

THE NORTHWEST MONTHLY

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NORTHWEST FARMERS' WEEK

February 10 to 14 was the week of the year for the agricultural interests of Northwestern Minnesota. The farmers' and women's meetings at Crookston which took place at this time attracted the attention of the whole northwest, and the success achieved was a credit to the splendid organization that exists among the farmers of the Red River Valley. Three organizations cooperated with the Northwest School of Agriculture which had charge of the meetings. The Red River Valley Development association was sponsor for the farm crops show, the Red River Valley Live Stock association promoted the live stock show and sale, and the Northern Minnesota Poultry association managed the poultry exhibit. Other Valley organizations meeting during the week were the Red River Valley Potato Growers' association, the Farm Bureaus of Northwestern Minnesota, the pure seed cooperators of the Northwest Experiment Station and the Alumni association of the Northwest School of Agriculture.

Origin At Northwest School of Agriculture.

The first Farm Crops Show was staged at the school in 1910 in connection with the first farmers' short course of the Northwest School. It soon grew to such proportions that it had to be moved to the city of Crookston in order to find sufficient room. The poultry men combined their show with it, the live stock show has been added, and industrial exhibit features have been added until now it is a complete midwinter agricultural exposition.

The New Features This Year.

The new \$25,000 live stock building was the center of attraction during the week and the live stock show and sale the big feature. Both were distinctive achievements. To complete the pavilion and the live stock annex in two and a half months during the dead of winter was in the first place a great feat, and a monument to the progressive spirit and cooperative enterprise of the people of the Red River Valley. To fill it to overflowing with the finest of pure bred stock in so short a time was also a success and an indication of the great progress that has already been made toward establishing the live stock industry in the Red River Valley. The accomplishment was a surprise to everybody.

The live stock show feature was first added to the farmers' week two years ago. With the limited space at the disposal of the management it was only possible to bring a very limited number of cattle to Crookston. The general interest, however, proved that

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THE NINTH ANNUAL JUNIOR SHORT COURSE

The ninth annual short course for boys and girls will be held at the Northwest School of Agriculture, Crookston, for one week beginning April 7. It will be open to boys and girls from 12 to 18 years of age.

Aim of the Course.

The course aims to deepen boys' and girls' interest in life on the farm. It aims to interest and instruct them in corn and potato growing, pig and chicken raising, care of cattle and horses, cooking and sewing, especially preparing them for club work and industrial contests. It aims to give a new vision of better things and an inspiration to go home and attempt some of them.

The Course.

The morning will be devoted to study and practice and the afternoons to excursions, games, and various udging contests. The evenings will be devoted to illustrated lectures on country life subjects, to social entertainment and moving pictures of educational value.

Faculty and Equipment.

Instruction in the various subjects will be given by the regular instructors of the school faculty who are specialists with wide practical experience along their respective lines, men and women also who have a keen appreciation of life on the farm. The Junior Short Course comes after the close of the regular school so that the entire extensive equipment of the school and station will be available to make instruction interesting and practical.

Home Life.

The students during the week will room in the commodious dormitories on the campus which will be in charge of the preceptor and preceptress of the faculty. The regular school nurse will also remain on duty during the week. No effort will be spared to care for the young people during their week's stay.

Expenses.

\$2.50 will be the total expense. That will pay for the enrollment, board, and room for the week, and transportation to and from school.

Bedding.

Bedding is not furnished by the school so each student should come supplied. A suggestive list of things to bring is: Two sheets, one pair of blankets, one quilt, one bed spread, one pillow, towels, napkins, etc.

What to Do to Get to the School.

Students should write to the school, telling on what train they will arrive, and the school bus will meet them.

CROP YIELDS ON THE GOLDEN VALLEY EXPERIMENTAL FIELDS IN 1918.

(F. J. Alway and C. G. Selvig)

The district surrounding Golden Valley, a postoffice in Marshall county 14 miles east of Holt, the nearest railway station, is covered with a layer of peat from 12 to 36 inches in depth. Underneath the peat is a thin layer of black muck below which is a yellowish gray clay loam. In 1918 the department of agriculture of the University of Minnesota conducted experiments with various crops on two fields with typical peat soil near the postoffice, there being 384 plots. Notwithstanding the distance from the railway, these fields were visited during the latter part of the summer by many hundreds of people, most of whom are personally interested in the cultivation of peat lands. This brief statement of the crop returns is intended chiefly for these visitors.

A bulletin giving a detailed description of the experiments, and the yields from all the individual plots is now in the course of preparation, together with one dealing with peat soils in general, and these will be sent as soon as published to anyone who sends his name and address to the Office of Publications, University Farm St. Paul.

Previous Cropping of the Fields.

For the information of those who have not visited Golden Valley, it may be said that both fields were on the same farm, and separated by only a few rods. One had never been manured, fertilized or burned over, while the other had been deeply burned in the autumn of 1917. Both had originally been covered with a layer of peat from 12 to 36 inches deep covered by grasses and sedges, and both are now thoroughly drained by a large open ditch. Both had first been plowed in 1913, seeded to flax in 1914, and to oats and barley in 1915 and 1916. The flax yielded about three bushels per acre, while neither of the other crops was considered worth cutting. Late in 1916 part of the one field was lightly burned over and in 1917 a fair crop of oats was secured while on the rest of the field and on the whole of the other the crop was again a failure.

In the autumn of 1917 the whole of the first field was burned over, from 9 to 18 inches of peat being thus removed and on about a third of the portion used for experimental plots the black muck was exposed, while on the rest of the field the peat remaining was from 10 to 18 inches deep. The other field was not touched by the fire and received no ash from the nearby burned land. The peat on this varied from 18 to 30 inches in depth.

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NORTHWEST FARMERS' WEEK

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this was a popular feature and steps were taken toward providing adequate facilities for housing the show. The Red River Live Stock association was organized and carried on a campaign to secure the necessary funds for a building. Many organizations and committees threw themselves wholeheartedly into the work. In spite of the many handicaps they met incident to the war and the influenza epidemic, each of the counties of the Valley assumed their proportionate quota, organized their farmers and business men by township divisions and raised the money. Permission to begin the building was not granted by the War Board until after signing of the armistice. Work was begun immediately, however, and the building completed in time for the show.

The Live Stock Show.

The Live Stock show convinced the thousands of people who attended the show that live stock has arrived in the Red River Valley. The exhibits of the various breeds showed that as good swine are raised in this section as any other place in Minnesota. The swine show was so large and the quality so good that those acquainted with southern Minnesota and Iowa herds proclaimed the stock here equally as good as the stock found in those sections, so the man who said pigs can't be raised in the Red River Valley will have to reckon with the pig business in the future.

The Shorthorn people had an exceptionally strong exhibit and some of the famous animals of the breed were at this show. The Herefords and Angus were excellent representatives of those breeds. The Holstein people were out in full force to uphold the interests of the dairy business, and not to be outdone, the Guernsey people made a very creditable showing of that breed. That sheep are rapidly becoming established in this section was evidenced by the fine showing of the nut-ton and wool combination, the Shropshire.

The Sale.

