

exists. It is not an ideal soil for an ideal soil can no more be described seriously than ideal bank account. Neither should ever become exhausted or unavailable.

### APPLICATION OF THE ANALYSIS

The ratio between the Organic Carbon and the Nitrogen is usually indicative of the state of decomposition of the Organic Matter in the soil. Fresh organic matter which is slightly decomposed usually produces about twenty times as much Organic Carbon as Nitrogen. Organic Matter as generally found in the soil will produce some twelve to fifteen times as much and Organic Matter in subsoils where it has reached a stage where very little decomposition is possible and where it is becoming preserved will produce only four or five times as much Organic Carbon as Nitrogen. In this analysis the Nitrogen - Carbon Ratio is of no significance in this respect since the land had been burned over and the charcoal thus produced would add very largely to the Organic Carbon. A physical examination of this soil, however, is suf-

## FERTILITY IN FARM PRODUCT

Approximate maximum amounts removable per acre annually

Kind	Amount	Nitrogen	Phosphorus	Potassium
Corn crop	100 bu	148	23	71
Soy bean crop	2½ Tons	159	21	73
Cowpea hay	3 "	130	14	98
Potatoes	300 bu	63	13	90
Fat hogs	1000 bu	18	3	1

ficient to show that it has an abundant content of Organic Matter.

It is evident from the analysis that the soil contains Nitrogen in abundance. It is also evident from the growth of the crops upon this soil that this Nitrogen is readily available for use. While the growth of legumes (which obtain their Nitrogen from the air instead of the soil) is advisable, it is chiefly because the protein contained in such plants helps balance the ration for stock and not because the soil is in need of Nitrogen replenishment.

In general Peaty Soils are not up to requirements in the mineral elements of Phosphorus, Potassium, Calcium, and Magnesium. If is, of course, largely due to the fact that the soil lacks sand, silt, and clay and is almost entirely composed of organic matter. As the soil settles after drainage and more sand, silt, and clay is incorporated with the peat, this condition will be bettered.