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State Extension Forces Meet at University Farm

When Director F. W. Peck told the extension workers, in the closing session of their conference at University Farm, that educational activities dealing with the principles of cooperative marketing should be kept to the fore in the state-wide extension program, 150 county and home demonstration agents and other "extensionists" showed their approval with a burst of cheers. Equal emphasis was given by the director to the necessity of greater individual efficiency in production in order to support efficient marketing.

Director Peck's address brought to a close one of the most successful conferences ever held by the agricultural extension forces of the university—a conference in which all participated and from which every worker departed with renewed confidence and enthusiasm for the coming year's work.

Long Time Program Needed

Features of the first day were addresses by George E. Farrell, from the general extension offices, Washington, D. C., and by F. E. Balmer, state leader of county agents.

"The outstanding work of the county agent today," said Mr. Farrell, "is to help the farmer into a long time program which will include consideration of decreasing soil fertility as well as profits—maximum profits for a 10 or 15 year period rather than the current year. That must be the viewpoint of the county agent and the farmer, working closely together, in working out the individual programs.

"Every farm is a law unto itself. There can be no general program applicable to all the farms. The farmer must realize that he has several units under his direction. Every part of the farm is a contributor to the entire operation. Minnesota county agents and farmers are particularly well situated to work out such a program because they have Prof. Andrew Boss and one of the nation's best farm management divisions in the United States at the University of Minnesota."

Things That Will Endure

Mr. Balmer said that full facts and figures involved in the first ten years of the extension movement in Minnesota would be available after all of the county agents' annual reports are received at the close of the year.

He contended that what was more important than concrete achievements consists of the ultimate effects of the movement; how it is influencing agricultural thought and tendencies; whether it is a movement of potency and force, and whether it is contributing to human welfare.

The development of public interest

among rural people, which has been a part of the county extension service, has been one of its greatest net results, he said.

The development of the demonstration method of teaching, whereby one farmer learns from another, or the success of one farmer is called to the attention of a group, is also a substantial contribution of the movement.

Rural leadership had been imparted to farm people so that today there is less reticence and reserve on the part of the farmers generally; more willingness to give expression to their needs and wishes; more readiness to act for themselves in behalf of their own industry as well as for the public welfare.

The office of the county extension service serves locally as a clearing house of information for local organizations.

Everywhere community development has been fostered.

Nothing Left to Accident

The movement maps a job to be accomplished. It is, therefore, not a drifting but a planning type of organization.

The movement furnishes a place where the facts pertaining to the agriculture of the region are assembled and organized and where they may be made available for the use of any person who desires them.

The movement is helping to put the farmer's business education on a par with his education in production.

Through the development of local and county programs of work, fostered by the county extension agent sitting in conference with those interested in and cooperating in the work, democracy in agriculture is being attained.

During the war, the county extension service rendered a service tremendously significant to national welfare.

Farm Bureau President Speaks

J. F. Reed, president of the Minnesota Farm Bureau Federation; Prof. H. R. Smith, commissioner for the National Livestock Exchange, and Miss Grace E. Frysinger, from the federal extension offices, also addressed the conference.

Other things than increased crop production must be emphasized, said Mr. Reed. "The farmer just now is not asking how he shall produce more," he added. "He is asking, 'How can I get more for what I produce?'"

Campaign Against Tuberculosis

Professor Smith told of the tremendous losses caused by animal tuberculosis and said that Minnesota is one of the "bad states," though not so bad as Iowa. "The disease can be stamped out; it is a question of education and action," he said. He recommended the "area plan."

The field workers contributed a symposium on "Our Best County Project

and How Achieved" and also participated in the discussion of committee reports regarding methods to be pursued, the promotion of projects and the organization of the specialist service. Comprehensive lines of action for another year were adopted. These reports and a digest of the address of Director Peck are printed elsewhere in this issue.

221 at Institutional Dinner

The "institutional dinner," at which the field workers and the residence staff fraternized, was served to 221 persons. Director Peck presided over the big family. Addresses were given by Dean W. C. Coffey of the department and Dr. R. R. Price, chief of the general extension division. The dean extended the greetings of the University Farm people, and assured the field forces of the fullest cooperation. Dr. Price, who spoke on "Opportunity," said it was the blending of the time, the man and the job.

Home Demonstration Agents Confer

The home demonstration conference November 15, 16, 17 and 18 was declared by all concerned to be most helpful. The States Relations Service was represented the entire time by Miss Grace E. Frysinger and during the opening day by George E. Farrell. Both contributed a great deal of vital information.

Many phases of organization were thoroughly discussed, one of the most important of which was the local leader work. The definite conclusion was reached that an increasing amount of attention should be given to this type of work.

Publicity was the second big topic discussed. Plain, practical suggestions that could actually be put into practice were given by D. A. Wallace and Miss Lenore Dunnegan of the Webb Publishing company, Mrs. W. P. Kirkwood and S. E. Elliott of the farm bureau.

Miss Wylle McNeal, chief-elect of the home economic division, Director Peck, Dean Coffey, and President Reed of the state farm bureau not only gave inspirational messages, but convinced their hearers that each one of them felt deeply the fundamental importance of the farm home in developing better Minnesota agriculture.

Prof. G. A. Lundquist and Miss Sadie Currier of the station gave very helpful talks.

One afternoon was devoted to a discussion, led by Miss Mildred Wood of St. Paul, of the urban home demonstration agent's problems. Each city was represented by the home chairman, each of whom took an active part.

COMMITTEE REPORTS OF TENTH ANNUAL

Committees appointed in advance of the conference met on call at the station Saturday, November 11, to prepare their reports. A member of the resident staff served by appointment on each committee. These reports were submitted to the conference and adopted in the following form:

Fixing Local Leadership in Extension Activities

The committee considered the selection of local leaders and the fixing of their responsibilities, a most important factor in successful extension work. The main thing is to get good men and women with exceptional qualities of leadership.

A local extension leader is defined as a deputy who promotes extension activities in his community.

In centering efforts to develop local leaders and leadership, not only persons in existing organizations, but also recognized leaders who are not in an organized way furthering extension work, should be taken into consideration.

The qualifications of a proposed local leader should be carefully considered. Such items as interest, ability, willingness, honesty, holding the respect of the community, a good manager, are important. Don't "overwork" a leader, but at the same time avoid a person who has "plenty of time." Get a combination of good leadership and good subject matter if possible, but if both cannot be secured in the same individual, choose the one showing leadership.

Items to be considered in holding local leaders are:

1. Follow-up work
2. Personal contact
3. Publicity
4. Work to do
5. Training schools
6. Giving local leaders credit.

Have a sensible program of activity. Leadership is valuable, but without a strong program of work to follow, the best leader would make a failure.

Unifying the Local and County Extension Programs

Unity in any extension program can best be obtained through active local or community organizations, which may be local farm bureau units, farmers' clubs, project groups or any similar body, directed toward definite goals along lines of common interest under local leadership by outside organizing influence.

The county program as a basic unit should be the sum total of unit programs.

It is believed that unit programs may best be arrived at by selection of projects from list prepared by county agent from list of local projects, state projects, suggested by state extension division, state department of agriculture, and state farm bureau federation, and approved by the county board of directors, the county agent to study list of projects and encourage especially such projects as a survey of county conditions may demand, limiting number of projects so that definite results may be obtained, rather than spending a little time on many projects and accomplishing

little on each. It is proposed that the selection of projects be made by program committee and approved at a general meeting and that the county agent submit a suggested program for each meeting, timed to seasonal requirements, accompanied by a collection of bulletins, farm journals and other literature on topics included in program, as well as suggestions for literary part of program. The office clerk can prepare packets after model prepared by the county agent.

Local leadership should be developed to assume local direction under supervision of county agent, thereby unifying entire county efforts. This may be done by conducting schools of instruction for unit directors and presidents of farmers' clubs along lines of principles of organization and coöperation, parliamentary practice, program of work covering a limited number of most important projects and to awaken enthusiasm and determination to get things done. Similar schools may be held for project committeemen.

The county agent must be largely the unifying influence between community and county programs of work. He must have a plan of procedure to suggest, depending rather upon demonstrations than upon personal work, giving him more time for planning and organizing activities which result in unity of effort. The county agent must take more time for planning and organization.

The work of the county agent need not be limited to community organizations, but may include project groups related to the county program.

Regional Projects and Organization of Specialists' Service

I. Specialist Help Available—

The following is the approximate amount of specialist and farmers' institute help available for the period from December 1, 1922, to March 31, 1923:

	Days
Dairy work	100
Extension work with creameries and livestock shipping associations	50
Soils	50
Pathology and plant diseases, mostly potatoes	50
Hog work	50
Veterinary	50
Beef cattle, horses and sheep	50
Club work	200
Poultry	50
Club and township unit organization	50
Farm management	100
Crops	50
Farmers' institutes	200
Total	1000

In so far as possible, the time of each specialist should be assigned to the portions of the state where his specialty is a leading feature of the agriculture.

There are 75 men agents, so that each county is entitled to an average of 14 days. Larger counties will be entitled to more than the average, and small counties less. In addition, there are al-

ready scheduled 250 days of home project work in 25 counties for the period December 1 to March 31.

II. Apportionment of Specialist Help—

Upon the basis of area, number of farmers, and other considerations, each county is entitled to approximately the following days of work from December 1 to March 31:

County	Day's Help	County	Day's Help
Aitkin	14	Mower	15
Anoka	14	Murray	14
Bec'er	17	Nicollet	12
Beltrami	25	Nobles	14
Benton	12	Norman	14
Blue Earth	20	Olmsted	15
Brown	14	Otter Tail	16
Carlton	14	E. Otter Tail	16
Carver	14	Pennington	10
Chisago	14	Pipestone	10
Clearwater	10	Pope	14
Cottonwood	16	Ramsey	8
Crow Wing	14	Red Lake	8
Dakota	14	Redwood	16
Dodge	12	Renville	19
Faribault	14	Rice	14
Fillmore	17	Rock	12
Freeborn	15	Roseau	13
Goodhue	18	St. Louis (N)	14
Hennepin	22	St. Louis (S)	14
Houston	14	Scott	12
Hubbard	12	Sherburne	12
Itasca	14	Stearns	25
Jackson	14	Steele	14
Kanabec	14	Stevens	8
Kandiyohi	14	Swift	14
Kittson	12	Todd	18
Koochiching	10	Traverse	10
Lac qui Parle	14	Wabasha	14
Lake	5	Wadena	10
Le Sueur	14	Waseca	12
Lincoln	12	Washington	14
Lyon	14	Watonwan	12
Mahnomen	8	Wilkin	10
Martin	15	Winona	14
Meeker	15	Yellow Medicine	14
Mille Lacs	14		
		Total	1000

III. Arranging Specialist Schedules—

Each county agent is asked, preferably before he leaves this conference, to hand the attached sheet to his district leader, stating the number of days of each kind of specialist help desired and the preferred dates. Agents are asked to use specialist help in December and early January when convenient.

