopted in farm bureaus of the state.

CONSTITUTION AND BY-LAWS FOR THE

COUNTY FARM BUREAU

PREAMBLE.—In order to further and promote the agricultural interests of this county and all its enterprises dependent upon agriculture, we, the undersigned, do hereby form a permanent organization under the following constitution and by-laws.

ARTICLE I. NAME.—The name of this organization shall be the
County Farm Bureau.

ARTICLE II. OBJECT.—The object of this organization shall be to assist the Farm Adviser in his work in the county and to aid him in the development of agriculture and such allied industries as may properly come within his province, including the betterment of social, home, school, and church conditions in the county.



The annual farm bureau meeting may take the form of a county picnic.
(*Special train arriving at Yolo County Farm Bureau picnic.*)

ARTICLE III. MEMBERSHIP.—Any person resident of County or an owner of farm land in the county, interested and willing to aid in the development of the agriculture of the county, may become a member of this bureau by agreeing to this constitution and paying an annual membership fee of one dollar and such other dues as may be regularly assessed.

ARTICLE IV. OFFICERS AND DUTIES.—Section 1.—The administration of the affairs of the County Farm Bureau shall be vested in the following officers: a president, a vice-president, a secretary-treasurer, four directors at large, and one director to be elected as hereinafter provided, from each of ten farm bureau centers scattered through the county.

Section 2.—The directors at large shall be elected by the whole bureau, not more than one coming from one center. Each center director shall be elected by the members of the bureau living in the center concerned. The secretary-treasurer shall be elected by the officers.

Section 3.—The term of office of all officers shall be one year.

Section 4.—All the officers excepting the secretary-treasurer shall be elected at the regular annual meeting.

Section 5.—At all elections a majority of votes cast shall be necessary to elect. Vote shall be by ballot.

Section 6.—Each officer shall be entitled to one vote.

Section 7.—The president shall preside at all the meetings of the officers or of the bureau, appoint all standing committees and perform all other duties not otherwise provided for.

Section 8.—The vice-president shall perform the duties of the president in his absence.

Section 9.—The secretary-treasurer shall keep a record of the proceedings of the bureau, receive the membership fees and assessments, have custody of all funds of the bureau, and shall make a full report at each annual meeting, or at such time as the bureau may direct. He shall pay out money only on orders signed by the president and countersigned by himself.

ARTICLE V. VACANCIES.—The officers shall have power to fill all vacancies.

ARTICLE VI. MEETINGS.—Section 1.—The bureau shall hold a regular annual meeting during the early fall, the date and place to be set by the officers and announced at least two weeks prior to the time of meeting.

Section 2.—The officers shall hold a regular monthly meeting at the office of the Farm Adviser; or (Section 2) the officers shall meet on call of the president.

Section 3.—It shall be the duty of the president to call special meetings of the bureau at the request of a majority of the officers, and notice of same must be given in advance.

ARTICLE VII. COMMITTEES.—The committees to be appointed shall be made up of persons suggested by the Farm Adviser and approved by the officers. The number of committees and number of persons on each committee to be regulated by the nature and character of the work to be done. Committeemen shall serve for a term of one year, or for the length of time specified at the time of their appointment. Their duties shall be outlined at the time of their appointment.

ARTICLE VIII. ORDER OF BUSINESS.—The following shall be the order of business at all the regular meetings of the bureau and officers:

1. Call to order by the president.
2. Reading of the minutes of the last meeting.
3. Report of committees.
4. Unfinished business.
5. Communications from State Leader or Farm Adviser.
6. Reports of officers.
7. New business.
8. Adjournment.

ARTICLE IX. AMENDMENT.—This constitution may be amended by a two-thirds vote of the members present at any regular or special meeting. Notice of such amendment must be given at least two weeks in advance.

ARTICLE X. ENACTING CLAUSE.—Section 1.—This constitution shall be in effect on and after its adoption.

Section 2.—All officers elected at the time of this constitution is adopted shall hold office only until next annual meeting.



Speakers are sent from the College of Agriculture to help make the annual farm bureau meeting the biggest rural event of the year.

(Yolo County Farm Bureau.)

BY-LAWS

No. 1.—A member shall be considered to have been properly notified of any proposed action of the bureau by its officers whenever such notice shall have been mailed to each member or published in two issues of such county papers as may be designated by the officers.

No. 2.—Whenever a farm bureau center shall organize, with a minimum of ten charter members, then such center shall be entitled to a center director.

No. 3.—Whenever any center shall attain a membership in the bureau, which shall entitle it to a director, the center concerned may immediately elect such director, who shall hold office until the next annual meeting.

No. 4.—An organized center shall be entitled to a center bureau headquarters, at which, if requested, the Farm Adviser shall be present on the regular schedule at least once a month, weather and other conditions permitting. At such time it will be the object of the Farm Adviser to meet members of the bureaus and others, and to furnish such aid as may be requested.

No. 5.—The director for each organized center will have charge of the local headquarters of the bureau and will make such arrangements for the Farm Adviser while there as will best conserve the time of the adviser and serve the interests of the county.

