

that portion of the stem, located below the ground, being, therefore, out of reach by fire.

Preparing the Soil for the Seed

A few of the results obtained in the experimental work with different methods of soil cultivation on the Brandon Experimental Farm, are summarized in the following notes. They are based on interviews with the superintendent, W. C. McKillican, and his assistant, N. D. Mackenzie, by a member of the Guide staff.

On account of the early opening of spring, the period of high winds and the drought which continued almost throughout the growing season, this was a splendid year for testing out the various methods of handling summerfallow. Experiments were conducted to discover the comparative value of early and late plowing. Three plots, which were plowed last year in May, June and July, respectively, were this year sown to Marquis wheat. The July plowing did not yield anything in comparison with that of May or June. There was not, however, a marked difference in the yields on the two plots plowed during the latter two months. The advantage whatever has been secured from plowing summerfallow a second time. Supt. McKillican believes in a second plowing if there are persistent perennial weeds to overcome but not otherwise.

Sowing rape on summerfallow to provide fall pasture is advocated by some. Experiments at Brandon, however, show that this is not a good practice. The experience of this and previous years is that when summerfallow is sown with rape a marked decrease in yield is noted in the following years. So far, the amount of pasture obtained has not been enough to pay for the decrease in yields in the next two years' crops of grain.

Does it Pay to Pack?

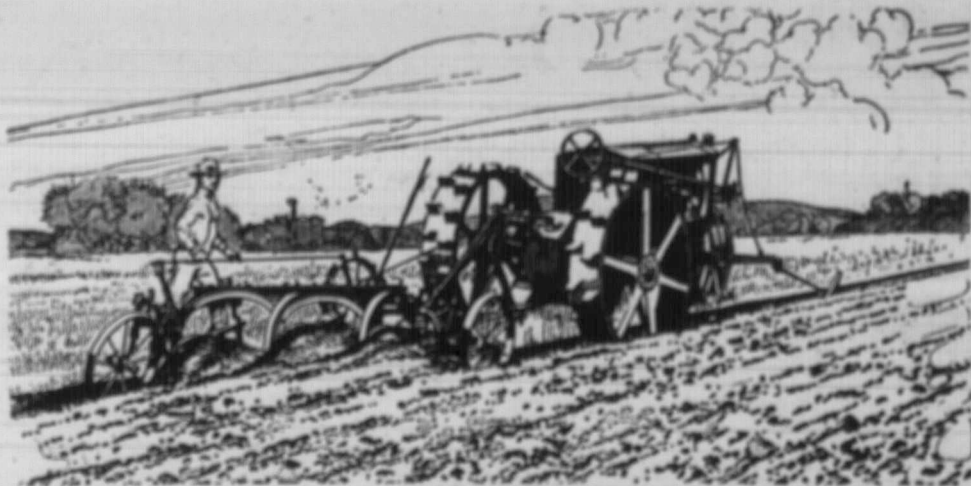
The experience with the packer has shown that its use is beneficial on light land, but it is not strongly recommended for heavy land. Of course, when sod is being broken in midsummer it is recognized that the packer following the plow is desirable. On loose, black loam, with a lot of humus in it packing is beneficial. Three types of packers have been used, the sub-surface, with the wedge-shaped wheels, the surface packer, and an intermediate type combining the other two. So far no positive results have demonstrated the superiority of any one of these types over the others. In fact, an increased yield of only about two bushels per acre has been secured as a result of packing and this is looked upon as rather inconclusive.

Harrowing after seeding is recommended for killing some annual or winter annual weeds such as French weed. It is advocated also on those years when a heavy rain soon after seeding beats down the mulch and a crusted surface is formed. Unless one or both of these conditions are present it is held that after-harrowing is not required when the land is put in right condition before seeding. Cross-harrowing is preferred, for if the land is harrowed lengthwise of the drills a spike may follow a drill for a considerable distance and injure the small plants. Harrowing crosswise is therefore recommended.

Experiments on the preparation of the seed bed show that it pays splendidly on dry years to give the seed bed a thorough cultivation. The difference this year, for instance, was very much in favor of thorough cultivation. It is not so marked on wet years but it pays to prepare for a dry season. On a wet one the crop will come on anyway.—R. D. C.

Alfalfa and Western Rye Grass

This information was received while inspecting M.A.C. plots recently. A mixture of eight pounds each of alfalfa and western rye grass is one of the most promising mixtures for hay that are grown on the college farm. In discussing this mixture Professor Harrison said, "Western rye is a good hay crop for yield, but the quality is poor. A mixture of alfalfa improves the quality. When sown with a nurse crop the western rye comes on more strongly at first, but the alfalfa gradually fills in



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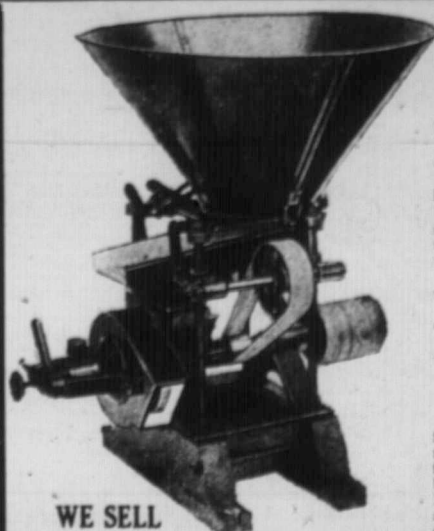


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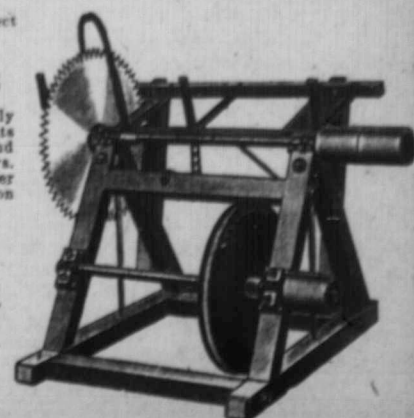
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