



Effect of Cattle Manure, Active Dry Yeast and Humic Substances on Growth, Seed Yield and Oil Productivity of Evening Primrose (*Oenothera biennis*) Plants

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Abstract: This study was conducted at the farm of the Medicinal and Aromatic Plant Research Department in El-Kanater El-Khaireya, Kalyubeia Governorate, Horticulture Research Institute during the two successive years of 2012/2013 and 2013/2014. A field experiment was carried out to study the effect of cattle manure at the rates of 15 or 30 m³/fed., active dry yeast at 4 or 8 g/l water, humic substances at 1 l/fed., or combinations of these treatments, on the growth, seed yield and oil productivity of evening primrose (*Oenothera biennis*), compared to those obtained with the recommended dose of inorganic NPK fertilization [150 kg fed.⁻¹ ammonium nitrate (33%), 60 kg fed.⁻¹ calcium superphosphate (15.5%) and 60 kg fed.⁻¹ potassium sulphate (48%)]. The obtained results indicate that the highest values of plant growth and yield parameters (viz. plant height, number of branches/plant, fresh and dry weights/plant, number of capsules/plant, seed yield/plant, seed yield/fed., oil percentage, oil yield per plant and oil yield per fed.) were obtained with using the triple combination of cattle manure at 15 m³/fed., yeast at 4 g/L water and humic substances at 1 L/fed.

Key words: evening primrose (*Oenothera biennis*), cattle manure, active dry yeast, humic substances.

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