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THE COUNTY FARM ADVISER

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STATE LEADER

THE FARM ADVISER MOVEMENT

For something over half a century the agricultural colleges, the experiment stations, and the national department of agriculture have been investigating questions of material interest to the farmers of America and have accumulated a vast mass of information which, if it could be engrafted on the practice of the open country, would undoubtedly result in a great increase of our material prosperity not only through a larger production per acre, but by an increased net return to the individual farmer.

Much of this agricultural information, however, has been in such form that it was difficult for farmers to obtain it, or, indeed, to know of it and its practical application to their individual farms. The material was embodied in agricultural reports and bulletins which treated the facts in a broad sense, but there were few agencies at work and few men available to make the specific application to the problem at hand.

It has been said that the agricultural institutions of the country are like a great manufactory grinding out a product of infinite value which has been stored in warehouses far from the consumer that the product was designed to reach. Lacking a retail force of agents, this product continued to accumulate without greatly affecting the consumer and his wants. Like the manufactory, the agricultural institution must have its agents close to the point of consumption so that the product may be readily placed in the hands of those who need it. These agricultural agents are now being established throughout the nation under the name of "County Farm Advisers." They act as

the necessary force to bring the information of the agricultural colleges, experiment stations, and the national department of agriculture to the specific farmer who needs it.

Some one hundred and eighty counties in the United States now have farm advisers at work, and but recently the first one of these in California has been placed in Humboldt County.

A FARM ADVISER—WHAT HE IS

A farm adviser is a man trained in agriculture, usually a graduate of an agricultural college, who has had some practical experience in the broad phases of agriculture, and who should, if possible, be conversant with the particular problems that concern the locality in which he is placed.

Because his work depends so much for its results on the enthusiasm that he can infuse into others he must be a man of tact, of energy, and of real desire to achieve results in his chosen field.

The farm adviser is an agent both of the College of Agriculture of the University of California and of the Office of Farm Management, United States Department of Agriculture. He is placed in a county where his services are desired. His entire time and activity are spent there within the boundaries of that county. There he is the field agent of the agricultural forces of the nation.

A FARM ADVISER—WHAT HE DOES

The problem of the farm adviser is to reach those who desire his services. He gives advice on soil treatment, fertilization, crop adaptation and culture, animal husbandry and its allied phases. In general, he studies those various activities of the farm that are known under the head of farm management and demonstrates his better methods on the farms of those interested persons who desire to co-operate with him. As he is occupied in the increase of net returns to the farmer he is also desirous of improving those civilizing forces of the open country that come under the head of better roads, schools, churches, farmers' organizations, and marketing facilities.

The farm adviser has an office or headquarters at some central point in the county, usually at the county seat. He may also, through the organization of the farm bureau, find it desirable to have other local or district headquarters at scattered places through the county.

But necessary as are his offices and headquarters, little of his time is spent there. His work is on the farms and among the people. Day by day the farm adviser goes where he is called, advising on the

various questions that come to him. When, as is sometimes the case, he meets a problem that to him is impossible of solution because of the technical phases involved he submits it for consideration to the agricultural college or to the federal department of agriculture, the forces of both of which he has at his command.

Specifically, the work of the farm adviser may be divided into four general branches, as follows:

(1) Investigation or research into the larger problems of farm management as applied to that specific community.

(2) Demonstration or application of these principles and practices through the co-operation of interested farmers.

(3) Advisory work with inquirers, that is, the answering of questions and giving of advice to those who apply.

(4) Organization work of the civilizing forces of the community—assistance to boys' agricultural clubs, farmers' organizations, schools, churches and marketing, and buying organizations.

The work of the farm adviser is supervised by a state leader, appointed jointly by the College of Agriculture and the United States Department of Agriculture, to whom he makes weekly reports.

HOW MUCH A FARM ADVISER COSTS

The farm adviser's salary is paid by the College of Agriculture of the University of California. His expenses are paid by local agencies within the county. As the farm adviser is constantly traveling from place to place within the county his expenses are heavy, comparatively speaking, and usually amount to about as much as his salary. About two thousand dollars a year is estimated to be necessary in most cases for the expenses of the farm adviser. These mean the maintenance of an office and office facilities, the use of a small automobile for travel within the county, and the subsistence of the farm adviser while away from home.

As the value of a farm adviser increases greatly as he becomes more familiar and expert on the problems of the county, it is highly desirable that the work be made permanent and that no county should start such an adviser at work without funds in sight for his expenses for at least three years and the money actually in hand for his first year of work.