Over three hundred head of live stock were shown, all of them of good quality and typical of the breed they represented. Over \$23,000 changed hands during the day, when one hundred and fifteen head of stock were sold, going to various parts of Minnesota and the Dakotas. The top animal was a Holstein cow, Dora Johanna Fayne Homestead, consigned by the E. C. Schroeder farm, and bought by R. T. Buckler of Crookston for \$2,600. The highest price paid for a Shorthorn cow was \$575, paid by Mr. Scheelk of Detroit for one of the valuable milking Shorthorn cows from the A. E. Palmer herd at Euclid. Mr. Nels Palm, '14, of Alvarado, made a very good purchase of a Guernsey cow consigned by the Caribou Farms.

The prices received for swine indicate that it costs almost as much nowadays to buy a good brood sow as it does a cow; \$480 being paid by Miner A. Helgeson of Crookston for a spring pig of the Poland China breed, raised by Peter Sethrie of Carlisle. Duroc Jersey people sold thirty-two head which averaged \$130 each. This is an exceptionally good average. Thirty-four head of Shorthorns averaged \$240.

The Prize Winners.

The following herds were prominent prize winners in the Guernsey class: Henry Koop, St. Hilare; F. B. Conklin of Thief River Falls; the Caribou Farms at Twig, and the Northwest School, all were contending bidders for ribbons. The honors for the champion bull and cow went to F. H. Conklin's herd at Thief River Falls. The Holstein show honors were divided between the E. C. Schroeder herd of Moorhead, Frank Hedley of Crookston, Chas. Hitchcock of Crookston, the Northwest School of Agriculture, C. L. Spaulding of Warren, (and Geo. Schuck of Crookston. The champion herd bull and cow went to E. C. Schroeder of Moorhead. The A. E. Palmer herd of Euclid, Nordlum and Morris of Middle River, P. M. Finkenbinder of Crookston, and M. A. Helgeson of Crookston were contending bidders for premiums. The champion herd bull and cow honors went to A. E. Palmer herd which showed a string of milking Shorthorns which it is doubtful if any herd west of the Mississippi river could duplicate. Beef Shorthorn honors were divided between Carlson Brothers, Erskine; M. E. Dahl, Twin Valley; C. A. Hitchcock, Crookston; W. C. Miller of Warren; and O. Hanson & Son, Twin Valley. Champion herd honors were divided between Carlson Brothers and M. E. Dahl. Champion bull and cow were owned by M. E. Dahl of Twin Valley. A very creditable showing was made of Aberdeen Angus and premiums were divided between the Hartley Stock Farm of Page, North Dakota, and Wm. A. Hall of Halstad. Hereford honors were divided between Chas. Franks of Warren, C. E. Kiewel of Crookston, and the Northwest School of Agriculture. Chas. Franks had the champion bull and C. E. Kiewel the champion cow. In the Red Polls, Wm. Novak made a very creditable showing of cattle.

In the swine department, a very strong show was held among the Durocs and the honors were divided between A. Marsden and Son of Hendrum, F. A. Green of Stephen, Wm. A. Hall of Halstad, and Zimms and Son of Red Lake Falls. A. Marsden & Son won the championship on boar and herd, and F. A. Green on champion sow. The Poland China breed divided up honors between N. J. Kvenoden of Fertile, W. F. Schrepel of Red Lake Falls, Harry Mellick of Strathcona, Peter Sethrie of Carlisle, and M. A. Helgeson of Crookston. In this class M. A. Helgeson won champion honors on herd boar and sow. The Chester White show honors were divided between R. E. Morehead of Euclid, M. W. Munger of Warren, and P. M. Finkenbinder of Crookston. Herd honors fell to R. E. Morehead, champion boar to Morehead and champion sow to M. W. Munger. C. P. Woodstrom of Crookston made a very good showing of Berkshires. The Shropshire class of sheep brought out a very interesting contest in which A. Marsden of Hendrum won a large portion of the premiums, the balance being divided between Conklin of Thief River Falls, J. E. Briden of Crookston, R. F. Quaintance of Crookston, C. C. Lake of Red Lake Falls and the Northwest School of Agriculture.

Good fellowship and enthusiasm

abounded on every side and the live stock enthusiasts are already planning for the big 1920 live stock show. "I'm glad I came, but next year I'm coming back stronger than ever," is the sentiment expressed by the showmen.

Dedication of the New Pavilion.

The attendance during the week was the largest in history. Special trains on all lines brought large delegations each day, and it is doubtful if there was a single community in the whole Red River Valley that did not have its representing delegation. The crowds on Wednesday were especially great, on account of the interest in the dedication of the new pavilion and the live stock sale.

The formal dedication exercises took place in the big arena in the morning before the opening of the sale. Superintendent C. G. Selvig, president of the Live Stock association presided and formally dedicated the building through his presentation of the keys to the farmers of the Red River Valley. C. J. Gullekson of Beltrami accepted the building on behalf of the farmers and spoke enthusiastically of the cooperative spirit that had made the undertaking possible. He gave as an illustration his own township, Reis, which contributed \$475 in stock with every farmer except four a stockholder. Responses were made by representatives of the many Valley organizations who had helped in promoting the enterprise and by the modest but efficient contractor, M. R. Hussey, who carried the construction work to a successful conclusion. His optimism was expressed in his theme "Never Mind the Weather."

The Meetings.

Last year the central theme was "Win the World War." This year the slogan was "Reconstruct the Devastated World and Establish Universal and Permanent Peace." The speakers dwelt on the tremendous change that has come over the world in all lines of thought and action. The enthusiastic response that they received from their audiences was evidence that the people are eager to assume the new responsibilities as they are made to see them. Lack of space precludes the possibility of summarizing of the many excellent addresses given. Some idea, however, may be had of the content from the following:

Significant Remarks.

"If we profit by our experience in this war, we shall, indeed, be a new nation. The noblest development of this new America demands that we approach the new problems with open-mindedness; that we attack the social problems with courage; that we bear the highest respect for law and order, and that we have unswerving confidence in American ideals."—President Burton.

"The measure of a person's citizenship is the size of the units in which he is thinking."—Dean Coffman.

"Farmers must be business-like. Mor failures in farming are due to poor business management than poor production."—Andrew Boss.

"Every new born baby has in it possibilities of weakness and health. Good health is the first essential of good manhood and good womanhood."—Esther Ferris.

"There are three phases of reconstruction of country life.—first, farm women work too hard; second, rural health must be improved; third, there is not enough social life."—Miss Secrest.

"The outcome of the war shows that Americans can do anything that they undertake."—Dean Thatcher.

"The world does look to the Red River Valley Live Stock Breeders, for no section of this section is developing so rapidly and with such promise as this."—Dr. Gay.

"The dairy cow is the foster mother of the human race."—Leonard Houske.

"It can be done."—Superintendent Selvig.

"There are just two kinds of people, lifters and leaners."—C. J. Gullekson.

"The development of any country and more particularly the Red River Valley is the reasonable assurance of a fair price and reasonable market control of farmers' agricultural products."—O. M. Olson.

"Pure bred animals should be in the hands of pure bred breeders. Develop good breeders by starting the boys and girls in boys' and girls' club work."—T. A. Erickson.

