

Effect of Tree Age on Fruit Quality of Different Cultivars of Sweet Orange

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Abstract : Amongst citrus species, sweet orange (*Citrus sinensis* L. Osbeck) occupies a dominant position in the orange producing countries in the world. Sweet orange is widely consumed both as fresh fruit as well as juice and its global demand is attributed due to higher vitamin C and antioxidants. Fruit quality is most important for the external appearance and marketability of sweet orange fruit, especially for fresh consumption. There are so many factors affecting fruit quality, tree age is the most important one, but remains unexplored so far. The present study, we investigated the role of tree age on fruit quality of different cultivars of sweet oranges. The difference between fruit quality of 5-year young and 15-year old trees was discussed in the current study. In case of fruit weight, maximum fruit weight (238g) was recorded in 15-year old sweet orange cv. Sallustiana cultivar while minimum fruit weight (142g) was recorded in 5-year young tree of Succari sweet orange fruit. The results of the fruit diameter showed that the maximum fruit diameter (77.142mm) was recorded in 15-year old Sallustiana orange but the minimum fruit diameter (66.046mm) was observed in 5-year young tree of sweet orange cv. Succari. The minimum value of rind thickness (4.142mm) was noted in 15-year old tree of cv. Red blood. On the other hand maximum value of rind thickness was observed in 5-year young tree of cv. Sallustiana. The data regarding total soluble solids (TSS), acidity (TA), TSS/TA, juice content, rind, flavedo thickness, pH and fruit diameter have also been discussed.

Keywords : age, cultivars, fruit, quality, sweet orange (*Citrus Sinensis* L. Osbeck)

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