

THE NORTHWEST MONTHLY

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NUMBER 9

FALL TERM OPENS OCT. 5

The fall term at the Northwest School will officially open with registration of new students on Monday, October 5. Registration for the upper classmen and former students will continue through Tuesday morning, October 6. The date of opening was set back one week this year to enable the students to help on the farms with fall threshing and fall work until the peak load of farm work is over for the fall months. No school time will be lost, however, through the late opening inasmuch as sixty days of classroom work will be held before the closing of the fall term on December 22.

The shortage of farm labor in the Red River Valley counties is pressing home the advantages of the six-months school year for farm boys and girls. Northwest School students are contributing to the war production and preparedness programs by aiding directly in the food production program from March through September and fitting themselves, through the vocational program at the school, for efficient service to their communities and nation. Nearly three-hundred students

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Mural Paintings Installed

Two large murals, painted by John Martin Socha of St. Paul for the 1932 class memorial at the Northwest School, have recently been installed in the school auditorium under the personal direction of Mr. Socha.

The murals, each 16x22 feet, are life-size portrayals of characters involved in signing the "Old Crossing Treaty" on the banks of the Red Lake river by Huot, Minnesota, and the "Discovery of America by the Norsemen."

The murals are the outstanding achievement of Mr. Socha who has painted murals for the Federal Reserve Bank in Minneapolis, Winona State Teachers College, New Ulm auditorium, St. Luke's Catholic church in St. Paul, and St. Paul Park High School. Enthusiastic approval of the paintings and the appropriateness of the themes has been voiced by all who have seen the paintings.

The paintings will be formally accepted by the school and dedicated by the 1932 class officers some time early in the fall term of school. Workmen will have the trim completed around the paintings in a few days. Much credit for the type of class memorial presented by the 1932 class is due Dr. and Mrs. A. A. Dowell, class advisers to the class during their four years in school.

Ingwelde Pfitzner

Appointed Music Instructor

Miss Ingwelde Pfitzner of Minneapolis has been appointed as instructor in music for the school year beginning on October 5. Due to the resignations of one full-time instructor in voice, Miss Elvira Bierbauer, and two part-time instructors, B. M. Bakkegard and Bruce Robart, it has been necessary to reorganize the department of music and re-arrange the courses offered in vocal instruction, band, and violin. Miss Pfitzner will give group vocal instruction, direct the school band, and give private instruction in violin and to the more advanced students in voice.



Miss Pfitzner

Miss Pfitzner majored in music at the University of Minnesota and graduated from that department with distinction in 1940. During the past school year, she was director of vocal music at the Cambridge High School, Cambridge, Minnesota. While in college, Miss Pfitzner directed the band at Jefferson Junior High School in Minneapolis and played with the University Symphony orchestra. Her major instruments in the orchestra were the violin and viola. In addition to being solo violist with the University Symphony Orchestra, Miss Pfitzner has given professional performances with the Duluth Symphony Orchestra and played in a series of chamber music concerts at the Minneapolis College of Music.

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ATHLETIC PROGRAM TO BE MAINTAINED

A full program of athletics and training for physical fitness will be maintained at the Northwest School during the coming school year, with emphasis on local and intramural contests. Some of the conference commitments may not be met because of transportation restrictions, and therefore efforts are being made to increase competition with local and nearby teams instead. A full schedule of intramural sports will be maintained in an effort to reach as many of the students as possible. Physical education requirements have been expanded to include all students enrolled, freshmen through advanced.

CROPS AND SOILS

DAY WELL ATTENDED

More than three hundred farmers and business men from the Red River Valley counties attended the field plot visitation day at the Northwest School and Station, on Tuesday, July 21. Sixty county agents, high school agricultural instructors, and farmers assembled at 10:30 a. m. for the inspection tour of the hay drying equipment in the beef cattle barn and the Swine Breeding Project located on the West Farm at the Station.