IV. Attention to Economic Phases—

Specialists and agents are urged to give increasing attention to the way in which any proposed work will affect the probable income from the farm as a whole over a period of years. In particular before encouraging farmers to undertake new enterprises one should carefully consider how the local market for the product compares to that in competing regions, whether the labor on the product comes at a season of the year when the farmer is already busy, how the product will fit into the crop and livestock system, and whether there is more than a limited outlet for the product. Also, care should be exercised that we do not encourage farmers to undertake new enterprises or expand well established ones at times when the prices of that product are unusually high compared to competing agricultural products.

V. County and State Programs—

It appears that a county program of extension work is best formulated by summarizing into a workable plan the programs or demands for extension work of the various townships of the county. In turn a district or state program can best be formulated by summarizing the programs of the various counties and upon the basis of this summary, utilizing the extension forces of the state in a systematic way, in assist-

ing the counties to carry out their programs.

Agents are urged to use the specialist help in such ways that it will best fit into an organized plan of work in the community and county for the particular project.

VI. Function of Specialists—

The function of the specialist is to acquaint the county agent with the latest scientific developments in his subject, to bring to the attention of the county agent the way in which these facts are being profitably applied by farmers in other sections of the state or country, to assist in organizing the project and to assist the county agent through interesting farmers by means of meetings, demonstrations and publicity.

Publicity Methods

All material to local papers should be condensed and in such form that it can be handled conveniently without loss of time to the local editor.

All extension organizations should be encouraged to have someone responsible for reporting news items to local papers. Material of county wide interest should be reported to all local papers by the county agent.

The publicity activities should reflect and promote extension work in the county.

All items and articles for the Farm Bureau News, whether they be local or for the state paper, should have the local color and not be made up of so-called "canned" material.

The following are various mediums of publicity that can be used: County newspapers, farm journals, Farm Bureau News, bulletins and circulars, posters and billboards, personal letters, telephone, public speakers, pennants and banners, auto tours, organized groups of people. The committee considered county newspapers and the Farm Bureau News first in importance.

Each agent should keep in a file, notation of ideas for articles to go into the local press and for the Farm Bureau News.

The agent should study literature relative to publicity methods.

A definite time each week and each month should be set aside for the preparation of publicity material.

Advance Training for Extension Agents

With a view to promoting the professional and personal improvement of extension agents, to better stabilize the extension service, to insure closer contact on the part of the extension employees with the university, the committee on advance training for extension agents recommends three propositions as follows:

1. Reading Courses.—It is requested that the extension division secure from various other division heads of the institution, lists of readings on specific topics in which extension agents will be especially interested and that these lists be revised and supplemented annually. It is suggested that such lists be issued through the Extension Service News for the benefit of leading farmers and others interested who are on the mailing list of that publication. It is further recommended that the extension division organize a circulating library service com-

prising the volumes named in the reading courses which will be reserved for the exclusive use of extension employees.

2. Work for Advance Degrees.—Relative to advanced work for extension agents leading to a master's degree, the following recommendations are made: That two quarters, not necessarily consecutive, of course work in residence may be required, a thesis to be worked out chiefly under the existing *in-absentia* rules, that the privilege of a certain amount of course work be worked out *in-absentia*, and that a minimum of two years be required to complete the master's degree.

Pursuant to the above recommendation it is proposed that the extension division provide substitute workers in counties while agents are doing resident work.

The members of the graduate group committee in agriculture of the Minnesota College of Agriculture advise that one might enroll at any time for work not for a degree, simply by registering in the graduate school and selecting his problem.

3. Short Courses.—It is recommended that a short course be conducted each year on a selected group topic. For example, one year the course may be devoted to economics, marketing and farm management; another year to the plant industry group; another year to the animal industry group, and so on.

The committee suggests that it be ascertained at this conference how many will be interested in attending such a course the coming winter to learn if a sufficient number will register to justify conducting the course.

Note.—Pursuant to the plan for conducting a short course the present winter, about 15 agents attending the conference indicated they would attend such a course either with or without expenses paid.

LIVESTOCK PROJECT IN BELTRAMI PROSPERS

J. G. Winkjer of the United States Department of Agriculture has been spending a month or more in Minnesota while cooperating with several county agents in bull association work. Two weeks were spent in Beltrami county and as a result a new Guernsey bull association with seven blocks has been developed, besides adding two blocks to an existing association and organizing four more blocks as the beginning of an additional association. Assistance was given to still another bull association in handling the matter of assessments and payments for bulls. The bull association work of Beltrami county as presented by Mr. Winkjer and the county agent is meeting with much favor and is proving itself a valuable means of introducing purebred sires at minimum cost.

Winona Poultry Growers Active

Agent J. B. McNulty of Winona reports "remarkable interest in the culling, feeding and management of poultry" in his county. A poultry demonstration community of 14 members, under the supervision of Miss Cora Cooke, poultry specialist, started Nov. 1. Plans for a county egg laying contest are well advanced.

PUREBRED SIRE HEADS ALL ASSOCIATION HERDS

Wabasha County Testing Group Scores 100 Per Cent—Second Organization in County Also Near Goal

Testing association work is on a firm basis in Wabasha county, says R. W. Bennett, county agent, in a communication to Extension Service News.

Three associations are working in the county with prospect that a fourth will be organized.

The Zumbro Valley Testing association reports 100 per cent use of purebred sires.

The Lake Pepin association with 39 members is the second largest in the state. All but one member has a purebred sire. Thirty-seven silos are owned and used by members.

The Plainview-Elgin association is active and enterprising. It furnished a carload of testing association cows for demonstrating the value of testing at the Minnesota State Fair.

Credit is given by Mr. Bennett to James Welch, former tester, for the fine showing made by the Zumbro Valley organization. Mr. Welch has returned to University Farm to resume his studies, but a promising successor has been found for him in the person of Adolph Ostrem of Lanesboro.

The Lake Pepin association operates in three counties—Wabasha, Goodhue and Dakota. Henry Jensen is serving his second year as tester. Charles Geddes, tester for the Plainview-Elgin dairymen, is also serving his second year and, like Mr. Jensen, is giving general satisfaction.

Mr. Bennett says: "Testing association work is really the foundation of dairy improvement, and the Wabasha county farm bureau believes in organizing as many of these associations as possible. Improvement through these organized groups is gradually moulding a better future for our dairymen, and cannot help but raise the standards of dairying in Wabasha as well as in other counties."

THREE LITTLE MAIDS FOLLOW HEALTH RULES

When Miss Edla Anderson was assisting in the home demonstration office in the nutrition project last fall, she secured promises from some of the little girls who attended the meetings with their mothers to write and tell her how they kept some of the rules that would make them well and happy. The following extracts from three letters show how willingly and quickly children acquire better food habits:

Dear Edla:—I got your letter some time ago. I was very glad to get it. I go to bed at 8 o'clock every nite I possibly can. I haven't drank a drop of coffee or tea since that nite.

Dear friend Edla:—I like milk just fine. I have drank 20 glasses of milk. I've got a little puppy dog and it drinks a saucer full of bread and milk, but I don't know what to name it. Mama is very glad that I drink milk.

Dear Edla:—I am getting fine by them rules. I think it is fun to obey them rules and have definite things to do every day. Yes, I drink plenty of water. I drink before every meal a glass of water. I also drink milk during the meals. At meals I eat fruit and vegetables which has improved me a great deal. I also have told my brothers and sisters to do as I was told by you, and in each case they say they are doing fine. I also am expecting you up here to see how you are getting along.

THE EXTENSION JOB

Interest in the extension conference moved forward to a very fine climax which consisted of the summing up and recommendations made by Director F. W. Peck, who set forth some of the important economic features to be considered in the extension program. He said in part:

"What constructive forces can be brought into action that will tend to lighten the burden of decreased purchasing power of farm products? Even the highest type of efficiency cannot withstand the net losses of operation and capital investment that are so common in rural districts. Is the entire system of production and distribution due for a revision? Are only natural causes affecting the position of the general price level? Does deflation in industry depend on wages of labor? Does this not affect the transportation problem, the tariff, taxation, and cost of production? How are wages to be reduced? From a public office viewpoint what program are we to adopt?"

Permanent Extension Program

"What is an extension program that is adequate, sound and permanent, that will help to solve the paramount question of what is the way out in the present situation? We are largely concerned with the dissemination of the right type of information that is positive, practical, and that meets the need of the bulk of the producers, but a program of information alone is not sufficient. A program that simply forwards publicity, words, or exhortations, will not suffice. We are faced with the necessity of a program that will obtain action, that will sustain demonstrations, that will prove the words, that will command attention, stand the test of trial, and result in improved situations. Are we large enough, wise enough, adaptable enough, resourceful enough to meet this test? Have we sufficient vision, sufficient courage, and sufficient knowledge to meet the many problems that seem to be piling up in front of us?"

"Many ideas crowd into one's mind when serious consideration is given the agricultural situation and to me they fall finally into two large classes—cooperative marketing and individual efficiency of production. Unless a program of action on our part results in a program of action on the part of the individual producer, there is apt to be built an insecure structure of cooperative effort that cannot function because of improper, weak support of its individual members. The foundation of a structure bears the weight and stands the stress of shifting storms that inevitably come. The foundation of cooperation is the efficiency and loyalty of the coöperators. Let us list under these two heads those problems that appear to have a reasonable chance of solution with which we as extension agents must actively concern ourselves if we are to meet the obligations of an improved agriculture.

Coöperative Marketing

"The following are possibilities in cooperative marketing:

(1) The saving expense in selling practices has been the first feature of the cooperative terminal facilities so far established. This is a minor factor so far as the individual income of the farmer is concerned, but the aggregate of the principal commodity organizations would reach a large sum.

