

was plowed in June and has long since been gone over for the last time with the harrows. It is well worked and level now, and no matter how many more rains may come before freeze-up he will not touch this land again. According to his idea his year's work on the summer fallow is done. The fact that it is losing moisture every minute of every day does not enter his mind at all.

And so it goes all along the way. Out of a score of farmers there is perhaps but one who has harrowed before and immediately after plowing and who has harrowed at various times during the summer and who will probably harrow several times more before freeze-up. He will not harrow at any stated time, he will not set aside any certain day of the week for harrowing, but will harrow when it **needs** it and not at any other time.

If you should stop and talk to the different farmers along the way and innocently inquire into their reasons for harrowing at all you would find that their reasons for so doing was not to form a mulch to prevent the evaporation of moisture but to make what they would call a "seed bed." The average farmer disks and harrows and "works up" his land not with the idea in mind of conserving his moisture and soil fertility but to level the land, break up clods and fill in inequalities and thereby form a good level uniform bed for the reception of seed.

This purpose is all very well as far as it goes, but it should be a secondary, not a first consideration. The seed or root bed is not the top three or four inches that is kept disturbed by the harrows, but is the firmed lower position of the furrow that becomes packed firmly against the unplowed sub-soil.

In the spring before seeding,

the summer-fallow should be again gone over with the harrows to prevent evaporation and to warm up the soil, then at seeding time care should be taken to see that the drill cuts well down through this mulch and deposits the seed about one inch into the firm, packed moist soil below. With the seed once in the ground it is a desirable practice, if one has the time, to again go over the land with the harrows and leave a mulch that will protect the coming crop for considerable time.

To sum up, then, let us follow the course of what we would consider an ideal summer fallow.

In the first place the land would be double disked in the fall immediately behind the binder and again in the spring as soon as possible after the land is dry enough to work.

It should be plowed as deep as possible, at least six inches anyway, and the plowing should be finished early in June.

It should be harrowed immediately after being plowed and it

If all this be done you will have conserved the maximum amount of moisture and soil fertility possible and you will have formed an ideal seed bed and if your

Scott, Sask., to determine the best kinds of grasses to grow, and the best methods to adopt in seedling down. Western Rye Grass has been found to give slightly



Well Under Way Towards a Good Mulch

seed is of good quality and has a high germinating test and has been properly treated with formalin and has been carefully placed in the ground, and if your land is free from cut worms and noxious weeds and your crop

heavier yields of hay, than does timothy or brome grass, particularly in the second and third crops. It is equal in feeding value and makes a more dependable grass for hay purposes.

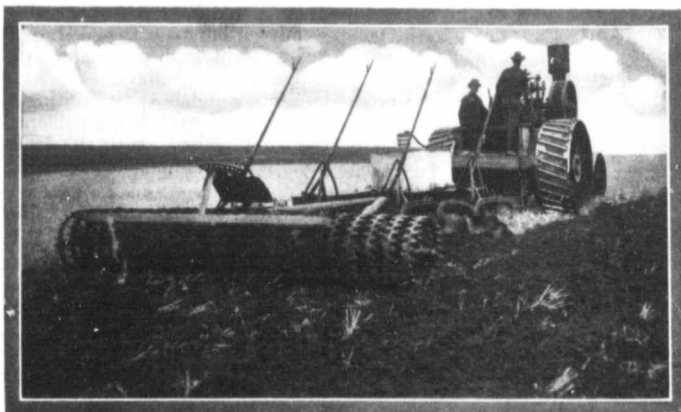
Brome grass has proven to be one of the best pasture grasses, providing, as it does, pasture for a long period each season. It should not be sown on heavy soil, except for permanent pasture, however, as owing to its persistent nature, it is almost as difficult to eradicate as couch grass.

Kentucky Blue Grass, Meadow Fescue and Red Top have also been grown at the station. The yields of hay from these grasses are not as heavy as from the timothy, rye or brome grass. Notes taken on the aftermath indicate that the Kentucky Blue grass would prove valuable as a pasture grass.

The experiments to determine the best preparatory treatment for seeding down, have given some interesting results. Sowing on summer-fallowed land has given an average yield during the past four years of 2 tons 110 pounds per acre. Sowing on land that had grown a crop of roots the previous season has given a yield of 1 ton, 1310 pounds, while sowing on fall ploughed wheat stubble has given an average yield of 1 ton, 380 pounds. The second year, the difference in yields from the various plots has not been so striking, nevertheless the plots sown on summer-fallow have given a slightly greater yield.

Seeding down with a nurse crop has, during the past four years, given an average yield of 1 ton 910 pounds from the first crop of hay harvested, whereas seeding down without a nurse crop has given

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A Sensible Accompaniment to the Plow

should be harrowed again after each rain heavy enough to wet through the mulch; after not more than ten days of hot dry weather, or after the appearance of inch high weeds.

does not develop rust nor be caught by hail storms or an abnormally early frost you will reap a humdinger bumper crop and you will reap that kind of a crop not one but every year.

#### Seeding Down to Grass

The difficulty of securing sufficient help on the farms to work the fields under cultivation; the increasing scarcity of native grasses in many districts, due to the land being broken up, together with a realization by many farmers of the fact that seeding down to grass is one of the best methods of combating weeds, are creating quite a demand for information on methods of seeding down.

Experiments have been conducted on the Scott station, at



An Ideal "Escapement" for Priceless Moisture