

I have lately examined a soil from the Nile, famous for production from the earliest period of history to the present time, which contained 1.02, more than one per cent., 300 bushels of pure magnesia; one from the rich bottom land of Illinois, containing .51, more than one-half per cent., equal to about 150 bushels of pure magnesia. One from the best South River soil, in A. A. county, containing 120 bushels of air-slaked magnesia, and many others from our own State, very productive and containing from 60 to 100 bushels of magnesia.

The following analyses, also show that magnesian soils, so far from being barren and unproductive, are exceedingly fertile. No. 1. Soil from Kent county, producing 20 bushels of wheat, and 10 barrels of corn per acre, contains of magnesia .35 of one per cent., equal to 100 bushels. No. 2. Also from Kent county, producing 22½ bushels of wheat, 8 barrels of corn, and fine crops of clover, contains .27, equal to eighty bushels to the acre. No. 3. A soil from Queen Anne's county, producing 30 or 35 bushels of wheat, 12 barrels of corn, and fine clover, contains of magnesia .4 per cent., equal to 120 bushels. No. 4. Soil from Queen Anne's county, producing 30 or 35 bushels of wheat, 12 or 15 barrels of corn, fine clover, contains of magnesia .38 per cent.

There is another soil from the same neighborhood, favorably situated, and in a fine state of cultivation, (Dr. W. H. DeC.,) having very nearly the same constituents as the two last mentioned, which produced only 20 or 25 bushels of wheat, and contains only .01 per cent., equal to about 3 bushels of magnesia.

Since my last report this gentleman has applied magnesian lime, with what result the following clear and intelligent letter will show. I give it not only in proof of what I have advanced, but because it describes in a clear and perspicuous manner, the proper mode of application of this lime, and many other facts which will amply repay an attentive perusal.

CHESTON, March 20th, 1851.

MY DEAR SIR:—I now take pleasure in complying with the promise made some time ago, to give you a more detailed statement of the result of the application of the Schuylkill lime to my lands.

You will recollect that on analyzing specimens of soil, you detected a deficiency of magnesia and the phosphates, and suggested to me the propriety of using the Schuylkill lime to supply, in part, the former, in preference to that commonly called Baltimore county, which had previously been exclusively used. Having confidence in the application of the principles of science as aids to agriculture, I at once adopted your suggestion, not merely by way of experiment, for in that case it would have been more carefully and nicely conducted, and not so much entrusted to the "unskillful