RESPONSE OF LOCAL ORANGE TREES TO SHADDING AND SPRAYS OF SOME NUTRIENTS, GROWTH REGULATORS AND ANTITRANSPIRANTS UNDER DIYALA CONDITIONS

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ABSTRACT

This study was conducted in unshaded locale orange orchard located in Diyala Province during the years of 2003 and 2004. Afoliar sprays at full bloom from Urea (2%), Iron (150 mg/L), Copper (50 mg/L), GA₃ (30 mg/L), BA (20 mg/L), (GA₃+BA) (30+20 mg/L), Vapor gard (0.1%), Wax-Oil (Liquid paraffin) (0.1%) were used and shading. The objectives of this treatment was to determine the effect of these treatments on yield and fruit quality, and fruit growth in 2004. A randomized Complete Block Design (RCBD) was used with three replications. The results of this study can be summarized as follows:

Shading and Liquid paraffin treatments slowed fruit growth after full bloom by 100 day up to ripening. while treatments Vapor gard increased fruit growth after full bloom by 100 day up to ripening. Urea, BA, GA₃, and Liquid paraffin treatments increased fruit number and yield weight/tree for the two years of study during 2003, (GA₃+BA) treatments increased fruit number and weight, and in 2004, Vapor gard treatments increased fruit number and weight. Urea and (GA₃+BA) treatments increased total soluble solids (T.S.S) percentage for the two years of study. Fe, CuSO₄ and GA₃ treatments increased T.S.S during 2003 only. Urea, Paraffin, BA, and Vapor gard treatments increased Ascorbic acid (Vitamin C) in 2003. Urea and Fe treatments increased Vitamin C in 2004. Urea, Fe, paraffin, Vapor gard, and BA treatments increased total sugars in 2003. Urea, Fe, GA₃, and (GA₃+BA) treatments increased non-reducing sugar in 2003.