

may eventuate in a half-filled crop, checked by frost and worth less than an earlier ripened yield of several bushels to the acre less. (1)

The present season may supply an example in which limited seeding would come out all right. As we write there is a continuous sunshine. Sow less than a bushel of good seed on summer fallow, and with ten days of fine weather there will be an early and vigorous start. Let a night or two of frost come along about the middle of May to cut that wheat down. At once there will be free tillering, and a close stand, demonstrating the virtue of thin seeding. But seed a piece of ordinary stubble plowing in the same way, and for want of stimulus in the soil it will make a dragging start, a poor start and light yield. Our assumption is that double the seed would be safer for the probable risks of the next few weeks. Will the event justify that assumption or will it not? In two cases out of three we think it will.

N.-W. Farmer.

LIME AS A FERTILISER

To the Editor of Farming :

The writer, during the last twenty-five years, has endeavored to induce farmers to use lime, in addition to all the barnyard manure they can procure, but so far his efforts have not met with much success.

Although its use is surprising, and increases the quantity and quality of all kinds of produce, yet the farming community do not realize the wonderful possibilities of its use, and this is to be regretted, as the result is frequently a half more crop for the expenditure of less than one dollar per acre annually.

Messrs. Mills and Shaw, authors of "The First Principles of Agriculture," authorized by the Honorable the Minister of Education for use in the public schools of Ontario, on page 54 say :

"Lime exerts a fourfold influence as a fertilizer :

"(1) It is a direct source of plant food ; that is, the decayed vegetable matter), neutralizing the 'sour,' organic acids that it contains, and rendering the soil 'sweet' and capable of sustaining healthy plant life.

"(2) It unlocks the stores of inert mineral matter in the soil, especially the potash and soda, and renders them available as plant food.

"(4) It ameliorates the texture of soils that are stiff ; that is, makes them more easy to be plowed, harrowed, rolled, etc. "

Lime improves the quality of grain, grasses, and other crops ; hastens their maturity, destroys insects, and checks the growth of moss. While it improves the texture of strong clays, it also increases the capacity of light soils for absorbing and holding moisture.

The quantity of lime used varies, one to two tons per acre being an average dressing, but small dressings and frequent are preferable to larger ones infrequently applied. The lime intended as manure should be harrowed in with the seed, plowed under.

Although hundreds of students attend the Experimental Farm every year, yet when they return home, they never appear to test the use of lime. This could easily be done by putting lime on a quarter of an acre in addition to other manures, on any field of grain, hay, or roots, at a cost of a dollar, although a few acres would be more satisfactory. After land has been cultivated forty or fifty years it is only reasonable to expect that the soil becomes improverished, and barnyard manure can only partially enrich the soil, and must be assisted by fertilisers ; and it has been proved that lime is one of the very best, and it is also very plentiful, and be had at reasonable cost.

It is claimed, and with good reason, that green clover plowed under becomes a good fertiliser, but it is also a fact that clover is not sure to take root, and is often found in bunches far apart ; but when lime is applied a good crop is assured. This I know to be a fact.

About twenty years ago the late Mr. Lauder, of Deer Park, bought thirty acres of land of poor quality. On that property there were four acres of an old brick-field. He cultivated this, used lime, and sowed carrots, and sold the crop for over \$500 the following winter.

A farmer near Milton never sowed wheat without well liming the land, and never had less than fifty bushels per acre. Farmers should try the experiment and find out for themselves whether their crops are benefited by its use. If benefited, then surely they would use it extensively, and if of no benefit, get some other fertiliser, as land

(1) A very sensible argument. Thin-seeding does very well for fall-wheat, but for wheat sown in the spring 2½ or even 3 bushels are not too much for an acre. Ed.