

Studies on the Postharvest Physiology and Postharvest Technology of Murcott Tangor

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Abstract

Fruit shape index of Murcott tangor was always less than 1 during development, as oblate sphere. The cumulative growth curves of longitudinal and transverse diameter of the fruit were both single simoid growth curve. Absolute growth rate curve of longitudinal diameter reached peak 68 days after anthesis, Transverse diameter reached highest 82 days after anthesis, , then gradually decreased. The relative growth rate gradually decreased, too. Fruit drops occurred by the late April to early June, while significant fruit drops also occurred at October. Fruit cracking occurred mainly between September to October. Fruit maturity date was 273 ~ 293 days after anthesis, as estimated by absolute growth rate study. Murcott tangor harvest after early February total soluble solids content is up to 12 ° Brix, and hue angle is smaller than 60, would be the appropriate harvest date.

The peel thickness of fruit on Sunki rootstock was significantly lower than on Rangpur lime, and no significant differences between the two.

Decay rate, weight loss, total soluble solids, TSS/TA ratio and chroma with the storage time increased, while the peel percentage, flesh firmness, titratable acid, peel thickness, lightness and hue angle is the contrary; effectively reduce the decay rate and weight loss at 1°C, to extend the storage life of Murcott tangor to three months (12 weeks), while the rootstocks no significantly impact on the storage life.

Overall, Bagging does not apply to Murcott because it reduces fruit quality (low total soluble solids, low TSS/TA, and high hue angle)

Key words: Murcott tangor, rootstocks, maturity, cold storage, bagging