

MUTUAL EFFECTS OF SOME CITRUS ROOTSTOCKS WITH
VALENCIA ORANGE AND BALADI MANDARIN UNDER
ISMAILIA GOVERNORATE CONDITIONS

BY

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ABSTRACT

ALI MOHAMED IBRAHIM : Mutual effects of some citrus rootstocks with Valencia orange and Baladi mandarin under Ismailia governorate conditions. Unpublished Doctor of philosophy dissertation , Department of Horticulture , Fac., of Agri., Ain Shams University , 2005 .

The present study was carried out during seasons of 2001 and 2002, to evaluate Valencia orange (*C. Sinensis* L. osbeck) and Baladi mandarin (*C. delicious* Tanaka) trees budded on four citrus rootstocks , i.e. Cleopatra mandarin, Sour orange, Rangpur lime and Volkamer lemon . The experimental trees were grown in newly reclaimed sandy soil at the orchards of EL-Kassasin Horticulture Research Station, Ismaila Governorate Egypt .The evaluation programe considered the major characteristics of vegetative growth, mineral content of leaves and roots, root fresh and dry weight at different soil depths, scion projection area, root spread area and their ratio, yield, fruit quality and scion / rootstock relationship in endogenous hormones levels. The considered parameters were mostly of significant response among the tested scions and the four studied rootstocks . The study proved the superiority of Volkamer lemon rootstock for Valancia orange trees and Volkamer lemon and Cleopatra mandarin for Baladi mandarin as compared with the other tested rootstocks . On the contrary, Rangpur lime rootstock seemed to be the worst rootstock for both Valencia orange and Baladi mandarin trees under the experimental conditions .

Keywords: Citrus rootstocks (Cleopatra mandarin, Sour orange, Rangpur lime and Volkamer lemon) – Valencia orange cv. - Baladi mandarin cv. – Vegetative growth - Yield – Fruit quality – Root system distribution - Mineral content - Endogenous hormone content.

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