

3rd.—The plant No. II., which was placed in the most favorable position as regards sunshine and rain, absorbed a greater amount of soluble iron and soluble phosphoric acid than plant No. III., which was grown in a less favorable position. Whether the plants have the power of selecting and taking up by their rootlets these compounds from the manured soil, or whether the plants simply absorb any substance in solution supplied to them, I am unable to say; but it appears that the healthy condition and gigantic growth of the plants Nos. II. and III. were due to the fact that they were supplied with iron (in a soluble form, FeSO_4) and phosphoric acid also in a soluble form.

I am inclined to think that a fairly large proportion of soluble iron and soluble phosphates in a soil is favorable to the growth of plants of a deep green color (that is, plants which develop a large amount of chlorophyll cells), like the varieties of cabbage.

From the researches conducted by Mr. F. C. Phillips, of the United States, "On the Absorption of Metallic Oxides by Plants" (*CHEMICAL NEWS*, vol. xlvi., 224), it seems that his experiments confirm the non-discriminating theory of plant absorption of Dr. Freytag.