

sent state of the science, no certain system founded upon chemical data can be devised, independent of experiment. Empirical results, on the other hand, are equally unsatisfactory; because the object is not only to discover the innate productiveness or unproductiveness of the soil, but likewise to ascertain the means of improving it. Both methods, therefore, must be resorted to—the analytical and experimental. The labor of the former method will be amply repaid by the certainty with which, under given circumstances, it denotes the best means of amelioration; but it is almost useless to attempt it without the concurrent indications of the latter.

Without pretending then for the present to assign the precise limits of all the varieties of soil that occur in the section of our State now under examination, their general characters in each county may be indicated as follows:—East of the Choptank, in Caroline county, the soil is very generally sandy, greatly deficient not only in calcareous, but in aluminous particles, and yet astonishingly productive in Indian corn. It would be found no doubt very congenial to the growth of the *Palma-Christi*, a plant said to be extensively cultivated in the lower counties of the State of Virginia, and the seeds of which (the castor-oil-bean) sell very readily in Baltimore at 150 cents a bushel. Those kinds of shell-marl that have been designated as calcareous and clayey, and which have been indicated as occurring in the neighborhood of Denton, are admirably well calculated to improve the condition of the soil here. Farmers in the lower parts of the county, as in Poplar-neck, might probably avail themselves of the extensive deposits of marl on the Talbot side of the Choptank, especially that described as found a few miles below Dover bridge. West of the Choptank, and between it and the Tuckahoe, in the neck of land extending to the confluence of the two branches, the soil is more aluminous, in some places decidedly a clayey loam; hence it is better adapted to wheat crops. It would likewise be benefited by the application of such marls as occur in the neighborhood of Hillsborough. The upper portions of the county again, present a light sandy soil; but in that part of it known as the Long Marsh, the soil is an alluvial