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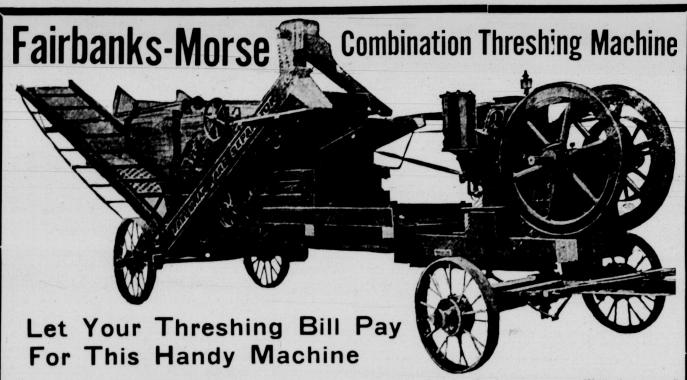
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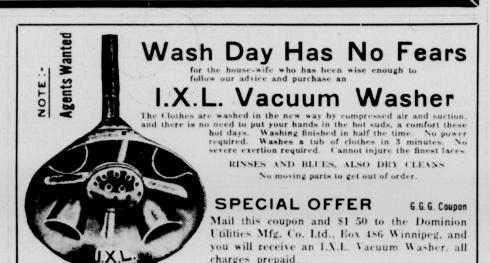
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rounded clusters. . Dodder appears at first in insignificant patches scattered thruout the field. These patches, how years a field may be so badly infested that the crop is ruined. The best way to avoid this pest is to secure seed ab solutely free from it. Should dodder have established itself in a field, how ever, the infested plants should be im-mediately destroyed. Mowing will only remove the dodder on the upper parts of the alfalfa; it will not affect that on or near the crown where it lives during the winter. This may explain its disastrous spreading. It is of course also possible that those parts which are not removed by cutting have a chance to set seed which makes new plants the next year.' . It is therefore well to watch the field closely, and if dodder atches be discovered, cut with a sickle r scythe, rake into bunches and cover with straw. When dry, apply the match. "'How may an alfalfa field be cleared of weeds?''

Either by hand pulling, if not too nu merous, or by mowing, but always be fore they set seed. If weeds come up "as thick as hair on a dog's back" and so threaten the life of the alfalfa, mow ing is imperative. This, however, should be deferred until the little second crop plants appear, as clipping earlier is liable to cause serious damage to the field. Cutting too close is also to be guarded against, as this is likely to destroy many of the new plants. If one mowing of the field does not check the weed growth, the operation may be re peated, but not later than August 15. s it is important that the alfalfa make a further growth of eight or ten inches, that it may go thru the winter safely. If either of the cuttings be heavy and tend to smother the little plantlets be neath them, they should be removed from the field. Usually they may be permit ted to remain, when they serve as a use ful mulch and retain moisture.

Sweet Soil Needed

Alfalfa takes to rich, sweet soil like decks to water; it cannot live in sour soil for the simple reason that the acid ity destroys the alfalfa bacteria. Cold, compacted and sour soils do not permit the microscopic germs to draw their food, which is principally atmospheric nitrogen. In such soils they quickly perish, and with their disappearance the alfalfa growth is soon checked, the plants assuming a light-yellowish color, first in patches, and finally the whole field is "sick" and the plants wither and die.

Unless the land has been farmed many years and without crop rotation or rest by fallowing, acidity in the soil is not likely. However, to test soils for this is so simple that it can, and should be done by all who purpose growing alfalfa to make sure the land to be dedicated to it is sweet.

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Usually our Western soils contain little pebbles, varying in size from a half to two inches in diameter. Gather a cigar box full of these, and pour upon them five cents worth of muriatic acid, purchased from a drug store. If the action of the acid causes bubbling or effer vescence, it is pretty good evidence that the soil in which they were found is sweet, because they are calcarious, or lime-mixed.

Testing the soil by means of litmus paper is probably a more dependable method. Procure from your druggist a strip of blue litmus paper. Go into the field you wish to test, cut a fissure into the moist soil, insert the litmus paper in it and pack the soil firmly around the paper. Withdraw it in an hour's time and if it has changed from blue to light pink, you should scatter from one to two tons per acre of carbonate of lime; if the litmus paper exhibits a decided pink, apply about three tons per acre; and if deep red, your land is very sour, and should be treated to four tons or more of carbonate of lime per acre. If conveniently procurable, marl may be substituted for lime, and at the rate of about 1,500 to 2,000 pounds per acre. Whether treated with lime or marl the field should be well harrowed immedi ately thereafter.

(This is the third and last of a series of practical articles on Alfalfa, by J. E. Gustus Calgary Alta.)