"Never mind the weather."—M. R. Hussey.

WOMEN'S MEETINGS

A very interesting and instructive series of women's meetings were conducted during the week. The main topics considered were health, food, reconstruction problems and community service. Eminent speakers gave the addresses. Large audiences filled the place of meeting each day.

A very interesting special feature of the week's program was the hat clinic conducted by Miss Katharine Ingebrand of St. Paul. Hats were made over and remodeled to adapt them and make them more becoming to the wearer. It was an intensive course in practical millinery and was pronounced by all as one of the most valuable features of the week.

Another new feature of the women's department this year was the food contest. Much interest was created and much valuable information given along the line of cooking, baking, and canning. The Erskine bread team, state champions for 1918, and the McIntosh canning team, champions of the Northern Division, gave demonstrations and won much praise for their fine work.

Prize Winners in Food Contest.

White Bread—Mrs. O. P. Grymer, city.
Rye Bread—Mrs. L. Capistran, country.
White Layer Cake—Mrs. T. M. McCall, country.
Chocolate Loaf Cake—Mrs. C. M. Lohn, city.
Currant Jelly—Mrs. H. Hodgson, city.
Apple Jelly—Mrs. T. K. Hazelrud, city.
Canned Peas—Mrs. F. J. Dlizen, city.
Canned Corn—Mrs. F. Morrisey, city.
Canned Tomatoes—Mrs. Thos. O'Poole, city.
Dried Corn—Mrs. B. C. Vonderbeck, city.
Strawberries—Mrs. C. P. Woodstrom, country.
Peaches—Mrs. C. P. Woodstrom, country.
Apples—Mrs. Joseph Ball, city.
Practical House Dress—Miss Cora Miller, country.
Practical School Dress—Mrs. H. Du-fault, city.

Most Practical Thrift Exhibit—Mrs. Wm. Lobb, city.

ANNUAL BANQUET OF LIVE STOCK MEN

What all term was one of the most wonderfully successfully banquets ever held in Minnesota took place Wednesday evening when the members of the newly organized live stock organization met. The occasion was the first gathering after the new pavilion had been constructed, after the first show on a large scale had been held, and after the most successful sale ever held anywhere in the state had been conducted. These reasons and the fact that the gathering was honored by the presence of members of the legislature and distinguished visitors from all sections of the state made it an epochal event.

Superintendent C. G. Selvig, president of the Red River Valley Live Stock association, acted as toastmaster. He was imbued with earnestness with regard to the movement and contributed to the joyousness of the event in his presentation of the various speakers. A large number of the live stock men and prominent visitors were called upon and responded enthusiastically concerning the future development of the Red River Valley and particularly along the line of live stock. Members of the legislature expressed themselves as being particularly pleased. They felt that the exhibit and sale was a revelation and that they were more than benefited by the time taken from their legislative duties.

FARM CROP EXHIBITS

The exhibit of grains and potatoes ranked high in comparison with those of other years in both extent and quality. Much interest was shown by the various counties and enthusiasts discussed the prospect of a separate building for this feature so that counties might put up booths for their own exhibits. Limited space permits only a partial list of winners:

Prize Winners.

Sweepstakes—Corn, B. Aschbach, Ada; wheat, G. F. Peterson, Warren; oats, Anton Norum, Hallock; barley, W. F. Tullar, Warren; potatoes, O. J. Brustad, Fosston; boys and girls potatoes, Gerhart Lorentson, Fosston.
Reserve Sweepstakes—Alex Brustad, Fosston, and boys and girls corn, Oscar Hoiseth, Crookston.

Firsts in Various Lots—Alfalfa, Henry Lindberg, Kennedy; sweet clover, John H. Melick, Strathcona; red clover, Herman Berg, Fosston; Yellow Dent corn, C. C. Williams, Detroit; White Dent corn, B. Aschbach, Ada; Dent corn, J. M. Stephens, Crookston; Flint corn, C. C. Williams, Detroit; Marquis, G. F. Peterson, Warren; Bluestem, J. M. Stephens, Crookston; Macaroni, G. J. Peterson, Warren; Bearded wheat, George Copp, Warren; Early Ohio potatoes, S. W. Wheeler, Crookston; boys' and girls' early potatoes, Eldred Lindahl, Hallock; boys' and girls' late potatoes, Gerhart Lorentson, Fosston; boys' and girls' corn, Harold Briggs, Moorhead; large yellow oats, Herman Jepson, St. Hilaire; small yellow oats, Lewis Johnson, Fergus Falls; white oats, Anton Norum, Hallock; two row barley, Arthur Norum,

Hallock; six row barley, W. F. Tullar, Warren; rye, Albert Nelson, St. Hilaire; flax, W. P. Tullar, Warren; Early Ohio potatoes, Andrew Anderson, Hallock; Irish Cobbler, Chas. Wise, Crookston; Triumph, W. V. Longley, Hallock; Green Mountain, E. H. Reff, Bagley; Rural New Yorkers, O. J. Brustad, Fosston.

THE POULTRY SHOW

The Eleventh Annual Poultry show was a notable success. A large number of high quality birds were shown and the competition was keen in the various classes. There was an especially large and fine showing of Rhode Island Reds and Barred Plymouth Rocks. A beautiful pen of pheasants exhibited by Albert Anderson of Erskine was an interesting novelty. The exhibit of rabbits was an attraction especially for the small boy. A large number of birds were sold at fancy prices. The highest price paid was \$60.00 for a trio of R. C. R. I. Reds consigned by Ben Jacobs of Aitkin.

Among the heavy winners in the Red classes were M.N. Hatcher, Fargo; Ben Jacobs, Aitkin; Johannesson & Co., Beltrami; Olaf Neset, Thief River Falls; H. W. Boltman, Crookston; W. M. Everett, Bemidji; Andrew Dahlen, Detroit. Barred Rock prizes were won by Horace Beardsley, Sanger, N. D.; George F. Clark, Fargo, N. D.; F. F. Doogen, East Grand Forks; Geo. L. Freer, Redtop; F. R. Hedley, Crookston; J. P. Norman, Crookston. The Orphington winners were E. E. Burnham, Detroit; William Chalmer, East Grand Forks; J. R. Griffith, Willmar; M. T. Helgeson, Crookston; Raymond Brickman, Crookston; Tharleif Norman, Crookston.

The leading Leghorn breeders were: J. W. Beckman, Cokato; Earl Berg, Crookston; Alfred Hagen, Crookston, and Alfred Malmberg, Crookston.

A. G. Krueger, Plummer and Lawrence Kerch, Crookston, showed White Rocks. Harry R. Clough, Bismark, N. D., won on White Wyandottes. O. A. Brager, Fosston, showed Light Brahmans. Thomas Couch of Grand Forks, carried away honors for Black Langshans. M. N. Hatcher in addition to prizes for individual birds, won first for best pen and best display of Reds. J. R. Griffith, Willmar, had highest scoring birds in show.

