



# MINNESOTA EXTENSION SERVICE NEWS

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## New Mark Set at the Annual Conference

All field workers but two came to University Farm for the annual conference of the agricultural extension service December 13, 14, and 15. The spirit and interest were reflected in the high average daily attendance. All features of the program were carried through to the letter. Everybody seemed to feel that it was a good conference, one of the best yet held by the extension department.

In his address at the opening of the conference Dean W. C. Coffey soon made it clear just what are the projects on which we can all work together.

"An enlarged, better organized extension service has emphasized the importance of the experiment station," he said. It has made its mission better understood; it has pyramided the demands made upon it.

"Obviously the most active users of the products of the experiment station are the workers in extension. In several western states the extension staff is embarrassed because the product from the station does not flow fast enough. Too many important field problems must lie untouched because the station staff is not adequate to meet the needs. No station is developing knowledge capable of practical application faster than the extension staff can use it. This fact alone is sufficient reason for the station confining its efforts chiefly to those things which have application somewhere in the important activities of agriculture.

### Maintaining the Flow

"The fact that extension workers are the most active users of the experiment station's product demands that the relationship between the station and extension staffs be close and systematic with each capable of constructively criticizing the other. Such relationship will help to keep the stream running from the station where knowledge is developed to the point where it is applied, clear and flowing evenly.

"Today a man is not considered educated unless he understands the method of science and something of the main achievements of the sciences. Any agricultural man graduates short if his training fails to familiarize him with the scientific method and many of the cardinal achievements of science in the field of agriculture. In addition he should know the machinery used in developing and disseminating agricultural knowledge. At this point those in charge of the curriculum may at times take too much for granted, both as regards the students and themselves.

### Understandable Terms

"The results of science, if applied in the work-a-day world of agriculture, must

be resolved to terms which the work-a-day man understands. The first step in getting this done is in establishing the relationships between station and extension staffs I have mentioned, for then it will be seen that both have an obligation. If the extension worker does not understand what the research worker gives him, he cannot pass it on to the man who tills the soil and milks the cows. Both workers need to take pride in understanding each other.

"I sometimes think a lack of understanding between them is due to over-emphasizing the supposed profundity of research—of thinking that it resides in chambers which common mortals cannot unlock and dare not try to enter."

### Obligation of Extension

While research workers should get into the field as often as possible, the dean thought it was an obligation of extension to make contributions to research. This could be done by observing and encouraging the farmers to observe. It was by observation by a farmer that the agency of the seed corn maggot in spreading blackleg of potatoes was revealed by a Minnesota station worker. "In the first instance research projects arise from situations existing in the field covered by extension," he said. "Because of extension we can see the situation more clearly; its extent can be better understood. All can help on all projects by making field observations. All cannot help in researches dealing with obtruse phases of problems."

Regarding the rather new fields of research, rural sociology, home economics, and economics, the dean said the data are largely in the field.

"All can help by keeping in mind that we live and move in a changing world; that we are, therefore, in an experimental world," he added. "Therefore we can never know when the last word has been said. True research cannot live within the boundary lines of finality. We must always be ready to have conclusions modified or reversed."

Dean Coffey pointed to Dr. W. A. Billings' bulletin, "Talking Turkey," as a fine example of placing the results from research in understandable terms for the work-a-day man and woman.

### EXTENSION METHODS AND RESULTS COMPARED

Indirect spread, method demonstrations, general meetings, and farm or home visits are the most effective extension influences in changing farm and home practices. News stories come next, then bulletins and office calls (tied for sixth place), then adult result demonstrations, junior demonstrations, circular letters, correspondence, extension schools, and exhibits, in the order named.

The foregoing is based upon surveys made in 10 states showing the adoption of 22,704 improved practices on 7,802 farms. The percentages credited to the different methods are as follows:

	Per Cent
Indirect spread	22.0
Method demonstrations	14.5
General meetings	13.9
Farm or home visits	12.8
News stories	10.2
Bulletins	6.5
Adult result demonstrations	5.3
Junior demonstrations	2.9
Circular letters	1.5
Correspondence	1.1
Extension schools	.9
Exhibits	.7
Leader training meetings	.6
Telephone calls	.3
Radio (2 states)	.2
Study courses	.1

In proportion to the time expended the results from news stories naturally lead all other extension methods. Bulletins come next. These two methods have proved about five times as effective for a like amount of time as circular letters, and circular letters allow nearly three times the returns from extension exhibits per unit of time required. This did not necessarily mean that the extension workers could devote unlimited time to news stories or bulletin writing and distribution. One had to keep constantly in mind the inter-relationship of the various methods. News stories, for example, are important as a follow up of demonstrations, meetings, experiences of good farmers, statements of specialists, and so on.

The figures and statements given above were a part of a highly interesting feature of the conference—a talk by M. C. Wilson in charge of extension studies, office of co-operative extension work, U.S.D.A. Mr. Wilson showed charts giving figures based upon farm to farm surveys in the

10 different states. Of most interest were the figures for Minnesota resulting from a survey of two townships in Lyon county and two in Blue Earth county, last May.

Among the interesting facts presented by Mr. Wilson in relation to the Minnesota survey were the following:

Of the 404 farms visited, in order along the roads, 55 had provided local extension leaders, 140 had carried on some extension activity, 185 had shared in extension activities with others, 84 had had a part in 4-H club work, 365 had been in contact with extension workers, 69 with home demonstration agents, 180 with subject matter specialists, and 137 with local leaders.

Ninety per cent of the farms visited had adopted improved practices and 36 per cent home practices.

Ownership seemed to make little difference in the adoption of improved practices. On 242 farms owned by the operators 90 per cent had made agricultural changes as a result of extension activities, and 37 changes in home economics. On 162 farms operated by tenants 87 per cent had made agricultural changes and 88 per cent home changes.

Of the 140 farms on which had been carried on extension activities, 98 per cent had adopted improved agricultural practices and 61 per cent home practices. Of the 185 farms sharing with others in extension activities, 96 per cent had adopted improved agricultural practices, and 29 per cent home practices. Of the 79 farms not participating in extension activities, only 58 per cent had adopted improved agricultural practices and only 10 per cent improved home practices.

Of the 365 farmers in contact with the county agents in Minnesota, 90 per cent had adopted improved farm practices. Of 39 farmers having no such contact only 10 per cent had adopted such practices.

The important places taken by bulletins in extension work shown by all of the surveys was a specially interesting part of Mr. Wilson's talk.

Of the 404 farms in Minnesota, 58.7 per cent had received farm bulletins of some sort, 43.4 per cent state bulletins, and 39.6 per cent U.S.D.A. bulletins. Of 657 farms in Wisconsin 71.7 per cent had received bulletins of some sort, 58.6 per cent state bulletins, and 40.8 per cent U.S.D.A. bulletins; of 615 farms in Ohio, 53.8 per cent bulletins of some sort, 56.7 state bulletins, and 30.1 U.S.D.A. bulletins.

