I-INTRODUCTION

Pome fruits production occupied the most important part in the Egyptian Agriculture Policy. Apple, pear and quince are the main members of pome fruits, which have a great economic importance. The net returns from growing apple under Egyptian conditions surpassed other fruit types. Introduction of some apple rootstocks which have the ability to tolerate unfavorable conditions encouraged horizontal extension specially in newly reclaimed soils. The total cultivated area of apple trees reached 74004 feddans produced 412321 metric tons, while the pear trees reached 13362 feddans produced 57917 metric tons according to the latest statistic of Ministry of Agriculture Economic Department (1996). Apple and pear planting and productivity are concentrated mainly in newly reclaimed soils where 53400 feddans produced 309575 metric tons from apple and 4553 feddans produced 28990 metric tons from pear.

Malling Merton 106 and communis pear are the main valuable recommended rootstocks for apple and pear trees, respectively. The conventional propagation for MM-106 and communis pear are handicapped to fulfillment unlimited demand. Also, communis pear propagated mainly by seeds which imported from abroad. Consequently, high costs of transportation, agriculture quarantine, and reduction of the viability are the main problems facing importation of communis seeds. Hence, micropropagation of this rootstocks is the basic alternative for overcoming all problems.
Tissue culture industry is preferred for production large number of homogenous plants similar to the mother trees, free from most spreading diseases and very with low expenses.

The ultimate goal of this study is to find out the best possibilities of establishing MM-106 apple and communis pear rootstock, as well as. Also, selecting the best methods for producing the largest number as well as the most convenient methods for enhancement of root formation.