Dr. F. R. Immer, vice-director of the Minnesota Experiment Station, University Farm, St. Paul, spoke to the county agents and agricultural instructors on the morning program on recent releases of crops from the plant breeding laboratories.

A large number of farm families had their picnic dinners on the school campus.

The formal speaking program at Crops and Soils Day started at 1:30 p. m. with Superintendent T. M. McCall giving the address of welcome. Dr. F. R. Immer, vice-director of the Minnesota Experiment Station, pointed out in his address what the Experiment Station was doing not only to help produce increased amounts of food and feed to help in the war program but also what was being done in basic research to contribute to the war program. Mr. Fred Hafner, a technical expert from the Archer-Daniels-Midland Company of Minneapolis, processors of flax and soybeans, gave an address on the processing of flax and soybeans. Mr. Hafner pointed out that in processing flax, the linseed oil was the chief product and that oil meal was the by-product, while in soybeans with oil content of 17 to 19 per cent, the oil was the by-product.

According to Mr. Hafner, there are great potential food possibilities from soybeans because of the high protein content of the beans after the oil is extracted. Figures presented by Mr. Hafner showed that the greater portion of soybean oil was being used in margines and other food purposes and at the present time, linseed oil was the chief oil produced in this country for paint purposes. Due to the fact that black varieties of beans produce oil meal not accepted by the feed trade and that immature varieties produce green-colored oil, Red River Valley farmers were warned to go slow in increasing their acreage of soybeans for crushing purposes. It was the opinion of crushers of both soybeans and flax, according to Mr. Hafner, that the Red River Valley area should confine its

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 THE UNIVERSITY OF MINNESOTA
 NORTHWEST SCHOOL OF
 AGRICULTURE
 T. M. McCall, Superintendent
 OFFICE
 Northwest Experiment Station,
 Crookston, Minnesota

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

EDITORIAL

Many hundred visitors call at the Northwest Experiment Station each year to get a glimpse of the scope and extent of the work in progress. There are many projects in progress, however, which are not easily seen by the casual observer but which are of vital importance in the production of agricultural wealth in the Red River Valley.

The one day set aside each summer for crops men to visit projects in that department is inadequate for visitors to get full information on the scope of the work in that one department. Practically one full day is required for visitors to get a good picture of the work in each department. No one date is best to study the work being done by the various departments in the Experiment Station. Grain crops can be best compared at heading time; horticultural crops appear best in mid-August and early September; poultry, swine, and sheep projects are generally best seen in the early fall, while cattle are of interest every month of the year.

Many experimental projects are seasonal which makes it impossible for the visitor to see all experimental projects in only one visit at the school and station.

To give the readers of the "Northwest Monthly" more specific information about the work in progress at our regional experiment station, timely articles contributed by the various departmental specialists will be printed whenever results of interest and value warrant their publication.

Two plant diseases of major importance are dealing heavy blows to two of the important cash crops in the Red River Valley this year. The diseases, rust on flax and late blight on potatoes, are causing great losses to farmers of this region.

The disease epidemics to crops this year indicate that producers of flax and potatoes must not only select the best varieties of the crops obtainable which are disease-resistant but that they must also adopt such cultural practices and disease control measures as are required to combat the diseases. Crop producers in the Red River Valley should not be discouraged because of the setback received in 1942. Northwest School and Experiment Station specialists have given the answers to the disease control problem. Other agricultural sections have met these problems and are still growing the crops successfully. We, in the Red River Valley, can do the same.

