

adopts as his theory that guano will always keep his land productive.

I might relate numerous analogous views equally erroneous, that have come under my notice, each derived from *practical experience*; but it is unnecessary, as there is scarcely an intelligent farmer that cannot find such examples of false inferences.

I have stated why it is that the manure from the barnyard is almost universally applicable to soils, which have not already an abundance of every kind of plant food. I may add, that it is the only article of its class.

If we have a soil deficient in all, or most of the constituents of plants, and have not the stable manure, its place may be, in a great measure, supplied by the use of bones and wood ashes. But we should not depend solely on either these or the dung. It is true that in both cases we supply every thing the crops require until one or more of their elements shall be exhausted, but we must remember that they take little or no part in developing inert matters previously existing in the soil. For this purpose we must apply lime, unless we may prefer to incur the expense of supplying from abroad every element which the crop must take out of the soil.

I have already referred to the conclusions that most chemists have arrived at, in reference to the analysis of soils for practical applications; but I find I have omitted to notice a very remarkable case of a soil from the Island of Cuba, containing 90 *per ct.* of *oxide of iron*. The sample was analyzed by Prof. Hayes, of Boston, and was from a soil producing fine crops of tobacco. The result seemed so strange, that I made inquiry of the Doctor in reference to the truth of the published statement; which he confirmed. Now, if any chemist were asked to name an article containing 90 *per ct.* of oxide of iron, would he call it a soil? Would he not call it a very rich iron ore?

This case, with many others that might be cited, confirm the views before expressed that there is something more to be known before we can rely wholly upon an analysis of soils for practical applications, except in the special cases alluded to in a former chapter.

In reviewing the present state of agriculture of Maryland, many considerations of great interest must come under our notice. Some of these which have been touched upon in the preceding pages will be again referred to in connection with the rotation of crops and other subjects.

Nature plainly teaches us the necessity of her practices in reference to what we call the "rotation of crops." Every observing farmer must have noticed that, with the exception of a few plants whose roots extend deep into the ground, there