In Minnesota only a limited number of bulletins are sent out on regular mailing lists. The rest are distributed by request at meetings or through county agents or other agencies.

Of the farmers receiving bulletins, about 86 per cent in each of the three states read their bulletins and about 60 per cent saved their bulletins for future reference. In Minnesota 55 per cent adopted practices suggested by the bulletins, in Wisconsin 63 per cent, and in Ohio 64 per cent. The variation, in Mr. Wilson's opinion, is not a matter of great importance.

As a result of the study of methods of bulletin distribution, Mr. Wilson concluded that the particular method of bulletin distribution is not so important, after all. The great problem is to get bulletins distributed. "All extension studies which have been made thus far," he said, "emphasize the value of bulletins as an inexpensive means of influencing farmers and farm women to adopt improved practices."

All the phosphate plots on two farms in Cottonwood county gave increased yields, says the county agent.

## PLANS FOR 1928 WEED CAMPAIGN IN STATE

The pendulum has swung to the other side of the arc and there is now a real demand for information about weeds, said Andrew Boss, vice-director of the Minnesota Experiment Station, in opening the discussion on the weed campaign for 1928. To meet the demand research is needed on certain new weeds like leafy spurge, Austrian cress, ox-eye daisy, and others.

Plans for 1928 contemplate the publication in popular reading form of nine circulars on the most troublesome weeds and revision of Extension Bulletin No. 26 on "Seed Cleaning in Minnesota." These circulars will deal with quackgrass eradication, the Canada thistle, sow thistle, the mustards, wild oats, French weed, leafy spurge, Austrian cress, and dodder. Assignments for the preparation of material have already been made among station staff men.

### Eradication Project

The campaign so far planned contemplates the establishment of a weed eradication project calling for—

Studies of underground systems of weeds at different stages of development of the plants and in different soils.

Studies of kinds and amounts of reserve materials in the underground parts of weeds.

Studies in the time of cutting or removal of the tops of weeds in relation to the reserve foods in the roots and ease of eradication.

Effectiveness of various plant poisons applied in different amounts per acre in different dilutions at different times of the year.

An educational campaign, particularly in the Red river valley, with a conference of agronomists, weed specialists, and farmers at Crookston, is also planned. Interest in the movement will be aroused by township meetings in northwestern counties to promote weed control and better cropping.

Professor Boss said that experiments in Wright and Polk counties, Minnesota, and in North Dakota had demonstrated that quackgrass and sow thistle, the most troublesome weeds, could be controlled by black fallow and alternating crops. He cited three methods which would give control at minimum expense. Further investigation he thought was warranted of the use of chemicals in destroying weeds. Chemicals had been used to wipe out quackgrass, but the expense incurred made the process prohibitive except on small areas. A method that was effective and cheap enough for general use was needed.

### Use of Chemicals

Sodium chlorate, a non-poisonous compound mixed at the rate of one pound per gallon of water and applied at the rate of 100 gallons per acre, had been used successfully in Indiana on quackgrass. The grass died within a week and two months later not a sign of life was visible, even the roots being brown and dead. On another acre where the grass was mowed before the chemical was applied, a 90 per cent kill was secured with a single application. The best time to apply the material seemed to be when the grass was in early bloom. Similar results had also

been secured with this chemical applied to Canada thistles after frost when the tops were dead. Sodium chlorate is inexpensive costing about seven cents a pound.

Study of the use of chemicals, Professor Boss said, should also include carbon bisulphide, sodium arsenite, copper sulphate, and heavy oils. The time to apply and the strength and quantity to be used were matters which naturally fell within the scope of the study.

### Cost More Than Taxes

C. P. Bull of the State Department of Agriculture, who continued the discussion, said that weeds cost the farmers more than they pay in taxation. He read a quotation from a recent federal bulletin which asserted that in the last four years the growers of Minnesota, the Dakotas, and Montana have paid the railroads two and a half million in freight charges for transporting weed seeds with their wheat to market. Because of the presence of the weed seeds, the sale price per bushel of wheat was about 1.8 cents lower than it would have been had the wheat been clean. This represented a loss approximately of 12 millions. Finally, if all this dockage had been kept back on the farms, it would have had a feed value of 25 millions more.

The total of these three preventable losses for the four years is placed at about 38 millions, which does not include the extra labor or the increasing weed problem for the next year. The bulletin estimates that 13 millions would have paid the costs of cleaning all the wheat for the four years. With this sum deducted from the total there would have been a clean saving of about 25 millions.

### Sweet Clover as Control Crop

Mr. Bull said he was thoroughly sold on the value of sweet clover as a weed control crop. Smother crops in general are effective. The sow thistle, he said, is scattered over the state and there is a 100 per cent infestation in northwest counties. The Canada thistle pervades the entire state. The horse nettle has been brought in from the southeastern part of the United States. Prickly night shade is getting well established. Leafy spurge he pronounced the worst weed we have yet encountered—one that will bear a lot of study. The ox-eye daisy is a pest of waste places. Minnesota has one of the three known plantations in this country of the Austrian field cress, another terror. Because of the garlic flavor communicated to milk and butter by French weed, creamery buttermakers of Norman and other counties have taken losses.

The need of regulation must be apparent to everybody, he said, but no one wants to take the lead in law enforcement.

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### County Agents Elect New Officers

L. E. McMillan, Blue Earth county agent, annexed a couple of offices while attending the conference—president of the Minnesota County Agents association and annalist of the new fraternity. His score might have been heavier had the conference continued another day or so. L. E. Hudson of Watonwan county (there seems to be something magical in those initials) was chosen vice president of the association, and S. A. Aldrich of Carlton county, secretary-treasurer.

## HOW THE BORER ACTS IN OHIO AND MICHIGAN

The European corn borer is now half way across the state of Indiana and is only one county removed from Lake Michigan, said T. B. Parks of Ohio State University, who spoke at the conference the last afternoon.

Increase in Michigan has been steady and sure the last three years. All affected counties in that state, according to Mr. Parks, had an infestation averaging 26.7 borers in 100 stalks in 1927 as against 10.7 in 1926 and 1.5 in 1925. Because of the special cleanup in lake counties the borer population decreased in 1927 in Ohio, the average in 100 stalks this year being 3.8 as against 5.4 in 1926 and 1.9 in 1925. In one county bordering Lake Erie an average of \$7 an acre was spent by the government and the farmers in cleanup work.

### Spreads by Wing Flight

The borer winged its way across Lake Erie from Ontario where it was first recognized in 1921. In 1926 it spread in the same manner to the west and in 1927 more to the south. In '25, '26, and '27 the Ontario corn crop was practically destroyed. Farmers have been substituting tobacco and small grain for corn and by getting good prices have not suffered financially.

