

# Breeding

## An C

**D**URING the summer heifers will be the spring of 1916. carry them over a few them off in their mil the year? Other thin convinced that with able than summer of greater total of milk od and that the prod less of a strain on t freshen in the spring sonal experience as a when browsing through journals from the other which I subscribe, I experience of a Unit who had recently test his own herd. He fo fully 90 per cent. i production through fr as I would expect.

Winter conditions a milk flow. The cow venber first, will hav in the stable und with nothing to chek man has time to spa months and will be if he is a good cow m do not expose cows t changes in temperat time to study the in each cow in the fee when spring comes w will give a fresh str

**Adversities of the**  
How about spring the cow has a month Then, when she is w job in the radical ch grass. However from this as the chan does well up to the August. Then comes and numerous flies. haps scanty pastures a feed, or perhaps with the same care be taken winter. The farmer

the summer? the aver off so much that she c she will be dry before freshened the previo flow a moderate flow the flies come along, orts of summer muc fresh cow.

The pure bred sto son for looking with The majority I know as much or more im cream. I believe it dairymen that calves stable during the wi that their dams can better care and more in the spring are big to do battle with flies herds, big, well gov asset, and these can freshening.

**Winter Pr**  
Another argument f favor of carrying the higher prices the during the winter. per cow, about \$10 u dealers are very inde is milk and to spare tanc. of every city.



Alfalfa and Holsteins Explain the Prosperity of Many Farmers in Oxford Co., Ont. A Scene at the Home of Mr. Wilbur Prouse, Alfalfalade Farm.

That will give you an idea of how brown the untreated field looked.

"I examined the untreated portion of my field very carefully, and I found dotted here and there among the weakly alfalfa plants, good, strong, vigorous plants, about one to every square rod. I concluded that some dust or soil had been bought along with the seed, and that this had inoculated a small portion of the seed sown. In time the bacteria would work from these plants to others and inoculate the whole field. It was in this way that my second field of alfalfa had been inoculated. But of course it is much more expeditious and economical to make sure of the inoculation before you sow the seed.

### Alfalfa Stands Four Years

"Another thing I noticed in that field was that there were not as many plants on the poorer side of the field, but when the second season came along every plant seemed to be vigorous. The inoculation had spread. We cut that field for seven years. We now make it a point, however, not to run a crop for more than four years, cutting it three years, and then pasturing. The pasturing helps to destroy the plants and makes the plowing easier. We are getting down to a shorter term for our alfalfa stands all the time."

Here I interjected a question: "What do you think," I asked, "of the plan followed on the Hoard's Dairymen farm in Wisconsin, where they have a five-year rotation of corn, grain and three years in alfalfa?"

"I should think that would be about ideal," said Mr. Glendinning. "The first year you do not get as heavy a crop of alfalfa as the second. The second year you get very good cuttings, and the third year the best of all. After that there is a tendency for the stand to thin out as the blue grass creeps in."

In discussing the much-debated question of varieties of alfalfa, Mr. Glendinning informed me that he now grows only Canadian variegated, although it has been his experience that the common varieties of alfalfa will yield larger crops than the variegated. However, he considers that the superior hardiness of the latter more than compensates for any slight scantiness in cropping.

### To Grow Alfalfa Successfully\*

Prof. James Murray, Macdonald College, Que.

**E**VERY farmer can utilize alfalfa to advantage. As a forage crop, alfalfa has no peer. It is good feed for cattle, horses, sheep, hogs and chickens. It is a perennial, and requires little labor for its maintenance when once established. With all of its advantages, however, it is grown by comparatively few farmers in Canada, and with the exception of some parts of Western Canada its growth has been on the decrease.

First and foremost among the reasons why alfalfa is not grown more extensively, I would place the many failures to secure a stand. A single failure in alfalfa growing in one district

\*A summary of the address given by Prof. James Murray, of Macdonald College, at the last Ottawa Winter Fair.

results in deterring 15, 20, or 50 farmers from attempting it in the same neighborhood. Alfalfa, too, is an expensive crop to start, and this deters its adoption. I find that many farmers think their land is not suitable for the growth of alfalfa, but in the majority of these cases their lack of success is due to other causes, some of which I might mention as lack of fertility in the soil, want of inoculation, close pasturing, and the baneful influence of a nurse crop.