STOCK JUDGING CONTEST

The farmers' club and high school stock judging contest this year, though not up to the record of former years in the number of competing teams, ranked very high in quality of work done. The following farmers' clubs were represented and are here mentioned in order of their rank as determined by their average in judging five rings of live stock: Thompson club, Hallock, 1st; Fairfax-Andover, Crookston, 2nd; Mallory club, East Grand Forks, 3rd; Red River club, Hallock, 4th; Hegney Community club, Ada, 5th; and Boxville club, Warren, 6th. The results were very close. The first four teams were within 1-3 of a per cent of one another. The first led the second by only 1-15 of a percent. A review of the individual scores reveals some fine records. The highest mark made by any one individual was 98 scored by Vivian Lavelly of the

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THE Northwest Monthly

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C. G. SELVIG, Superintendent

OFFICE

Northwest Experiment Station,
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A monthly publication in the interest of agricultural education and home training for Northwestern Minnesota.

The Northwest Monthly wishes to urge all of its readers to note the dates of the Junior Short Course which is to be held at the Northwest School of Agriculture during April. A further suggestion is that efforts be made to send delegations from all the communities in this section of the state. This is an opportunity to give boys' and girls' club work additional encouragement as well as to afford the young people a week of education and recreation.

NORTHWEST FARMERS' AND WOMEN'S WEEK

The Red River Valley was favored with mild weather during the week of the meetings and various exhibits which were held at Crookston last month. A full account of the week's activities is given in this issue of the Northwest Monthly. The attendance and interest indicate that these meetings and events have secured a distinct place in the activities of the people of this section of the state.

Organized in 1910 as the Farmers' Short Course and Grain Show of the Northwest School of Agriculture, this midwinter week has grown enormously, involving now not only the Northwest School of Agriculture and Experiment Station, but the Minnesota Red River Valley Development association, the Northern Minnesota Poultry association, and the newly organized Red River Valley Live Stock association. All of these organizations and groups, as well as the farm bureaus of the Northwestern Minnesota counties, farmers' clubs, and commercial organizations have actively cooperated to make the meetings and exhibits a success.

The Northwest Monthly wishes to acknowledge this large measure of cooperation. There lie in the future even greater possibilities for this section of the state through a continuation of unselfish effort directed along constructive lines.

COMMENCEMENT WEEK

It is hoped that a large number of the alumni, parents of students, and friends of the school may avail themselves of the opportunity to visit the Northwest School of Agriculture during Commencement Week, the events of which are given in another column. They will be interesting and instructive.

The school will receive valuable inspiration from the visits made by the parents and others who may accompany them, and it is hoped they may also gain thereby a better understanding of the work of the school. Plan to spend a day or two at the school during Commencement Week.

COMMENCEMENT WEEK PLANS

The thirteenth annual commencement of the University of Minnesota Northwest School of Agriculture will be held on Thursday, March 27. The commencement address will be given by Dean Guy Stanton Ford of the University of Minnesota. There are 26 students in the school graduating class, of which 14 are in the teacher's training section. In addition, certificates of proficiency will be awarded to students in the farm engineering department. Superintendent C. G. Selvig will award the diplomas and Mr. A. A. Miller of Crookston will present the scholarships earned during the present year. Demonstrations will be given by Velura Kinnan, Henry Habben and Verna Imsdahl. Albin Johnson, president of the senior class, will give the class address.

The senior class exercises will be held at 10:00 o'clock on Thursday, March 27. Miss Lena Edman, vice-president of the senior class, will preside. Miss Grace B. Sherwood of the school faculty will extend greetings to the visitors; Oscar Knutson will enlarge on the virtues of the class of 1919, to be followed by James Felber who will accept responsibilities for the juniors which will fall upon that class when they become seniors next year. Demonstrations will be given by Ella Fossbakken, Tarjie Steenerson, and Martha Bauer. The program will be concluded by an address by A. H. Larson, senior class counselor.

The commencement sermon will be given on Sunday evening, March 23, by Rev. L. A. Roseland of Crookston.

On Monday evening a combined literary and musical program will be given in the school auditorium. The annual reception for the members of the senior class will be given in the home of the superintendent on Tuesday evening.

Members of the senior class will present "Partners," as the class play, Wednesday evening, March 26. The cast of characters include the following students: Albin Johnson, Florence Lindfors, Henry Nabben, Lena Edman, Tarjie Steenerson, Oscar Knutson, Clayton Mellum, Elba Buhn.

EXPERIMENTS WITH PEAT

The Northwest Monthly is glad to publish the preliminary report of the 1918 work at the Northwest Peat Farm located at Golden Valley in Marshall county. As is stated in this brief preliminary report, a detailed report for 1918 is under preparation. Dr. F. J. Alway, chief of the Division of Soils, Department of Agriculture, St. Paul, is preparing a bulletin also which deals with peat land problems in general.

The present legislature is considering the continuation and enlargement of the work with peat soils in Minnesota. Additional funds are necessary in order to investigate the possibilities of, and the best agricultural practice necessary to secure the maximum production from this type of land.

The Northwest Experiment Station is greatly interested in this investigational work. It is hoped that the legislature will provide adequate funds for its continuation and enlargement.

AROUND THE CAMPUS

February 26, Mr. R. O. Westley attended the Minnesota Crop Improvement association meeting and show at St. Cloud.

Lieutenant Hornbeck, an official of the Great Northern railway, gave an interesting talk at assembly February 28. He was a member of the engineers corps sent by the United States government to organize the railroad system in Siberia. This work brought him in close contact with the people of Japan and China and the account of observations was most instructive.

The basketball game played between the Aggie and Fisher teams in the gym of the Consolidated school at Fisher was well attended by the students and faculty of the Northwest School of Agriculture. About sixty went over and consequently the Great Northern stopped at the crossing and let the Aggie folks off.

Miss Hazel Rockwood, of the Home Economics Department, attended a joint farmers' meeting at Glyndon on February 27. Miss Rockwood talked on the "Need of a County Home Demonstration Agent."

Mr. and Mrs. A. M. Christensen are nicely settled on Faculty Row, in the cottage formerly occupied by the Dietrichs. Mr. Christensen has charge of the Home Project and Pure Seed Cooperators' work done in connection with the Northwest School and Station.

Mrs. J. P. Bengtson gave a reception on Thursday, March 6, in compliment to Mrs. A. M. Christensen who has recently come to the campus to live.

On March 1, a very interesting basketball game was played in the Northwest School gymnasium between the Ada high school team and the Aggies. Jackson, the coach of the Crookston high school team, referred the game. The score was 28 to 20 in favor of the local team.

The Northwest Minnesota Farmers' and Women's Week is a part of "Home Coming Week" at the N. W. S. A. and is always greatly enjoyed by the faculty and students. Each year a large number of graduates and former students visited the campus and renewed old acquaintances. This year the number was unusually large, due no doubt to attraction of the Stock Show and Sale. Among those who visited the campus were: James Porten, Sam Anderson, Berger Hagglund and Nels Palm of Alvarado; Dr. Harry Hedin, Rasmus Helberg and Ed Hammer of Twin Valley; Ole Flaatt, Herman Skyberg, Alfred Hannah, Anna Jnhoson and Anchor Wurden of Fisher; Martin Soberg of Fertile; Martin Saugen of Newfolden; Emil Hallgren, Bronson; Christ Fossbakken, Fosston; Fred Rubert, Orleans; Alfred Wiger, Ulen; Florence Haenke, Eveleth; Harold Morris, Little Falls; Emma Peterson, Grand Forks; Albert Erlanson, Kennedy; Bernard Moses, Pelican Rapids; Grace Walker and Clayton Walker, Red Lake Falls; Oscar Lee, Hendrum; John Hest and Marion Johnson, Perley; Frances and Gerhard Useldinger, Euclid; Nels Peterson, Flaming; Oscar Gigstad, St. Hilaire; Dora Wurden, East Grand Forks.

