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بسم اللّه الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

EFFECT OF CATTLE MANURE AND SOME BIOSTIMULANTS ON GROWTH,YIELD, ESSENTIAL OIL PRODUCTION AND CHEMICAL COMPOSITION ON ARTEMISIA *(Artemisia abrotanum* L.) PLANT

By

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ABSTRACT

This study was carried out at the Department of Ornamental Horticulture, Faculty of Agriculture, Cairo University. The experiment investigation were carried out at the Experimental Farm of Medicinal and Aromatic Plants Research Department, Horticulture Research Institute, Agricultural Research Center, Dokki, Giza, in the two successive seasons of 2014 and 2015. This investigation was carried out aiming to study the effect of cattle manure (CM) rates (15, 30 and 45 m^3/fed.) alone or and different levels of active dry yeast, ascorbic acid and actosol on growth, yield, essential oil production and chemical composition of *Artemisia abrotanum*, L. plants. The results showed that cattle manure at rate of 30 m^3/fed, in both seasons, gave the highest values of the tallest plants ; number of branches per plant; plant fresh and dry weights, herb fresh and dry yields /fed., essential oil percentage , essential oil yield in fresh herb per plant and total carbohydrates %DW in herb total phenolic content, antioxidant activity, pigments, and mineral elements, compared to other cattle manure rates. Bio-stimulant "ascorbic acid" at 100 ppm had significantly increased the number of branches per plant, plant fresh and dry weights, herb fresh and dry yield /fed.,essential oil percentage , essential oil yield in fresh herb and chemical composition compared to other bio-stimulants. while the highest values for plant height were obtained from plants fertilized with actosol in the first cut in both seasons. Interaction between cattle manure at rate of 30 m^3/fed. and bio-stimulantof ascorbic acid at 100 ppm had a significant effect on vegetative growth characteristics as gave the highest values in both cuts of the two seasons .it herb fresh and dry weights/plant, herb fresh and dry yield/fed., essential oil yield (ml/plant) , essential oil yield /fed. and total carbohydrates %DW in herb total phenolic content, antioxidant activity., K in dry herb and N % in herb. carotenoids contents " gave the highest value in second cut of both seasons. In the second cut of first season gave the highest value of chlorophyll "b". essential oil components gave the highest content of ascaridole, p-Cymene , camphor, borneol, 1, 8 cineole and linalool with plants fertilized with cattle manure at rate 30 at m^3/fed plus ascorbic acid at 100 ppm in the second cut of the second season.

Key words*:* *Artemisia abrotanum*, cattle manure, biostimulants. yeast ascorbic acid ,actosol growth, essential oil, essential oil yield /fed ascaridole and antioxidant activity

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