

of New York, we have the Miami series, which comprises fourteen types of soil, ranging from Miami stony sand (the coarsest texture, of which there are 100,000 acres) down to the Miami clay loam (the finest texture, of which there are nearly 2,000,000 acres).

We learn that the Miami series is one of the most widely distributed and complete soil series that has been established. The series is characterized by the light colour of the surface soils, by derivation from glacial material, or by being timbered, either now or originally. The heavier members of the series are better adapted to wheat than the corresponding members of the Marshall series, but they do not produce as large yields of maize. The clay loam is the most important for general farming, and forms the principal type of soil in western Ohio and central and eastern Indiana. It is especially well adapted to small grain and grass crops. The silt loam is more rolling and hilly than the clay loam, and is not so well suited to general farming. Wheat does better upon it than upon the Marshall silt loam, with which it is closely associated, but the yields of maize are considerably less. It is also well adapted to fruit, especially apples. The sandy loam and fine sandy loam are used for general agriculture, but are especially adapted to medium and late market-garden crops and fruit. The loam is suited to maize and potatoes, while small grain and grass are grown, but with less success than upon the clay loam. Strawberries and raspberries, as well as other small-fruits, do well on this type. The stony sand, gravelly sand, and gravel are not of much agricultural value under present conditions. The stony loam is a good general-farming soil, is also well adapted to apples, and furnishes excellent pasture, while in New York lucerne is grown upon it very successfully. The stony sandy loam and gravelly sandy loam are not strong soils, but are fairly well suited to light farming, fruit, and market-garden crops. The sand and fine sand are not adapted to general farming, but are the best early market-garden soils of this section. Such is a brief example of an American soil survey and its application in a most closely settled rural area.

Sir A. D. Hall considers that only by comparison with the type soil can the analysis of any particular soil be interpreted. The fact that a soil from a given arable field contains 0.15 per cent. of phosphoric acid takes a very different aspect when it is known that the soils of the same type contain as a rule 0.18 to 0.20 per cent., particularly if also the response of that kind of land is known by field trials or from the accumulated experience of farmers.

The importance of a soil survey in an old and closely settled country like England is different from that in a comparatively new country like the United States or New Zealand. The importance in the older country is largely in its application to the saving of the manure bills of farmers by their adoption of more efficient fertilizers. "By having the requirements of their land made known to them, enormous economies might," says the last-quoted authority, "be effected in the bills of almost every farmer using artificial manures, if the latter were properly adapted to his soils and crops." He concludes that it is not too much to say that the information as to manuring which is being accumulated at