Two thousand dollars, then, should be raised by the county, with pledges for four thousand dollars to follow at the rate of two thousand dollars a year, if the work is to be a success.

Since the farm adviser represents the College of Agriculture and the United States Department of Agriculture, which treat only with

the whole people, and since the permanence of the work is highly desirable for efficiency, the best means for the contribution of funds for the expenses of the county adviser is through the county supervisors, because public taxation is more permanent than any other fund and represents all the people. While this means of contribution may not be possible at the inauguration of the work, it is desirable in all counties that a sufficiently large number of persons should be interested by direct or indirect contribution so as to insure a backing for the farm adviser and a real demand for his work.

HOW TO GET A FARM ADVISER

Because the funds available from the College of Agriculture for farm advisers are limited at present by the heavy demands of other work, farm advisers will be placed in those counties that first qualify by a deposit of two thousand dollars with some responsible party within the county. Application for farm advisers should be made to the State Leader, College of Agriculture, Berkeley, California.

ORGANIZATION OF FARM ADVISER'S WORK—THE FARM BUREAU

In order to facilitate the work of the farm adviser and to conserve his time as much as possible, it is desirable that some permanent organization be in advisement with him regarding problems of the county. Such an organization is a farm bureau as organized in many parts of the United States, and in California in Humboldt County.

The farm bureau is the organization of farmers around certain local district headquarters where the farm adviser is due at definite intervals and times for consultation with the members of the bureau and for demonstration on their farms of the methods under discussion for their county. Each local headquarters of the bureau has a director, elected from among its members, to serve on the board of the farm bureau. It is often advisable to have this farm bureau established before the farm adviser is appointed and to make it the holding party for the local funds raised for his expenses. As seen by the following constitution and by-laws of the Humboldt County Farm Bureau, each member pays one dollar per year as dues for membership in the bureau. The surplus beyond running expenses may go as part of the expense necessary for the farm adviser.

Constitution and By-Laws for the Humboldt 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 Humboldt 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.

ARTICLE III

Membership

Any person a resident of Humboldt 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 Humboldt 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 township.

Section 2—The directors at large shall be elected by the whole bureau, not more than one coming from one township, the township

directors by the members of the bureau living in the township 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 regu-

lated 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. Reports of committees.
4. Unfinished business.
5. Communications from state leader or farm adviser.
6. Report 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 this constitution is adopted shall hold office only until next annual meeting.

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 township shall organize, with a minimum of ten charter members, then such township shall be entitled to a township director.

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

No. 4—An organized township shall be entitled to a township bureau headquarters, at which, if requested, the farm adviser shall be present on the regular schedule at least once each 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 township 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.

WHAT THE FARM ADVISER MAY DO IN A DAY

In order that some concrete impression may be gained of the work of the farm adviser, the following account by J. L. Grayson, editor Farm Development Page of the *Humboldt County Times* for Sunday, October 19, 1913, shows a typical day with the farm adviser of Humboldt County about three months after his work began. It is stated that no special preparations were made for this day in which Mr. Grayson accompanied Mr. Christiansen on his rounds through the county. It will give some impression of what a farm adviser may do in the course of his daily work.

A ROUND WITH THE FARM ADVISER

"Practically all the soils of Humboldt County need lime," said Farm Adviser A. H. Christiansen. This he has determined by chemical and other tests made since his incumbency of his job of telling the local farmers what not to do and how to do it. Of course, if the soil needs lime the only way it will get what it needs will mean that the farmers will have to buy lime and put it on the soil. And therefrom flows a nice little story of the wisdom of a county employing a farm expert and incidentally of the mental processes that make the wheels go round—no, I mean agitate the cells in the gray matter of a farm expert's head.

It works out something like this: If the soil needs lime the farmer must buy it. Very well, lime by the single ton lot or less is now retailing in Humboldt County at about $20 per ton. In lots of two tons it can be bought for $16. The average amount of lime needed per acre is 1500 pounds. There are 1534 farmers in the county. According to the census, farm holdings average

above 300 acres per farmer. At even 150 acres each that would mean 230,100 acres. At 1500 pounds per acre you have 345,150,000 pounds, or about 175,000 tons. At $16 per ton it would mean $2,800,000. Just for one application!

