

present piece, but the labour involved in the operation would be very great, and we think the change of locality would be preferable. At all events, we should never again repeat the crop in the same land without an interval of at least 6 years; for, perennial though it be, the vermin that feed upon it doubtless increase in myriads during its long occupation of the same plot, and overpower its powers of resistance great though they be.

Would it not be as well for the owner of the land to send samples of the soil to Mr. Shutt, the Chemist of the Experimental-Farm at Ottawa, for analysis? The two parts, the successful and the unsuccessful, should be tested, and, perhaps, some definite conclusion may be reached; but the main difficulty remains: Why do the two or three plants, with abundant stems and leaves, remain on the bare space, as healthy as the lucerne on the rest of the field, while all their companions have utterly vanished.

Central Experimental Farm,
Ottawa, May 30th 1898.

A. R. JENNER FUST, Esq.,
4, Lincoln Avenue, Montreal.

My dear Mr. Jenner Fust,—I have read carefully, your note on Mr. Bouthillier's lucerne-field, and you seem to have covered in your investigation almost everything that could have been examined into to find the cause of the vacant spots. From what you say of the lay of the land, I judge that water lying on these spots in the spring was impossible. This, of course, is the commonest cause of these dead patches in clover fields. I have only one suggestion to make and I cannot tell from your letter whether you examined into this matter. There are many kinds of insects which attack lucerne as well as the other clovers, and it would appear as if these gaps might have been due to the presence of some insect. It will hardly be worth while, however, for this cause alone to break up the lucerne field, as from the vigorous plants still standing it would appear that the attack has now stopped. I have read your letter to Mr. Shutt, and he says that he will be pleased to analyse the soils if Mr. Bouthillier will send him samples taken from the barren spots and also for comparison from some other parts of the field where the lucerne is growing satisfactorily. Please also send with these samples a statement as to the depth of the surface soil, the nature of the sub-soil and the history of the field for the last year or two, previous to its being sown with lucerne. (1)

Yours very truly,

J. FLETCHER.

PATCHING UP CLOVER FIELDS.

It frequently happens that from some cause or other clover fields are found to be patchy in spring. In cases of partial winter-killing much may be done in "patching up" such meadows in spring. Early in the season this is best done by harrowing, re-seeding to clover, and then top-dressing lightly with manure. Sometimes the patches are small and a reasonable hope may at first be entertained that the clover will recover sufficiently to give a crop; but, should those hopes not be realised, then good results may be obtained by patching with German or common millet or Hungarian grass. This practice was followed successfully by Mr. C. D. Tylee on a patchy clover field close to M. Bouthillier's property last year. The various grasses generally known by the name of Millet are the *Setarius*. The seed should be sown as thickly as a bushel to the acre when broad-casted, when it will make fine sweet smelling nutritious fodder, much relished by stock. If cut early and well cured it is equal to any hay and is ready for cutting as soon as the heads begin to appear generally over the field. If left later than this it deteriorates rapidly and when ripe is actually harmful to horses. Its rapidity of growth in 6 or 7 weeks after sowing shows its availability as a catch crop in case of a failure in hay.

J. FLETCHER.

The country, as we write, on May 27th, is looking splendidly. For many years we have not seen a greater promise of good crops, of all kinds; pulse as well as grain, pastures

(1) M. Bouthillier will doubtless attend to this kind offer of Mr. Shutt. En.