(2) The partial stabilizing of sale prices is a goal to be reached probably after the local movements have become more or less national in character. There is probably much to be learned relative to the effect of cooperative terminal markets on general prices.

(3) The appealing for and obtaining of adequate transportation service by a centralized, organized appeal based on sound, equitable demands.

(4) The standardization of varieties of farm products.

(5) Improvements in the quality of the products.

(6) Advertising trade mark goods and services.

(7) Obtaining credit for products in transit and in storage.

(8) Seeking and developing new markets and increasing new demands for various products.

Individual Production

"If we are to maintain a desirable form of farm life with permanent private ownership of individual units of land, individual production must be the keynote of our agriculture in the future just as it has been in the past. We believe that there are certain fundamental necessary steps in the progress of production with which the extension force and all factors interested in agriculture must be concerned.

(1) There is need of improved choice of enterprises based on relative profits and a satisfactory permanent total gain for the year's business. This means improved systems of farming and entails the formation of programs and plans of work in extension that will help solve regional types of farming practices. This entails diversity of production, best utilization of labor, volume of business and quality of product.

(2) Premiums on lower cost of production will be more and more noticeable under such competition as appears to be coming. It is here that a decreased production is effected because overhead expense is a factor in the cost per unit of product and a fewer number of units means a relative higher cost. This entails more definite cost of production records.

(3) Properly supervised credit adapted to varying needs of production and farm improvement is fundamental.

(4) The making available through government and state sources, interpreted statistics leading to the adjustment of production and distribution to meet probable demands and the competition of other countries.

(5) Individual education and self-betterment with higher standards of living, with better homes, schools, churches, and community interests.

Needs of the Extension Job

"If these subjects are practicable and possible of achievement in any degree worth while, what is our responsibility and what do we need in order to promote such a program?"

"We need a strong force of thoroughly trained field workers, knit into a working organization with a vision of the practical needs of agriculture and the knowledge of what we are going to do and how we are going to go about it. This means a program, a method and a goal.

"We need this organization properly

and adequately financed as public educational agents concerned with the development of agriculture and its related industries.

"We need assistance from local leaders in a coöperative effort to help those who help themselves. We may be wasting effort on men, facts and projects that do not produce permanent results. We need to practice the selective process, to divide the territory, marshal the available forces and to have others do many details that waste our energies. I presume this really means 'organizing the work and the people.'

"We need your assistance in organizing the specialist's work and his services. What have we that you need? What can we furnish in demonstration help, literature, and ideas? What problems appeal to you as needful of experimentation by this station? You are its field representative, use it.

"We need better methods for all our activities; of supervision and organization, of demonstrations and publicity, of measuring how far we have gone and which way to go and where to stop, and of arousing interest, incentive, and action. We have the finest prospects in the world, but are our net sales high or low?"

Relations to Organizations

"We need to study and analyze our relations to all organizations. The premise we stand on to start is one of equal public service to all so far as information and assistance go, non-political and non-sectarian. We draw no lines of color, sex, age, disposition, religion, beliefs, time, trouble, or degree of mentality. But we maintain the privilege of opinion (privately expressed), of independence. We can say 'no.' We are not merely hired men or tools of class interests. We reserve the right of judgment and are not to be pressed into service regardless. No public educational officer should handle funds for private purposes. No one in our position willingly cares to assume any management or responsibility for personal or private business, whether coöperative, corporate, or individual. As a leader of county extension service, you are to decide what should be delegated to private coöperators—the self-help idea. With proper financing, these relations to organizations of various kinds will improve and thereby perhaps effect a cure for some of the difficulties that have been experienced the last few years.

"Finally, we need to maintain an optimism born of the conviction that agriculture is coming through and the extension service is going to be of better help in the process. This means the maintaining of a high morale among workers, fine coöperation with the state college and the department of agriculture, which, in turn, demands and I think will obtain, proper recognition for the high type of service that is being rendered."

Corn Huskers Hard to Find

Corn huskers have been hard to get in Watonwan, Lyon, Jackson, Nobles, Waseca and other counties, according to reports of agents. But for favorable weather much of the corn could not have been gathered this fall.

WORK OF SPECIALIST FOUND FAR REACHING

Original Lessons in Home Dressmaking Passed on to Various Groups in a Kanabec County Township.

Instruction in home dressmaking, given by a specialist from the home demonstration state office at University Farm to three groups of women in Whited township, Kanabec county, has since been passed on in whole or in part to various other groups. Members of the circles originally trained have qualified for leadership of new classes. In this way the work of the specialist is carried to large numbers within a given district. Mrs. Alice Bronniche, member of the executive committee of the Kanabec county farm bureau, has thus summarized the chief features of the project:

"The first lesson was altering commercial patterns. About 270 have been used, making a saving of 30 to 40 cents on each pattern, or a total of about \$81.

"The second lesson was cutting and fitting a dress. About 233 women's dresses have been made from these directions and using of the altered patterns at a saving of about \$3 per dress, or a total of \$699. Many more dresses have been made, but we have no exact report of the total number.

"The third lesson was the making of a dress form at a cost of about one dollar, a saving on each form of about \$8. As far as our record goes, there have been 140 forms made, or a total saving of \$1,120.

"The fourth lesson was the making of shaped and slit pockets, bound buttonholes, tailored and continuous plackets, buttonhole stitch and the uses of all sewing machine attachments. The saving on these can hardly be estimated, but a tailor charges 15 cents to sew one buttonhole and as a record of some 700 buttonholes has been received, that alone would be a total of \$105 for such work. We cannot estimate all the other articles in money value.

"One woman estimates that she saved 56 hours alone by having learned to use the binder.

"The fifth lesson was color, helping the woman to combine the correct colors and decide what are most becoming to each individual. Many fancy stitches were taught at this lesson.

"One group had a lesson in children's garments, in place of the dress form. A great many patterns were cut at a large saving in money. From the reports on patterns, dresses made, forms and buttonholes, a total of \$2,006 was saved to the women who received these clothing lessons."

Fine Crop of Early Ohios

The general run of Early Ohios in Pipestone county was much better than in previous years, says County Agent Enerson, because more certified seed was used and more growers treated seed by the quick hot formaldehyde method.

Corn and Poultry Show

Business men and farmers of Lakefield will put on a corn show December 14, 15, and 16 in connection with the annual poultry show.

GETTING INTERESTED IN ALFALFA GROWING

Plots of alfalfa started in Mille Lacs county last spring have created so much interest that County Agent Hammargren expects the introduction of alfalfa to be one of the big projects for next year. In the past, too much reliance has been placed in cheap seed, but hereafter nothing but Grimm will be used. Mr. Hammargren feels that from the interest being shown at this time, at least 500 acres will be sown next spring.

Lyon county farmers are taking more interest in the growing of alfalfa. County Agent Louis Kelehan says that various farmers have been preparing soil for the planting of alfalfa next spring. Results obtained from the planting of sweet clover last spring are very satisfactory, he says.

County Agent H. C. Lende of North Beltrami county foresees the planting of several hundred acres of alfalfa in 1923. Orders for seed, he says, will be pooled and the best Grimm seed will be obtained at the lowest possible price.

Captain Wise Aids Cavert

Charles E. Wise, Jr., who will assist W. L. Cavert in farm management work during the winter months, is a graduate of the Minnesota College of Agriculture, class of 1917, and for a year past has been attached to the farm management division at University Farm. Mr. Wise was a captain of infantry in France where he was wounded and decorated for gallantry in action. After completing 26 months of service in the United States army he put in two years as a farm manager and then joined the Minnesota Experiment station staff.

Tuberculosis in Many Flocks

Tuberculosis is rife in the poultry flocks of Winona and Fillmore counties, according to Agents McNulty and Dietrich.

LUND GETS RESULTS WITH "MOVIE" SLIDES

A. A. Lund, county club leader in Clearwater, has been boosting the dairy cow and her good works by flashing pictures contrasting the scrub and the good type in a series of moving picture shows. The slides were secured for him by F. E. Balmer of University Farm. Usually the entertainment was rounded out with the three-reel comedy-drama, "Partners," which illustrates the work of boys' and girls' livestock clubs and the benefits derived therefrom. Mr. Lund writes: "Several persons have applied to me for purebred Holstein heifer calves for club work next year. Others are also planning to buy high grade cows and purebred bulls."

Mrs. Partridge Attends Conferences

Mrs. Anna Partridge, chairman of home demonstration work in the Steele county farm bureau, attended the annual home demonstration conference at University Farm November 15 to 18. This is the second year she has represented the home interests of Steele county at the annual conference.

"It is not only a great inspiration to meet with the state and field workers," she said, "but I feel that I get many specific helps to strengthen our work in Steele county. I wish each county farm bureau genuinely interested in developing the home side of the work would realize the importance of sending its home chairman to these meetings."

Poultry Culling Project Popular

Poultry culling was the most successful project put on in Lyon county this year, says the county agent. "We have reached with these demonstrations more than 850 families and had a total attendance of nearly 2,600 persons," he says. "In flocks that had never been culled before an average of about 24 per cent of birds were thrown out."

Clothing Project Class in Kanabec County, Minn



MINNESOTA EXTENSION SERVICE NEWS

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DECEMBER, 1922

TEAM WORK AND PERSONNEL

A good working relationship has always existed between the extension service and the experiment station and college of agriculture in Minnesota. Certain steps were taken last year to make this contact closer and the team work smoother. Last year the extension division people began the practice of touring the different departments, the heads of which presented the various projects under way and outlined the progress that was being made. This year the extension people will attend, so far as possible, station staff meetings. Other methods will be practiced in keeping extension workers informed as to the results of experimental work in progress at the experiment station, as well as in keeping college and experiment station workers posted through the extension end of the service as to problems and conditions out over the state.

In an illuminating address before the American Dairy Science Society's annual meeting at University Farm, Prof. A. A. Borland, professor of dairy husbandry in the Pennsylvania State College, sketched the wide diversity that exists in the relation of extension to the college of agriculture and experiment station in various states. He found that the authority is decentralized in some institutions so that the duties of the dean of the college of agriculture, the director of the experiment station, and the director of the extension service are vested in as many different persons.

In other states the authority is centralized and the dean of the college of agriculture is the director of the experiment station and also director of the extension service. Which of these types of organizations was best, or whether any one type is best, Professor Borland found it difficult to say. He classed Minnesota as among the states, 26 in number, which carry on extension work largely independent of the teaching and research heads except in an advisory capacity and the supervision of subject matter. Twenty-two states, he reported, handle extension work, save for administrative matters, largely within the several departments, the department thereby being the unit for teaching research and extension.

