

(1) INTRODUCTION

Pea (*Pisum sativum* L.) is one of the most important leguminous vegetable crops grown during the winter season in Egypt for local consumption and export, especially to the Arab countries.

Pea as a legume winter crop plays an important role for human nutrition as a cheap source of Proteins, vitamins and minerals. In addition, it has an essential role in the soil fertility.

The area cultivated with green pea plants over the winter season of 1998 year was, 26804 Feddan, with total green pod yield of 128807 tons and about 4.8 tons per/feddan.

In the last decades, Egypt faced a national problem due to the fact that the population increasing rate is greater than that of crops production.

Increasing crop production can be achieved either through increasing the cultivated area or increasing the yield per unit area. Increasing the yield per unit area can be achieved through the application of the proper agricultural treatments.

Sowing date, using growth regulators and seed vernalization are among the most important agricultural treatments that judging the growth, flowering and early as well as total yield of peas.

There for, this experiment was carried out to elucidate the effect of sowing date, growth regulators as well as pre-sowing seeds vernalization on vegetative growth, flowering, chemical composition and earliness of pea production.