### The Soil Desired

Alfalfa will grow on almost any kind of soil, but the soil must be free from acidity, well drained, and warm. Most important to the success of the crop is the preparation of the soil, and of first importance in the preparation is the elimination of weeds. The greatest enemy alfalfa has is grass, such as couch grass. In many instances grass will make stands worthless at the end of the second year, while it takes alfalfa two or three years to get properly started with a real good hold. In the meantime, the grass makes headway, and finally puts the alfalfa out of business. I would advise the growing of a root crop by way of preparation to beat out the weeds and secure a clean soil. Above all, clean out the grass.

A stand of alfalfa may be ruined by pasturing it too closely in the fall. Some stands so abused may come through, but they are the exceptions. The last cutting, whether it be the third or the second, should be left to go down in the winter.

### Light Nurse Crop if Any

Many fail because they sow too heavy a nurse crop. A light nurse crop with beardless barley is the best, or sown with the winter wheat. In July and August, when we usually have a dry spell, alfalfa with a nurse crop comes out harvest best. If rain does not come after second, it will go under the next year on account of weeds. It is wiser to cut out the nurse crop altogether, rather than risk the catch of alfalfa for the sake of a few bushels of barley.

The best time for sowing is the middle of July, when the land can be got clean and there is nothing to interrupt its growth. The nurse crop may be called the murder crop. By cutting out the nurse crop there is a saving of the expensive seed. With a nurse crop it is necessary to sow from 20 pounds to 25 pounds of alfalfa to the acre; without a nurse crop, from 15 pounds to 18 pounds to the acre is ample.

Dairying has been and is now bringing many benefits to the farmer. It is enriching his soil, rendering it more productive and thereby adding to the money value of his farm.—J. P. Fletcher, Fulton Co., N.Y.

### Another Alfalfa Inoculation Method

Jas. Cecil, Brant Co., Ont.

**I** AM going to advocate what is to me a brand new method of inoculating alfalfa seed. There is a bit of conservatism in all of us. We don't like to try things we know nothing about, and, therefore, the laboratory preparations for inoculating alfalfa seed are not as widely used as perhaps they should be. The very common method of inoculation, scattering earth from an old alfalfa field on the proposed site of the new one, also has its objections. I have tried it and I know that it is no joke to spread a ton of soil on every acre of alfalfa seeding. I also know that if we do not inoculate we lose all the fertilizing value of the crop and the crop itself will be so sickly that we will get only half the fodder we should.

I have a method that is at least as good as any, that doesn't cost a cent outside of the labor, and that looks reasonable and logical to boot. For every bushel of seed that I sow I collect a gallon of earth from some place where either alfalfa or sweet clover have grown luxuriously for a few years. I allow this earth to dry out where the sun cannot get at it. Then the youngsters and I put the earth through the flour sifter to make it as fine as possible. This earth is my inoculator.

I take three ounces of furniture glue and mix it in a half-gallon of water. This I use to moisten the alfalfa seed. The quantity is sufficient to treat 50 pounds of seed. Then with the seed moist and somewhat sticky I sift the dust-like earth over the seed, mix it thoroughly with the hands, and keep on mixing until each seed is coated with dust. Every seed is then inoculated and ready to go into the drill. I set the drill to sow a little heavier because of the bulk of dust



The Alfalfa Belt is Widening and Ever Widening.

This illustration shows the harvest of the second crop of alfalfa as grown at the Indian Head Experimental Farm in Saskatchewan in 1914. And yet it is only a few years since the alfalfa district of Canada was supposed by most people to be restricted to certain favored portions of South-Western Ontario!

in the seed, and follow the drill right up with the harrow. This method is A No. 1.

If you take a crop of three or four tons of clover from a field the first year after grain, the chances are that you will get only one to one and a half tons the next year. Hence leaving that field in hay will do much to increase the cost of production per unit.—J. H. Grisdale, Director, Experimental Station.