

PERTINENT POINTERS for MODERN FARMERS



Prepared Under Direction of
North Dakota Agricultural College

SEED BED MUST BE CARE IN SEEDING MELLOW AND FIRM HELPS FLAX YIELD

The soil, the rain, and the sunshine take about 90 to 100 days to do their job of maturing a crop of spring wheat in North Dakota. Anything that the grower is going to do to lessen that amount of time required, or to make more certain his crop must be done before the first day's work with the drill marks one per cent of the time Nature is going to give to her job. Man's contribution to the certainty of a grain crop practically ends with seeding; he must do his part before, or just after this critical time.

Our willing silent partners, the soil, the rain, and the sunshine will do their share if we make our contribution at the right time, and in the right way. These silent partners ask that the active member of the firm, the seed wheat, start its adventure in comfortable surroundings, in short, in a good seed bed. And what is a good seed bed? Only he who has actually handled the soil knows that peculiar combination of mellowness and firmness in which good seed delights (poor seed doesn't have the capacity to enjoy a good seed bed). The good seed asks for mellowness so that air can get in, so that root can go down, and so that shoot can come up. But in the same breath, this good seed insists upon a firm seed bed so that the seed and the young plant may quickly establish close and very neighborly relations with the plant food and the water which surrounds each tiny soil grain as a film. The sprouting seed and the young seedling have very little opportunity to go after water, or anything else—the soil must bring it to them—and the soil can only do this when it is pressed firmly but gently about them.

Pack the Seed Bed.
The disc harrow is the first tool thought of in preparing seed beds, and we use it too much. Where the disc harrow has to patch up a poor job of plowing by cutting up and burying trash; where it has to bump over weedy corn stubble land, it is not going to do its part. The disc harrow is a pulverizing machine; it is not a plow; and it is not the best sort of a weed eradicator. Whenever the disc harrow is compelled to do too much, the seed bed is usually made too deep, and if the field is trash littered, it will do this job very evenly. Such seed beds need firming before seeding, so that there will be a uniform depth of seeding. On land free from trash, where the drill seeds to an even depth, and on land not inclined to blow, firming after seeding is good practice.

If no other implement is available after firming before seeding, the disc harrow, set straight, will help mightily. All deep plowing, and all spring plowing require firming. Spring-plowed light lands may be firming after seeding provided the surface is left fairly rough. Smooth packers, or rollers, leave light lands too smooth. On such lands, the press drill used after the packer will roughen the surface and yet insure close packing of the soil immediately about the seed.

Why all this insistence upon better seed beds? Three reasons stand out. A properly prepared seed bed insures:
(1) Freedom from weed competition in the early days of growth.
(2) Uniformity of stand.
(3) Earlier emergence, and better foothold, both of which tend to shorten the time required for maturity.

FEW OF STATE'S PLANTS AND FLOWERS ARE NATIVE

A very small per cent of North Dakota's flowers are native to the state, according to Dr. Melvin R. Gilmore, curator of the North Dakota Historical society, who has made a constant study of the flora of the state. North Dakota's flowers bloom in three different zones or regions of plant life of latitude and longitude.

It was found that the number of species of plants native to North Dakota, is small, as compared with the number of species found in other states. This effect is probably due to the close similarity of biological conditions found over the entire region.

"Of the present plant population of the state it is estimated by Prof. O. A. Stevens that 35 per cent is of eastern native origin, 49 per cent of native western origin and 16 per cent of alien

Wheat Acreage Greatly Cut.
Wheat acreage will be materially cut in North Dakota, especially in the Red river valley, according to reports received on crop conditions from 23 county agricultural agents throughout North Dakota by J. W. Haw, county agent leader. These reports show that seeding operations and other field work were delayed from two to three weeks. Most of the reports were compiled before the recent snowstorm and with this added delay, experts on crop conditions believe that wheat acreage will be cut from 18 to 20 per cent at least.

Late April or early May flax seeding has yielded two more bushels of flax per acre than late May seeding, as an average for five consecutive years at the Agricultural college, and about four more bushels than when seeded near June 1, while seeding near June 10 has been distinctly poorer than late May or June 1 seeding, according to T. E. Stoa, assistant agronomist at the North Dakota experiment station.

Clean corn or potato ground is the best place to sow flax, says H. L. Bolley, plant pathologist at the station. "Late seeded flax, such as late plantings on new land, sometimes gives very good results," Mr. Stoa says, "but these good yields frequently occur in spite of the late seeding, rather than because of it. The later the seeding, the more the crop is dependent on favorable fall weather for maturing. Early seeding takes advantage of the greater amount of moisture in the soil in the spring. It also makes it possible for the crop to mature before the hot weather sets in. The early seeded crop on old land is in a better position to compete with weeds, especially pigeon grass, which does not germinate until the beginning of warmer weather, or about June 1. The wild disease likewise is more destructive when the temperature is high.

"If the crop is seeded so that it matures in good season, there is not the added inconvenience usually experienced during the threshing season, due to the flax crop not being ready.

"To lessen the chances of failure with flax and to maintain the popularity of the crop, flax should have the advantages possible to give it. Early seeding is one of these advantages. Farmers more and more recognize this fact, and while a great portion of the crop is still seeded after all other crops are in, the tendency is to earlier seeding."

"The clean corn or potato land upon which the flax is to be sown should not be plowed or disced to make it loose, but simply disced sufficiently to allow the surface to be leveled so as to give a thoroughly even surface drainage," Mr. Bolley says.

"The land should be disced at the earliest possible date when the moisture condition of the ground will allow the work, packed immediately after the disc, then drilled in the freshly worked ground. Put the packer on behind the drill and give it another packing. Plant the flax as early as you can get on the land. Take a chance on having it frosted off in the spring. Get it to grow before the pigeon grass and other weeds get started.