SUPERINTENDENT SELVIG RETURNS FROM TRIP

Superintendent C. G. Selvig returned recently from St. Louis and Chicago, where he had been in attendance at meetings in the interest of the Northwest School. Under the provisions of the Smith-Hughes Act the United States government is granting aid to schools giving agricultural training. The Crookston School of Agriculture and the state schools at St. Paul and Morris are included under this law as are about 30 Smith-Hughes high schools. The St. Louis meeting dealt largely with the problems of agricultural, industrial and home training education. The past year has seen a great impetus given this movement in all of the states. Particularly in trade education has the progress made been rapid, due largely to the shortage of trained men disclosed by the draft boards in the response to the government call for men. The remarkable results attained in soldier training schools will undoubtedly influence vocational training in the future.

Representatives of special state schools of agriculture met at St. Louis and organized a national committee to record the progress made by these schools. The three in Minnesota have an enrollment this year of over 1100 students from Minnesota farm homes. South Dakota, North Dakota, Iowa, Kansas, Nebraska, and other states have similar institutions which are thriving and growing.

NOTICE TO ALUMNI

At the annual meeting of the Alumni association a motion was passed that we change the time of the annual meeting from Commencement week to the week of the Farm Crops and Live Stock show. The secretary was instructed to notify the members of the Alumni association of such change and unless they notify the secretary and cast their vote "no," before the annual meeting in the spring, their vote will be reported "yes," and from the date of the annual meeting this amendment will become a part of the constitution.

This change is made in order that the largest number of the alumni may attend the annual meeting, for more alumni can attend during the Northwestern Minnesota Farmers week than the week of commencement.

PAUL ENGELSTAD,
Secretary and Treasurer.

MILKING SHORTHORN BULL FOR SALE

The bull offered for sale by the Northwest School should appeal to those interested in the breeding of milking Shorthorns.

He was born September 1, 1916, is white in color and sires mostly roan calves. He is a richly bred milking Shorthorn on his sire's side as the following will indicate. His sire, Pride of Glenside, comes from the famous May and Otis farm in Ohio, the home of many noted milking Shorthorns. His sire is General Clay, whose 30 daughters in the Register of Merit, includes 20 averaging over 10,000 pounds of milk per year; including Doris Clay, 17,241 pounds milk and 653.3 pounds butterfat; Bellwood Clay, 13,691 pounds milk per year.

NORTHWEST EXPERIMENT STATION NOTES CROOKSTON, MINNESOTA

A regular department of "The Northwest Monthly" devoted to farm problems, conducted by members of the staff.

STATION STAFF:

C. G. Selvig, Superintendent.
J. P. Bengtson, School Projects, Club Work.
C. E. Brown, Poultry.
A. M. Foker, Farm Buildings, Drainage.
T. M. McCall, Horticulture, Potatoes, Root Crops.
A. M. Christensen, Home Projects, Pure Seed Distribution.
W. V. Gousseff, Live Stock.
R. O. Westley, Field Crops, Farm Management.

The sire of General Clay, Duke Buttercup, has 18 record daughters and his dam, Mamie Clay 2d, has a record of 13,232 pounds milk per year. He is bred right and priced to sell. His get will convince you of his quality. Come down and look him over.

POTATO PURE SEED PLOTS

One of the aims of the Northwest Experiment Station for 1919 is to get every alumnus that is growing potatoes commercially, to plant a potato pure seed plot. Unless the losses which come from disease are checked the grower cannot long expect to get profitable yields. The more common diseases which cut down yield also cut down quality which in turn lowers the price received for the crop. The keeping of seed stock clean and varietally pure, is a dollar and cents proposition.

The chief objects of the pure seed plot are to get varietal purity and to eliminate disease. In some localities public sentiment should be aroused sufficiently to get the growers to unite in the growing of one and not more than two varieties depending on the local soil conditions. In many localities where Early Ohio is grown quite exclusively there is often little if any variety mixture. The question there is that of getting and maintaining a desirable type of that variety. However, in all of the centers of seed potato production the question of disease eradication and control is the most important question for the grower to solve. Seed treatment with corrosive sublimate and the pure seed plot each year will solve the tuber disease problems we have at present providing clean fields can be used each year.

The seed plot should be of sufficient acreage to produce an abundance of seed for the following year. The seed to be used should be carefully selected from the bin, only the tubers of fair to medium size of good type for the variety should be taken. The tubers selected should be stem clipped and all tubers showing brown streaks, rots, etc., should be discarded and used for other purposes. The tubers which are internally sound and reasonably free from skin diseases should then be treated in a solution of 4 oz. of Corrosive sublimate to 30 gallons of water and allowed to soak for one and one half hours. This solution is poisonous and inasmuch as it acts on metal, it should be put in wooden tanks or other wooden vessels.

After treating, the seed should be cut and planted on land that has not been cropped to potatoes for at least

five years. The field should be gone over carefully several times during the late summer and all plants showing stem rot or blight should be dug out and any tubers if formed should be removed to prevent re-infection of the seed lot.

This method insures the production of high quality seed potatoes which when carefully treated and planted the following year should make fields eligible for seed certification. All seed planted whether in the seed plot or in the large fields should be treated with corrosive sublimate, for in most cases it is the most profitable thing that can be done to increase yields and improve quality.

It would be a fine thing for each grower to grow more than enough pure seed for his own planting and thus be able to supply some of the local demand for pure bred seed stocks.

Be a booster for pure, disease-free Red River Valley seed potatoes.

In case you wish to grow a pure seed plot send in your name to the Northwest School and Station and full directions will be sent you.

HOME PROJECT WORK

The state schools of agriculture in Minnesota are organized on a plan to teach agriculture through six months of study at the school and six months of supervised work on the farm. "Science with practice" is the aim of this plan and this division of time is coming to be recognized more and more as the only efficient way of giving boys and girls a practical and an efficient training in better farming and home making.

Through the operation of the Smith-Hughes Act the federal government is aiding the states in promoting this type of agricultural education. Each student selects one or more projects supplementing the lines of study taken up during the winter, along live stock, farm crops, horticulture, and farm and home management lines. Special instruction is given in the management of each of these projects, especially in the matter of keeping careful records. During the summer the work is inspected by members of the school and station staff. Besides giving the student valuable practice in applying and working out the theories studied in the school, these summer practicum exercises have great demonstrational value on the home farm and in the home community. They are usually selected with the view of solving some special local problem. Very interesting results have been obtained.

