

# Sugar components and invertase activity in different maturity stages of 'Rongrien' rambutan

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## Abstract

Rambutan fruits were harvested at four maturity stages depending on peel and spintern colors: green, color breaker (orangy yellow), orange red and red with green spintern tip and stored at  $25\pm 2^{\circ}\text{C}$  (60% RH) for 6 days. Changes in sugar content and invertase activity throughout peel color development were investigated. The rambutan aril was fertile with high carbohydrate source of which sucrose was the predominant amount. The sucrose content varied by maturity stages: the harvested green rambutan had lowest sucrose content while the breaker, orange red and red colors contained slightly high sucrose according to pulp color. However, the amount of sucrose sharply decreased in all maturity stages a few days after harvest. As the same tendency of sucrose, glucose content rapidly decreased from day 1 to day 4 in harvested green and breaker stages and slightly increased at day 6 after storage whereas glucose quantity in both harvested orange red and red rambutans sharply increased throughout storage periods. The invertase activity of harvested breaker and orange red stages was high on day 1 after harvest that could brake down sucrose into fructose and glucose.