Professor Borland said the extension worker should be given time for reading and for keeping up to date with the most recent investigations in his line of work. In certain institutions, he said, the extension people are expected to remain at the college one week out of three in order to keep in touch with experimental work in progress. College teachers and research men are just as likely to grow stale in certain directions as extension workers, he said. In order to keep informed as to the situation in the field, subject matter heads, he said, should be invited to take part in extension conferences when programs of work are being formulated. The extension plan for the year and all reports of the work performed by extension specialists should be placed before the various department men.

"The general consensus," said Professor Borland in closing, "is that the chief obstacle and difficulties from an extension standpoint concerning college and station work result from the lack of a proper understanding and appreciation of the functions of the experiment station on the one hand and the extension service on the other.

"The problem can best be handled by the employment of satisfactory personnel in both lines of work, and by establishing and maintaining close personal contacts between the two classes of workers. Personnel is very important. The best laid plans will fail in the hands of unsatisfactory personnel, whereas a poor plan ordinarily will be improved and made to work satisfactorily in the hands of the right kind of men. One of the principal qualifications of a satisfactory personnel is a sincere spirit and an honest desire to give good service, the absence of petty selfishness and oversensitiveness about credit.

"There should be a mutuality of interests between college station and extension crew, each recognizing the function of the other and the impossibility of the exercise of either function without common sense and wholesome relation among the groups. We all need education in unselfish public service. We need to recognize that the best way for each of us to get the most good for himself out of an organization is to do everything in his power to make that organization successful."

Chicken Farming

(According to the novice)

I started out to raise some hens;
I first bought wire to make the pens,
You need nice pens to make hens thrive,
Mine cost me \$40.25.
I bought eleven kinds of feed,
For fowls a large assortment need.
I bought cut bone and grain galore,
The bill was \$19.84.
Of course hens need a chicken shed,
A place to sleep and to be fed;
Mine was a good one through and through,
And cost me \$60.22.
I wonder if hen farming pays,
I've had twelve eggs in sixty days.
The bills, of course, have been immense;
The twelve eggs brought me thirty cents.
—California.—Helen Haurihan.

SELLING FEED TO DAIRY COWS

One of the best methods of marketing home-grown feeds is through good dairy cows, says the United States Department of Agriculture. This fact was brought out in an exhibit by the department at the National Dairy Show. It displayed in a convincing manner the results that come from giving the feed to different herds.

These results showed that—

If you sell feeds to dairy cows you have a constant market.

If you sell feeds to high-producing dairy cows you have a good and constant market.

If you sell feeds to purebred, high-producing dairy cows you have a double market—a market for calves and a market for milk.

That it pays to know whether a cow is a good, poor, or high producer was shown in that part of the exhibit devoted to cow-testing associations. In one association the poorest cow produced in a year only enough income over cost of feed to buy a two-cent stamp. To pay for labor and overhead expense her owner had only the manure, skim-milk, and calf.

FARMERS'-HOMEMAKERS'

WEEK, JAN. 1-6; LET'S GO

University Farm will celebrate the birth of the new year as usual by opening the annual Farmers' and Homemakers' Short Course. The dates are January 1 to 6 inclusive.

Mass meeting Monday afternoon, January 1, for the "opener."

Annual meeting of the Minnesota Farm Bureau Federation January 2.

Noon-day general meetings and evening entertainments in the auditorium.

Songs by the Agricultural College Male Quartet at all meetings; instrumental music and readings.

Annual meetings of the Minnesota Livestock Breeders' association and various allied organizations.

Nine continuous programs of class work for the men and six for the women.

Big farm supper at which President L. D. Coffman of the University will preside.

Supper and special entertainment for the homemakers.

Special livestock show.

Coverdale, Cooper, Coffey, Cox, Reed, Glover, Dr. Amy Daniels, Mrs. Vera Schuttler and Mignon Quaw (Mrs. Lott) as speakers.

Nearly 100 school and college faculty members as instructors.

Solid week of class room work mixed with recreation and entertainment.

Reduced rates on railroads—fare and one-half on the "certificate plan."

Good accommodations at the farm at cost prices.

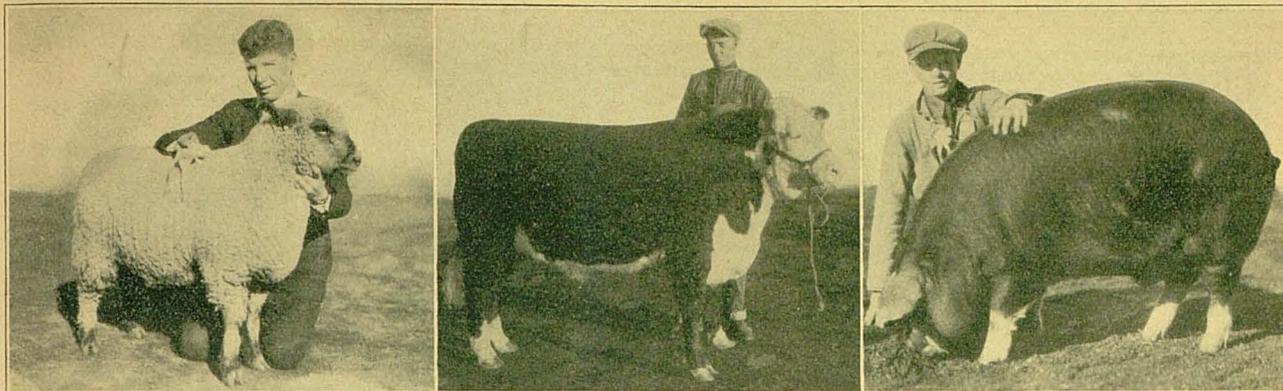
Make your plans to come—and then come.

January 1 to 6 inclusive, 1923.

More and Better Dairy Stock

The trend toward dairying continues strong in Carver county, reports Agent Ben Kienholz. A quickened demand for high grade dairy cows and purebred sires is seen.

Three Champions of the 1922 Junior Livestock Show



JUNIORS PUT ON HIGH QUALITY STOCK SHOW

Club Work for the Year Culminates at South St. Paul—Honors and Awards Announced.

The 1922 Junior Livestock show seems to have surpassed all expectations of its promoters. World record prices for market stuff were broken. Better than this was the fact that the average quality of the livestock exhibited and the average prices received for it surpassed those of any previous show at South St. Paul.

But far and above all these considerations was the fact that it was a real boys' and girls' show.

Another thing decidedly worth while, as pointed out by T. A. Erickson, the state leader, is that the show was a splendid demonstration of how much can be done when folks work together.

Going to School on Beef Money

Two hundred ten baby beeves were shown as against 29 in the first junior show five years ago. Expert livestock men said that the average of the best groups was considerably better than in years past. The 210 animals were sold at auction at an average price of 14.05 cents a pound. The grand champion baby beef was a Hereford steer exhibited by Joseph Isaksen of Springfield, Brown county. This steer tipped the scales at 1,221 pounds and, after spirited bidding, was knocked down to the Golden Rule of St. Paul at 75 cents the pound, or \$915.75 in real money. In addition, young Isaksen won \$100 from the Hereford Breed association, a \$25 first prize in the junior yearling class and various county prizes before coming to the big show, so that his winnings total around \$1,200 in cash, and two silver cups valued at \$150 and the free trip which he is now enjoying to the Chicago International. Joe is 18 years old, has been in club work three years, and has just entered the School of Agriculture at University Farm. His winnings, he says, will take him a long way in school.

\$260.40 for Market Pig

Thirty-seven market barrows were shown and sold at the auction at an average price of 12.75 cents a pound.

Meet Joseph Isaksen, 18 years old, of Springfield, Brown county, and his Hereford steer, the grand champion baby beef in a field of 210. Joe has been in club work three years, gaining a little each year, he says. He believes in it and likes it, and now he has entered the School of Agriculture at University Farm to equip himself still further for the business of farming.

Raymond Sullivan and his Shropshire lamb—the champion lamb which sold for \$2 a pound and was exhibited in a St. Paul store window several days after the show. The Sullivan boys of New Prague—Raymond, James and John—made fine records at South St. Paul, James' lamb placing second and John's sixth.

"Pigs is pigs all right," says Terrance Hagen who appears above with King, the champion market barrow. "King did well by me, and I sure did well by him. He lived on the best to be had. He must have known I was his 'meal ticket,' for he always seemed glad to see me. When I would scrub him on one side he would turn over of his own accord so I could wash him on the other side."

Marked improvement in quality was noticeable in this class. The best pig, a Poland China, was entered by Terrance Hagen of Belview, Redwood county. The pig weighed 434 pounds and was sold for 60 cents a pound, which meant \$260.40 to Terrance in addition to \$70 offered by the Poland China breed promotion committee, the regular junior show prize of \$12, a gold medal, a silver cup, and the privilege of the free trip to the International.

High Average for Fat Lambs

History does not disclose when and where higher prices were paid for market lambs, and Minnesota juniors probably established a record at South St. Paul that will stand for a long time. The champion fat lamb was exhibited by Raymond Sullivan, a 17 year old boy of New Prague. It weighed 129 pounds and was sold for \$2 a pound. The sum of \$1.35 a pound was paid for the second best lamb, \$1.15 a pound for the third, and 85 cents a pound for the fourth. The average price for the 39 lambs entered was 29.5 cents a pound.

All junior exhibitors were guests of honor at a banquet given by the Minnesota Livestock Breeders association, the St. Paul Union Stockyards, and

other business interests. The juniors who won the highest prizes were seated at a special table mounted with silver cups and other trophies of the show.

Livestock Clubs Gaining

Sixty counties or more were represented by junior club raised livestock at the show. Scarcity of money and high transportation charges doubtless served to keep some away. The state leader reports more members in livestock clubs in 1922 than in any previous year. It was found desirable to transfer the dairy calf competition to the state fair, where 65 handsome dairy calves were shown last September, but this, as Mr. Erickson points out, is really a definite part of the Junior Livestock show.

