

## INTRODUCTION

Citrus production occupies an important share in the total fruit production of the A.R.E. According to the Ministry of Agriculture Statistics of 1981, the total acreage of citrus reached 197932 feddans, 53.81 % of the total area of orchards in Egypt.

Local demand for citrus fruits is continuously rising due to the rise in the standard of living of rapid increasing number of consumers. In order to meet such increase in demand, plans are developed to establish large citrus orchards on new land of different soil types generally characterized by low fertility and classified as sandy, calcareous, or saline. The sour orange is the standard rootstock used for citrus plantings in Egypt. It is well suited for medium to heavy soils prevailing in most of the long established agricultural land along the Nile Valley and Delta.

Research is needed to evaluate sour orange as well as other citrus species as rootstocks for different citrus cultivars in these new areas. In addition cultural practices, such as irrigation and fertilization need

to be adjusted to suit , such different soil types and conditions.

Therefore this study was carried out to investigate the effect of irrigation regime and potassium fertilization on the growth of rough lemon and sour orange seedlings grown on calcareous as well as alluvial soils.