While the situation does not warrant hysteria, Mr. Parks said a careful study of the pest and of cultural and mechanical means of fighting it should be pursued by Minnesota agriculturists and investigators. No garden plants had been infested in Ohio—nothing but corn and cornfield weeds. The borer likes humidity and a dry year in the corn belt will serve to keep it down. Don't look for borers in Minnesota until the month of August, he said.

Late planting is necessary and agronomists of Ohio are developing a strain of corn that can be planted June 10 and reach maturity.

For mechanical control he thought low cutting binders would be good for use in Minnesota. Several pulverizers have a certain place and the plow of course will always be needed. Growing of sweet corn was likely to be crippled.

### Old World Conditions

Dr. R. N. Chapman followed with an explanation of conditions in European countries, the original home of the pest. Corn is grown there on between 20 and 25 millions of acres. In Rumania there are about 10 million acres, or approximately the same acreage cultivated to corn in Iowa. Italy has four million acres, Hungary about two and a half millions, and France two millions. The great central plains of Europe resemble the corn belt in the United States. They have had commercial losses in years past but not in 1927 except in a comparatively small area adjacent to the Danube in Jugoslavia.

The borer was not of economic importance in Italy or France the past season, said Dr. Chapman, and it was his opinion that losses from the pest do not run high in Europe. Occasionally and in spots commercial loss is noticeable. Corn growers of Minnesota, Wisconsin, and Iowa should prepare for the invasion, but he felt there was no reason to get excited.

Dean W. C. Coffey in closing the discussion said that liberal support for research is necessary and that he had confidence the situation would be met.

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## MORE PROJECT EXHIBITS CONTEMPLATED AT FAIR

Discussion on the project exhibit was opened by S. B. Cleland who said that as a result of experience in other states, particularly Iowa, it had been introduced not with any idea of displacing the old type of county exhibits but as an addition. The project exhibit type gives a greater opportunity to display the result of definite extension work. The projects selected are typical examples of extension work which has been successful in actual practice.

Mr. Cleland had figures indicating that the cost of the exhibits to the four counties which showed the past year averaged \$230, not including the time of the agent in preparing and setting up the exhibit. Since the total amount offered for exhibits was \$670, it is apparent that the exhibit had to be put on at some expense over and above the amount finally received.

No definite arrangements have been made with the State Fair for 1928, but the general sentiment at the time these exhibits were put on last year was that the plan would be carried forward, possibly with five to eight exhibits instead of four. Counties prepared to present good projects for the 1928 fair were invited to get in touch with the central office.

County Agent A. R. Karr of Martin county, which won first place at the 1927 fair, spoke very highly of the general effect that the exhibit has had on his work and its value in directing attention to the importance of the project and in affording a desirable means of teaching the proper method of swine sanitation. The intensive work incident to the preparation of the booth had been a splendid piece of extension work and the followup later in the use of the booth was very practical. Mr. Karr said he had had the exhibit at the Faribault county fair and at the Swine Feeders' Day at University Farm, and that he was invited to present it during Farmers' and Homemakers' Week.

County Agent J. J. McCann of Pennington described the booth and his relation to it. He commented on similar booths shown at the International Livestock Show and felt that a more shallow booth would be more advantageous for displaying this type of exhibit.

County Agent W. A. Peters and Charles Matthews were not present, but the former spoke briefly the next day relative to the exhibit from Wadena county. He felt that it was a good project, well worth carrying on.

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### "Home" Folks at Christmas Party

Members of the state home demonstration staff were the guests of their "country cousins," the field workers, at a party at the Nicollet hotel the second evening of the conference. The dining tables were resplendent with holiday decorations. Games, dancing, a Santa Claus, and informal discussion followed the repast.

## COUNTY ORGANIZATION AND FIELD PROJECTS

Murl McDonald of the Iowa extension service, F. E. Balmer, and Miss Newton contributed to a symposium Wednesday afternoon on the organization of the county extension agent's office, field projects and time.

Mr. McDonald presented charts comparing the results of county extension work in two groups of Iowa counties—the 10 having the largest farm bureau membership and the 10 having the smallest membership. Assuming that a large membership represents to some extent a greater response to extension work than a low membership, the methods of the two groups were compared to determine the reasons for the increased response.

It was shown that the agents of the high counties averaged 11 per cent more time in the field, at the same time averaging 55 per cent more office calls, 30 per cent more letters written, and 3 per cent more telephone calls. Being in the field more, they averaged 27 per cent more farm visits than did the agents of the low counties.

The agents of the high counties used the state extension service more than did those of the low counties—44 per cent more to be exact. Not only that, but they also used 57 per cent more assistance in maintaining and strengthening their organizations. This fact was significant as to the methods of work in the two groups, for the agents of the high group averaged only 14 days of their own time on organization work, while those of the low group averaged 24 days. In other words, the high counties used more specialists and demanded less time of the agents on organization work.

Mr. Balmer discussed particularly the necessity of careful planning of the agent's program, and illustrated his remarks with examples from various counties. He referred to the fact that the extension law of Minnesota, as well as the policy and practice of the extension service, sets up the well organized program of work as the foundation of Minnesota county extension.

Miss Newton closed the discussion with a review of the new plans in home demonstration work for the coming year.

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### Christmas Party Great Success

The agricultural extension Christmas party seems likely to become a tradition of the service. The 1927 party was held in the cafeteria dining room at noon Monday, December 19. Everybody was there and everybody got a present when Santa, or was it P. O. Anderson, and his assistants, Leona Palmer and Mildred Schenck, all in costumes, began "playing pranks with Woolworth." The revised catalog of projects, otherwise the menu, was discussed as opportunity was given while the pranks were being run off. Although the menu was good, it was rather incidental to the Christmas doings. Miss Newton conducted the class in method demonstrations, and Director Peck told the company that the party was good for the morale and was here to stay.

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### For Better Farming

Twenty co-operators have been signed up for a Better Farming Club in Dodge county.

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### HIGH ORDER OF SERVICE—AIM OF POLK COUNTY

Polk is a primary agricultural county of Minnesota. Agriculturally it excels every other county in Minnesota in two important respects—acreage of crop land and the value of crops produced annually. The crop land in 1925 according to the census amounted to almost 700,000 acres and the value of crops produced (1924) was \$9,755,964. Only one county, Ottertail, exceeds Polk in "all land in farms" with slightly more than one million acres, but Polk county has 71 per cent of its land in farms against 56 per cent of Ottertail county.

Incidentally, Polk and Ottertail counties are leaders in two other important respects. They lead the state in sweet clover and alfalfa acreages, Polk (in 1925) with 24,493 acres of sweet clover or nearly six acres of sweet clover per farm, and Ottertail (in 1925) with 17,798 acres of alfalfa or nearly three acres per farm.