The principal winners in the various classes were:

Grade Junior Yearlings

Joseph Isaksen, Springfield, grand champion; Cletus Riordan, Lamberton, champion Short-horn; Floyd Kirkwood, Dexter; Martha Keeler, Chokio; Russell Bone, Beardsley; Lloyd Anderson, Sleepy Eye; Roger Calfisch, Pipestone; Ludwig Kemen, Madison; Aloisus Conzemius, Hastings; George Anderson, Winnebago; Herbert Rinke, Wheaton; Irving Donahue, Owatonna; Charles Healy, Mapleton; Randolph Buchan, Fairmont; Elmer Olson, Storden; Paul L. Miller, Randolph; Melvin Swanson, Lakefield; Ralph Wright, Hastings; Irvin Sargent, Lewisville; Douglas Laurisch, Mapleton.

Grade Calves

Russell Morgan, Granite Falls, champion Angus; Barney Swanson, Lakefield; Francis Henneberry, Olivia; Arthur Reese, Marshall; Alvin Bartsch, Mankato; Harold Bartsch, Mankato; Arvid Sponberg, New Richland; John Kelly, Olivia; A. Haack, Balaton; Ewald Zochart, Wheaton; Myron Buchan, Fairmont; John Sierk, Lake Wilson; Leighton Vermilyae, Dexter; Lloyd Vermilyae, Dexter; William Henry, Springfield; Stewart Mills, Granada; Norris Griffith, Dodge Center; Henry Boklep, Belview; P. Sommers, Danvers; Armond Scheibel, New Ulm.

Purebred Calves (All Breeds)

Thomas A. Kelly, Lake Benton; Melvin Swanson, Lakefield; Albert Conzemius, Hastings; Alvin Nesbitt, Utica; Seval Sorenson, Balaton; Charles Larson, Pipestone; Marvin Wiener, Hatfield; Lester Gripp, Dodge Center; George Hanson, Russell; Smith Willis, Marietta; Aldrich Faltis, Sleepy Eye; Winifred Whitney, Mapleton; Louis Schugel, New Ulm; John McCune, Farmington; Leslie Fredrickson, Tyler; John Sullivan, New Prague; Stanley Campbell, Winona.

Purebred Hereford Calves

Thomas A. Kelly, Lake Benton; Seval Sorenson, Balaton; Charles Larson, Pipestone.

(Continued to page 11)

BEST COUNTY PROJECT, HOW ACHIEVED

A symposium under the above caption featured the opening session of the recent annual extension conference. Six-minute reports from those taking part are thus summarized.

"The Alfalfa Campaign," W. A. Peters, Wadena County

Object: To work out the winter feed problem. Campaign started August 7 following publicity work in all parts of the county. Alfalfa culture boosted at meetings of farmers' clubs, at the close of which the farmers were given a chance to pledge growing a certain acreage.

Procedure: Test of soil for acidity. Have a good firm seed bed. Sowing of 12 to 15 pounds of seed to the acre without nurse crop recommended.

Results: Campaign pushed in every community. Two hundred twenty co-operators (425 acres) pledged. Only 460 acres previously cropped to alfalfa. More co-operators appearing almost daily. Great interest taken in soil testing.

"Cheese Marketing," C. L. McNelly, Dodge County

Cheese making is the leading industry of Dodge county. Convinced that old selling methods were costing them too heavily, the cheese men formed a county organization to market their own product. Thirty-two factories are now in the association. Cold storage house built at Pine Island. Results: Volume of business the last year nearly a million dollars. Every pound of cheese sold graded No. 1. Actual gains, rather than shrinkage as in times past, reported. Mr. McNelly outlined the old system of marketing with its numerous middlemen and unnecessary freight hauls. Under the coöperative system the cheese is shipped direct to the wholesalers with the result that freight charges are materially lessened and various middlemen eliminated. That efficient methods of marketing are just as necessary as efficient methods of production was his conclusion.

"The Balanced County Program,"

C. C. Turner, Houston County

Mr. Turner contended that the number of projects should be cut down. "There are too many things to work on," he said; "the programs are generally too complicated." He believed that three or four good projects for each township unit were sufficient. "Keep the organization well paid up, keep it oiled and use it well in all respects," he admonished. Good speakers, local men if possible, should be obtained for meetings. A big picnic every year and lunches at the close of unit meetings help materially to keep up the interest.

"Fertility Demonstrations," F. L. Behling, Mahanomen County

When the results from small demonstration plots fertilized in 1921 were shown to bankers they agreed to accept notes from persons unable to pay cash for fertilizer which it was planned to use on a larger scale in 1922. The project leader and farm bureau office secured

orders for 25 tons of fertilizer in January and February. Results: Spring wheat, fertilized plot, 21 bushels an acre; unfertilized, 12. Rye, fertilized, 40 bushels; unfertilized, 15. Barley, fertilized, 50 bushels; unfertilized, 20. Acid phosphate and "2-8-5" were used in potato trials on three farms next to main roads. Results:

No fertilizer:	
Total yield per acre, bushels.....	113.0
Bushels marketable	88.0
Percentage of culls and seconds.....	29.5
Complete fertilizer, applied at rate of 500 pounds per acre of "2-8-5":	
Total yield per acre, bushels.....	246.5
Bushels marketable	218.0
Seconds and culls, percentage.....	14.6
An increase of 130 bushels of marketable potatoes, or 147.7 per cent.	
Acid phosphate, applied at the rate of 250 pounds per acre of "0-16-0":	
Total yield per acre, bushels.....	217.5
Bushels marketable	190.0
Seconds and culls, percentage.....	14.7
Increased yield of marketable potatoes, 102 bushels, or 115.9 per cent.	

Fertilizer demonstrations have revealed the fact—

1. That small grains and potatoes in particular give ready response to fertilizer.
2. That phosphate fertilizer is a necessity for profitable production under the present system of farming.
3. That phosphoric acid is the chief element to be supplied in the form of fertilizer.
4. That potash and nitrogen do not give sufficient increase in yield to warrant their use on potatoes.

"Community Crop Shows," W. K. Dyer, Renville County

Mr. Dyer described a crop show held at Sacred Heart last winter to illustrate his subject. The first step was to appoint a committee composed of a county commissioner who was a farmer, one land man in town and one retired farmer living in town. Competition was provided in 14 different grain and seed classes.

The committee interviewed every business house and bank. The latter contributed \$10 each for cash prizes. The merchants offered "about everything from a slab of bacon and sack of flour to a wire stretcher and cream can." Restaurants gave boxes of candy. A \$5 special prize was put up for the township farm bureau unit winning the most points in the show, a "first" counting ten points, a "second" eight points and a "third" five points, the money to be spent for oysters for a supper for the winning unit. Exhibitors were limited to four townships, grain farming communities, in the west end of the county.

The show was held on Saturday. All entries had to be in place by noon. After the judging, the judge and county agent analyzed the different exhibits, urged the farmers to produce more clover seed and stressed the value of legumes for permanent agriculture.

"This was a very successful show and created a lot of interest among both business men and farmers," said Mr. Dyer. "It was pushed from start to finish and not allowed to drag along."

"Swine Feeding Demonstration," William Dietrich, Fillmore County

How to teach farmers to make more money out of hogs was the purpose of this project. By a system of feeding based on the Dietrich feeding standards, hogs are put upon the market earlier than is usually the case and at a cost of about two cents a pound less, besides the saving in feed due to the earlier marketing. Pigs sold early in the fall also hit a better market.

Farmers of Fillmore depend upon swine for the principal source of their incomes. The project was therefore of first importance to them. The feeding standards are built upon the basis of the pig's ability to utilize food nutrients, rather than to feed the pig according to the capacity of its appetite and powers of digestion.

Feeding demonstrations were conducted by visiting the farmers once in two weeks from May to July inclusive. Rations were calculated and general feeding directions given. Mr. Dietrich cited several concrete instances proving the value of the system.

"Unit Program of Work," A. H. Frick, Itasca County

Twelve weeks short courses the basis. Six units per week; one evening lesson per week in each unit. Specialist spends the day time in personal work in the community, i.e., in dairy course—testing, herd culling, advice and personal help on feeding problems, etc.

Required of Unit—Definite enrollment in sufficient numbers to assure good classes. Transportation and lodging for specialist while in community.

Financed on regular Smith-Hughes plan through coöperation of local school districts. Coöperative direction and overseeing.

Results: Last year's course and this year's response. Plans for this winter which will provide definite lines of work in nearly every community in the county.

"Junior Club Work," Miss Mattie Rogers, Watonwan County

Projects and reasons:
Sewing and breadmaking—Because they are or should be a part of every girl's education.
Baby beef, purebred beef, market and purebred pig, sheep and corn—Because they represent the leading occupations in the county.
Poultry and dairy calf—Because special efforts are being made to improve these lines of work.

Canning—Because there is a need of a greater use of canned vegetables.

Methods used in carrying out these projects:
Coöperation of county superintendent of schools, county agent, county fair board, adult farm bureau, poultry association and Holstein association.

Unit through which the work is carried on—Rural school with teacher as local leader.

Organization:
Personal visits at rural schools. Circulars to teachers. Distribution of project bulletins and discussion of requirements. Blanks filled out by each teacher showing name and address of prospective members and projects to be taken.
Short courses.

Follow-up work:
Each school is organized and the pupils take up whatever project they wish. More school visits. Personal visits at the homes of club members. Circulars. Checking up records. Conferences with parents. Club tours.

Closing up the work:
Local contest or exhibit. County contest or exhibit. State fair trips. Junior livestock trips. Records and reports turned in.

Goal—An active junior farm bureau in each township to act as a feeder for the adult farm bureau and to prepare the young people to take an active and intelligent part in solving rural problems.

FINE QUALITY TUBERS EXHIBITED AT DULUTH

Juniors of Minnesota Help to Make the International a Success—Wisconsin Man Wins Highest Award.

With exhibits equal or superior to those of any previous show, though with a somewhat reduced total of individual entries, the fifth annual International Potato Show was held Nov. 3, 4 and 5 at Duluth.

This year the premier honors went to Wisconsin, when the peck of Bliss Triumph potatoes shown by Claude D. Kuney of Clearwater Lake, Oneida county, Wisconsin, was adjudged the best peck at the show. This entry was a remarkably uniform, clean, smooth lot, somewhat larger than ordinarily exhibited in Triumphs and easily recognized as the best peck from outside Minnesota. It competed for final honors with the best peck from Minnesota, an exhibit of Cobblers shown by Tony Glowaski of Chisholm. Mr. Glowaski's entry had won over a strong class of 38 entries and later had been adjudged the best among the winners of the various varieties.

