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**Great
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GIANT PROLIFIC SWEET FODDER CORN
EARLY LEAMING DENT CORN
GENU YELLOW FLINT CORN
CANADA SIX ROWED BARLEY
MENSURY SIX ROWED BARLEY
EARLY OHIO POTATOES
EARLY BOVEE POTATOES
EARLY PRAIRIE FLOWER POTATOES

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SWEET CLOVER, WHITE BLOSSOM
GENUINE GRIMM ALFALFA
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For Pasture

TRUE KENTUCKY BLUE GRASS

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COMMON MILLET

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Cushman Binder Engines for All Farm Work

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Engine weighs only 167 pounds
Balanced by water-cooling tank on front



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The 4 H.P. Cushman is the original and only successful Binder Engine. Thousands are in use every harvest—saving horseflesh and saving grain. A binder is not complete without a Cushman Engine.

THE ONE BINDER ENGINE—that is used in the grain fields all over North America from Texas to North Alberta.
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Investigate our 8-15-20 H.P. Two-Cylinder Engines

They are the lightest-weight farm engines in the world, yet they are more steady running, quiet and dependable than heavy engines, because of perfect balance and almost no friction or vibration. May be attached to all farm machines that require stationary power. Easy to move around. Moving parts enclosed and run in bath of oil. Throttle governor. Run at any speed—speed changed while running. Direct water-circulating pump prevents overheating.

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GASOLINE ENGINES FOR ALL FARM POWER WORK
DEPT. D.

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Fanning Mills—"Holland" Wild Oats Separators—Smut and Pickling Machines—Vacuum Washing Machines—Lincoln Grinders—Lincoln Saws—Incubators—Universal Hoists—Langdon Ideal Self Feeders—Portable Grain Elevators—Wagner Hardware Specialties—Combination Threshing Outfits—Shinn-Flat Lightning Conductor.

Putting in the Flax Crop

*Proper Soil Conditions—What Land to Seed—
When to Seed it—Combating Flax Wilt*

FLAX requires a hard, firm seed bed and a continuous supply of moisture coming up throughout the entire season. It is almost impossible to get the soil too firm. For the moisture supply it is not only necessary to have a good store of moisture in the soil to begin with, but a good mulch must also be established on the surface to conserve this moisture for the growing crop. Flax is a poor weed fighter. On old land, intended for flax, spring plowing if done at all should be shallow and done early in the season so that there will be an opportunity to destroy weed growth.

In a new bulletin entitled "Flax Growing in Manitoba," issued by the Manitoba Agricultural College, the following directions are given for the preparation of new land which it is intended to sow to flax the following year:

"It is to be expected that considerable flax will be put on new land where the land has been broken the previous year and suitably worked down. Such land will provide the ideal conditions for the sowing of flax. The best results will be obtained on land broken in May or June, rolled or packed immediately and worked with the disc during the summer to secure a good seed bed the following spring. In a wet season it may be possible to break the soil quite late, the land being handled as on spring breaking. The land should be plowed four or five inches deep. If the plowing is too deep, it is difficult to get the furrows firmly packed down against the furrow bottom, with the result that air spaces are left, which tend to let the moisture escape. Four inches will be found in most cases deep enough to allow the sod to be laid smoothly upon the furrow bottom, and at the same time to give enough soil for a good seed bed."

Flax on Spring Breaking

Though not to be recommended, considerable flax is always sown on new breaking. Best results are obtained when the plowing is done three to four inches deep early in the season—the earlier the better, the sod in every case to be turned down flat. Subsequent cultivation should in no case stir the sod, but should rather work it down flatter, leaving a mulch on top. It is impossible to have the overturned sod packed too firmly down on the sub soil. A heavy packer, or plank drag well loaded should in every case follow the plow. This packs the overturned sod and excludes the open air spaces. Harrowing after the packer or drag may be sufficient but where there is danger of stirring the sod the disc harrow is better, though care must be exercised not to cut through the sod, the object being to secure a mulch on the surface. If the soil is dry a crop cannot be expected from spring breaking unless in an exceptionally favorable season. Professor Bolley of North Dakota has the following suggestions to make for determining whether to grow flax on spring breaking or to summer work the land for a crop the following year. These directions were intended particularly for those located in semi arid areas:

"There are certain regions and certain types of soil in which sufficient moisture cannot be maintained to produce a crop if seeded immediately following the spring breaking. Such lands naturally fall under the dry lands method of agriculture and summer tillage for storage and conservation of the moisture which falls is indicated. It has been proven by many dry land farmers in the drier regions of Montana and the drier regions of Northwest Dakota and Western Canada that spring plowing of the sod lands, followed by careful summer tillage throughout the first season usually results in a crop of flax seed which pays abundantly for all the work done. There is only one drawback and that is, if such summer worked land chances to be surrounded

by a weedy district, it is apt to become thoroughly filled with weed seeds by the drifting action of the winds. It may thus be necessary to guard against the weeds. If in a good, compact clay sub-soil or clay-like sub-soil, the moisture does not extend downward from two to two and one-half feet, it is too much of a gamble with nature to seed a crop on that particular piece of soil that spring. In certain exceptional summer seasons there may come heavy rains sufficient to continue the crop on to maturity. This is against probability. If the ground is not already pretty well supplied with moisture at seeding time, the crop is pretty certain to reach a condition when a few hot winds destroy the possibility of a paying yield. Late spring and summer rains, even though very heavy are found to wet down but a short distance and in a few hours of sunshine and wind the moisture is again thrown into the air. The crop is further damaged under such conditions by the tendency to cause it to produce its roots upon the surface so that when the hot winds dry out the surface the crop must blight, sicken and die."

Time and Rate of Seeding

In North Dakota it has been found that the best results in flax growing are obtained from comparatively early or comparatively late sowing. Flax sown previous to the middle of May or from May 24 to the first week in June, has on the whole, given better results. The reason for this is given, that the flax sown in the mid season comes in flower and the bolls are being formed during the hottest and driest season of the year. Early sowing is preferable to late sowing as the danger of being caught by the fall frost is lessened. Spring frost will not injure the plants unless it is very severe.

In "Flax Growing in Manitoba" the bulleting previously mentioned, the following remarks are made regarding the time and rate of seeding:

"While good crops of flax have been frequently secured from relatively late seeding, it can be shown that the best crops have resulted from fairly early seeding. From the tests that have been made it would appear that flax may be sown almost any time during the month of May with good prospects of success. Occasionally earlier seeding has been successful, while at other times seedlings as late as the middle of May have been killed by frost. Light frosts do not injure flax seedlings; only a frost sufficient to freeze the ground solid is likely to do harm. Sowing can be carried out earlier on light soils. Heavy land that is cold and wet in spring requires longer to dry to the proper conditions. Where the seeding is continued into June, there is considerable danger of early fall frosts. Even though the late sown crop is not damaged by fall frost, it is almost a certainty that the yield will be lower than would have been obtained from earlier seeding. The best time to seed would appear to be from about May 10 to June 1."

"The amount of seed sown per acre is rather varied. In some instances good crops have been obtained from 20 pounds of seed, while at other times as much as 50 to 60 pounds have been found necessary."

"In the tests made on the experimental farms results point to the use of from 20 to 40 pounds of seed as being the best amount to sow. The amount of moisture and the fertility of the soil largely determine the amount of seed necessary per acre. Rich land in good tilth with a liberal supply of moisture requires a greater quantity of seed, while poorer soils with a smaller amount of available moisture usually give best results with lighter seeding. It has been a common practice in the West to sow 30 pounds of seed per acre. Where the seed is not good, a greater amount is necessary."

"Flax does not require to be sown deeper than one inch, provided there

is sufficient moisture at this depth and the soil is firm. Where soil conditions are such that the seed is not able to get down to the depth where it is advisable."

Regulation

With flax at this time it is advisable to be sown at the even of the same, at which they seed of the particular determines how put on per acre grain drill is as 1 500 square feet number by the width of drill in feet thus obtain feet represented of the wheel. The number of revolution make when drill Jack up the wheel times to represent would be three quarter of an inch which has been weighed it. The until it will be desired."

Variety

Variety tests years at the College show that No. 25, as it is the best result yields of corn in the following:

V.

Variety

Premost or M.

N.D.R. No. 52

N.D.R. No. 114

Novelty

Long Stem

Golden

N.D.R. No. 73

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