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Evaluation of Some Selected "Winter" Guava Strains for Growth and Yield in New Reclaimed Sandy Soil

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THIS STUDY was conducted during 2006 and 2007 growing seasons on selected "Winter" guava trees (6 years old). These trees received the recommended management of Ali Mubark farm in new reclaimed area at South Tahrir Research Station. The objective of this work is to evaluate the strains according to the vegetative, flowering, fruit characteristics and yield. The results showed that, strain No. 55 surpassed other trees in shoot growth in both seasons and number of internodes only in the first one. The strain No. 64 exhibits the highest number of leaves in the same season. The diameter of branches and No. of flowers/shoot were significantly increased. The strain No. 83 showed the highest fruit set (%) in the 1st senson, flesh weight, fruit length and diameter and fruit weight values, in comparison with other strains in both seasons. The strain No. 66 gave the highest significant yields in both seasons, while producing a high acid content only in the first one. Also, this strain showed the least tannins during the same season. Moreover strain 53 gave the highest total sugars in both seasons. The strains 53 and 86 gave the highest vitamin C in the first and second seasons, respectively. The later strain clear the superior values in TSS (%) in both seasons. Based on these results, we can recommend the propagation and the dissemination of the strain No. 66 in the area for its' higher yield, acid content, weight/fruit, size and least tannins content for export oriented production and 83 for the local market.

Keywords: "Winter" Guava, Shoot growth, Flowering, Fruit characteristics, Yield.

Guava (*Psidium guajava L.)* is the most important fruit for its higher content in vitamin C and antioxidants in Myrtaceae family. It is cultivated through the tropical and subtropical regions of the world. Egypt produces about 28,000 metric tones annually and marketed as fresh fruits locally. In many areas of the world, guava trees were propagated from seedlings. Quality of fruits from such propagated trees greatly varied and they commonly produce non uniform products (Babu *et al.*, 2002 and Ashaye *et al.*, 2005). In many countries guava fruit trees were selected for higher quality and production (Chapman *et al.*, 1986, Gonzaga *et al.*, 1999, Harsimrat *et al.*, 2002 and Reddy & Vasugi 2004).

In Egypt, varieties of guavas available for consumption were produced locally. Most of trees in Egypt are seedling trees resulting in large difference between the trees in vegetative, flowering and fruit growth, habits and in fruit