

INTRODUCTION

It has been known for many years that the most important nutrients affecting the yield of plants are nitrogen, phosphate and potash, and thus many methods have been evolved whereby the amounts of these elements in the soil can be estimated. Most of the laboratory methods are arbitrary, in that they depend essentially on the estimation of a solution obtained from the soil by the use of some extracting agent, generally a dilute acid. It is more or less impossible to prepare an extracting agent which can precisely imitate the action of the root hairs of a plant. This difficulty has led to the use of plants, grown under carefully controlled conditions, as indicators of their own nutrient requirements. Many forms of pot tests have been described, but this dissertation is mainly concerned with the method of assessing the nutrient status of soils evolved by Prof. E.A.Mitscherlich.