



Response of Basil Essential Oil to Cultivation Date and Organic Fertilization

Omer E. A.¹, Hussein M. S.*¹, Amira R. Osman², Eman Sewedan²,
Elgohary A. I.¹ and Salman A. M.²

¹Medicinal and Aromatic Plants Research Department, National Research Centre, Dokki, (12622), Giza, Egypt.

²Department of Horticulture, Agriculture Faculty, Damanhour University, Egypt.

Abstract: Purpose: This investigation was carried out during the two successive seasons (2013 and 2014) to investigate the effect of date of cultivation and organic fertilization on the production and constituents of the essential oil of *Ocimum basilicum*, var. Genovese. The experiment was designed as a split-plot with three replications. Two sowing dates (March and April) were the main plots and the sub plots consisted of nine treatments of yeast extract and / or algae extract. From the above mentioned results the recommended treatment to obtain the best oil characteristics of *O. basilicum* is to cultivate it in April with application of 2 ml/l algae + 6 g/l yeast for essential oil %, essential oil yield (ml/plant and L/Fed.), the major compound was identified as linalool in the essential oil of the studied treatments with relative percentage ranged from 60.23 to 66.47% from all separated compounds. The second major compound was identified as 1,8-cineol in the essential oil of all treatments and reached to 16.48%.

Key words: *Ocimum basilicum*, oil, yeast, algae, sowing dates.

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