A PRELIMINARY STUDY OF THE INFLUENCE OF CHLORIDES ON THE GROWTH OF CERTAIN AGRICULTURAL PLANTS.¹

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INTRODUCTION.

Investigations on the nutrition of higher plants early led to the conclusion that carbon, hydrogen, oxygen, nitrogen, sulfur, phosphorus, potassium, calcium, magnesium, and iron are essential to their growth. Less certainty has attended our knowledge of the rôle of sodium, silicon, and chlorine in plant growth. Various observations, however, seem to have led to general belief that, altho exerting beneficial effects under certain conditions, these elements are unessential for most plants. As none of the seed plants tested have been deprived of chlorine thru successive generations, it appears that the necessity of this element has never been adequately investigated. Apart from this relation, however, it is certain that some seed plants contain much more chlorine than others, that some can endure much higher chloride concentration about their roots than is possible for others, and that differences in the amount of this element in the soil are frequently accompanied by characteristic differences in growth and development. In view of these considerations it appears to be

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