Rust Damages Flax Crop

R. S. DUNHAM

The epidemic of flax rust has been so severe in the Valley this year that it has resulted in some discouragement with the crop. Although damage will most certainly result in many fields, there is by no means a hopeless outlook for preventing a repetition of this situation next year. **First steps toward such control should be taken this fall.**

Flax rust does not have a life history like the rusts of wheat, oats, and barley. Stem rust of the cereals must either pass through a stage on the common barberry where rust spores are produced that infect the grain or these spores must travel up here from the south in time to infect our crops. Flax rust lives over winter on flax stubble and straw and in the spring directly attacks the new crop. No barberry or other plant is necessary and no south winds to blow the infection from Mexico or Texas are required. There have been many evidences this year that flax planted close to unplowed fields of last year's flax were the first to become rusted and suffered the heaviest infections. Even varieties that are normally resistant to rust were affected when planted next to old flax stubble. **Therefore, all flax stubble should be plowed under this fall if at all possible.** If rain prevents plowing, next year's flax should be planted as far away from such fields as conditions will permit. Not only does the rust live on the stubble but also on the straw. Straw piles and scattered straw on top of the ground will act as centers of infection also. Every measure should be taken to remove these sources of rust for next year by burning them or plowing them under.

Bison has been a desirable variety from many standpoints but its susceptibility to rust is such an important weakness that more resistant varieties should be used if it is possible to obtain them. The Northwest School and Station will make a survey of the seed situation this fall and will help those who desire other varieties to find a source of seed. At present, there are no varieties obtainable that combine rust resistance and all other desirable characters. **It will be necessary for the farmer to select the variety which best suits his conditions.** The following description should assist in making a choice.

Viking, B.-Golden, and Smoky Golden are yellow-seeded flaxes that are very resistant to rust. They are not as wilt-resistant as Bison but are sufficiently resistant to stand up on the average farm unless flax has recently been planted. Of these three, the Smoky Golden is the most wilt-resistant. The greatest weakness of these varieties is short straw. To make a crop they must be given clean land and plenty of moisture. Germination of the yellow-seeded flaxes may be low and it is advisable to make sure of this factor before purchasing seed. A test made in the fall may not indicate germination in the spring so that the date of the test is also important.

It is possible to overcome this handi-

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cap of short straw to a certain extent by planting a mixture of one of these three varieties and some taller brown-seeded kind like Buda, Bison, or Biwing. Although they are more susceptible to rust, they make weed control and harvesting easier. At present there is no objection to such a mixture from the buyers in Minneapolis.

Biwing is a brown-seeded variety intermediate in most of its characters between Bison and Redwing. It is about equal to Redwing in rust resistance which is better than Bison but is not resistant enough for an epidemic such as the one this year. Biwing, where planted at a distance from old stubble, has proved better than Bison. Where planted close, it has rusted equally with Bison. Biwing is about equal to Bison in wilt-resistance and only slightly shorter. The crop from seed distributed in 1942 has been released by the Minnesota Experiment Station to the growers so that they are free to sell whatever they wish to purchasers.

Buda is an old variety distributed a few years before Bison. It is brown-seeded, grows as tall as Bison, is about as resistant to wilt, and is a few days later. It is not as resistant to rust as the Golden flaxes but is distinctly more resistant than Bison. Its weaknesses are later maturity and weaker straw than Bison. It also has smaller seed which is an objection to some.

Walsh is a large brown-seeded variety very resistant to rust. It is a shorter flax than Bison, ripens slightly later, and is not as wilt-resistant. However, it is sufficiently resistant to wilt for the average farm. Its greatest weaknesses are its low yield and low oil quality. Although it grows taller than the Golden flaxes, it requires clean land with adequate moisture or shortness of straw may be a problem.

Varieties superior to those described above are being increased as rapidly as possible but they will not be available for general distribution next spring.

If the seed to be used next year is not thoroughly cleaned, it should be run over a fanning mill to remove all bits of straw which may also carry the rust. Although treating the seed with New Improved Ceresan has not given uniformly better results, it is a cheap insurance against some wilt organisms that attack flax and seems an advisable practice.

Remembering that the varieties resistant to rust are more susceptible to wilt than Bison, they should not be planted on land that has been in flax more recently than two years ago. The Golden flaxes, Walsh, and Buda are all later than Bison. At this station, Bison has required 82 days from emergence to ripe, as an average of 12 years.

