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Effect of Magnetic treatment in improving Growth, Yield and fruit quality of *Physalis pubescens* plant grown under saline irrigation conditions

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Abstract : Two pot experiments were conducted during 2013/2014 and 2014/2015 seasons at the green house of National Research Centre, Egypt to study the role of magnetic treatments (0, 2 and 4g/L) on growth, productivity, RWC % and fruit quality of *Physalis pubescens* cv. Balady under irrigated with saline water (fresh water, 2000, 4000 and 6000 ppm). Results showed that, low salinity level S1 caused marked increases on vegetative growth, yield, and RWCpercentage of husk tomato plant. Increasing salinity level in irrigation water above this level caused significant reduction on previously mentioned characters means as well as Vit C content, which showed progressive decrease in its content with increasing salinity level as compared with the control. Reveres trend was observed for total soluble solids (TSS)%, acidity%, phenolic compounds and carotenoids content of husk tomato fruit as compared with control plants. The analysis of the collected data during the study proved also that, there were statistically significant increases in plant growth, crop yield, Vitamin C, acidity, and carotenoids contents of husk tomato fruit due to magnetic treatment. Especially under the highest magnetic dose which caused insignificant increase in RWCpercentage and marked reduction in total soluble solids (TSS) percentage and phenolic compounds contents of husk tomato fruit.

Keywords: Salinity, Magnetic treatment, *Physalis pubescens* cv. Balady, Growth characters, Crop yield, Fruit quality.

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