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EFFECT OF SOME PLANT GROWTH REGULATORS ON PROPAGATION OF TWO CITRUS ROOTSTOCKS (SACATON CITRUMELO AND TROYER CITRANGE)

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ABSTRACT

A study on in vitro micropropagation of two citrus Rootstocks (Sacaton Citrumelo and Troyer Citrange) was conducted at the tissue culture laboratory textile of the Department of Horticulture and landscaping College of Agriculture / University of Baghdad, for the period from September 2013 till August 2014. Single nodal segments or terminal shoots were explanted on MT and MS media supplemented with different concentrations of some plant growth regulators. The aims of the study were increasing number and length of shoots,

rooting and acclimatized plantlets enhancement. Results showed in establishment stage, single nodal segments responded better than terminal shoots. MT medium supplemented with 1.5 mg / L BA + 40 mg / L ADS + 0.2 mg / L IAA was superior on single nodal segments response and the percentage was 100% for both rootstocks. At Multiplication stage results showed superiority of BA on 2ip and the highest rate of shoot proliferation at the concentration 2mg/l BA+0.2mg/l NAA which reached 5.48 shoots / explants .In the rooting stage results showed that the MS medium with full strength of the concentration of salt with a 2 mg / l NAA increased the rooting percentage and the number of roots per shoot up to (90%, 3.96) respectively for Sacaton and (100%,4.14) respectively for Troyer .Most plantlets 90% , 84% for Troyer and Sacaton respectively were acclimatized when cultured on soil consist of 1:1 sand: peat moss.

Key words: Sacaton Citrumelo, Troyer Citrange .