

I I N T R O D U C T I O N .

1) VEGETATIVE PROPAGATION AND ITS RELATION TO CITRUS PROBLEMS.

The task of introducing so complex a subject as Vegetative Propagation in its relation to Citrus problems would indeed be a difficult and laborious one, were it not for the fact that a detailed and carefully constructed resume of the whole matter is to be found in a recent Communication of the Imperial Bureau of Fruit Production. (1)

In this publication the reasons for and against the need for conducting experiments on the propagating of Citrus species by vegetative means, and an account of the various methods used to achieve this end, are expounded in full. In justifying the trials described in this paper, it is therefore considered to be unnecessary to give more than a very brief outline of those features, which are strictly relevant to the problems investigated.

The term "Vegetative Propagation" may be used to imply, either natural asexual reproduction as by Corms, bulbs, rooted suckers etc., or artificial reproduction by such methods as layering, dividing of old stools, cuttings of various sorts, and budding or grafting. With the majority of orchard crops the former could be dismissed at once, and indeed, in so far as Citrus species are concerned, the production of a few rooted suckers in certain cases can be disregarded, as being impracticable as a source of new plants. On the other hand the genus Citrus as a whole is subject in a high degree to the phenomenon of Polyembryony, whereby apogamic seedlings, genetically identical to the mother plant, arise from the inner integument of the nucellus of the ovary chamber; and it is this form of natural asexual reproduction which provides the crux of the whole situation.