In most years early planting will be better than late. Weeds such as pigeon grass that germinate after the soil has become warmed will find too much competition from early sown flax. Delayed planting makes possible the cultivation of weeds that germinate early. Although corn land is usually recommended for flax, much of this land could not be kept clean enough this year for flax to follow.

LATE BLIGHT MENACES RED RIVER VALLEY

W. H. WAMPOLE

Field observation reports and potato plant specimens brought to the Northwest School and Experiment Station indicate that many potato fields in Northwestern Minnesota are already seriously infected with late blight. This fungus disease has been one of the most destructive diseases known to the potato. Except during seasons of more than normal rainfall, blight has not been of great importance in Minnesota and the Red River Valley has been singularly free from this disease. The cool, humid, and rainy weather of recent weeks has been favorable for the spread of the spores and the disease has spread widely through the states of the Red River Valley.

Top growth on an infected field may be blighted in a few days. The disease starts as a brownish-black area on the blade of the leaflet or leafstalk. Usually, the lower leaves are affected first. The diseased areas on the leaves have a water-soaked zone around this margin. This area appears lighter colored than the normal green of the leaf, and then blackens and dies. A characteristic dead plant odor becomes noticeable in fields severely attacked. Spores from infected foliage may be washed down into the soil and attack the tubers

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Dining Hall Matron And Manager Appointed

Miss Bernice Frohreich of Minneapolis has been appointed as matron and manager of the dining hall and cafeteria at the Northwest School. Miss Frohreich assumed her duties on July 28 at a time when the Glider Training School was at its peak in enrollment.



Miss Frohreich

Because of the resignation of Miss Fanny B. Lippitt and Miss Lois Bartlett, managers of the dining hall and cafeteria respectively, it has been necessary to reorganize the work in the Food Service Enterprise. Miss Frohreich will now have charge of all food service both in the dining hall and the cafeteria and devote her entire time to this work.

Miss Frohreich has come to her new position with an excellent background of training and experience for the work. She is a graduate of the Department of Home Economics, University of Minnesota, class of 1941, and has had supervisory experience in food service at

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WANTED

Names and addresses of former students and alumni in armed forces of the United States. The present mailing list is incomplete due to changes of address of boys in service. School news will be sent regularly to boys in service. Send information to Sup't. T. M. McCall, Northwest School, Crookston, Minn.

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of the school are carrying on summer project work for credit which will enable them to finish requirements for graduation from the regular course in three years or prepare them for college entrance in four school years of six months each.

Advance registrations for rooms in the school dormitories indicate an enrollment equal to 1941-42 figures. Registrar R. J. Halvorson points out to prospective students that it is necessary for them to get room reservations in early order to be insured rooms in the dormitories.

The U. S. Army Glider Training School has occupied the school buildings since June first. The glider school will vacate the buildings by September 15 in time so that the buildings can be made in readiness for the opening of school.



"Aggie Rouser"

Published By

Journalism Class

The "Aggie Rouser" is published bi-weekly during the school year by students in the journalism class at the Northwest School. It is a mimeographed publication containing news of all campus activities. Students in the journalism class will continue publishing the "Rouser" this coming school year.

Students who were on the editorial staff of the "Aggie Rouser" last year were as follows: (in picture). Top row: The editorial staff—Paul Auer, Steffie Pastuck; Conrad Giese; Donald Jorgenson; sports department—Harlan Beucler, Ila Grove, Harold Loyd. Center: The entire staff of the "Rouser" for the first semester. Bottom row: The typists—Iden Magnusson; Betty Halliday; Kathryn Brandli, Jay Bergh, Earl Hvidsten. Humor editors—Wm. Vasilakes, Margaret Forfang.

CORN FIELD DAY

Northwest School

Saturday, September 19

PLAN TO ATTEND

Northwest School Briefs

***Eleanor Johnston, '39, of Angus, has accepted a teaching position in the rural schools of Marshall county. She will teach in a school near Warren, Minnesota, this fall.