It was a matter of some satisfaction to the Minnesota extension service to have Polk county on December 20, at a meeting of its commissioners, the farm bureau executive committee and representatives of the state extension service, adopt a plan to place the county agent service in the county in a position of outstanding leadership in the Red river valley. Though competing with Ottertail county as one of the leading agricultural counties of Minnesota, the county of Polk adopted the Ottertail county plan of establishing two units of the county agent service, one agent with headquarters at Crookston to serve West Polk county and a second agent at some central location for the eastern section of the county.

The size of the county makes such a plan of organization necessary as the county consists of 57 townships of first class farm land and 4,200 families to be served. To put the plan into operation the county board of Polk county set aside \$4,000 for the year 1928. The state extension service is doubling state and federal aid, increasing the grant from \$1,800 to \$3,600 per year, or \$1,800 to the work of each agent. The county farm bureau will complete the necessary budget for the extension work. The farm bureau organization is now well under way in the west section of the county. It is expected that an eastern Polk county unit of the

farm bureau will soon be organized and that the farm bureau funds derived in each section of the county will be reserved for the respective sections.

Immediately after the adoption of the improved plan of organization for the extension work, the county extension and executive committees elected A. W. Aamodt, one of the most experienced county agents in Minnesota, to the West Polk situation with headquarters at Crookston. He begins his service January 15. It is expected that the necessary organization will be completed soon in East Polk county and an agent put to work there early in the year.

### WHY NOT TAKE THIS VACA- TION?

Herbert Peterson of Chisago City, Master Farmer, class of 1926, calls the Farmers' and Homemakers' Week Short Course at University Farm his vacation.

"Every year I look forward to the course," he says, "and it is a great disappointment to me if I am unable to attend. It is time well spent for three reasons. First, as a hard working farmer it does me good to get away from my duties for a few days. Second, I have derived a lot of help and benefit from it. Third, I have received much enjoyment and recreation from the good programs and entertainments.

"Rubbing elbows with other farmers and the faculty members gives a fellow a better view of life. I return home more satisfied with my home and farm, ready to dig in for another year and determined to do better than ever before."

There ought to be more Herbert Petersons in the land. The average attendance upon University Farm's leading short course is around 1,200. The class room work, programs of exercises, facilities and accommodations are ample for twice that number. Everything about the course is satisfactory except the attendance.

More farmers at this course like Mr. Peterson—farmers who will enter into the spirit of the classroom work and the recreational features, who will swap opinions and experiences with fellow farmers and university teachers and help to solve the problems of others, would extend the influence of the University Department of Agriculture in a wonderful degree.

Extension people can help to stimulate the interest in and attendance upon Farmers' and Homemakers' Week. Let's pull for it and pull hard.

### New Flag Floats Over Creamery

The American Legion played a prominent part in the dedication of a new creamery and the holding of the yearly poultry show at Lancaster in Kittson county. Part of the program, the presentation of a new American flag to the creamery by the legion, was given from the roof of the new building and witnessed by the crowds in the street below. Demonstrating his Swedish melody cow call, Per Peterson, 72 years old, won the free-for-all cow calling contest.

### Extension Handbook \$1.50 a Copy

The Washington office gives notice that bound copies of the Extension Service Handbook can be obtained for \$1.50 each. Address Superintendent of Documents, Government Printing Office, Washington, D. C.

### 2,086 IN POULTRY WORK; REAL PROGRESS SHOWN

The poultry project for 1927 showed an encouraging improvement in the achievements of group members. In almost every instance there was a higher rate of adoption of practices than in 1926. Poultry houses were improved by 35 per cent of the members as against 30 per cent last year. Improved feeding practices were adopted by 36 per cent of the members as compared with 29 per cent in 1926. The greatest increase was shown in the addition of feed hoppers, reported by 53 per cent of the members instead of the 30 per cent reported a year ago. This is no doubt due to the fact that demonstrations were given in all groups of the making of feeders for chicks and hens. These reports are especially interesting in the light of the depression in prices this year, which led many to feel that few improvements would be made.

The number of members completing the project, 71 per cent, also showed an improvement. This is an increase of 8 per cent over 1926. Some individual counties made a special advance in this respect. In Sherburne county 91 per cent of the members enrolled in poultry project II made final reports. Several counties received reports from over 80 per cent of their members.

Nine counties carried on this project, which was conducted by Miss Cora Cooke, extension poultry specialist, on the local leader basis. Two counties carried on both the first and the second project. In all there were enrolled 2,086 members. Others helped brought the total reached to 5,258.

There was marked improvement in the interest and responsibility shown by local leaders and group members. More of the details of the project were handled successfully by them. The responsibility taken by county extension agents is best evidenced by the sustained interest in the project and the higher percentage of members adopting practices and completing the project.

### TUBERS CLEANER AND LARGER WHEN TREATED

The hot formaldehyde bath for potatoes has been of great benefit to growers in Pleasant Hill township in Winona county, according to County Agent McNulty. One farmer says: "I left one row of my Burbank potatoes untreated. The other rows were treated and the potatoes gathered from them were not only cleaner and larger but yielded about 75 per cent more. My seed was scabby and scrubby, but I got a good yield from the treated rows." Another adds this testimonial: "I have treated my potatoes every year since the farm bureau started the work at our creamery and it has been a big help to my seed."

### Juniors Dined and Praised

All club boys and girls of Traverse county and their parents as well were entertained at a banquet by the Wheaton Commercial Club. About 350 were served and the club members held up their end both at the table and in the program of short talks after the feast. The kids responded to the toast, "Why club work has paid me."

## HOME WORKERS STUDY PROBLEMS IN RESEARCH

Research carried on in home economics was outlined the first afternoon by members of the resident staff to the home workers attending the conference.

In the field of nutrition Miss Biester said that a project on blood regeneration had brought to light material that may prove of value in the treatment of anemia. Experiments had shown greater losses of iron in cooking vegetables in salted water than in distilled water.

A study conducted by Dr. Jane Leichsenring had to do with the diet of the pre-school child in relation to seasonal variations in growth. In experiments elsewhere it had been shown that children had the maximal growth in some seasons, average in others, and then a period of minimal growth. Twelve children from the nursery school on the main campus were used in this study which occupied a year. The effects of temperature, sunshine and diet were studied. The girls grew at a rapid rate in the fall and even more rapidly in the winter. Growth was less rapid in the spring and there was a decided decrease in the rate of growth in the summer. The boys failed to grow as fast as the girls in the fall, winter and spring, and there was a decrease in the rate in the summer. Cold weather had no detrimental effect on growth and there was no indication that the amount of sunshine influenced growth. The girls had a better appetite, ate more food, and grew better than the boys.

Other nutrition projects reported concerned the utilization of calcium from raw and cooked vegetables and the comparative value of treated and untreated milk as sources of calcium and phosphorus.

Miss Child, from the section of foods and cookery, discussed experiments in methods of cooking meat, particularly pork. She also reported conclusions from experiments in the canning of different varieties of strawberries.

Work in the teacher training section was reported by Miss Clara Brown and in textiles and clothing studies by Miss Ethel Phelps.

