



Effect of GA₃ and Some Nutrients on Pomegranate under South Sinai Governorate Conditions

*¹Merwad, M. A.; ²Eisa R.A. and ³A.M. M. Merwad

¹Pomology Dept., National Research Centre, Dokki, Giza, Egypt

²Hort. Tech. Crop Dept., National Research Centre, Dokki, Giza, Egypt

³Soil Dept. Fac. Agric. Zagazig University, Egypt

Abstract: The present experiment was carried out during two successive seasons of 2013 and 2014 seasons, to study the effect of foliar spray with potassium at 3000 ppm as potassium nitrate, calcium at 2500 ppm as calcium chelate and GA₃ at 25 ppm individually or in combinations on fruit retention, cracking, yield and fruit quality of four years old pomegranate trees Wonderful cv. grown in sandy soil at South Sinai Governorate.

The obtained results show that, the trees sprayed with the mixture of K+Ca+GA₃ recorded the highest fruit retention and fruit size, yield /fed., fruit weight, grain weight and grain / fruit ratio, TSS, vitamin C and Anthocyanin contents in grain and peel, N, P, K and Ca in leaves also K and Ca in peel and grain. This treatment recorded the lowest cracking in fruits. Fruit diameter was the highest with the plants sprayed with the double mixture of K+GA₃. The highest value of peel weight was recorded with the combination between Ca+ GA₃. Sprayed trees with K + Ca gave the highest value of TSS/ acid ratio. On the other hand, the lowest value of yield as well as quality of fruits and the highest value of cracking in fruit were recorded by control treatment.

Kew words: Pomegranate, Wonderful cv., Potassium, calcium, GA₃, Cracking, Yield.

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