Title Microscopy studies of the morphology of fruit of ´Rongrien´ rambutan method

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Abstract

Rambutan fruit (*Nephelium lappaceum* L.) rapidly lose visual quality due to rapid desiccation and browning of the spinterns. To understand the cause of spintern browning, anatomy of the fruit pericarp was studied. Rambutan cv. 'Rongrien' was selected for this experiment, because of its wide production and also high export value. Anatomy of the fruit pericarp was observed with a light microscope. 15-20 groups of vascular bundles consisting of xylem, phloem and their associated parenchyma tissue were scattered in the spinterns. The vascular bundles in both spinterns and peel were connected. Furthermore, the vascular bundles were also found in tissue below the peel surface closest to the edible portion, the fresh aril. It is proposed that water moves from the peel to the base of the spinterns base and then to the tips of the spinterns. Water is transpired via the stomata located on the skin and spinterns at rates that are influenced by the density of stomata as shown by Yingsanga et al. (2006)