

Knowledge Essential To Success With Alfalfa

BY TOM ALFALFA

THE first essential to success with alfalfa is a knowledge of the crop and its requirements. Lack of knowledge accounts for more failures than adverse climatic conditions or unsuitable soils. I was fairly jumped upon recently by a man who, lacking experience, had spent his good money on alfalfa seed and hadn't gotten a crop. He expected me to shoulder the full responsibility for his failure, as it seems my advocacy of alfalfa growing had had something to do with his attempt to grow the crop.

I enquired as to the soil on which this experiment had been made, and found that it was suitable—a nice loam, naturally well drained. I then asked a question which I always put first, and which usually reveals the source of error, what variety he had sown. He assured me that he had made no mistake. He had secured "northern grown seed."

Northern grown seed in 99 cases out of 100, means nothing more than grown in the northern hemisphere, anywhere north of the equator. An examination of a map of the world will reveal that seed grown in the hottest parts of South America might be northern grown seed under this definition. There are thousands of farmers in Canada who have been taken in by this designation of "northern grown," and I would warn all who are planning to seed to alfalfa in the spring of 1916 to leave northern grown seed strictly alone. The two varieties that will prove successful are the Canadian Variegated and the Grimm alfalfa, and of the two, the Grimm is to be preferred, although the seed is rather high in price for general sowing.

The man whose experience I am relating, had inoculated neither his seed nor his soil. He assured me that he took no stock in such nonsense. His lack of knowledge was remarkable. He did not know that all clovers, which include alfalfa, feed on the nitrogen of the air through the medium of nodules which grow on their roots, and that these nodules will not grow unless the soil is first inoculated with nitrifying bacteria. There is one class of bacteria which acts on red clover and another which acts on both alfalfa and sweet clover. There are two ways of inoculating the alfalfa field—by spreading a few hundred pounds of earth to the acre from an old field on which alfalfa has been successfully grown, or inoculating the seed with the laboratory culture secured from our agricultural college. Inoculated soil or inoculated seed, should be sown on a cloudy day and harrowed in immediately. This inoculation is one of the pivotal points on which success in alfalfa growing swings.

He Did Not Lime.

Another mistake made by the friend of this story was in the matter of liming. His soil, I should judge, is not particularly sour, but at the same time the district in which he lives is of the limestone belt. As red clover and sweet clover grow well, the chances are there is plenty of lime in the soil and alfalfa would succeed. I have found, however, that alfalfa requires more lime than either of these hay crops, and there are comparatively few sections in Ontario, or in any of the other easterly provinces, where liming will not pay. Very finely ground limestone, where it can be had, is to be preferred to quick lime, as it is milder in its action and does not tend to burn up rapidly the humus of the soil. The rate of application usually recommended is about five tons of limestone to the acre. Where burned lime is applied, an application of 1,500 lbs. to the acre will usually be sufficient. If all the other points have been observed without success in growing alfalfa, try liming.

The final point that I mentioned to my un-

successful alfalfa grower was the rate of seeding. Most farms in the east have their fair share of weeds, and alfalfa in the early stages of its growth cannot compete with the weeds. In particularly weedy land, I would recommend summer fallowing right up to the first of July, in order to kill the weeds, and then seeding at the rate of 20 lbs. of good seed to the acre. If a nurse crop must be used, try three pecks of barley to the acre. A heavy seeding of alfalfa tends to keep down the weeds and give the crop a chance. For fertilizer, I would recommend basic slag. It has the fertilizing element most needed, phosphorus, in good quantity, and it also has a good content of lime. The constituents of basic slag are only moderately available, and to get best results it should be applied the previous fall.

Eradication of Twitch Grass

Norman Ballantyne, Perth Co., Ont.

ERADICATION of twitch grass is a problem we expect to solve by a new implement which we have come to appreciate, the Smith cultivator. This is one of the newest additions to our farm equipment, and so far it has done excellent work. It cuts seven feet wide and its



A Firm Seedbed is of Prime Importance for Proper Germination.

The roller pulverizes as well as firms the soil. It should always be followed by the harrow to restore the loose surface mulch, which prevents evaporation.—Photo on the farm of A. W. Wright, Seaton, Ont.

usual feature is its depth. The various rows of teeth are separated so far that they absolutely will not clog. We expect to use this cultivator mostly for after harvest cultivation, as it is at this time that we can fight twitch most effectively.

In the past we have been growing buckwheat and endeavoring to smother this weed. This method was fairly effectual, but it gave us a bad crop to handle. We would follow the land until the end of June and then the buckwheat would be so late that it would be hard to cure. With our Smith cultivator, and after harvest cultivation, we will do away with buckwheat altogether. We have found that the teeth of this cultivator will stay right in the ground under almost any conditions and pull the twitch out. The ordinary stiff tooth cultivator has only two rows of teeth

not enough clearness for sowing work. Last year we had such a wet summer and late harvest that we did not do much after harvest cultivation.

Keeping the Cows Off the Grass

Joe Irwin, Dufferin Co., Ont.

ONE of the quickest ways I know of to run a herd of cows down, both in flesh and in milk production, is to let them chase all over the farm in the early spring, looking for grass. A cow may be coming along fine and be as contented with her winter fare, as if she had never seen a green field in her life, but just let her get nosing along a fence or a roadside looking for fresh vegetation and she becomes like a thing possessed. What with the taste of the new shoots of grass, the smell of the fresh earth, and perhaps the stirring up of recollections of the luxury of good pastures, nothing but a stake and rider fence will keep her from exploring every corner of the farm, and perhaps the farms of the neighbors. If she is allowed to roam at will over the sod field while the soil is still soft, she cuts it up and does not end the damage. When finally she is turned into her stable for the night, which is always under protest, she is as gaunt as a greyhound. Her taste for her winter feed is all gone and she is so pernickety about what she eats that nothing but roots or silage will tempt her. If the farmer has none of these, as the majority have

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not at this time of year, she goes decidedly off her feed. Her contentment all vanishes, and as it vanishes, the milk flow shrinks in proportion.

This is what happened to our cows every spring until a few years ago, when I came to the conclusion that it didn't pay. I like to let my cows out in the sun and the warm spring air, but I take good care that their liberty is confined to the barnyard. I am always particular to see that the fences and gates surrounding the yard are kept in the best of repair, and that the gates are kept closed. These gates in the fence paid for themselves the first spring after I put them up. My cows now never get a taste of grass until well on in May. I take particular care to keep them contented during the early spring, as I have found from experience that it is only the contented cow that will fill the milk pail.