## EPSILON SIGMA PHI CHAPTER FORMED HERE

Following the conference the Minnesota chapter of Epsilon Sigma Phi was organized at a banquet at the Nicollet hotel Thursday evening, December 15, by Miss Julia O. Newton, member at large, and M. C. Wilson of Washington. Of 30 or more persons eligible to membership, by having been engaged in extension work 10 years or more, 25 were present and joined the fraternity. F. E. Balmer was chosen chief, W. L. Cavert secretary, and L. E. McMillan annalist.

Extension workers who were in the service before the Smith-Lever act went into effect May 8, 1914, formed the House of Pioneers which will act as a committee to counsel with the officers. Those eligible to membership in this body were found to be Miss Mary Bull and Messrs. Balmer, Erickson, Kirkpatrick, Mackintosh, and Morris. Of the six the oldest in point of service will be designated dean. A. D. Wilson, former director of extension, and Miss Juanita

Shepperd, retired specialist, are eligible to join.

Chapter members of the fraternity, aside from those mentioned above, are Messrs. Brown, Cleland, McNelly, Kittleson, Giberson, Crim, L. O. and A. W. Jacob, Thorfinnson, Patterson, Peters, McCann, Sheldon, Hudson, and Stallings, and Miss Hobart. Others eligible to join but who were not in attendance are Messrs. Drew, Dyer, Howard, Clinch, and Henderson.

Epsilon Sigma Phi is a national fraternity with its headquarters in Washington. W. A. Lloyd of the office of extension work of the Department of Agriculture is at the head of the national organization which was formed to maintain the high ideals of a permanent extension service.

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## PROGRAMS SHOULD FIT THE LOCAL CONDITIONS

J. S. Jones, secretary of the Minnesota Farm Bureau Federation, discussed the relation of the bureau to the extension service. Both were working for the same ends, he said. That was a wise provision in the 1923 law, he said, which directs that county programs shall be worked out by county boards. He had never believed in a stereotyped program; it should be drawn to fit local conditions.

Facts from a survey made by an eastern advertising agency to determine why non-member farmers never joined, what the farm bureau is doing for farmers, and what it could do to be more helpful, were submitted by Mr. Jones, as follows:

Why they never joined.	Per cent
Cannot see benefits.....	30
Could give no reason.....	15
Never had been asked.....	11
Not informed about it.....	9
Dues too high.....	7

Other objections were: lack of local organization, high salaries of officials, prefer to go it alone.

What is the farm bureau doing for farmers (in other ways than money)?

Non-members, per cent	Members, per cent
76... Little or nothing.....	7
8... Club work.....	13
6... Educational work.....	42
3... Promote sociability.....	17
2... Legislative.....	18
5... Miscellaneous.....	3

What could the farm bureau do to be more helpful to farmers?

Non-members, per cent	Members, per cent
8... Reduce dues.....	3
28... Better management of affairs..	8
10... Fulfill promises.....	1
7... Provide credit facilities.....	5
8... Education farming and marketing	21
3... Increase membership.....	14
6... More legislative work.....	7
6... Build up local organization.....	5
10... Reduce prices on supplies.....	3
5... Get better price for commodities	10
2... More social work.....	2
7... Miscellaneous.....	21

### Big Class Assured

Seventy-five farmers have signed up for the series of four one-day dairy schools in a Winona county neighborhood.

### 2,000 More Alfalfa Acres

Chisago county farmers added in 1927 more than 2,000 acres to their alfalfa growing area, reports County Agent G. W. Larson.

## OLD WORLD CONDITIONS PICTURED BY CHAPMAN

The first get-together luncheon, attended by all the "extensioners" and several members of the staff at the farm, was followed by an intensely interesting review of experiences in Europe by Dr. R. N. Chapman, chief of the division of entomology. Observation was not his first purpose but only a side issue, he said, and it was a difficult matter to contrast the agriculture of the United States and the old world because standards of living diverge so sharply.

In England 10 to 12 per cent of the land is occupied by hedges. The Englishman, he said, believes in living by the way as he journeys through life. Agricultural institutions are found in every province. County organizers fill about the same position as county agents and home agents in this country. Cambridge maintains only one professor of agriculture. Experimental work is carried on largely at individual stations which are more highly specialized and not so broad in their scope as stations in this country. But the work as a whole is along broad and comprehensive lines.

In France agricultural education, the universities and lesser schools, are under the supervision of the department of agriculture. Legislative action is necessary to effect changes in salaries and personnel. There is a radical difference in the agriculture of northern France and southern France and neither shows much progress.

Germany is getting ahead and coming back. Much good farming was to be seen. In the purely rural districts of southern Italy, there are no horses, only a few automobiles, but slow moving oxen everywhere and intensive farming the rule. Northern Italy is more progressive. The country has good experiment stations. In Belgium recovery seems to be more advanced than in France. Dr. Chapman extended his travels within striking distance of the arctic circle. To the south he visited the ruins of Carthage and other ancient cities, now the camps of wandering nomads.

## EXTENSION TO PLAN DRIVE ON AVIAN "TB"

The get-together luncheon the closing day was addressed by H. R. Smith, who is in charge of area cattle testing in the United States and who presented a close-up picture of the general situation and emphasized the relation of avian and swine tuberculosis. Bovine "tb" is heavy and avian "tb" light in northeastern states, he said, while there is much of the avian in North Dakota and elsewhere in the northwest. "You keep too many old birds out here," he said. "By disposing of the old birds and keeping only young stock the disease can be controlled." It was announced that a committee of extension workers would be appointed to formulate plans for a concerted campaign against the disease.

### Club Paper Grows

Gaylord's 4-H Club Leader, a snappy little mimeographed paper, is building up circulation and influence in Rock county. Good progress has been made in membership work.

## Division Chiefs Explain Progress of Research

Heads of six divisions appeared before the conference the last forenoon to analyze research work now in hand or recently completed. Dr. C. H. Eckles of the dairy division led the way with an interesting statement of the work on composition and market qualities of butter, feed requirements of cattle, feeding trials with new crops, the loss of fat in churning sweet cream and its control, the accuracy of the composite cream sample, and the mineral requirements of cattle.

"So far our knowledge of the possible effects of insufficient minerals in the ration is the result of starting with some evident deficiency as observed with farm animals and determining the causes," he said. "This is a slow way to advance knowledge. We are following our investigations of the deficiency which occurs in western Minnesota with an investigation planned on a rather large scale and which is designed to build a foundation for our more rapid advancement in knowledge along the lines in question."

"Mineral deficiency is identified by abnormal symptoms shown by the animal and by a change from the normal in the composition of the blood and bones. We are starting groups of calves each of which will be subject from birth to a particular mineral combination. In addition to observing symptoms regarding health and activity, growth and reproduction, we will slaughter two from each group at six months of age, two at 12 months of age, two at 18 and at 24 for analyses of the bones and blood.

