

## 1. INTRODUCTION

Apple is botanically belonging to family Rosaceae. The area of apple increased steadily in Egypt and the area attained about 74.004 Feddan (Minstry of Agriculture Egypt, 1996). The increase is due to the introduction of some new cultivars such as Anna, Dorsette Golden and Orleans which adapted to the environmental conditions of Egypt and produced satisfactory yield with good fruit quality.

Anna apple cultivar which characterized with low chilling requirements and good yield under new reclaimed areas. The origin of "Anna" apple cultivar is Dour Na Sharman, Israel (Reid and Olmo, 1972) and its trees require about 300-350 hours below 7.2°C to break their bud dormancy. However, the application of growth promoters on apples is previously studied but application of growth retardants on apples is needed for many purpose i.e. controlling tree size, controlling harvest date and improving fruit quality. The main target of this study was:

1. Evaluate the effect of paclobutrazol (PP<sub>333</sub>) and uniconazole (S-3307D) on fruit quality by spraying apple trees at Mid-May with those materials.
2. Retarding the vegetative growth, by spraying those materials at full bloom, evaluate their effect on fruit quality.