

used. Salt should also be applied for the first few years. They both contain an abundance of potash. I have also found an abundance of phosphoric acid in the red isinglass variety of soils, which I have named. Notwithstanding this, bones act remarkably well upon them. This must be more from the lime which they supply than from their other constituent, and though they do act well, they would fall far behind lime, particularly lime containing magnesia, which would give to these soils permanent fertility and productive capacity. It would set free the necessary substance in the soils, improve their physical texture, give them the ability to absorb matter from the atmosphere, and make them very certain, even in bad seasons, to produce good crops. These soils form a very large part of the two upper counties of this district. Some of their best land is of these varieties, in a high degree of improvement.

They respond very quickly to the action of proper manures, and thus will give very speedy returns, neither do they suffer by heavy rains or severe drought. The great distinction between these two varieties of soil are the presence in fair proportions of phosphoric acid in one of them, its absence in the other.

ISINGLASS SOILS.

			RED.	WHITE.
Organic matter,	-	-	7.85	6.40
Sand,	-	-	77.80	85.80
Iron and alumina,	-	-	12.80	6.70
Phosphoric acid,	-	-	.03	.01
Lime, as carb.	-	-	.16	.12
Manganese,	-	-	.30	.00
Magnesia, as carb.	-	-	.25	.11
Potash,	-	-	.20	.20
Soda,	-	-	.15	.15
Sulphuric acid,	-	-	.01	.00
Chlorine, a trace,				

Specimen taken to the depth of 8 inches. It had never been manured with any mineral manure, nor with guano.

There is another variety of soils found in Prince George's county, very compact, heavy, and of a decidedly red color; they in many places approximate to fuller's earth in their physical condition. In ravines and deep cuts of the roads, the fuller's earth is very distinctly prominent. These soils vary in their texture from being very compact and retentive of moisture to a much less degree of tenacity—this is owing to two causes; the first, that of the larger proportion of coarse sand—the second to the less quantity of peroxide of iron and alumina; they in their natural unimproved condition are barren and unproductive. They, however,