"By this means we will learn the effects of low calcium, for example, or an abnormal ratio between calcium and phosphorus. When this information has been built up it will be possible in most cases to identify quickly the cause of any particular condition which appears among cattle due to mineral abnormality."

To date 16 calves have been put on this experiment of which eight have been slaughtered. It is expected at least eight years will be required to complete the project.

### Field Crops

In field crops work Dr. Andrew Boss said the chief problem now was the finding of varieties resistant to disease. Plant breeders, pathologists, chemists and technologists were co-operating.

The new Marquillo wheat had stood the test for three years. It yields better than Marquis and is resistant to blackstem rust. Milling tests show it to be a very good flour wheat. While it appears to be superior in quality now, there need to be no surprise if it breaks down in the general trials to come. About 135 bushels of seed are on hand and will be used for increasing at the branch stations. Eventually it will be distributed through the county agent service.

Another field day will be held, probably in July, he said. County agents were urged to organize delegations of farmers to attend. Studies at the stations included crop rotation in weed control, the effect of a crop upon the crop following, and the effect of correct feeding on the structure and behavior of plants. A bal-

anced ration, he said, is quite as essential to satisfactory plant growth as it is to satisfactory animal production.

### Plant Diseases

Dr. E. C. Stakman said the agents could often furnish his department with first hand information of the presence of plant diseases. There was a big field to cover and the number of men for station work was limited. Much work was being done on blackstem rust to determine where it comes from and the conditions in which it develops the most. "Don't expect too much from these new varieties," he said. "They are fine as long as they last; they may last a long time and may not."

Losses from cereal rusts could be reduced by cultural practices, early sowing and proper selection of land where it is possible to select. Seed treatment is important and barberry eradication is absolutely essential. Eradication may not eliminate rust, but there will be fewer epidemics.

There was some promise, he said, in the dusting method but it was not recommended in general. Properly done it was no doubt effective. The cost, in instances, had been under \$5 an acre. While Marquillo wheat was the most promising resistant variety extant, even better varieties were on the way.

### Animal Husbandry

W. H. Peters and E. F. Ferrin reviewed the experimental work in beef cattle and swine. Results of baby beef feeding trials would soon be reported in a new bulletin. Experiments were being carried on to determine the cost and advantages, if any, of grinding grain and roughage, including corn fodder; the value of whole barley as a feed for fattening cattle; the use of protein supplements in feeding beef animals, and contrasting oats and barley in the ration of fattening cattle. Studies in the growth of wool, of methods to increase the rate of growth, were in progress. Good results had been obtained at the Morris station in fattening western lambs on ear corn. Experimental work was proposed in animal breeding.

Professor Ferrin told the agents that the McLean county system for the control of filth diseases in swine and roundworm prevention should be urged at every opportunity. Work with protein supplements had shown that some mixtures were cheaper than tankage and about as efficient. Experiments reported on Swine Feeders Day last October were reviewed.

### Veterinary Medicine

Dr. C. P. Fitch of the division of veterinary medicine discussed avian tuberculosis, bovine infectious abortion, and bacillary white diarrhoea. The first could be controlled, he said, by proper housing and care all along the line and by the elimination of old birds.

"In the control of animal tuberculosis we have got to take into consideration the little old hen," he said. Answering the question, Is avian tuberculosis transmitted through the egg? he said investigations had disclosed that the germ is present in less than 1 per cent of the

## CLOTHING WORK SHOWS GAIN IN COMPLETIONS

In clothing selection and construction 27,309 improved practices were adopted by the 2,679 women enrolled in the project in 1927. This is better than eight improved practices per individual.

During 1927, 11 counties completed the clothing project under the direction of M. Lois Reed, specialist.

Steele, Stevens, Pine, and Polk counties completed Clothing I.

Carlton, Crow Wing, Carver, Freeborn, Meeker, Yellow Medicine, and St. Louis counties completed Clothing II.

In these 11 counties 217 communities having 439 volunteer project leaders, gave the work to 2,679 women who were actually enrolled in the project. Other women helped numbered 6,438. This furnishes evidence that there is goodly spread of influence outside of the group. Two thousand three hundred seventy-five of the 2,679 women, or 88 per cent, completed the clothing project. This is an increase of 9 per cent over the number completing in 1926. In Meeker county 96 per cent reported. This is the highest number reporting in the state.

Clothing work has also been carried by Alice Terrill of St. Paul, Lillian Beard of Minneapolis, and Sylvia Shiras of Duluth, urban home demonstration agents, and Mrs. Agnes Erkel, home demonstration agent for Blue Earth county. They had 1,120 enrolled and 2,086 improved practices adopted.

Results and gains are difficult to measure in figures since the real aim in the clothing project is to encourage the present and future homemakers of Minnesota to adopt practices in selection and construction which will conserve time, energy and money, and will contribute to personal satisfaction and to a satisfactory home life.

eggs of tuberculous birds and therefore plays only a very small part. There was little danger of the disease being carried to the chick from the egg, for experiments have shown that about 30 per cent of "tb" birds do not lay at all, and that many eggs containing the germ will not hatch.

Many so-called remedies were of practically no value in fighting bovine infectious abortion. Efforts for control now recommended were similar to the measures and methods used for the control of bovine tuberculosis. Similar regulations were coming—tests, diagnosis and the elimination of the infected animal.

Control would be found, he predicted, for bacillary white diarrhoea which he pronounced the most important problem confronting the poultry industry.

### Soils and Alfalfa

Dr. F. J. Alway outlined the various methods of securing a satisfactory stand and growth of alfalfa that may be followed on the heavy soils of southeastern Minnesota and on the sandy soils to the north of the Twin Cities. He said that if the necessary precautions are observed, this very valuable crop can be raised as successfully in these districts as in the western part of the state where the abundant supply of lime in the soil makes conditions more favorable for starting the crop.

## CHANGES RECOMMENDED IN CLUB PLANS FOR 1928

Club plans for 1928 were presented by T. A. Erickson, the state leader, as the closing feature. Summer camps, leadership training schools, and the selection of judging teams were discussed, as well as some of the changes recommended by the club committee which met in advance of the conference, as follows:

That all club enrolments, except canning, be sent to the state club office by July 1. Those in canning should be in by August 1.

That county team demonstration contests in Class A for both bread and garment work be held before June 15.

That club project booth exhibits at the State Fair be continued on a non-competitive basis except on beauty and arrangement.

That no club member be allowed to exhibit livestock in more than one club class at either the State Fair or the Junior Livestock Show.

That more lambs and barrows be sold singly at the Junior Show.

That because of the change in the national rules, livestock judging teams be selected on individual records; that the preliminary contest be held at the short course in June and the final contest at the State Fair.

That the colt project be continued.

That the advanced livestock projects in baby beef, wool, sheep and swine feeding be urged for the elder boys and girls.