"The best varieties of flax seed are rather small. Twenty pounds of good seed will certainly be sufficient. If the seed bed is properly made, 15 to 18 pounds will do. A better way is to ascertain how thick the drill is dropping the seed in the row. If the flax is falling at the rate of approximately two or three seeds per inch on a well prepared seed bed, it will be plenty thick enough.

"On old lands which have previously grown flax or which have been surrounded by flax fields, it will be well to be sure that the seed used is a reliable resistant variety. Experience with flax in the Red River valley indicates clearly that the chances of a reliable crop are greatly increased by having the flax seeded approximately the last week in April or the first week in May. While there have been cases of flax being frosted off in the spring, this seems to happen only when a ground freeze comes at the time when the flax seedlings are about one or two days out of the ground. At other periods the young flax seems to be extremely resistant to frost. In the fall, the flax crop can stand practically no frost."

origin, introduced. Certain physical conditions are determining factors in plant life. Among these are altitude, latitude and rainfall.

"Owing to the climatic conditions of North Dakota there are ordinarily no flowers in bloom in this state previous to the second week of April. In some years the spring is earlier and in some years later, but on the average the earliest blooming flowers usually appear in the first week of April along the southern border of the state, and correspondingly later northward in latitude and upward in altitude according to the bioclimatic law.

Boost Dairy Farming.
Williston, N. D.—As a means of stocking northwestern North Dakotas with more dairy cattle, local dairymen plan to take advantage of the cow bill providing that where petitions are presented to the county commissioners by not less than 50 freeholders, the commissioners are permitted to help finance the purchase of dairy cows for farmers, provided they shall have first organized themselves into associations for the protection of credit. Such a petition is being circulated in Williston

ABSENT WITH OUT LEAVE



NORMAL SCHOOL NEWS

The first session of the Summer Term opened on Monday, June 19th, with a large registration. By the end of the first week 695 students had fully completed their registration, while a number of others were partially registered. There are additional students entering this week because some of the schools had not closed early enough to allow their teachers to be present for the first few days of the term. This is the largest attendance at any one term in the history of our school, surpassing the first session of last summer's term by 63 and the large number tests the equipment of the school to the utmost. In fact, the main building is planned to accommodate a maximum of three hundred students and twice that number must be accommodated there. The Dormitory also is filled to more than capacity and many additional students are securing board there, either in the dining room or in the cafeteria. Mrs. Trevartha has arranged to open the cafeteria for supper as well as for the noon lunch and is thus meeting the needs of students with rooms in this part of town.

The faculty of the summer term includes the members of the regular staff and a number of additional instructors. These include the following: Miss Ida Brevad, Stevens Point (Wis.) Normal School; Supt. J. W. Thornton, Fessenden Public Schools; Supt. H. P. Ide, Harvey Public Schools; Supt. H. C. Hansen, Flaxton Public Schools; Prin. J. H. Colton, Minot High School; Supt. S. W. Robertson, Berthold Public Schools. Miss Julia G. McDonough, of the regular staff, who has just completed the work for her M. A. degree at Columbia University has returned to resume her work as head of the English department. Miss Nannie Butts, who was the supply for Miss McDonough is also teaching in the summer session. Miss Johanna Soland, on leave of absence for the past school year, is assisting with the work in the English department.

Special features of the Assembly periods to date have included a concert by the Johnny Jones band, musical numbers by Mrs. Amy M. Simpson and Mr. J. H. Colton, a reading by Miss Lucile Carlson of the Minot High School, and a piano concert by Miss Beulah Mowers. The Presi-

dent regularly addresses the Assembly on Monday mornings and his talks have been most cordial, stimulating and helpful.

Miss Wood, Primary Critic of the Model School, and a trained Kindergarten, has been placed in charge of the Model School Kindergarten for the summer. This is the second time the Model School has offered Kindergarten advantages during the summer and the opportunities thus afforded are much appreciated by the patrons of the district.

The classes of 1922 plan to present the Normal school, as their Class memorial, with a replica of St. Gaudens statue of Lincoln. Announcement was made of this at the Class Day exercises of commencement week and the new Library of the West Wing designated as its location.

WOOL BUYERS RETURN AS MARKET IMPROVES

Fargo, N. D., June 28.—After an absence of more than two years due to the stagnation in the wool market, wool buyers are once more operating in the state, and a large proportion of the spring clip in the Red River Valley counties has been purchased by local and outside buyers at prices ranging from 22 to 31 cents per pound.

During the two years that the local and outside buyers refused to purchase any wool, most of the farmers in these counties marketed thru the North Dakota wool pool at Fargo, receiving prices ranging from 10 to 25 cents per pound net, where otherwise they would have had a hard time getting anything for their wool

in most instances. Prices at Boston, Mass., Saturday, June 10, would have warranted the payment of 37 cents per pound on the general run of good grades of wool in the eastern part of the state, according to William Guy, secretary-manager of the wool pool at Fargo. The state organization is advancing 15 cents per pound on wool upon arrival at Fargo, making final settlement when all the wool in the pool is sold. About a car of wool from Pembina county will be sent to the State pool, according to County Agent E. G. Parizek. Wool from the Agricultural farm and the Williston substation has been shipped to the pool. All shipments from the three counties will be by local freight, and no carload shipments will be made. Wool intended for the state pool should be consigned to the Northwestern Warehouse and Sales Pavilion, Fargo, N. D.

The W. R. C. of Granville entertained the G. A. R. veteran, Thomas Ward, on his 92nd birthday last week.

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