***Betty McVeety, '36, is now employed in the West Polk county agent's office with headquarters in Crookston, Minnesota.

***Myrtle Nisbet, '37, is employed in the Demming Beauty Shop, Grand Forks, No. Dak.

MARRIAGES

***Leland O. Hanson, '36, of Twin Valley, to Miss Margaret Goebel of Fargo, No. Dak., on Saturday, July 4, at Belleville, Illinois. They are living at 401 South High Street, Belleville, Illinois.

***Evelyn Kroog, sp. 1933-34, to Lt. Roland F. Wentzel, '36, on Monday, July 20, at St. Louis, Missouri.

***Patricia Johnson, '40, to Eugene Storla, '42, on Saturday afternoon, July 11, at Baudette, Minnesota.

***Lois Bartlett to Wilson Radway, '38, on Saturday, July 25, at Duluth, Minnesota. They will make their home at Roosevelt, Minnesota.

***Lois Kays to Alfred Lund at Crookston, Minnesota, on Sunday afternoon, July 19. They will make their home on the Northwest School campus.

Information Regarding Northwest School Former Students and Alumni in Armed Forces:

***Robert W. Overend, Sp. 1938-39, of Kennedy, formerly of Hallock, Minnesota, has been chosen honor man of his company, now in recruit training at the U. S. Naval Training Station at Great Lakes, Illinois. For the last two years he has been assembly line employe of the Consolidated Aircraft Corporation, San Diego, California. He enlisted a few months ago as an apprentice seaman. Through a series of aptitude tests given the 130 men of his company, he was selected to attend one of the Navy's Service Schools upon graduation from training on August 6.

***Lt. Byron Hess of Thief River Falls, recently received his commission as second lieutenant in the infantry at Fort Benning, Georgia, and has been assigned to duty at Fort William Henry Harrison, Helena, Montana.

***Leland O. Hanson, formerly of Twin Valley, is employed with the War Department as an instructor in the Army Air Force Technical School at Scott Field, Illinois.

***B. M. Bakkegard, former instructor at the Northwest School, has been transferred to Station Hospital, Fort Sheridan, Illinois. He graduated as a technician from the Fitzsimons General Hospital, U. S. Army, Denver, Colorado.

***Pvt. James R. Halliday, 4th Platoon Co. D., 31st Bn. E. R. T. C., Fort Leonard Wood, Missouri.

***PFC Charles (Rishton) Bedard is now stationed with Co. D, 33rd Armored Regiment, A. P. O. 253, Rice, California.

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***Pvt. Harold L. Qualley, 37289010, U. S. Army, 2nd Platoon, Co. D, 106th Med. Training Bn., Camp J. T. Robinson, Arkansas.

***Lawrence Elton, who enlisted with the U. S. Army Air Corp in December, 1940, is now stationed somewhere in Greenland. His address is: Corporal Lawrence Elton, 94 Fighter Squadron, 1st Fighter Group, A. P. O. 1066—c/o Postmaster, New York N. Y.

***Harold A. Loyd, 23rd Batt., Co. 686, Bar. 603 W. G. L. N. S., Great Lakes, Ill.

***Pvt. Cyril Sorrels, Co. C, 358 Inf., Camp Barkeley, Texas.

***Victor Hanson and LeRoy Hanson, Co. L, 357 Inf., Camp Barkeley, Texas.

***Pvt. Harold Dahl, Co. E, 323rd Infantry, A. P. O. 81, Camp Rucker, Alabama.

***Pvt. Norman A. Moen has been in Hawaii since May 30 doing mechanic work in the Signal Corps. His address is Pvt. Norman A. Moen, 37160748, Hdqs. and Hdqs. Co. R. M. P., Signal A. W. Regiment, Box 3590, Honolulu, Hawaii.