It is now the purpose to enlarge these home projects to carry them out on a productive scale as well as on a simply investigational or demonstrational scale. With the cooperation of parents the home projects work may be made a means whereby the student can during the summer, by the profits from his project, earn his way through school, at the same time as he is getting his agricultural training. Plans are being worked out whereby the girls also may supplement their home economic work by home work in such things as sewing, cooking, baking, gardening and canning.

STOCK JUDGING CONTEST

(Continued from page 3)

Fairfax-Andover club in judging the ring of beef cattle. The next highest mark was 97 scored by Selmer Nordine of the Thompson club in judging the ring of horses. Edgar Mattson of the Red River club made the highest individual score in judging sheep. Hartvig Pearson of the Thompson club won first honors in judging swine. R. J. Stewart of the Mallory club carried away first honors in judging dairy cattle. The highest team averages for the various rings of stock were as follows: Horses, Thompson club; beef cattle, Boxville; sheep, Hegney Community club; swine, Red River club; dairy cattle, Mallory club.

In the high school department, Thief River Falls won over Warren, the only other contesting team, by a close margin. Warren led in judging sheep, swine and dairy cattle, but was sufficiently outpointed by Thief River Falls in the judging of horses and beef cattle so that they were forced to second place on the final average.

The highest individual marks in judging the various rings of cattle were as follows: Horses, Elmer Larson, Thief River Falls; sheep, Theodore Erickson, Warren; swine, Henry Stengelson, Thief River Falls; dairy cattle, Arnold Lindstrand, Warren, beef cattle, Chester McArthur, Warren; Lester Cyle, Thief River Falls, tie.

DECLAMATORY CONTEST

Interest in public speaking is also promoted each year through the declamatory contest. Local and district contests are conducted to select representatives for the final contest. The six contestants who appear on the final program are therefore the successful contestants from among several hundred who have taken part in preliminary contests. The final program this year was of especially high merit. The following numbers were given and are here arranged in the order of their rank as credited by the judges at the final contest Monday evening:

- First—Jean McWalter, "The Last Leaf,"—East Grand Forks.
 Second—Harriet Johnston, "The Mal-et's Masterpiece"—Crookston.
 Third—Felicia Higgins, "Old Mother Goose"—Hawley.
 Fourth—Kathryn Mulvey, "The End of the Task"—Stephen.
 Fifth—Wanda Gaas, "The Boy Orator of Zepata City"—Red Lake Falls.
 Sixth—Lily Caba, "The Last Love Feast"—Waubun.

The beautiful silver cup which is awarded to the school winning in this contest, through this year's results, becomes the permanent possession of the East Grand Forks high school, this being the third time they have won it.

SPELLING CONTEST

The spelling contest as in former years was an interesting feature of the Monday's program. It consisted of written and oral tests conducted during the day, and a regular old-fashioned spell down in the evening in the Armory before the large audience. Each of the contests was figured in determining a final result. The banner which is awarded to the county scoring the highest average in all of the contests was again won by Polk

county. This makes the sixth consecutive year that this distinction has been won by Polk county. The individual winners with county were as follows:

Written Contest.

Irene Emmeck, Polk; Eva Johnson, Kittson; Neva Loobey, Norman; Kathleen Lang, Marshall, and Pauline Engelbart, Pennington.

Oral Contest.

Anna Omland, Polk; Vera Peterson, Becker; Einar Eastland, Kittson; Donald Holbrook, Marshall, and Ila Temple, Norman.

"Infatuate," was the last word that gave the victory in the spell down. Other words that were stumbling blocks were "pitiful," "suffix," "neighbor," "exaggerate," "accomplish," and "halcyon."

Local contests were conducted throughout the various counties to select the representatives to send to Crookston. In this way the benefits of the contest were extended to every rural community of this section of the state. Representatives were sent to the final contest from Becker, Clearwater, Kittson, Marshall, Norman, Pennington, Polk and Roseau counties.

ESSAY CONTEST

The subject for the essay contest this year was "Live Stock in the Red River Valley." The schools throughout the Valley generally took great interest in the contest and some very excellent papers were turned in to the judges who made the awards. The grand sweepstakes prize, a three months' scholarship, donated by the Crookston Business college, was won by George M. Haselrud, a pupil in the sixth grade of the Crookston schools. Winners of prizes awarded for the different counties were as follows: Ivey Voaklander, America Rosseau county; Christ O. Christenson, Detroit, Becker county; Ruth Hovey, Fosston, Polk county; Wilma Coss, Crookston, Polk county; Marwin Widnes, Fosston; Dorothy Flood, Crookston; David R. Ash, Humboldt, Kittson county; Erwin Ellickson, Detroit, Becker county; Pina Johns, Detroit, Becker county; Agnes Lundgren, America, Roseau county.

ALUMNI BANQUET

Farmers' Week is coming more and more to be the homecoming week for graduates and former students of the Northwest School. An unusually large number attended the meetings during the week and also paid a visit to the campus. A large number of them were among the winning exhibitors of both farm crops and live stock. James Porten, Nels Palm and Fosbakken brothers also numbered among those who made purchases of fine stock at the sale.

The banquet this year was a particularly joyous occasion. Almost a hundred were present. J. P. Bengtson presided as toastmaster, and responses were made by Superintendent Selvig, Anna Evanson, '14, Albin Johnson, '19, Ole Flaas, '17, Dean Thatcher, and President Burton. Much was added to the occasion by the presence of the following boys, lately returned from the service: Harold Schuck, Harry Hedin, Rasmus Heiberg, Carl Berg, and Martin Soberg.

MEETING OF RED RIVER VALLEY DEVELOPMENT ASSOCIATION

The winter meeting of this association was held on Friday, February 14, which was the last day of the Northwest Farmers' and Women's Week. The morning was to have included an address by Senator F. L. Cliff of Ortonville, on "Drainage and Flood Control as Pertaining to the Red River Valley," but a late train necessitated the postponement of this meeting until the afternoon. The afternoon program was opened by the presentation by A. D. Stephens, chairman of the Polk County Liberty Loan committee, of flags presented by the government to the towns and villages in recognition of filling their quota. President Burton spoke on "Over the Top," Dean R. W. Thatcher spoke on the "Agricultural Outlook for 1919." Mr. C. A. Forbes, of the State Highway Department, explained the proposed Babcock system of state highways.

A carefully prepared presentation of the Federal Farm Loan Bank plan of operation was an interesting feature of the program as was also an address by R. C. Matlwig, vice-president of the Red River Valley Development association on future development of the Red River Valley. Mr. A. B. Simons, engineer in charge of the drainage survey now being made in the Red River Valley under the direction of the Federal Department of Agriculture outlined the aims and purposes of the drainage survey and detailed the advantages to be acquired by the Red River Valley through properly coordinated drainage plans. The sustained interest in the numerous capable addresses presented prevented the holding of the business meeting of the Development association planned for the close of the afternoon program. This business meeting has been set for a later date.

Work of the Association Summarized.