Minnesota Right There

In the Early Ohio class there were nineteen entries and the peck shown by T. R. Allen, of Hallock, took first. In the Rural New Yorker class out of 22 entries the peck shown by Ole Larson, Route 1, Duluth, was given first. In the Green Mountain class the peck shown by A. W. Wehde of Goodland, Minn., was given first place in a class of 48 entries. Mr. Wehde is the man who last year won the championship of the show with a sample of Green Mountains. In the class of Russet Burbanks, 17 entries, that of W. H. Keeler, Cohasset, Minn., took first. In the class of Russet Rurals, 27 entries, Ernest Pettifor of Gaylord, Mich., was first. The Russet Rural is a leading potato of Michigan and a splendid exhibit was sent from that state, all of them of this variety. Besides the varieties mentioned there were scattered entries of Burbanks, Kings and Early Rose.

Fine Display of Seed Tubers

An interesting feature was the exhibit of hundred-pound lots of seed, both certified and uncertified. Thirty lots of certified seed and 25 entries of uncertified were shown. First place in the former went to Otto Ostman, Route 5, West Duluth, and first place in the latter to John Sota, of Harney, Minn. These lots, according to the catalogue of the show, were to be bin-run stock, but several of the entries bore evidence of hand selection and an attempt was made to have some of the worst offenders ruled out. After much discussion they were left in, however, though the feeling prevailed that the rules should be so outlined in the future as to make this a genuine bin-run class.

Juniors Share in Honors

A class which attracted much attention was that for individual Green Mountain tubers. Twenty tubers were entered in this class and the one shown by Arthur Carlson, of Nashwauk, Minn., was placed first. A beautiful loving cup offered by the St. Louis River and Embarrass Valley association of Biwabic was the prize for this class.

The boys' and girls' club department attracted much attention, not only because of the large number and good quality of exhibits, but also because of the steady improvement which this department has shown the last few years. Those who have been attending the big potato shows of the last few years could not help but appreciate the progress being made by the youthful exhibitors. The first five winners for the various varieties are given below:

	Score
Green Mountains—	
Paul Radiash, Jr., Goodland, Itasca county	96
Doyle Smith, Park Rapids	95
Doris Johnson, Rosy, Itasca county	90
John Flosthe, Two Harbors	84
Earl Burke, Brookston	84
Irish Cobblers—	
Oluf Wold, Ray	97
Goodwin Hammersberg, Big Falls	94
John Jones, Oak Park	91
Irwin Eggebraten, Little Fork	89
Idella Nelson, Waukanka, Koochiching Co.	88
Rurals—	
Herbert Johnson, Duluth	94
Dale R. Smith, Park Rapids	88
Mildred Freeman, Hinckley	85
Harold Jacobson, Two Harbors	80

LEWISTON COMMUNITY MADE POULTRY CENTER

Winona county will help demonstrate the value of better poultry the coming year, says Miss Cora Cooke, poultry specialist. The community surrounding Lewiston has been selected as one of the ten poultry demonstration communities in the state, following the completion of a five-months' poultry project in August.

This community is nearly 100 per cent in number of flocks culled. In this work County Agent McNulty has been ably assisted by Mrs. Addie Roach, vice president of the group. She also helped to spread the gospel of culling in Oklahoma by giving three demonstrations while on a visit in that state last summer.

Since the completion of the project, members of the group have made two shipments of graded eggs to Chicago. It is expected that cooperative shipping will be made a main project of this group the coming year.

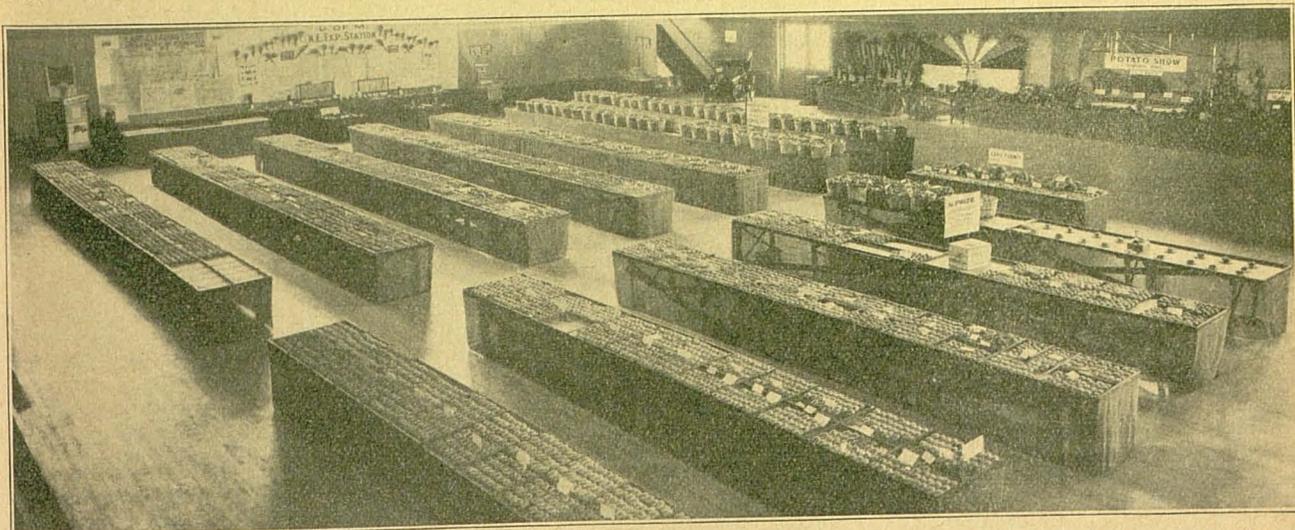
Some Real Culling in Dodge

Poultry owners of Dodge county are culling closer than ever, says Agent C. L. McNelly. Of 4,335 birds examined at 32 demonstrations, 1,608 were cast out.

Dodge's Dairy Stock in Good Demand

Sales of good grade Holsteins have been brisk in Dodge county, says Agent McNelly, who attributes much of the demand to the influence radiated by the National Dairy Show.

Robert Coeppinger	78
Early Ohios—	
Teddy Carlson, Hallock	93
Russell Younggren, Northcote	92
Roy Nehring, Hallock	91
Mayme Cameron, Hallock	90
Maurice Cory, Lancaster	89
Russet Burbanks—	
John Wagener, Chisholm	90
Henry Wagener, Chisholm	90
Henry Eggebraten, Little Fork	88
Adrian Brackin, Loman	87
Nora Moss, Loman	85
Carl Wideth, Gonvick	83
First premium on Burbanks—	
Helene Anderson, Little Fork	75



VIEW OF THE FIFTH ANNUAL INTERNATIONAL POTATO SHOW HELD AT THE ARMORY, DULUTH, NOVEMBER 3, 4, AND 5. TUBERS FROM MINNESOTA, MICHIGAN, MONTANA AND WISCONSIN AND ALSO FROM VARIOUS PARTS OF CANADA WERE EXHIBITED. IN THE BACKGROUND WERE COMMUNITY, SEED POTATO, LAND CLEARING, BARBERRY AND NORTHEAST EXPERIMENT STATION BOOTHS.

PROGRAMS OF SPECIALISTS

Brief outlines of the work which the agricultural extension division is offering at this time through its specialists will be found in statements given below:

Fattening Beef Cattle

(Specialist A. A. Dowell)

Object—To consider the following problems in connection with fattening cattle:

1. Type in feeder cattle
2. Selecting the feeders
3. Market demands
4. Feed yard equipment
5. Available feeds and methods of feeding
6. Importance of pigs to follow the fattening cattle
7. Preparation for shipment
8. Precautions.

Plan of Work—It is suggested that a tour be arranged so that those interested may inspect one or more cattle feeding establishments in the district where the meeting is held. The entire time may be devoted to these feed lot demonstrations, or a separate meeting may be held following the tour. In case the tour is not practical, meetings may be arranged in the usual way.

Feeding and Management of the Breeding Herd of Beef Cattle (Dowell)

Objects—

1. To improve the type and quality of the beef cattle produced in Minnesota.
2. To encourage the more complete utilization of home grown feeds.
3. To emphasize the importance of adopting approved methods of breeding, feeding, care and management of the breeding herd.

Sheep and Wool Production (Dowell)

Objects—

1. To improve the quality of sheep on Minnesota farms.
2. To assist in bringing about improvement in the methods of breeding, feeding, pasturing and management of the flock.
3. To acquaint the producer with market requirements for both mutton and wool.
4. To demonstrate and encourage the docking and castrating of lambs, and culling of ewes.

Plan of Work—The county agent will decide whether the work is to be covered by means of a demonstration on a farm where sheep are kept or whether it is to take the form of a meeting, or a combination of the two.

Feeding and Management of Draft Horses (Dowell)

Object—To discuss the following:

1. Present status of the horse industry
2. The feed and care of draft colts
3. Care of the brood mare
4. Feeding the work horse.

Soil Management

(Specialists B. Forbell and G. Nesom)

Group 1. The use of phosphates—Stevens, Swift, Chippewa, Renville, Brown, Nicollet. In this group the work should be started in Stevens, having Prof. P. E. Miller and perhaps Prof. Bridgford assist at the first meetings, or have them take the main part and our representatives assist.

Group 2. Use of phosphate and lime—Goodhue, Wabasha, Dodge, Winona, Mower, Fillmore, Houston, Olmsted.

Group 3. Reclamation of the peat soils and improvement of sands—Cass, Isanti, Sherburne, Anoka, and Chisago.

Group 4. Reclamation of peat soils—Aitkin, Kanabec, Ramsey and Dakota (Castle Rock).

Group 5. Mr. Nesom will be available for some work in peat sections of the Red River Valley.

Animal Disease Control

(Specialist, Dr. W. A. Billings)

Subject matter will be grouped under the following headings:

1. Diseases of poultry
2. Hog cholera
3. Swine parasites
4. Miscellaneous diseases of swine
5. Parasites of sheep
6. Tuberculosis of cattle and hogs
7. Anthrax (special)
8. Abortion and sterility
9. Common diseases of cattle
10. Hygiene, sanitation, and disinfection.

Enlarged photographs will be used to illustrate these subjects. It will be necessary, therefore, for the specialist to know definitely what subject is desired at each meeting.