***Pvt. Harris A. Floan, Regtl. H. Q. Battery, 217 C. A. (A. A.), 1931 Center Street, Berkeley, California.

***Pvt. John W. Rader, 37023454, Co. K, 37th Infantry, A. P. O. 939, c/o Postmaster, Seattle, Washington.

***Edward McMillan, Med. Sec. 1928 C. A. S. C., Camp Roberts, California.

***Pvt. Francis A. LaPlante, 104th F. A. 2nd bn. hq. M. D. D., A. P. O. 960, c/o Postmaster, San Francisco, California.

***Pvt. George B. Henre, Co. D. 3219, 83rd Infantry Battalion, Camp Roberts, California.

***PFC Edwin Mortensen, U. S. Army, Btry. E. 217 C. A. (A. A.), 1931 Center Street, Berkeley, California.

***Dale Bloomquist, Platoon No. 69, U. S. C. G. M. M. T. S., St. Petersburg, Florida.

***PFC Clifford P. Kroulik, Station Hospital, Fort Snelling, Minnesota. He injured his back and has been in the hospital since February.

***Sgt. Alvin Gronner, F. 217, C. A. (A. A.) 1931 Center Street, Berkeley, California.

***Pvt. Jotham (Joe) C. Jansen, 38th Sch. Sq. (Sp), Chanute Field, Rantoul, Illinois.

***Pvt. Rudolph Berger, Co. D, 54 Inf. Tr. Bn., Camp Wolters, Texas.

INGWELDE PFITZNER APPOINTED MUSIC INSTRUCTOR

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With the appointment of Miss Pfitzner to the music staff for the coming school year, the staff in that department is now complete. Miss Marian Frykman, full-time instructor in piano, will be assisted again this year by Miss M. Ardelle Hamlett of the English Department who will devote part-time to individual piano instruction.

CROPS AND SOILS DAY WELL ATTENDED

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efforts in oil production to the flax crop and that increased support should be given experiment stations in producing new varieties of flax with high oil content and other desirable characteristics that would overcome the common weaknesses of some of the present flax varieties.

R. S. Dunham, agronomist at the Northwest Station, conducted the tour of the field crop plots and pointed out the new and promising varieties of flax and cereal crops. New selections in flax varieties immune to rust were of great interest to crop growers present. Richard Foote, from University Farm, St. Paul, assigned to the potato spraying project, explained the values and uses of the new potato spraying materials.

The annual meeting of the Red River Valley Crops and Soils association was held in the forenoon.

LATE BLIGHT MENACES RED RIVER VALLEY

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under the plant on their upper surface forming brown spots. Further infection of the flesh of the tuber may be continued in the form of a diffused brown stain. Further late blight rot in storage is typically a dry rot forming irregular sunken patches which, under high temperature and moist conditions, may involve the whole tuber. Other organisms may follow the late blight fungus and cause other forms of storage rot.

In the eastern states where late blight is apt to occur each year, spraying six to ten times during the growing season with a 4-4-50 or 5-5-50 Bordeaux spray is a common practice. A copper compound coating ~~the~~ the foliage kills the spores and stops new infections on the green foliage. Thorough spraying row with Bordeaux mixture or dusting with copper dust compounds may yet save clean fields against infection with blight.

Where the field is already heavily infected, a heavy application of Bordeaux would probably prevent further spread of the spores. Even if some of the foliage is trampled in spraying, the harm done would possibly be less than that following further spread of the blight. Potatoes from a heavily infected field should be marketed and used as soon as possible after digging. Dead potato vines should be removed from field before digging. Clean seed should be secured for 1943 planting.

DINING HALL MATRON AND MANAGER APPOINTED

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Shevlin Hall and Center for Continuation Study at the University of Minnesota, Ruttger's Birchmont Lodge at Bemidji, special lecturer in nutrition at the Mechanical Arts High School in St. Paul this past year, and served as instructor of institutional foods on defense training program at the Franklin School, St. Paul, this past year.