The committee strongly indorsed the junior leadership project and recommended that a certificate and pin be given junior leaders who finish a year's work. Several other recommendations made must first be approved by the livestock breeders and other groups before they are announced.

## NUTRITION EXTENSION CARRIED TO 16,819 IN '27

The nutrition project was carried to 16,819 persons in 17 counties during 1927, reports Inez Hobart, nutrition specialist. Five counties were carried over from 1926. Work was started in two counties which will complete the project in 1928.

In the counties completing the project, 467 local leaders gave the work to 2,911 members, 80.4 per cent of whom completed the project. The members completing the project report passing on the work to an average of 6.1 others, or a total of 13,797 and of these 11,288 have actually adopted an average of 5.3 practices, or 60,677 practices adopted.

The keen interest in children's growth records, kept as a part of the project, was the outstanding factor in last year's work. Some 1,887 growth records were kept in 1927 as compared to 387 in 1926. The average gain per child was one pound over the expected gain for the period for which the children were kept. The splendid gains made were due to better food selection, more rest, and sunshine.

These results could not have been secured if it had not been for the fine cooperation of the county extension agents and the untiring perseverance of the local leaders in the various counties.

### Big Saving on Explosive

Shaw of East Ottertail county estimates the saving on 99,000 pounds of pyrotol, distributed in 1927 at points in his territory, at \$4,000 over the cost of a like amount of dynamite. Orders are now being pooled for another carload of the cheap explosive.

## Limit Placed on Attendance at 4-H Club Congress

Several important changes in policy and procedure were made by the state club leaders and national club committeemen when meeting at Chicago in connection with the recent 4-H Congress. The age limit at which club members may take part in the congress was raised from 14 to 15. It was felt that many of the juniors were too young to attend the congress. The vote for the change was unanimous.

It was also voted to limit strictly hereafter the maximum attendance of boys and girls from a given state to 50.

The leaders also decided that the states may make up the general livestock judging teams hereafter from the four high individuals in the home state contest instead of by the present plan of a unit team.

Minnesota clubs were represented by 64 boys and girls, 25 of whom were guests of the Minneapolis Journal. The largest delegation was furnished by Iowa, 140 in all, and the smallest was made up of a single club girl from New Mexico. A Washington state club boy traveled the greatest distance to reach the congress.

Teams from 20 states took part in the general livestock judging contest, Oklahoma winning, with Illinois second and Minnesota third, only one point separating the Illinois and Minnesota teams. Ralph Horstman of Minnesota tied for fourth place among the 60 individual boys taking part in the contest, and Gayl Johnson, another member of the team, ranked tenth. Frederick Bjornstad was the third member. Each was called upon to judge two rings each of horses, cattle, sheep, and swine, and give oral reasons for the placings on one ring in each class of stock. Oklahoma is the only state to have won the non-collegiate livestock judging contest more than once.

National honors were captured by Otha Ziebell and Georgia Rose of Winona

county in judging canning products. Out of a possible 900 points Otha scored 861 and Georgia 837. Twenty girls took part.

Minnesota was not represented in the junior livestock feeding contest, nor in the health contest or the style show.

An exhibit of canned goods prepared by Ida Landro and Eunice Houske of Norman county placed fourth. Indiana's exhibit was first, Michigan's second, and Oklahoma's third. Olive Smith of Long Lake took third place in the window treatment or exhibit of curtains for a 4-H club girl's room. Iowa scored first, Nebraska second. Curtains, fixtures, and accessories such as table scarfs and chair pillows to match the color scheme of the room comprised the exhibit made by Miss Smith. The cost was \$5.

Mary Perkins of Red Wing won fourth place in the room improvement exhibit. Iowa was first, South Carolina second, and Oklahoma third. Florence Henning of St. Peter, representing Minnesota in the cotton school dress exhibit, placed fifth. First place was captured by an Indiana girl on a dress made at a cost of \$2.37.

Ella Kooda of St. Louis county and Carol Hemmingson of Kittson county placed fourth as a team in judging baking products.

The championship of the corn show went to the Hoosier state boys. In region 1, to which a part of Minnesota was attached for show purposes, Clarence Lien of St. Cloud ranked third and Robert Schultz of Monticello fifth. In region 2 southern Minnesota boys took sixth, seventh, ninth, and tenth places.

Club officials and business men of Chicago had arranged a series of royal entertainments and banquets for all the juniors, but after a week of excitement the young visitors were agreed that although they liked Chicago they would rather by far live on the farm.

## REDWOOD MAKES UP SAMPLE BIG TEAM RIG

County Agent Lynn Sheldon advises that Redwood county will have its own big team hitch equipment with which to give demonstrations in every township and most of the communities the coming spring and summer. The county furnished the material, and the teacher of agriculture in the Redwood Falls high school made the outfit except the single trees, log chains, clevises, rings, bucking back ropes, and tie chains, which were purchased. The complete outfit was exhibited on the stage of the armory while the poultry show was in progress, with an extension man beside it to explain its parts and hand out circulars and schedule demonstrations. When the hitch campaign has been finished the equipment will be sold to farmers in need of it for their big teams.

### Scott to Get Into Husking Game

Scott county will have a corn husking contest next fall. Sheay and a group of Scott county farmers were favorably impressed with the national near Winne-

## SECOND CLUB CAMP AT WASHINGTON IN JUNE

Apparently the national boys' and girls' 4-H club camp in Washington is to be made permanent, for C. W. Warburton, national director of extension work, announces that the second camp will be held at the nation's capital in June, 1928, under the auspices of the United States Department of Agriculture. Each state, following the plan of last year, may select two boys and two girls as representative club members to attend the camp. The program will include daily conferences for both junior and adult campers. There will be addresses by men and women eminent in government affairs, and educational trips about Washington. Some 147 club members from 38 states attended last year's national camp.

### Sheep Owners Will Cull

Sheep owners of Koochiching county believe their flocks as well as poultry flocks and dairy herds ought to be culled occasionally. The county agent is assisting them and, if possible, a sheep specialist from University Farm will give them help.

## Farmers' Week at 'U' Near at Hand Again

Farmers' and Homemakers' Week Short Course rolls round again.

The dates are January 16 to 21 of the new year. The place, University Farm.

There will be a Farm Bureau Day, a Crop Improvement Day, and a Livestock Day, featured by the Minnesota Farm Bureau Federation, the Minnesota Crop Improvement association, and the Minnesota Livestock Breeders' association respectively.

Separate classes for the women, beginning Monday afternoon, January 16, will be held in the home economics building. Faculty women will lead the discussions. They will be assisted by Miss Eloise Davison of New York, Mrs. Bess M. Wilson of our own state, Miss Harriet Wood of the State Department of Education, Dr. John E. Anderson of the Institute of Child Welfare of the university, F. D. Farrell, president of the Kansas State Agricultural College, and faculty men at University Farm.