The work of the association as presented by Secretary C. H. Zealand showed a very creditable year's record. Among the outstanding achievements are:

1. Giving the agricultural resources of the Red River Valley publicity through various means and furthering the production of pure bred seed through the Farm Crops Show.
2. Sending of a delegation to Washington to enlist the active cooperation of the U. S. Department of Agriculture in the campaign against the common barberry bush on account of its relation to the spread of the black stem rust. Mr. Selvig represented the association on this delegation.
3. Presenting to the federal authorities data in regard to a fair price for wheat.
4. Taking an active part in the consideration of plans pertaining to lands for returning soldiers and especially a permanent land settlement policy for the state.
5. Taking up the matter of employment for returning soldiers and sailors with all sections of the Valley.
6. Giving attention to matters of flood control, drainage and conservation of water in the Red River Valley.

CROP YIELDS ON THE GOLDEN VALLEY EXPERIMENTAL FIELDS IN 1918

(Continued from page 1)

Fertilizers Tried.

On the field of burned peat, part of the plots were prepared by disking without plowing. Others were first plowed and still others were plowed, disked and rolled. All were worked smooth with a spike-toothed harrow and seeded at the same time as those on the field of unburned peat, which was plowed late in the autumn of 1917, in the following spring laid out in plots, fertilized as shown in table 1, and, as soon as the ground was sufficiently thawed was disked, harrowed, rolled with a heavy concrete roller and seeded to the various crops shown in tables 2 and 3.

rust and other plant diseases, was a very poor crop on all the plots.

The hay yields shown in table 3 are from plots sown without a nurse crop on May 16, 1918. The main yields on these are not expected until 1919. There was an excellent stand on all the plots, the differences in yield being due to differences in growth and not to differences in stand.

Immediate Fertilizer Needs.

The immediate fertilizer requirements of peat soil at Golden Valley are evident. To secure a satisfactory growth of plants, phosphate must be supplied in some form, by either manuring, burning or adding a phosphate fertilizer. The benefit from the burning is due to the addition of ash and not simply to the removal of the whole or part of the peat layer. If the ash should be largely blown away by the

Future Fertilizer Needs.

This feature of the peat land problem will be discussed in one of the bulletins mentioned above. It is probable that potash also will be required within a few years on part of these peat soils if the good crops secured by burning or the use of phosphates are removed and no manure returned.

A Warning.

Most peat soils need applications of potash as well as of phosphate. Some need potash only and again others need lime as well as potash and phosphate. There are various kinds of peat soils and a peat land owner, especially if his land is at any distance from Golden Valley, should not be led by the above results to believe that a similar treatment of his peat soil will give similar results and as a consequence be induced to enter upon peat land reclamation on a large scale.

The weather at Golden Valley during the last season was exceptionally favorable for grain crops on peat soils, there being no injury from summer frosts, early autumn frosts or excess water. For the hay crops, however, the summer is not to be regarded as unusually favorable.

Acid Phosphate for the Northwestern Counties.

As most of the grass-covered peat lands of Marshall, Pennington, Clearwater, Polk, Kittson and Roseau counties and the western part of Beltrami county appear similar in origin and composition to those at Golden Valley, it is not improbable that most of them will behave similarly with phosphate, manure and burning. Peat land owners in these districts are advised to experiment on their own fields with acid phosphate on a small scale. One who wishes to secure a supply of this fertilizer at actual cost for experimental purposes should get into communication with the Farm Bureau of his county.

As trial crops, spring rye, oats, barley, and a mixture of alsike clover and timothy are recommended. The acid phosphate, applied broadcast at the rate of from 200 to 400 pounds per acre, should be well worked into the soil before seeding.

To Owners of Burned Peat Land.

If you have land on which at least 4 inches of peat has been burned off, it should be seeded to a crop before the weeds have a chance to get a foothold. On all such burned peat soils a good growth of crops may be expected the first year after burning, but on some there will be only a poor yield in the second and following years, on others the beneficial effect will gradually disappear during the course of four or five years while on some very shallow peats the productivity may continue as on ordinary soils.

To the burned peat apply neither manure nor phosphate as they are unnecessary. Prepare a good seed-bed, using plow, disk, and drag according to local conditions, as crops. Plant rye, barley, oats or a grass mixture of timothy and alsike. Do not sow flax on burned peat.

Table 1—Fertilizers Tried On Unburned Peat.

No.	Treatment	Form and Rate Per Acre	Cost per Acre in 1918
1.	No manure or fertilizer		\$
2.	Manure	12 tons
3.	Potash	Nebraska Potash Salts, 1,000 lbs.	53.00
4.	Phosphate	Acid Phosphate, 400 lbs.	4.60
5.	Phosphate and Potash	Like No. 3 and No. 4 combined	57.60

Table 2.—Yields of Grain and Roots in Bushels Per Acre.

	UNBURNED PEAT					BURNED PEAT		
	No. Manure or Fertilizer	Pot-ash	Phos-phate	Phosphate and Potash	Man-ure	Not Plowed	Plowed	Plowed and Rolled
Wheat	6.6	6.6	4.8	4.1	13.9	12.5	12.9	12.4
Spring Rye	14.6	14.1	39.6	38.5	36.8	46.5	46.0	59.7
Oats	32.8	35.0	81.3	72.1	71.7	53.3	70.0	66.4
Barley-Oderbrucker	7.4	11.2	24.6	30.0	25.3	42.6	46.6	42.4
Barley-Local variety	14.4	14.1	26.3	31.7	32.7	47.2	58.3	49.9
Flax	8.2	8.7	5.9	7.7	10.7	Complete failure		
Field Peas	10.8	10.2	18.2	15.7	24.2	19.3	24.1	22.0
Potatoes	59.0	63.0	90.0	101.0	102.0	157.0	176.0	173.0
Rutabagas	45.0	35.0	144.0	148.0	241.0	394.0	371.0	388.0

Table 3. Yields of Cured Hay and Green Rape in Tons Per Acre

	UNBURNED PEAT					BURNED PEAT		
	No. Manure or Fertilizer	Pot-ash	Phos-phate	Phosphate and Potash	Man-ure	Not Plowed	Plowed	Plowed and Rolled
Red Clover, Timothy and Red Top	0.04	0.04	0.84	0.6	0.66	1.20	1.39	1.48
Alsike, Timothy and Red Top	0.04	0.04	0.80	0.44	0.68	1.36	1.53	1.82
Alfalfa	0.04	0.04	0.50	0.20	0.66	0.56	0.68	1.08
Sweet Clover	0.04	0.06	2.58	3.64	2.64	2.94	3.42	3.96
Brome Grass	0.04	0.06	0.62	0.64	0.44	0.92	1.44	1.62
Western Rye Grass	0.12	0.16	1.18	0.72	0.68	1.12	1.22	2.09
Rape—Green	1.7	1.3	12.2	12.7	11.4	20.6	17.6	16.0

Good Yields from Manure, Phosphate and Burning.

The tables need little comment. They show the poor yields on the unburned, unfertilized soil and the great increases caused by manuring, the use of phosphate or burning. Flax is an exception. On all the burned plots it was a complete failure while on the unburned peat it showed no benefit from phosphate. Wheat, on account of

wind, the beneficial effect of the burning may prove very slight. While the peat contains much phosphate it is present in such a form that the plants cannot make use of it, but the burning changes it into a form readily available to the plants. The peat ash may be regarded as a low-grade phosphate fertilizer, and when added to the unburned peat in sufficient amounts will cause good yields.

