

it contains when first taken from the swamp.

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LIME AS A MANURE.

THE application of lime to the soil as a modus of enrichment, has been practised in all well-cultivated countries, at every period of authentic history. The axiom, for a long time received by some as the quintessence of wisdom—

"That lime enriches the father, but impoverishes the son," embodies an error that has been, and still is productive of much harm. It is true that the wonderful fertility it produces, when applied in liberal quantities, and for several years in succession, ultimately falls off; yet this is no evidence that it must impoverish the land, as a natural and inevitable result. The same observation or maxim will be found equally applicable to gypsum, saltpetre, nitrate of soda and common salt, all of which are recognized as invaluable fertilizers, and capable of augmenting the productiveness of any soil to which they are judiciously and systematically applied. When, however, they are used liberally for a certain number of years, the land has been afterwards found to be weaker and less productive than before. It will require nearly four hundred bushels of lime to the acre, to add one per cent. to the soil. Most crops take not less than ten substances, one of which is lime, and if this be lacking—though the other nine elements or constituents may be in excess—the crop will not be perfect. By adding lime a luxuriant growth is secured; the application is repeated, but after a few years the crops fail—there is a diminution of product, no profit is realized, and the farmer is in despair.

One would suppose that a very slight degree of reflection would be sufficient to satisfy him of the *cause*. While he has been liberal in his applications of a material that supplies one ingredient, he has neglected the other nine, and, as a natural consequence, the soil has grown poor, and can no longer produce a remunerating crop. Allow me an illustration.

The iron smelter fills his furnaces with iron ore and coal—he applies fire but obtains no iron till he throws in lime. He adds this, and obtains a flow of metal. The dose is repeated and another flow fol-

lows; but no lime, this is discontinued, and to obtain more metal he is compelled to put in more ore and coal; then the lime produces its legitimate effects. So in the use of lime in agriculture. If we supply *only* lime, we shall certainly reap poor crops; but if, along with it, we furnish a supply of matters rich in the other ingredients of vegetation, we shall produce the advantageous effects resulting from the first application. Lime must have something to work on and with; it must be applied in conjunction with humus, or to soils in which humus already exists, or its application will be of no avail. The man who expects to reclaim a sterile soil by liming only, need not be surprised if he only has his labor for his pains.

The best method of using lime is to mix it with old lime, in the proportion of one-eighth lime, and to place it immediately in the hole with the corn. When used for other kinds of grain, it should be spread on the top of the ground after it is plowed, and harrowed in with the grain. No one can fully estimate the value of lime for this purpose, unless they try the experiment. The average difference in a crop is from one-third to one-half more by using lime. It is almost the only *sure* prevention of vermin on fruit trees in this section of the country. Lime placed about the body of the tree early in spring, will prevent their increase. Slacked lime, mixed with soap and water, used as a wash on the parts of trees where these insects have deposited their eggs, will destroy them entirely. This has been proved by the writer.

In many parts of England they estimate the value of their land in proportion to the nearness of access to the limekilns, on account of its valuable properties when used for dressing. Farmers should give more of their attention to this subject, and use lime more liberally where the soil is not calcareous.—*Cor. Ger. Telegraph.*

EARLY FALL PLOUGHING.

THE ploughing of land in the fall of the year is practised by many farmers merely to save time the following spring. It is a good practice, when viewed in this light, for the season of spring is so brief that there is always too much crowded into it, and it is well to lessen and lighten its labours if we can. But in this view of fall ploughing, the end is gained if