Plant Disease Control

(Specialist R. C. Rose)

1. Potato seed treatment by corrosive sublimate and hot formaldehyde methods. In 1921, the hot formaldehyde method was used on only five Minnesota farms. In 1922 it was used on 252 farms in 12 counties.

2. Potato seed plots as a means of developing vigorous high yielding strains of seed stock. Our seed growers must select and develop their stock to maintain the reputation of their seed.

3. Spraying with bordeaux to control disease and insect pests. Time will be given to discussion of the best types of high pressure spray machines for bordeaux mixture and methods of preparing bordeaux on the farms.

4. Spray rings offer a means of reducing the cost of bordeaux spraying. A discussion of organization, operation and costs of coöperative spraying will be given where growers are interested. The division has just acquired a new set of colored lantern slides showing pest control on farms in Minnesota and in other states.

5. Orchard and garden spraying. Every farm in the state should raise some fruit, berries, and vegetables for home use. Proper spraying of these will control most of the common pests. Spraying of a few trees can be done at small expense.

Assistance to Coöperative Marketing Associations

(Specialist, B. A. Holt)

Subject. Business practices and organization and management problems of country creameries.

Purpose. To furnish creamery man-

agers, operators, directors, and others interested in the country creamery business with information which will enable them to organize and manage their enterprise to better advantage. It is particularly desired to reach those persons directly interested in the creamery as a business organization.

Method. One day conferences with officials and directors of creameries will be held throughout the state at the request of county agents. These conferences will be conducted in the form of lectures and open discussions.

A cost analysis of 100 Minnesota creameries will be presented in detail for the purpose of showing the relations of various cost factors, different processes and operations to the cost of manufacturing butter. This analysis will be presented by lectures from a series of charts and diagrams.

Some time will be spent in discussing problems of the following nature: forms of organization, financing, buying policies, marketing problems, creamery side lines, purchase of supplies, and accounting.

Livestock shipping associations. Assistance similar to that given creameries will be available for livestock shipping associations during the latter part of the winter.

Economical Swine Production

(Specialist H. G. Zavoral)

Breeding, feeding and management of swine will be the leading factors taken into consideration. Emphasis will be given to feeding brood sows, both before and after farrowing, care and management of the litter and hog pastures. Special meetings may be arranged for on any topic pertaining to swine husbandry.

Crop Production

(Specialist Ralph J. Crim)

1. Standardization and maintenance of pure seed stock.
2. Legumes, soybeans, clovers, alfalfa, sweet clover, etc.
3. Corn improvement.
4. How varieties are produced and introduced by our experiment station.
5. Our recommended varieties for Minnesota.
6. Pasture and meadow management.
7. Hog pasture and forage crops.
8. Crop system yield and weed control.

Dairy Production

(Specialists, L. V. Wilson, E. A. Hanson and H. R. Searles)

Cow testing associations.—Forty-five associations are now in operation. Additional field help will enable us to assist in organizing and supervising 15 to 20 more. This work will be handled by E. A. Hanson and an assistant.

Bull associations.—Coöperating with county agents and T. J. Winkjer of the United States Department of Agriculture we will endeavor to assist in any way possible in eliminating the "scrub."

Dairy feeding and breeding schools.—Feeding of home grown feeds will be the major project. An attempt will be made to offer work in counties desiring it that were not entered last year. Two days will be allotted to each county, and, in case of repetition with last season, breeding schools will be introduced.

FARM BUSINESS TO BE STUDIED IN "SCHOOLS"

Extension Service and Station Staff Men Will Hold Series of Farm Business Meetings Over State

Director F. W. Peck announces that about 100 farm business schools will be held from December to April. County agents who desire this work for their locality should write C. H. Welch, secretary of the extension division, stating the number days desired and the topics and dates preferred.

The central thought in each of these meetings will be, What and how much should a farmer produce under his own local conditions of soil, climate, markets, and labor supply in order to meet most successfully the disparity between the prices of the products he sells and those he buys.

Wm. L. Cavert and C. E. Wise, Jr., will be available for this work. In addition, Profs. Andrew Boss, G. A. Pond, L. F. Garey, Superintendent R. E. Hodgson of the Waseca station and Director F. W. Peck will each be available for a few meetings. Usually one instructor will be scheduled per meeting, but, if the county agent thinks advisable, arrangements may be made to combine this work with that of other specialists or in some cases to have two farm management workers at the same time. The following subjects are offered:

1. Economics of dairy production.
2. Economics of pork production.
3. Economics of corn production.
4. Economics of wheat production.
5. Economics of beef cattle production.
6. Economics of poultry production.
7. Economics of potato production.
8. How to do simple farm bookkeeping.
9. Farm lease contracts.
10. Planning the farm business for a given locality.

Each locality having a school will be expected to select two topics for the local program from the foregoing list. The discussion will center around the cost of producing as determined by estimates from farmers in attendance. Following this discussion consideration will be given to things that can be done to reduce the cost of production, to improve the marketing, and as to whether the local situation is such as to enable competition on even terms with other localities that are leading producers.

The discussion on planning the farm business will center around the question of planning the cropping system so that there will be abundant feed of the right kind for the livestock and, at the same time, provide a suitable rotation and cash crops for sale.

Miss Hott in Home Office

Miss Nora Hott, who has so efficiently served Waseca county for a year and a half as home demonstration agent, has become a member of the state home demonstration office. Three-fourths of her time will be given to conducting local leader training classes in the clothing project in Nicollet, Nobles, Goodhue, Wabasha, and Winona counties. Community group work in clothing in Renville and Rock counties will also be carried on by Miss Hott.

JUNIORS PUT ON HIGH QUALITY STOCK SHOW

(Continued from page 7)

Purebred Aberdeen-Angus Calves
Melvin Swanson, Lakefield, Alvin Nesbitt, Utica; Winifred Whitney, Mapleton.

Purebred Shorthorn Calves
Albert Conzemius, Hastings; Lester Gripp, Dodge Center; Smith Willis, Marietta.

Grade Hereford Yearlings
Joseph Isaksen, Springfield; Lloyd Anderson, Sleepy Eye; Roger Caflisch, Pipestone.

Grade Hereford Calves
Francis Henneberry, Olivia; Alvin Bartsch, Mankato; Harold Bartsch, Mankato.

Grade Aberdeen-Angus Yearlings
Floyd Kirkwood, Dexter; Martha Keeler, Chokio; Russell Bone, Beardsley.

Grade Aberdeen-Angus Calves
Russell Morgan; Barney Swanson, Lakefield; Ewald Zochert, Wheaton.

Grade Shorthorn Yearlings
Cletus Riordan; Irvin Donohue, Owatonna; Ralph Wright, Hastings.

Grade Shorthorn Calves
Arthur Reese, Marshall; Arvid Sponberg, New Richland; John Kelly, Olivia.

County Herd Groups
Angus—Traverse, Mower, Jackson, Martin, Hereford—Brown, Lincoln, Blue Earth, Martin.
Shorthorn—Lac qui Parle, Dakota, Dodge, Lyon.

Fat Lambs
Raymond Sullivan, New Prague, champion lamb; James Sullivan, New Prague; Robert Sayers, Lakeville; Eugene Finney, Humboldt; Jay Seymour, Eyota; John Sullivan, New Prague; Hazel Francis, St. James; Lynn Ziener, Waltham; Wilbur C. Mensing, Dodge Center; Sibulon Peterson, Orleans; Ray Pearson, Rochester; Olive Willand, Gatzke; Edward Mensing, Dodge Center; Paul Vaughan, Lansing; Lester Scherferberg, St. Cloud; Wesley Sheldrew, Grygla; Dean Fisher, Brook Park; Allan McDonald, Fisher; Helen Satre, Thief River Falls; Virgil C. Denhart, Hazel.

Fat Hogs
Terrence L. Hagen, Belview, champion in hogs; Wilbur Christianson, Worthington; Martin Conzemius, Hastings; Wilbur Utley, Preston; Zelda Johnson, Sleepy Eye; James Wilson, Ihlen; Arnold Kanning, Fairmont; Harold Eisele, Grey Eagle; Gladys Rydeen, Clearbrook; Olive Perry, Dodge Center; Carrie O'Connor, Lac qui Parle; Rubert Engler, Randolph; Arnold Myhre, Caledonia; Robert Hotchkiss, St. James; Stella Seeman, Utica.

Chester Whites
Wilbur Utley, Preston; Zelda Johnson; Sleepy Eye; Carrie O'Connor, Dawson; Rubert Engler, Randolph; Joseph Powell, Waseca.

Berkshire
Gladys Rydeen, Clearbrook.

Poland China Hogs
Terrence Hagen, Belview; Wilbur Christianson, Worthington; Martin Conzemius, Hastings; Olive Perry, Dodge Center; Arnold Myhre, Caledonia.

Durocs
James Wilson, Ihlen; Arnold Kanning, Fairmont; Harold Eisele, Grey Eagle; Robert Hotchkiss, St. James; Robert McMartin, Claremont.

Shropshire Lambs
Raymond Sullivan, New Prague; James Sullivan, New Prague; Robert Sayers, Lakeville; Eugene Finney, Humboldt; Jay Seymour, Eyota; John Sullivan, New Prague.

Oxford Lambs
Hazel Francis, St. James; Augusta Von Behren, Brewster.

Hampshire
Lynn Zeimer, Waltham.

Good Junior Show at Scandia

Business men, farmers and creamery officials furnished the prize money for a boys' and girls' dairy calf show at Scandia, Washington county, late in October. The calves shown were an improvement over those of a year ago, says Agent R. V. Brown.

DAIRY SCHOOL WORK OUTLINED BY WILSON

With additional assistance in the dairy extension department, it will be possible to go ahead with the program as planned for the present season, says L. V. Wilson. During 1921-22 dairy schools were conducted in 31 counties, most of the time being spent in Northern Minnesota. Two days were allotted each county in all but one or two cases.

The same work is offered this season in other counties, especially those most concerned as to dairy feeding. In many instances counties visited last season will be given at least one day. Explanations of pedigrees will be added to the program this year in localities suitable for this discussion. To know only that an animal is purebred is often not sufficient. Following is the program:

11 a.m. Common diseases of dairy cattle.
1 p.m. Feeding of home grown feeds.
2:30 p.m. What a pedigree means.
3:30 p.m. Judging of dairy cattle.