FARM BUREAUS REPORT THEIR JANUARY WORK

A copy of the January report of the county agent work for the northwest district has been received from Mr. W. E. Morris, district leader. Mr. Morris attended Boys' and Girls' Work conferences at Owatonna and Winona during the month, where special emphasis was laid upon baby beef and sheep projects for the young folks this year. At the state potato show which was held at Grand Rapids an invitation was extended from the Red River Valley to hold the meeting at Moorhead next year, which was accepted. Every effort should be put forth toward making this the best potato show ever held and the Red River Valley farmers, agricultural workers and officials are capable of doing this.

Becker County Work.

Mr. Nelson of Becker county is laying a good deal of stress on potato work. Thru the Farm Bureau he was able to represent his county at the Potato Show and gained a good deal of valuable information which will benefit the county. Federal Farm Loan work is being started in the county so that the farmers may take advantage of the Federal Farm Loan Act. Losses due to smutted wheat are receiving attention and should form the basis of much constructive work for the future. The third edition of the exchange list has been sent out. Out of the eight meetings 95 farmers were secured to start keeping accounts of farm work.

From Clay County.

Clay county's agent, A. C. O'Banion, has organized a farm loan association with a membership of eleven and applications for loans totalling \$55,000 are being made. The annual meeting of the farm bureau was held January 30. Members drew up resolutions endorsing certain bills which were forwarded to the legislature. The annual poultry show and meeting was a marked success, over 200 being in attendance. C. E. Brown of the Northwest Station judged the poultry and delivered a talk, as did the county agent. Mr. O'Banion was in attendance at the State Potato Show and urged bringing the 1920 show to Moorhead.

In Clearwater County.

Clearwater county's agent, Mr. Martin, spent a good deal of the time on making surveys of clover and timothy seed and one on the number and distribution of sheep in his county. The farm bureau held its annual meeting January 30 where a program for the coming year's work was outlined.

Kittson County's Report.

W. V. Longley of Kittson county held several farmer's institutes during January, emphasizing the importance of sheep on the farms. Farmers' clubs demanded a good deal of his time. A few pure bred bulls were brought into the county thru the county agent's efforts. Kittson county farmers plan on holding another farm bureau picnic which will be held in connection with several patriotic organizations.

From Mahnommen.

V. V. Dryden, county agent, devoted most of his time towards relief work for those suffering from influenza. Boys' and girls' club work was organ-

FARM BUREAU NEWS

Northwestern Minnesota District

W. E. MORRIS, District Leader
University Farm, St. Paul

COUNTY AGRICULTURAL AGENTS

Becker	H. A. Nelson, Detroit
Clay	A. C. O'Banion, Moorhead
Clearwater	E. H. Martin, Bagley
Kittson	W. V. Longley, Hallock
Mahnomen	Victor Dryden, Mahnomen
Marshall	John Huseby, Warren
Norman	Henry P. Brandt, Ada
Ottertail	J. V. Bopp, Fergus Falls
Pennington	J. J. McCann, Thief River Falls
Polk	R. H. Van Scoik, Crookston
Red Lake	C. C. Lake, Red Lake Falls
Roseau	Oscar M. Olson, Roseau
Wilkin	L. S. Stallings, Breckenridge

ized. A Holstein breeders' association was organized with the assistance of W. V. Gousseff of the Northwest Station.

Marshall County's Achievements.

County Agent Huseby held a number of meetings, taking up farm records, farm crop and live stock topics. A dairy cow stock judging contest was held at Newfolden. Mr. Huseby also sent out a questionnaire regarding the seed needs of the county. Sentiment is ripe in the county for the hiring of an assistant county agent which should help the eastern end of the county a great deal.

From Norman County.

H. P. Brandt of Norman county pushed farm accounts to the utmost and succeeded in starting out a large number of record keepers. A petition for a weed inspector was sent out in an endeavor to get the county commissioners to appropriate funds for the much needed work. A Federal Farm Loan association was organized, officers being elected and applications for \$82,300 in loans were made.

Ottertail County.

J. V. Bopp of Ottertail county gave most of his time to live stock work, silos, breeding stock, etc. Together with the county commissioners he outlined a crop rotation for the Poor Farm.

Pennington County's Work.

J. J. McCann, the new county agent in Pennington county, started out his work by organizing boys' and girls' club work. Mr. McCann has several cooperative enterprises in the county that demand considerable time.

POLK COUNTY

Farmers' institute was held at Euclid and some farm laborers were secured for Farm Bureau members. The annual farm bureau meeting was held at which time many important lines of work were discussed.

Red Lake County.

Mr. Lake held four institute meetings in Red Lake county during January and also started out the boys' and girls' club work. An agricultural questionnaire was sent out and some time devoted to United War Work pledges.

Roseau County.

In Roseau county, O. M. Olson held four institutes securing an attendance of almost 800. A seed grain questionnaire was mailed out and reports were coming in rapidly. The Farm Bureau

is taking up the matter of improved mail service, from which they suffer a good deal.

In Wilkin County.

L. S. Stallings of Wilkin county held a series of meetings in the county and had a good attendance. The Exchange Bulletin is meeting with favor in the county and a membership drive is still in progress.

VALUE OF PURE SEED

One of the important items that will aid in securing higher returns and over which the farmer has complete control is the matter of seed grain. If a farmer has not a goodly supply of pure, clean seed of a high yielding variety which is suitable for this climate now is the time to secure it. If a supply of pure grain is on hand it cannot be cleaned and graded too thoroughly. Even if some of the smaller and shriveled up grain must be fed to the stock it will pay to clean the grain and grade out the small kernels. Nothing but plump, bright seed should go into the ground. When shriveled, shrunken or immature seed is sown it will not give the yield that a plump bright berry will. When weed seeds are placed in the ground they are using the plant food that should go to the raising of the pure grain on that field, and they also shade and reduce the yield on the surrounding plants. With reduced yields the farmer has less bushels to market and if weedy and poor in grade he gets a lower price per bushel. Either way results in a loss of many dollars to the grower. The farmer can have this extra money by a little planning and forethought now.

To aid the Red River Valley farmer in getting better returns for their labor, the Northwest Experiment Station will furnish farmers with a small supply of clean pure seed which has been tried out for years on the station and found suitable for the Red River Valley. To get this grain widely and evenly distributed, only enough can be given out to seed one or two acres. The crop from this plot should yield enough to sow a fair sized field next year. By keeping this grain free from weeds and sowing it on clean land it is only a matter of a year or two before he can distribute clean seed to his neighbors at a price enough above the market value to pay him for his extra effort. What goes to the elevator will bring him a premium above light weight and weedy grain. In this way he is getting the profit that is his and which he has been throwing away annually by not giving enough thought in the spring to the seed grain that goes into his ground.

The seed grain distributed from the Northwest Station will be sold at a small margin above market price. It has been cleaned and graded as thoroughly as can be done by modern machinery. No noxious weed seeds are to be found in the grain. Official purity and germination tests have been made on all of the seed. All those desiring enough wheat, oats or barley to start a pure seed plot this year should get in touch with their county agricultural agents immediately. If you are unable to do this, write the Station. The seed will be furnished as long as the limited supply lasts.