

INTRODUCTION

Carrot (Daucus carota, L.) is one of the most important vegetable crops. In 1989, the total area^{*} devoted to the carrot crop was 8418 Faddan and with total productivity 94312 tons and an average yield of 11.20 ton/Faddan. It is well known in Egypt that the number of population is increasing in a staggering rate while the cultivated area is somewhat limited. Therefore, it is necessary to increase the production capacity per Faddan. This can be achieved by following the proper measures for crop production. Among the pathways followed, are the application of major elements and suitable irrigation frequency. The application of fertilizers to the plants may cause increase in yield, however, excess in fertilization may induce toxicity to humans. Also irrigation is one of the important factors which affect greatly growth, yield and quality of carrots. Hence, the objectives of this study were to elucidate the effect of NPK fertilization on the growth, yield and quality of carrot, and to determine the optimum quantity of water and irrigation periods which give high yield and good quality of carrot roots. Also, to study the effect of interaction between fertilization level and irrigation frequency on yield and quality of carrot.

* Cited from the Economic and Statistical Dept. Ministry of Agric. Egypt.