Miss Davison is connected with the home economics division at Iowa State College and also with the National Electric Light association of New York City. Labor saving devices in the home, their selection, care, and proper use, will be her theme. Mrs. Wilson, a member of the board of regents of the University of Minnesota, will speak on "The Farm Woman and Her Public"; President Farrell on "A Man's View of the Homemakers' Job."

College and School of Agriculture faculty men will give instruction in the general classes which will consider about every phase of modern farming. Among the speakers, aside from those mentioned, will be William Oxley Thompson, former president of the University of Ohio; Dr. L. D. Coffman, president of the University of Minnesota; H. N. Wheeler of the United States Forest Service; George C. Humphrey, of the University of Wisconsin; J. F. Reed, president of the Minnesota Farm Bureau Federation; W. C. Coffey, dean of the Department of Agriculture of the University of Minnesota; A. J. Ogaard, president of the International Crop Improvement association, and Mrs. Charles M. Sewell of Indiana, a farm woman and a brilliant platform speaker representing the American Farm Bureau.

There will be noon-day rallies and evening entertainments culminating with the family supper party Friday evening. The Master Farmers of the 1926 and 1927 classes will be received and recognized, and a Ten Year Club of men and women who have attended ten or more of the short courses will be organized.

Oh, yes, the old-time, popular singing Agricultural College Alumni Quartet—H. C. Lende, Harry Bartelt, W. A. Peters, and T. W. Thorson may come back.

### Poultry Project Effective

"The poultry project is creating much interest and improving the condition of many farm flocks," says Fischer of Nicollet. "Lessons in culling, feeding, and poultry house construction have been given to date. Many of the members have culled their flocks, remodeled their houses, and are feeding balanced rations. They are greatly pleased with their increased egg production."

## HOME MANAGEMENT PROJECTS SHOW GAIN

Home management projects I and II were carried on in 14 counties during 1927 through the co-operation of county organizations and the state extension specialist, Mary L. Bull. In eight of the counties the project was completed.

Eighty-one per cent of the women enrolled in the eight counties completing the home management project made final reports and assisted in the check-up or achievement days. This was an increase of 7 per cent over last year.

Two hundred ninety-two leaders conducted 628 meetings in their several communities and had an enrolment of 2,009 women.

Twenty-seven houses were improved, embodying suggestions received in the project work.

Five hundred eighty-five pieces of furniture were refinished at a cost of \$246.32.

Daily schedules were made and kept for a week or more by 334 women, who reported the value of using such a schedule, as time and step saving; better distribution of household tasks, more satisfactory use of available help and less confusion; more time and energy released for rest, recreation and development; greater joy in doing the regular tasks and a greater appreciation by the entire family of the job of homemaking.

### Health Better All Along the Line

Mrs. H. E. Sanders, in making the final nutrition report for Moranville community, Roseau county, said that all members made a decided effort to provide vegetables and fruit for their families for the winter and spring, and that more canning of greens and vegetables was done than was ever thought of before. This group has seen a definite improvement in the health of its members and has helped mothers outside the group with their food problems. The group intends to meet during the winter and review the lessons. It is eager to continue with the advanced project.

### Howard in the Balm South

George F. Howard blew in Monday, December 5, to say goodbye on the eve of his departure for Floyd, New Mexico, where he will be the guest six weeks or more of a daughter. His plans were to spend the rest of the winter at Los Angeles and at Portland, where he has another daughter. He will stop at Seattle, Spokane, and Walla Walla before starting on the return to extension headquarters at University Farm which he plans to reach about the middle of April, again to fill his old place with the junior club department.

### Denied Themselves to Save Pets

The club lambs in Redwood county escaped the shambles which follows the auction sale of the Junior Livestock Show. County Agent Sheldon says that sheep club members eligible to show would not do so because of their affection for their lambs.

### Purebreds Supplanting Scrubs

Purebred sires are gradually being introduced into communities where there has been none before, says Agent A. H. Frick of Itasca county.

## Master Farmers of '27 to Return to "U"

Sixteen Master Farmers, chosen from four states and constituting the class of 1927, were paid signal honors and handed the gold medal badge of their high estate at a dinner at which the owners and editors of The Farmer were hosts at the Nicollet Hotel, Minneapolis, the evening of November 22.

The 16 were chosen from a list of about 240 nominated by friends and neighbors in the annual competition conducted by The Farmer. They were scored on the basis of farm operation and organization, business methods, general farm appearance and upkeep, home life, and citizenship. The judges were Dean W. C. Coffey, F. W. Peck, N. J. Holmberg, and Dan A. Wallace. Eleven were from Minnesota, three from North Dakota, and one each from South Dakota and Wisconsin, as follows:

### MINNESOTA

Charles E. Swenson, Chisago City, Chisago county

F. J. Sheffield, Springfield, Redwood county

J. H. Lawrence, Litchfield, Meeker county

J. E. Peterson, Maple Plain, Hennepin county

James Firmage, Balaton, Lyon county

Enoch W. Peterson, Alden, Freeborn county

August Nelson, Brainerd, Crow Wing county

J. E. Schottler, Austin, Mower county

John H. Nahrgang, Lewiston, Winona county

B. M. Hansen, Carlton, Carlton county

A. F. Sponberg, New Richland, Waseca county

### NORTH DAKOTA

Rev. Johnson, Casselton, Cass county

J. W. Evens, Carson, Grant county

Clarence O. Arneson, Devils Lake, Ramsey county

### SOUTH DAKOTA

Claus Reyelts, Britton, Marshall county

### WISCONSIN

W. D. Young, Galesville, Trempeleau county

Joined by 10 of last year's Master Farmer class, the party was entertained at a get-acquainted luncheon in St. Paul, then came to University Farm to study the work of the livestock, veterinary, dairy, and engineering divisions and to meet the chiefs of departments and their staffs. About 300 business men and educators, seated at the banquet tables in Minneapolis in the evening, vied with each other in extending courtesies to the men from the farms.

The after-dinner speakers were Charles Donnelly, president of the Northern Pacific; Joseph Chapman, president of the L. S. Donaldson company; Dean Coffey, Dr. J. W. Holland, F. W. Beckman, who explained the Master Farm Homemakers' contest, which is also sponsored by The Farmer; W. L. Cavert, H. C. K'ein, and Mr. Wallace. The medals were presented by Lieutenant Governor W. I. Nolan. Pictures of the farmsteads of the Master Farmers were flashed on the screen as Mr. Wallace cited each man's history and life achievements. Radio messages to the good folks at home were dispatched through the microphone by the farmers, an incident which stirred the large company in marked degree.

All but four of the 16 Master Farmers of 1927 were born on the farm. They own an average of 388 acres each, and their farms and equipment are of the average value of \$47,000. Their average age is 52. Every one having children of college age has sent or is sending at least one child to an institution of higher learning.

The new class will affiliate with the Northwestern Master Farmers' Club, which will hold its annual meeting at University Farm the week of the Farmers' and Homemakers' Short Course.