



MIXED FARMING

MANITOBA - SASKATCHEWAN - ALBERTA

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No. 6 ALFALFA

LAST month I described the crops in general and men-good qualities of leguminous tioned that so far as Western Canada was concerned the most important of these crops is alfalfa. I proved that leguminous crops are very beneficial in their effect on the land and very valuable as plant food. Alfalfa possesses these strong points in a marked degree. In addition it is a most abundant yielder. The average yield of the experimental plots of alfalfa at the Experimental Farm at Brandon for the years 1912 and 1913 was 5 tons 260 lbs. per acre. The plots of timothy under the same conditions averaged 1 ton 1,940 lbs. for the same years. This proportion will usually be found to hold, i.e., the alfalfa will always yield more than twice as much as timothy under the same conditions.

Alfalfa a Success

The success of alfalfa has been thoroughly demonstrated in most parts of Western Canada. Perhaps in some districts it may still be in the experimental stage, but certainly in all parts of Manitoba it is a proven success. Through the use of hardy varieties and the best means of inoculation and cultivation its use should be spread even into the most unfavorable localities.

Varieties

Grimm's is probably the hardest variety, but the price of genuine Grimm seed is prohibitive. Baltic and Turkestan are also hardy varieties, and in many localities, common alfalfa, if the seed has been grown in a northern locality, will do very well. At Brandon we find all kinds to be hardy.

Preparation of Land

The first consideration in the growing of alfalfa is the preparation of the land. Alfalfa does best on a deep, rich, well-drained soil. It takes a plentiful supply of moisture, but cannot stand to have a stagnant flooded condition of the land. In fact, the average Manitoba farm provides soil conditions admirably suited to the growing of alfalfa. The land should be clean before alfalfa is sown. Alfalfa is hardy after it becomes established, but during the first year it needs every chance. It should therefore be sown where the land is reason-

ably free from weeds, and where the native grasses have been killed out. Following a crop of corn or roots, that has been kept clean, is an ideal place for alfalfa. After a summer-fallow is the best possible place, but as that means two years lost, it makes it rather an expensive crop to start. It can be sown following a grain crop, if the land is clean and in good fertility. In any case, the land should be well worked so that there is a fine firm seed bed into which to put the alfalfa seed.

tained in limited quantities from the experimental farms by paying the expenses for shipping.

Inoculating soil should not be exposed to the light more than is absolutely necessary, and should not be dried out. Either of these conditions kills the bacteria. It should be spread very thinly and evenly over the field and immediately harrowed in.

Seeding

The last week in May or the first week in June is considered the best time to sow. The spring

grains of wheat, and then the mixture sown at the rate of one bushel per acre. The wheat is broken in an ordinary grain crusher set so open that it only breaks it enough to prevent it from growing. The broken seed are found better than chop of bran or any other material tried as they flow more evenly and smoothly. The flour particles are screened out. The drill should be set to place the seeds about an inch apart.

First Year

No crop is to be expected from alfalfa the year it is sown. It is engaged in the work of establishing itself. During the first year it is growing down into the earth and establishing its roots rather than making a crop of hay. It should be clipped off once during the season. Clip when any weeds begin to come in flower, so as to prevent their seeding. The clippings may be left on the ground as a mulch. Alfalfa should not be pastured the first year, as animals are likely to injure it by biting off the crowns and by tramping. Neither should it be clipped late in the season, but should go into winter with six or eight inches of its own growth to hold the snow.

Harvesting

Alfalfa should be cut in early bloom. It rapidly becomes more woody and less digestible as it approaches maturity.

A better indication than the stage of blossoms is the starting of the new growth from the root. As soon as fresh young branches are seen sprouting from the crown, it is time to cut, as the new growth then is ready to come on. If the new growth is allowed to get high enough to be cut back it gets a set-back and the second crop will be lessened or at least delayed.

Alfalfa is rather hard to cure and requires considerable attention after cutting. The things that make it hard to cure are: (1) It grows a heavy crop of a very succulent green character and is thus hard to dry; (2) it is rather open and thus suffers easily from rain; (3) the leaves are the most valuable part, but if the crop is dried too much, or handled too much, they fall off and are lost. The method found most satisfactory at the Experimental Farm is as follows: The

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A good prospect in alfalfa.

Inoculation

On most of the land in Western Canada it is found advisable to inoculate. In some of the scrub districts, where the wild pea vine is plentiful, inoculation does not seem to be required, but in most of the open prairie districts, decided benefits are obtained. The land that has never grown alfalfa seems to lack the bacteria that associate themselves with it. Inoculation will often gradually take place by itself, but in the meantime there is a loss of time for the crop and of money for its owner. By artificial inoculation it may be put on a productive basis from the start. There are two ways of inoculating, viz., by means of a bacteria culture, which may be obtained from some of the agricultural colleges, and by using soil from a field that is already growing alfalfa successfully. The latter means is most commonly used in Manitoba. Most farmers have now got a neighbor within driving distance who has an alfalfa patch from which they can get inoculating soil. Such soil may also be ob-

tained in limited quantities from the experimental farms by paying the expenses for shipping. The earlier part of the season may be used in killing weeds on the land, so as to give the alfalfa a better chance. In countries farther south later sowing is the rule, but that is not advisable here, because a strong vigorous growth is needed to prepare for winter. Twenty pounds of seed per acre is required. It seems a large quantity, but one must remember that alfalfa never thickens up like other forage crops.

It should always be sown without any nurse crop. There is not enough moisture in the average season to grow a crop of grain and, at the same time, to give the alfalfa sown with it the moisture it requires. One cannot expect a good catch of alfalfa unless it has the field to itself.

There are several good ways of applying the seed. The method used on the Experimental Farm is to sow it in the ordinary grain drill. The seed is mixed with twice its quantity of broken

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