

Title Morphological differences associated with water loss in rambutan fruit cv. 'Rongrien' and 'See-Chompoo'

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Abstract

Rambutan fruit (*Nephelium lappaceum* L.) are thought to rapidly lose weight because of the structures called spinterns that give the fruit its special appearance. The presence of spinterns increases the surface area of the fruit enormously. To understand the phenomenon of water loss, the morphology of rambutan cv. See-chompoo (SCP) and Rongrien (RR) was studied. Stomatal density on the spinterns and at the base of the spinterns of SCP was 94-218 and 138-210 apertures/mm² respectively whereas in RR there was 47-97 and 89-156 apertures/mm² respectively. The number of spinterns per fruit was higher in RR and they were longer than in SCP. Weight loss from SCP and RR stored at 80 and 95% RH was lower than that at 60% RH. Weight loss was higher in SCP rambutan compared to RR. The rate of water loss by rambutan fruit appears to be affected more by stomata density than the number and length of the spinterns.