INTRODUCTION

Water is the most limiting factor to fruit trees growth especially under arid regions of the world including Egypt. Throughout its effect on flowering & fruit set and net yield. Irrigation schedule in new reclaimed for most fruit trees including "Canino" apricot doesn't base on evaporation demands, soil and other related factors. So, trees were topically either over or under irrigation demand, consequently inadequate irrigation can result in slow growth trees causing a reduction in yield and produced poor fruit quality. On the other hand, excessive irrigation can slow orchard establishment and promote fungi disease in addition to amount of waste water. Also, excessive irrigation wastes not only water but also leaches water soluble nutrients beyond the plants.

On the other side of view, spraying some antitranspiration materials such as polyethylene glycol can be the solvent under water stress conditions. Many materials could be used to minimize water use by the trees including polyethylene glycol.

Therefore, the aim of this investigation was to study the effect of different levels of irrigation to determine water requirements and water use for high-yield with good quality of "Canino" apricots. Also, evaluation of polyethylene glycol as an antitranspiration material under different irrigation levels will be done to try to minimize the amount of added water to the trees with no or little effect on yield and quality. This target is more useful under new reclaimed area which become the only source for trees cultivation which characterized by low amount of water and high prices of powerfull machine .