1- INTRODUCTION

Pear is considered the third in importance among other deciduous fruits in the world and the fourth among all fruits together **(Scheer and Juergenson, 1976)**. In Egypt, pear orchards occupy about 18101* feddans with total fruit production of about 73207 metric tons.

Botanically, pear belongs to the order *Rosales* (Roses) and family *Rosaceae* which includes 20 to 25 species and thousands of varieties, but only few are of commercial importance, derived from *Pyrus communis*, L. "Le Conte" (*Pyrus lecontei*, Rehd), the most important pear cultivar in Egypt is a hybrid between Chinese Sand pear (*Pyrus serotina*, L) and European pear (*Pyrus communis*, L). The "Le Conte" pear tree is medium in size, slow growing and requires short chilling.

Undoubtedly that the stage at which "Le Conte" pear fruits should be harvested is considered the most important factor not only in the improvement of their salability but also in prolonging their storage ability. On the other hand, fruit

* According to the statistics of the Ministry of Agriculture Egypt, 1989.

handling and storage for local markets and export is as important as fruit production. The extension of marketing period using pre-and post-harvest treatments is of vital interest. As a result of increasing the cultivated area of pears, there is a need for studying how the marketing period could be extended and how to reduce loss of fruits. Moreover, "Le Conte" pear fruits must be ripened in cold stores to improve its eating quality. In addition, the supply of "Le Conte" pear is much more than the demand during the harvest period (August). Consequently, storage of fruits is necessary to regulate the supply of pear fruits according to the market need over a long period of time.

Therefore, this investigation was initiated for two purposes:

1- To study the seasonal changes in developing "Le Conte" pear under Qalyubia Governorate conditions.

2- To study the keeping quality and storage ability of "Le Conte" pear fruits in response to:

   a- Pre-harvest treatments i.e. Alar and Cycocel sprays at full bloom.

   b- Wrapping and borax treatments before storage.

   c- Post-harvest treatments i.e. cold storage at 2 ^{o}C and 85-90 % RH.