EFFECT OF SOME CHEMICAL THINNING COMPOUNDS ON FRUIT QUALITY OF TABLE OLIVES

By

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B.Sc. (Pomology), Fac. Agric.,Cairo Univ.,2006

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SUPERVISION SHEET

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ABSTRACT

This investigation was conducted during two successive seasons (2009-2010) on two olive cultivars (Manzanillo and Eggizi Shami) in a private orchard in the Alex. desert road. The aim of this study is to investigate the effect of some chemical thinning agents GA3 (100,150 and 200 ppm), NAA (100,150 and 200 ppm) and Urea (4,6,8 and 10%) sprayed at full bloom, five days after full bloom, ten days after full bloom and fifteen days after full bloom on initial fruit set (twenty one days after full bloom), final fruit set (forty five days after full bloom), sixty days after full bloom and at harvest date. The effect of these treatments on fruit characteristics (fruit length, diameter and weight) and oil content of Manzanillo and Eggizi Shami olive cvs. was also studied. The results showed that used chemical thinning agents reduced fruit set significantly and improved fruit quality and oil content compared with control (sprayed with water only). Urea spray was the most effective in reducing fruit set compared with GA3 and NAA. The highest concentration was more effective than the lower one in each chemical component. Fruiting of Manzanillo cv. was significantly lower than Eggizi Shami cv. GA3 of studied showed moderate effect in reducing fruit set (between Urea and NAA). The most effective date in reducing fruiting was at full bloom, while the lowest was at fifteen day after full bloom. It could be recommended that spraying with Urea or NAA at moderate concentration (4% and 150 ppm) was effective in reducing fruit set and improving fruit quality and oil content in both cultivars of study.

Key Words: Olive, Manzanillo, Eggizi Shami, Thinning agents, NAA, GA3, Urea, Fruit set, Fruit characteristics, and Oil content.

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