



## Introduction of *Ocimum tenuiflorum* plant to the Egyptian cultivation

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**Abstract :** Through our program for the introduction of new varieties of medicinal and aromatic plants, we decided to study the *Ocimum tenuiflorum* plant. Beginning from the germination of seeds, tracking its growth and productivity of essential oil and its components, under Egyptian conditions. Therefore, this study was designed to determine the influence of different soil types at different dates of the year on seed emergence. Also, plant growth characters, oil content and its constituents of *Ocimum tenuiflorum* plant, under Egyptian conditions were estimated. Preparing of the seeds was carried out using three different soil types for germination, pure sand soil (M1) and two level of mixture of sand and clay loamy soil (M2=1 vol. sand + 1 vol. clay loamy & M3= 2 vol. sand + 1 vol. clay loamy) were used as germination medium. The seeds of *Ocimum tenuiflorum* plant were sown every month in nursery, started on the first of October, and lasted for seven months. Using M3 treatment and sown in February month gave the best result during two seasons. These seedlings were planted in the field. The growth of *O. tenuiflorum* plants during the growing seasons under the Egyptian conditions, were found that the average height of the plants up to 74 cm and 78 cm and the fresh yield of herb recorded 465 and 443 g/ plant in the first and second cut respectively. The highest percentage of volatile oil found in the first cut (15 %), compared with the second cut (10%). GC-MS analysis of *O. tenuiflorum* oil indicated that, eugenol, bisabolene, estrigole and 1,8- cineol were found as the main constituents of *Ocimum tenuiflorum* oil under Egyptian atmosphere conditions.

**Keywords :** *Ocimum tenuiflorum*, Egyptian atmosphere, soil type, germination, growth parameters, essential oil.

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