Gee whiz! Where's Mr. Farmer going to get pretty nearly three million dollars for lime? Well, of course, he isn't. It would scare him to death. And then the farm expert says this first dose of 1500 pounds of lime per acre would only last about three years and the land would need it again. Of course, the expert says that lime would mean adding from a third to a half in productive capacity to the soil and the extra production would pay the lime bill and then leave a good profit. But there's more of the story.

The farm expert suggested to the secretary of one of the farmers' associations that if the members would bunch their orders for lime the dealers might make a better price. The result was remarkable. The dealer came down in price half. But even at $8 per ton it meant a million and a half to the farmers of the county to put one application of lime on only half their land. The farm expert was not satisfied yet. Somebody thought there was plenty of lime rock right here in the county. He began an investigation. About ten miles north of Eureka he found a whole mountain of lime, and heard of a lot of other places in the county where there was plenty. Then he learned that it costs only about $2 per ton to burn the rock in a kiln and make lime of it.

Well, he figures that if it costs $2 per ton and if $2 more were added for profit and handling it would give the farmers of the county—and everybody else, for that matter—all the lime they wanted at $4 per ton. Which means a saving too big to calculate, but one which will pay a farm expert's salary for several weeks to come. And now an expert mineralogist from the State University has been sent for, to make sure the quality and quantity of this lime rock are both all right, and a practical lime kiln man is just waiting for these details to begin operations. That's one day's work for Humboldt's farm expert.

Here is another day of a different sort. The farm expert has an auto now and he kindly invited the Times man to make the rounds with him. Can't tell the whole story of even one day on this page, but a few sample cases of the work will give you some idea. Early in the morning one of those beautiful days last week—real Humboldt county weather—we rolled out on the road leading to the valley. As we passed a field of beets and carrots we inquired as to the average crop per acre of the roots so generally grown by the dairy folks. "They get about 12 tons of carrots per acre, and about 15 tons of beets," said Christiansen. "They should get 24 to 30 tons of carrots and 30 to 40 tons of the beets," he added. "Lime in the soil and proper cultivation and handling would easily raise the yields to double."

"During the past month a number of dairymen have been making inquiries as to what would increase the yield and a number of them have agreed to use lime on the soil and give the better methods a try-out. I believe we shall see a considerable change for the better in this direction soon. If only one man in a neighborhood will do things right the rest will soon follow suite and it looks very hopeful. Another thing where they can greatly increase production is by getting rid of immense waste of land in growing weeds. Every weed grown means depletion of soil, absorption of moisture needed by good crops and it's mighty bad farming."

And I suppose at a low estimate there are 6000 or 8000 acres, maybe twice that of root crops grown for dairy feed. If the work of the farm adviser means an increase of double the yield that would mean double the number of dairy cows and double the output of dairy products and— Well, it does look as if a farm expert adviser was a kind of handy individual to have in the county and it does look as if his salary was a pretty good sort of community investment. Pretty good idea to keep him on tap all the while.

Reaching Fortuna word was left with Farmer-Banker Fred Newell that the farm adviser would be at the service of as many farmers as cared to meet him that afternoon. Then we drove over to Alton and out to Louis East's good place. Mr. East had made inquiry as to a remedy for a cow that was not doing well. The remedy and instructions were left and we visited the five acres of horseradish grown on the East farm the past season by an Oakland concern, samples of which were pronounced by them as the best horseradish grown in the state. They were harvesting the crop and it makes a good showing as one of the future money crops of certain sections of the county. The figures on this crop appear elsewhere.

Back over the Hydesville hill, through Rohnerville and a brief stop at Robert Seater's orchard. Mr. Seater wanted to know about spraying and soil trouble and these were talked over and explained and then on to Fortuna. Here we had dinner and the real work of the day began. About a dozen farmers and others were ready, including G. H. Conant, Gratton Little, F. H. Newell, J. Belloni, Frank Moreland, W. P. McIntyre and J. H. Gaarden.

The first place visited was Little's orchard. Some fine apple trees looked as if they were having a hard time to make a live of it. Christiansen looked at the sod-bound earth, hard and dry. He got out the soil augur and began boring. Down a foot or more and pulled up the augur. Dry as dust. Everybody took a hand at turning that augur and it was pulled up every foot or so and nothing but dry earth until 6½ feet down, we found the moisture. And this in the richest kind of alluvial soil. "There is what's the matter with your apple trees—they can't grow without water to loosen up the plant food in the soil," said Christiansen.

Then he explained the need of cultivation and a top mulch to prevent the water in the soil from evaporating, and gave a demonstration of how the roots get their nourishment, told them the trees were planted too close and all about the chemical and mechanical action of the lime on the minute particles of the soil, discussed the methods of spraying and the care of trees to keep them free from insect and fungus pests and a lot of other things.