STATION PUBLICATIONS AVAILABLE FOR DISTRIBUTION

REPORTS

- 1897. Resistant Vines, their Selection, Adaptation, and Grafting. Appendix to Viticultural Report for 1896.
- 1902. Report of the Agricultural Experiment Station for 1898-1901.
- 1903. Report of the Agricultural Experiment Station for 1901-03.
- 1904. Twenty-second Report of the Agricultural Experiment Station for 1903-04.

BULLETINS

- | No. | No. |
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| 168. Observations on Some Vine Diseases in Sonoma County. | 202. Commercial Fertilizers. (Dec., 1908.) |
| 169. Tolerance of the Sugar Beet for Alkali. | 203. Report of the Plant Pathologist to July 1, 1909. |
| 170. Studies in Grasshopper Control. | 204. The Dairy Cow's Record and the Stable. |
| 171. Commercial Fertilizers. (June, 30, 1905.) | 206. Commercial Fertilizers. (June, 1910.) |
| 174. A New Wine-Cooling Machine. | 207. The Control of the Argentine Ant. |
| 177. A New Method of Making Dry Red Wine. | 208. The Late Blight of Celery. |
| 178. Mosquito Control. | 211. How to Increase the Yield of Wheat in California. |
| 179. Commercial Fertilizers. (June, 1906.) | 212. California White Wheats. |
| 182. Analysis of Paris Green and Lead Arsenic. Proposed Insecticide Law. | 213. The Principles of Wine-making. |
| 183. The California Tussock-moth. | 215. The House Fly in its Relation to Public Health. |
| 184. Report of the Plant Pathologist to July 1, 1906. | 216. A Progress Report upon Soil and Climatic Factors Influencing the Composition of Wheat. |
| 185. Report of Progress in Cereal Investigations. | 220. Fumigation Studies No. 5; Dosage Tables. |
| 187. Commercial Fertilizers. (Jan., 1907.) | 224. The Production of the Lima Bean. |
| 189. Commercial Fertilizers. (June, 1907.) | 225. Tolerance of Eucalyptus for Alkali. |
| 192. Insects Injurious to the Vine in California. | 227. Grape Vinegar. |
| 194. Commercial Fertilizers (Dec., 1907.) | 230. Entomological Investigations. |
| 195. The California Grape Root-worm. | 234. Red Spiders and Mites of Citrus Trees. |
| 197. Grape Culture in California; Improved Methods of Wine-making; Yeast from California Grapes. | 240. Commercial Fertilizers. |
| 198. The Grape Leaf-Hopper. | 241. Vine Pruning in California. |
| 201. Commercial Fertilizers. (June, 1908.) | 242. Humus in California Soils. |
| | 243. The Intradermal Test for Tuberculosis in Cattle and Hogs. |
| | 244. Utilization of Waste Oranges. |

CIRCULARS

- | No. | No. |
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| 29. Preliminary Announcement Concerning Instruction in Practical Agriculture upon the University Farm, Davis, Cal. | 70. Observation of the Status of Corn Growing in California. |
| 46. Suggestions for Garden Work in California Schools. | 74. Rice. |
| 52. Information for Students Concerning the College of Agriculture. | 75. A New Leakage Gauge. |
| 61. University Farm School. | 76. Hot Room Callusing. |
| 62. The School Garden in the Course of Study. | 77. University Farm School. |
| 65. The California Insecticide Law. | 78. Announcement of Farmers' Short Courses for 1912. |
| 66. Insecticides and Insect Control. | 79. List of Insecticide Dealers. |
| 68. The Prevention of Hog Cholera. | 80. Boys' and Girls' Clubs. |
| 69. The Extermination of Morning-Glory. | 82. The Common Ground Squirrels of California. |
| | 83. Potato Growing Clubs. |
| | 84. Mushrooms and Toadstools. |
| | 87. Alfalfa. |

CIRCULARS—(Continued)

- | No. | No. |
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| 88. Advantages to the Breeder in Testing his Pure-bred Cows for the Register of Merit. | 107. Spraying Walnut Trees for Blight and Aphis Control. |
| 89. Hog Cholera and its Prevention. | 108. Grape Juice. |
| 90. Tuberculosis in Cattle and Hogs. | 109. Community or Local Extension Work by the High School Agricultural Department. |
| 91. Disinfection on the Farm. | 110. Green Manuring in California. |
| 92. Infectious Abortion and Sterility in Cows. | 111. The Use of Lime and Gypsum on California Soils. |
| 98. Plowing and Cultivating Soils in California. | 112. The County Farm Advisor. |
| 100. Pruning Frosted Citrus Trees. | 113. Announcement of Correspondence Courses in Agriculture. |
| 101. Codling Moth Control in the Sacramento Valley. | 114. Increasing the Duty of Water. |
| 102. The Woolly Aphis. | 115. Grafting Vinifera Vineyards. |
| 106. Directions for using Anti-Hog-Cholera Serum. | 116. Silk Worm Experiments. |
| | 117. The Selection and Cost of a Small Pumping Plant. |