I - INTRODUCTION

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Agricultural expansion needs a great amount of suitable irrigation water which already is not sufficient to meet all the expected demand. For that, the possibility of using saline water for irrigation especially under ground water is of great value, but till now its still very limited, because this water contain a considerable amount of harmful salts. The applicability of saline water for irrigation is first of all dependent upon the concentration, composition of salts dissolved there in and upon the degree to which plants are salt tolerant.

The physical and chemical conditions of the soil climate and farming practices are also reported as factors affecting the salinity-yield relationship. Plant growth is adversely affected in saline soils by the presence of high concentrations of soluble sodium as well as certain soluble cations, due to increase in osmotic pressure and reduction in water availability to plants. The effect of soluble sodium on plant growth varies with the plant species as well as with the nature of sodium salt (Richards, 1954). Some fruit species (Olive, guava, and grape) were found to tolerate salinity levels between : 2000 to 8700 p.p.m. according to the tested species and cultivars (Kirienko, 1963; Nauriyal & Gupta, 1967; Gorosko, 1969; Taha; 1972, Sourial et al., 1975; Zid, 1975; and Khamis et al. 1984).

There is a general agreement that the trees of many fruit species need less water requirements and can tolerate salinity when compared with most vegetable and agronomy crops. Some deciduous fruit seedlings plays an important role in nutrient absorption and availability.

The purpose of this investigation was to study the response of some deciduous fruit species to different salinity levels in the water used for irrigation.