Then out of the orchard to a clover field where the best methods of growing clover were discussed, how to disc it and the benefits of such cultivation, and on to a patch of alfalfa. Then there was a general discussion of alfalfa, its action in putting nitrogen in the soil through the little nodules on the roots, and directions as to when it should be cut. "Never mind the blossoms," said he. "Pull up a stalk or two here and there in the field and if the new shoots are beginning to start it is time to cut alfalfa. If you wait until these new shoots from the plant head get two or three inches above ground your mower cuts them off and you are cutting not only the crop that is big enough for hay but the next crop too."

Then on to another field, a part of which has been put in various crops in the past three or four years—none of which would grow to amount to anything. "Needs lime to loosen up the soil and make the plant food available," said Christiansen. Full directions as to applying the lime, plowing, cultivations, the best crops, etc., were detailed and illustrated and Newell was for starting right back to town and bringing the lime out then.

"Better wait and attend the meeting November 1 at the court house in Eureka," suggested the expert. "If the farmers organize and combine their orders it will keep more dollars in their pocketbooks and help out quicker in the way of bigger and better production. They'll get returns that way sooner than by any other." Then he told them all about the prospects for getting cheap lime to meet their needs right here out of the hills in old Humboldt county. And I'm sure everyone of those present appreciated what the farm adviser means to the county.

On a little further we came to a splendid field of kale. It was an average of 4 feet high—on the same kind of rich alluvial silt soil as that where nothing would grow. Belloni was right proud of it and said it was the very best dairy feed he could grow. And then Conant, who's been wised up on kale, showed 'em how to strip the big, fat leaves off the stalk and leave the latter stand to grow another crop and so double the yield, and Christiansen explained its value as a milk producing feed and a lot of other things about it.

The next move was out into the hills beyond Rohnerville, where Messrs. McIntyre and Gaarden have as fine a tract of hill farm of 150 acres as I have seen in the county. It was badly farmed for many years and got the reputation of being "run out soil." "We want to know what to do with it," said McIntyre. Out came the soil augur and half a dozen holes were bored here and there in different fields. The rich black soil looked as if it would grow gold dollars to me and I wondered what the expert would say.

"How much fertilizer must we put on here to get anything out of it?" asked Gaarden. "It doesn't need fertilizer yet. It is fine rich soil and will grow good crops for 500 years without fertilizer if it is handled right," said Christiansen. "It would make a very fine dairy farm. I would put it in alfalfa, using perhaps a first crop of rye and vetches mixed to loosen it up a little and give it a dressing of 1200 to 1500 pounds of lime per acre." And at the idea of growing alfalfa in the hills both McIntyre and Gaarden nearly fainted and fell against the fence.

And then came detailed instructions for plowing and drilling in the lime and the proper crop rotation and the alfalfa, and this was followed with directiosn for cultivation to conserve the moisture and a sort of lecture on caring for the farm manure pile. "Handle the compost pile right and it is worth from $50 to $60 per ton," said the expert. "Handle it wrong and put in on the soil wrong and it is a damage rather than a benefit." And it was mighty interesting.

And there was lots more of it. I wish every farmer in the county could have heard it and would put into practice these things the college experts have been finding out about soil and crop management. Back again toward Fortuna, stopping at the good dairy farm of I. T. Smith. Mr. Smith wanted some information as to his alfalfa. This was given in detail and questions answered

as to the use of the water from a stream that flows past a lot of redwoods in the hills, about whether the badly discolored water would do for irrigating.

"The root discoloration of the water will not hurt it for irrigating," Smith was told, but to be sure there was nothing else of a deleterious character in it, a sample bottle was taken for analysis in the laboratory. Then on to Fortuna, where Gaarden invited us to have dinner at the celebrated "Bachelors' Club" of that place—and a jolly good dinner with a jolly good bunch. They tell me after the men bachelors organized their club the young ladies of Fortuna followed suite, which raises an interesting question as to whose fault it is. But that's another story.

Then to the auto and home. And if any of you know of anything finer than a moonlight drive from Fortuna to Eureka in a balmy October evening in the best county with the best climate in California—past the pleasant farm homes and the little villages picked out here and there by electric lights, and the vague outlines of the hills and off to the west the gentle murmur of the old Pacific as the surf rolls in—why, tell me of it and I'll hunt it up and try it.