



Effect of Moisture Stress and Magnetized Water on Growth Parameters and Yield Characteristics of Onion Plants

Ebtessam A. Youssef^{1*} and Sahar S. Taha²

¹Water Relations and Field Irrigation Dept., Nat. Res. Cent., Dokki, Giza, Egypt.

²Vegetable Crops Department. Cairo University, Faculty of Agriculture, Egypt.

Abstract: Two pot experiments were conducted during 2014/2015 and 2015/2016 seasons under open field conditions of private field at Sharkia Governorate, Egypt. The investigation aimed to study the effect of magnetized water and different levels of water supply (100, 80 and 60% of F.C. i.e. field capacity) on growth parameters and yield characters as well as photosynthetic pigments content of onion plants (cv. Giza red). Results indicated that decreasing water supply caused a significant reduction in all tested growth and yield parameters i.e. plant height, fresh and dry weights of leaves, bulb height, bulb diameter, fresh and dry weights of bulb and dry matter percentage as well as photosynthetic pigments content (chl. a, chl. b and carotenoids) in the two seasons as compared with control (normally irrigated plants). On the other hand, irrigation with magnetized water significantly increased the aforementioned parameters in the two seasons as compared with control.

Keywords: Water stress, Magnetized water, Growth, Yield, Onion plants.