Schedule of Specialists from Home Demonstration Office

Brown—Poultry. Nov. 8, 9, 10; Nov. 22, 23, 24; Dec. 20, 21, 22; Jan. 31, Feb. 1, 2; Feb. 14, 15, 16.
Freeborn—Nutrition. Nov. 1, 2, 3; Dec. 13, 14, 15; Jan. 24, 25, 26; Feb. 21, 22, 23.
Goodhue—Clothing. Dec. 18, 19; Jan. 29, 30; Feb. 26, 27; March 26, 27; April 23, 24.
Hennepin—Household Management. Dec. 6, 7, 8; Jan. 17, 18, 19; Feb. 14, 15, 16.
Kanabec—Nutrition. Nov. 23, 24; Jan. 11, 12; Feb. 8, 9; March 8, 9.
Kittson—Nutrition. Dec. 4, 5, 6; Jan. 15, 16, 17; Feb. 12, 13, 14.
Lincoln—Clothing. Nov. 23, 24, 25; Jan. 11, 12, 13; Feb. 8, 9, 10.
Mahnomon—Nutrition. Dec. 4, 5, 6; Jan. 15, 16, 17; Feb. 12, 13, 14.
Mille Lacs—Nutrition. Nov. 21, 22; Jan. 9, 10; Feb. 6, 7; March 6, 7.
Mower—Clothing. Dec. 6, 7, 8; Jan. 17, 18, 19.
Murray—Clothing. Nov. 20, 21, 22; Jan. 8, 9, 10; Feb. 5, 6, 7; Feb. 21, 22, 23.
Nicollet—Clothing. Dec. 6, 7; Jan. 17, 18; Feb. 14, 15; March 14, 15; April 11, 12.
Nobles—Clothing. Dec. 8, 9; Jan. 19, 20; Feb. 16, 17; March 16, 17; April 13, 14.
East Ottertail—Household Management. Nov. 8, 9, 10; Dec. 20, 21, 22; Jan. 31; Feb. 1, 2.
Ramsey—Poultry. Dec. 6, 7, 8; Jan. 17, 18, 19.
Red Lake—Poultry. Nov. 2, 3, 4; Dec. 14, 15, 16; Jan. 25, 26, 27.
Renville—Clothing. Jan. 10, 11, 12; Feb. 7, 8, 9; March 7, 8, 9; April 4, 5, 6; April 30, May 1, 2.
Rock—Clothing. Dec. 11, 12, 13; Jan. 22, 23, 24; Feb. 19, 20, 21; March 19, 20, 21; April 16, 17, 18.
Roseau—Poultry. Oct. 30, 31; Nov. 1; Dec. 11, 12, 13; Jan. 22, 23, 24.
St. Louis—Clothing. Nov. 8, 9, 10; Dec. 20, 21, 22; Jan. 31, Feb. 1, 2.
Sherburne—Nutrition. Nov. 8, 9, 10; Dec. 20, 21, 22; Feb. 1, 2, 3; March 1, 2, 3.
Swift—Clothing. Nov. 1, 2, 3; Dec. 13, 14, 15; Jan. 24, 25, 26; Feb. 14, 15, 16; Feb. 28, March 1, 2.
Wabasha—Clothing. Dec. 20, 21; Jan. 31, Feb. 1; Feb. 28, March 1; March 28, 29; April 25, 26.
Washington—Household Management. Dec. 13, 14, 15; Jan. 24, 25, 26; Feb. 21, 22, 23; March 21, 22, 23.
Winona—Clothing. Feb. 2, 3; March 2, 3; March 30, 31; April 27, 28; March 4, 5.

Longley Kept on the Jump

County Agent W. V. Longley of Kittson kept on his working clothes all through October. In the 31 days he traveled 750 miles by auto, held 17 meetings and demonstrations, received 306 office calls and 172 telephone calls, wrote 378 letters and nine circulars, and visited 51 different farms.

AREA PLAN WILL BE USED IN FIGHTING "TB"

Two Counties to Get "the Once Over" for a Starter—Professor Smith Outlines Stock Conditions in Minnesota

Prof. H. R. Smith, commissioner for the National Livestock Exchange, painted a vivid picture of the tremendous losses entailed by bovine tuberculosis in this country before the annual conference of agricultural extension people. One hog out of every seven in the United States, he said, has tuberculosis, or a percentage of 14 for the entire country. In 1898, he said, only 2 per cent of the hogs of the country were affected with this disease. All the figures and statistics, he added, show that the hog growing industry is imperiled to an extent not known or appreciated by agriculturists.

"If we can get rid of tuberculosis in cattle," said Professor Smith, "we can keep it out of our swine herds, for 98 per cent of tuberculosis in hogs is due to the cow and her milk. Probably 20 per cent of the hogs in this territory are affected with tuberculosis. A high percentage of tuberculosis found in children comes from milk.

"One hundred thousand cattle in Minnesota have tuberculosis right now and the problem is to find them and put them out of the way. The disease can be stamped out and our livestock made healthy and members of the human family safeguarded from this source of infection. It is simply a question of education and action."

What is known as "area testing" is the thing that will drive out tuberculosis, Professor Smith added. Plans have already been made for starting work under this system in two Minnesota counties yet to be selected. Professor Smith emphasized the importance of adequate state funds for the expenses of the work, and said that \$500,000 would be needed for the right kind of a campaign in Minnesota the coming year. This, he said, should be regarded as a promising investment rather than an expenditure.

Costs of testing have been reduced under the area plan of tuberculosis eradication, says the United States Department of Agriculture. Records of the department show that for 25 counties in various states for which figures are available, the cost of testing was only 34 cents a head. Steuben county, N. Y., where 45,000 cattle were tested by 33 veterinarians in 19 days, did the work at a cost of 23.5 cents a head. In Missouri the testing done by federal veterinarians cost only 28 cents a head. This included salary, subsistence, and travel expenses. In some counties work has been done at as low a cost as 15 cents a head.

"Area Plan" Approved

The "area plan" for fighting tuberculosis in cattle was indorsed at a meeting held by stock men at Mankato. A committee was appointed to put on a campaign for area work. Nearly 100 per cent of the herds in Rapidan and Butternut Valley townships have already been tested, says the county agent.

COOPERATIVE SELLING ADDS TO EGG MONEY

At the close of a year's business the egg shipping coöperators of the Kingston community find that they shipped 1,834 cases of eggs, for which they were paid \$15,026.99. The average price received was 27 1/3 cents per dozen.

"In comparing the average price received with prices paid at the stores, no accurate figures are at hand," says County Agent T. G. Stitts, "yet coöperators say the average price is from one to ten cents more than store prices, depending on the season of the year. At this time of the year coöperators are receiving seven or eight cents above the store price."

The Kingston poultry center has 114 active coöperators. The coöperative creamery has been asked to handle the eggs in 1922-23.

HOMEMAKING PROJECTS NECESSARY, SAYS PECK

Director F. W. Peck in his talk at the home demonstration conference said that "no extension program in a county, region or state is complete without a fair share of extension projects dealing with homemaking." He developed his subject in a most logical manner from four standpoints, namely:

1. The relation of the home to the business of farming.
2. The relation of the home to the standards of living.
3. The relation of homemaking to the general welfare.
4. The difficulties of coördinating all lines of work in a program.

PEAT FOUND TO NEED POTASH, PHOSPHORUS

Potash and phosphorus fertilizers used on peat soil in the northern part of Hubbard county gave unusually good results on new clover and timothy seed, according to County Agent A. C. O'Banion. This particular peat soil seemed to be deficient in both potash and phosphorus because when they were used separately poor results were secured in each case. Clover and timothy grown on this peat without fertilizer was very poor. County Agent O'Banion expects to see this method of treating peat soils become much more general in that locality as a result of this test.

Building Up Dairy Herds

County Agent A. P. Henderson of Pope county says the dairy cow movement is going strong in his territory. In his report for October he notes that 45 head of grade cows and three purebred bulls have been brought into the county. Three other groups of farmers planning to purchase a carload each are being organized.

Potatoes Net 70 Cents Per Hundred

Fifteen cars of potatoes marketed by the Pennington County Potato association in October netted the growers an average of 70 cents per hundred, says J. J. McCann, county agent. Each car passed as U. S. Grade No. 1.

JACOB NEW HEAD OF AGENTS' ASSOCIATION

L. O. Jacob, agricultural agent in Anoka county, was elected president of the County Agents association at its annual meeting in St. Paul last month. He succeeds K. A. Kirkpatrick of Hennepin county, who had held the office three years. Mark Abbott of Koochiching was elected vice-president, and W. K. Dyer of Renville was elected secretary and treasurer. Sectional directors were chosen as follows: D. C. Dvoracek of Beltrami, northeast; F. E. Krause of Blue Earth, southwest; T. G. Stitts of Meeker, northwest; and W. E. Watson of Dakota, southeast.

DOES SPRAYING PAY?

THIS MAN SAYS "YES"

Farmers who sprayed and otherwise gave good care to their orchards have been reaping substantial rewards, according to the Blue Earth county agent who did much work last spring in holding spraying demonstrations and advising orchardists. The agent says: "T. H. Anderson, who has an orchard of about 15 acres, shipped a carload to Aberdeen, S. D., and received several additional orders from Dakota points because of the good quality of his apples. A carload which he shipped to Duluth was sold the first day. Another man shipped a carload of unsprayed apples to Duluth and it took him a week to sell his carload and at much less money."

ROOM FOR DEVELOPMENT

If the United States ate as much cheese per capita as most European countries do, or even one-half as much per capita as the Swiss people do, it would require nine billion pounds more milk each year, or the output of 2,250,000 more dairy cows. Plenty of room yet for the dairy business if the consumer's appetite is molded in the right direction.

Shall we go after more dairy cows or better dairy cows? In 1850, there were in the United States, 278 cows per 1,000 population, while in 1922 there were only 221 cows per 1,000 population. But in 1850, the yearly production per cow was 1,436 pounds, compared to 3,945 pounds per cow in 1922. More milk from less cows—a good example of increased efficiency in the use of labor and feed. There are still 30 scrubs and grades for every purebred.

One point of interest to some is the fact that the price of butterfat follows a rather close relation to the price of hay, and that butter prices follow the general average of all commodities, except that they do not go as high as the average of all other food prices.

Good Receipts from Wool

Roseau county wool growers have had returns from the wool pool through which they marketed their product and, according to the county agent, received net prices ranging from 31 to 41 cents a pound.