I- INTRODUCTION

Pear, botanically belongs to the order Rosales (Roses) and family Rosaceae which includes 20 to 25 speciess and thousands of varieties, but only few are of commercial importance, derived from (Pyrus communis L.). "Le. Conte" cv. (Pyrus Lecontei, Rehd) which considered as one of the most important pear cultivar and popular fruit in Egypt. "Le Conte" pear is a hybird between chinease sand pear (Pyrus serotina L.) and European (Pyrus communis L.).

Increasing pear productivity under the Egyptian environmental conditions is one of the main purpose of the specialists to fulfill the locally demonds. This can be attained through the adjustment of the tree management by adding the fertilizers in the suitable amounts as well as in the proper time. Therefore, there is a general agreement that several factors affect the productivity of pear trees. One of the important factors which plays a good role in this respect is fertilization with some macro and micro-nutrients because trees remove large amounts of nutrients from the soils. In addition, macro and micro-elements has been found to be deficient in most Egyptian soils especially after construction of the High Dam.

Furthermore, the dose, the concentration the date and the method of application are so important factors which offten closely coupled with both growth and productivity of fruit trees. Thus a great attention is focused on mineral fertilization in order to correct plant nutritional status and enhancing vegetative growth of pear and apple trees which in turn will be reflected on increasing yield and improving fruit quality,

Delcheva (1988), Kulesza (1990), Hipps (1992), Gomaa et al (1994), Khamis et al (1994), Mekhael (1994) and Kabeel et al (1998).

In addition, N, P, K and Fe are considered the prime fertilizer nutrient elements that exhibited the most striking response on growth and yield of pear as well as many other deciduous fruit trees, as had been showed from several studies conducted by many investigators in this respect **Abou- Aziz et al (1987), Higazy and Kilany (1987), Hipps and Ridout (1990), Neilson et al (1993), Mekhael (1994) Sharaf et al (1994) and Kabeel et al (1998).**

Therefore, the present investigation was undertaken on adult "Le-Conte" pear trees grown at El-Kanater region, Kalyubeia Governorate to achieve the most effective fertilization treatments of N, P and K soil application and Fe foliar sprays through studying their effect on vegetative growth, leaf mineral composition, fruit set, yield and fruit characteristics.