

All nature is but art, unknown to thee ;
 All chance, direction, which thou can'st not see ;
 All discord, harmony, not understood ;
 All partial evil, Universal Good ;
 And spite of pride, in erring reason's spite,
 One truth is clear, whatever is, is right.

CORRESPONDENCE

Liming Soils

To the Editor of FARMING :

In your issue of 22nd August a letter from W. A. Freeman appears, affirming that lime acts as a whip to a horse or spirit to a weak man, and suggesting that I take a five acre field and apply lime to one-half and good manure to the other half, and that I will find at the end of five or ten years that the limed part will become worthless, and the manured part will increase to the maximum of productiveness.

I use all the manure I can find, and in addition I apply lime, and in all cases my crops are increasing immensely. I have never found that the land becomes less productive. I invite attention to the farm belonging to W. M. Moore in the neighborhood of Milton, who has never sown fall wheat without applying lime for over 30 years, and his land has never yielded less than 50 bushels to an acre. I know of farms in Scotland where lime has been applied for 50 years, and the land has continued all that time to show no decline in productiveness. Mr. Freeman's claim, therefore, is without foundation where the use of manures are used in the ordinary way. But I will admit that I have never known lime to be used for five or ten years without manure being used as well.

I can see no reason why farmers should continue in ignorance of the effect of lime on their lands, as a dollar's worth of lime applied to a quarter or a third of an acre will satisfy them as to the effect it has on their own farms.

I will add that your note following Mr. Freeman's letter is to the point, and worthy of any farmer's consideration.

G.F.

Milton, Sept. 26th, 1899.

The Cause of Waning Fertility

To the Editor of FARMING :

There is no question in practical farming so little understood, and we may say, so much misunderstood, as manuring. Want of comprehension in this respect is by no means confined to the uneducated, for the educated, and even college graduates, share in the general ignorance. The term is not used in an offensive sense, but merely as signifying want of special knowledge.

It has been repeatedly pointed out that the three great essentials to the growth and maintenance of all kinds of plants and animals are nitrogen, phosphates and potash. In broad farming the loss of potash from the land is comparatively slight in comparison with the others, because there is such an abundant return of it in the waste of straw and the manure of domestic animals. Besides, we are not without considerable evidence that soda at least can supply the place of potash to a considerable extent. The nitrogen is used up pretty rapidly, and while the return of it in farm-yard manure is considerable, yet it should be well understood that enough of such manure cannot be produced to keep up anything like an adequate supply to meet the wants of vegetation. But by growing abundant clover properly, and utilizing it as manure, the necessary supply of nitrogen can be maintained.

The great drain which the land sustains in phosphates is the fundamental cause of waning fertility. Phosphate enters

into the ripened grains and in all ripened fruits, and is carried off the land. It makes bone and other parts of all animals, and they do not waste it in health, so that the manures have comparatively little of it. Throughout the whole operation of farming the lands are surely depleted of phosphate, until the "phosphatic heart" is destroyed and the quality of both the produce and the stock degenerates. That is the condition of all lands that have been under broad farming for a number of years without phosphating, and it is a hopeless task to economically restore such lands without the aid of applied phosphate. To rest the land for years by growing rough crops of clover, etc., on it and continually ploughing them under, or letting them die and decay on the soil, without taking anything from the soil, would in time partially restore fertility by bringing about gradual organization of the phosphates as well as the other minerals of the soil, but that is too big an investment for any farmer to undertake.

To restore these lands repeated dressings of phosphate are necessary. It is unreasonable to suppose that it can always be done in a magical sort of way by a single application, as such may but partially correct the starved condition. (An animal under similar conditions requires continuous good feeding before it acquires normal condition.) Great benefit is often noticed immediately and for years from one application, but when we once begin on that line we should continue repeating the dose until a maximum yield is obtained. This may sound expensive, but it is the correct and only way to restore lands so as to produce the most and best crops and the best animals. It is money spent on capital account, and since we have used up our capital by taking the bone out of our land, we must first make good the impaired capital before we can look for profits. We have burned our house, and we must build another. We have robbed our lands, broached our capital, as it were, and spent it in houses, implements, living expenses, and perhaps invested it otherwise, and we unreasonably lay the blame on Providence.

When are our educated farmers going to see the absurdity of the process of demoralization of fertility, which is eating the heart out of agriculture and renders farming for profit so difficult that the young men give it up as hopeless? Here and there we find that by dint of prodigious labor, fortuitous circumstances, or the sapping of a whole neighborhood of its fertility by drawing on its resources, a few farmers succeed pretty well, but a careful analysis of their methods easily convinces us that it is a plan for the few and not for the many. I am not discussing a theory, it is a hard fact, and has been abundantly proven as such in restoring the old soils of Great Britain. Phosphates and clover generously supplied to the land will restore the lands, and while it may be done with perhaps more immediate profit by an accompanying moderate application of a little extra nitrate of soda, nitrate of potash, or phosphate of potash, yet the foundation of the economical restoration of soil fertility must be recognized as phosphates and clover. Until this is generally recognized, and the remedy properly applied, no general recovery of our lands will take place, and even a waning fertility will continue to occur. A broader plan of land restoration must be followed.

T. C. WALLACE.

Fernside, September 26th, 1899.

In Prince Edward Island Crops and Markets—The New Dominion Live Stock Commissioner

To the Editor of FARMING :

The weather here now in Prince Edward Island is beautiful and fine, and the harvest is being saved in fine condition. The quality of the grain will this year be good, as little rain fell while the corn was in stock, so that it cured in the best condition. Rust, however, played sad havoc with a good deal of oats and wheat, and reduces the