I. INTRODUCTION

Traditionally, peach seedlings have been used as rootstocks for peach and propagators used their own local source of seed for seedling productions. The most commonly used rootstocks are Nemaguard. Flordaguard and three peach-almond hybrid rootstocks developed in California. Two of the peach-almond hybrids, the other is Hansen.

Hansen 536 cultivar was selected from a seedling population of the cross Almond B x Peach selection 1-8-2 made by the late Carl Hansen 196. Hansen 536 was selected as the most tolerant to phytophthora syrusgae, drought tolerant, more tolerant to lime-induced chlorosis and show less sodium and chloride uptake than peach. **Hansen *et al.*, (1981) and Kester and Asay, (1986)**. This cultivar is most useful in calcareous soils and under marginal or stressful conditions as well as is graf- compatible to almond, peach and japanese plum cultivars. Hansen 536 cultivar, is too difficult to propagate Hansen cutting or layering **(Ismail, 1998).**

Apple is considered as the most important economic fruit among the other fruit trees. The recently introduced apple rootstocks encouraged the horizontal extension of apple trees in the new reclaimed soils. The net return is very high as compared with the other fruit trees.

Conventional propagation of either Hansen 536 and MAC9 apple rootstocks failed to overcome the gab between the large number demand and the actual number produced. Moreover, occurrence of the undesired segregations usually associated to the

sexual propagation by seeds was hoped to be entirely avoided. Micropopagation is a true to type propagation system and most often associated with mass production.

So, in order to meet the increasing demand for a homogenous nursery transplants of such important two rootstocks, this investigation was initiated to investigate the possibility of using micro- propagation technique as an ideal vegetative propagation method in this concern.