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Effect of Organic Nutrients on Growth and Yield of Broccoli *Brassica oleracea* L. var. italica Plenck

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***Abstract*:** The experiment was conducted during the winter season 2016-1017 under desert condition in south of Iraq, it included nine factorial layout with three genotypes of Broccoli Cavolo, Paraiso and Monaco as main treatments and three concentrations of liquid seaweed extract Algaton (0,1.5 and 3 $ml.L^{-1}$) . Three spays of Algaton was done at two weeks. Paraiso hybrid plants showed a significant increase in vegetative growth indicators including plant height, stem diameter, leaf area and both fresh and dry weights, in addition to yield indicators that include curd circumference, flower stalks, fresh weight and total yield and also in the qualitative characteristics of curd total including chlorophyll, vitamin C, total soluble carbohydrates, percentage of nitrogen, potassium, phosphorus, sulfur and protein. Spraying with Algaton spray at 3 $ml.L^{-1}$ caused a significant increase in vegetative growth and yield indicators. The interaction between the two factors was significant in some of the characteristics under study. Paraiso hybrid s sprayed with Algaton at 3 $ml.L^{-1}$ significantly exceeded in leaf area, fresh and dry weight of leaves, curd fresh weight, productivity and percentage of potassium.

Keywords: Broccoli, Genotypes and spraying with Algaton