

Reaping Match.

To the Editor.

Sir,—At Clearville on the 15th August, a reaping match took place, at which five machines were entered, all self rakers. They were as follows, viz :

No. 1, Kirby Harvester, made at Beamsville, by Harris and Son.

No. 2, Oshawa, Ball's Ohio.

No. 3, London, do. do. made by J. Elliot.

No. 4, Hamilton, Ball's Ohio, made by L. D. Sawyer and Co.

No. 5, Chatham, Buck-eye Improved, made by Hyslop and Ronald.

The judges for the occasion were : Col. John Desmond, of Morpeth, Messrs. Augustus Crane, and William Bury, of Clearville. Their decision was as follows : 1st. Kirby Harvester. 2nd. Ball's Ohio, J. Elliot, London. 3rd. Ball's Ohio, J. Hall Manufacturing Co., Oshawa.

About three hundred people were present, the opinions of most of whom were in accordance with the decision of the judges.

T. B.

Cashmere.

Experiments in the Vegetation of Clover Seed.

On grass land, about the 24th of May last, I noticed some curious growths of young clover seed. Hay had been made on the land last year, and as hands were scarce and high in price, we were late in getting the grass cut, consequently a considerable quantity of the clover amongst the timothy went to seed. At the time mentioned I saw innumerable young clover plants springing up in all directions, but by far the best growth and the greatest number of young plants were in the hollows beside the cradle knolls, and as our land is rather, as a general thing, low and clayey in quality, water had lain in the hollows so much that during fall and winter the grass was quite killed out by it. There had, however, been some light, mucky earth washed from the higher portions of the soil, which left on the subsidence about two inches thick of soft black mud. From this mud thousands on thousands of clover plants were growing. These hollows occurred every yard or two, and consequently there was no want of exemplification of the fact, and the field was about 35 acres in extent. It struck me as very strange that clover seed should have lain over in these hollows all through autumn, fall, winter, and spring, before it vegetated ; we have always been accustomed to consider clover seed that did not come up at once, dead and hopeless for a crop. Now, may it not be more likely, that the fault lies, in such cases, lain with old mixed seed, instead of with the tender quality of it, and its impossibility to bear moisture, heat, and frost without injury. We, like most of our neighbours, are often com-

plaining that "such and such a clover field did not "take," whereas we ought probably to have blamed the seed, not the season.

You will see the same thing exemplified in another way by carefully removing the manure that has accumulated about the door through which you have been accustomed to pitch hay into your stable loft. Scrape away all the surface and allow the clover seed to vegetate, that has been shaken out from the over-ripe clover, and in a few days you will have hundreds of young plants, and that, too, from seed sown many months before, and lying in moisture during that time. This fact being certain, we have to search for the cause ; either it is due to the good quality of the seed so preserved, or it is owing to the enveloping case of the husk, which in unthrashed clover, protects and covers up the seed, not however as it seems, to its ultimate injury, or prejudice as a crop, but simply, as nature intended it to act, as a protection to the vegetation, until from slight decay, or return of spring season, rapid germination commences. Probably we must look for our reason from both causes. When we sow clover we always sow without husk, and when we buy seed we always buy some old mixed seed, of former years' growth ; no doubt we suffer in the latter case from fraud, but how can we help ourselves? If we test the growth of a few seeds it is not a fair criterion for the whole bulk, unless planted under precisely similar circumstances of heat, moisture, cold, and exposure. Good seed produces fine plants and rapid growth, whereas bad seed, although it may germinate, never attains the same strength and constitution of endurance. Facts, however, are stubborn things, and the loss of ten or perhaps twenty acres of clover for a year or more is quite a serious consideration, if the loss proceeded from bad seed, or if by any other mode of sowing we can succeed in assuring against such a risk.

C.

Gypsum alone as a Fertilizer.

There has been much controversy as to the nature of gypsum, and its fertilizing powers. My experience goes far to show its auxiliary excellence, but also to throw great doubt on the propriety of its continual use without other aid. Some years since I used gypsum most abundantly on an orchard. The trees thrived, and the grass was greatly benefited by its use for two or three years. Clover grew spontaneously, or from other causes than direct seeding. Dutch clover especially thrived well. But I soon saw a visible decline in the action of the plaster alone as a manure. The grass grew thin and spindling, and it became quite apparent that its constant use without any manure could not be continued with impunity. I then thoroughly manured the whole field, except a small portion for experiment. (I always leave a piece quite untouched in all my experiments. Without this precaution no cer-

tain results can be obtained.) That portion manured and plastered on the manure did very well, and produced an excellent crop. The portion still plastered without manure continued to fail. To make assurance doubly sure, I staked off a square rod in the midst, and sowed a double quantity of plaster ; still no results were obtained to induce me to believe there was any virtue *per se* in the plaster after the constituents were exhausted from the land on which the plants fed. To prove this again, I carefully marked the spot where the barrel of plaster was emptied into the pail from which it was sown, and where a double and treble quantity was spilled. Here again, no perceptible benefit was derived. From all these experiments I am led to believe that plaster acts simply as a vehicle to collect from the air, and to convey or retain in some manner the food the plant requires, and give it out again as wanted ; but to continue its use long after all available food in the earth for the plant has been exhausted, and by its constant stimulating effect to cause the plant to grow from air influence, without other more solid assistants, is very much like giving a man who has done a hard day's work an extra glass of whiskey to force him to continue on into the night. He may do it, but the reaction is sure to come. True, the work is done, but the man must not only rest the next day, but must be plentifully fed to enable him to recuperate. All such demands are contrary to physical and organic laws. Nature will give a certain result if treated with reasonable liberality ; indeed experiments have long since convinced me that there is a grand magazine of regeneration always at work in the vegetable kingdom so far as "organic" (so to speak) vegetable food is concerned ; but we cannot always afford time for nature to act, but must hurry and assist by manure of one kind or another.

C.

Clover, the Great Renewer.

Since the delivery, by Professor Voelcker, of his celebrated lecture on this subject, (to which for a length of time we have given such prominence in the columns of the CANADA FARMER), all the best English and Scottish Agricultural papers have gone extensively into the matter, and none more so than our respected contemporary, the *Farmer*, (Scottish), which, in its issue of the 23rd June, devotes three full columns to the subject. The old country agricultural papers are edited by a very superior class of writers, and reflect the public opinion of the most prominent agriculturists. "Scientific agriculture" has had a hard fight with practical agriculture throughout the three kingdoms, and it is only just now that the old-fashioned practical man begins to treat the scientific operator on farm land with anything like respect. In the article alluded to, the *Farmer* (Scottish) says : "Even so far