Title Shelf life extension of rambutan by minimal processing, modified atmosphere packaging and cold storage

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Citation ISHS Acta Horticulturae 804:535-540. 2008.

Keywords shelf life extension; Rongrien rambutan; peeled rambutan; minimal processing; modified atmosphere packaging

Abstract

Shelf life extension of peeled rambutan (*Nephelium lappaceum* L. cv. Rongrien) by a combination of modified atmosphere packaging and storage at 4°C was investigated. The minimal process was conducted in a temperature-controlled (25°C) room. The optimum solution for soaking peeled rambutan at 4°C for 3 min. prior to packaging consisted of 0.5% citric acid, 0.5% $CaCl_2$ and 0.2% sodium benzoate (wt/wt). The treated rambutan was placed 200 g each on a polystyrene tray with a water absorbent sheet underneath, packaged in nylon/LLDPE bags (210×250 mm, 80 μm thick), flushed with a mixture of gases providing a headspace atmosphere of 20% CO_2, 8% O_2 and 72% N_2), sealed and stored at 4°C and 76% RH. Physical, chemical, microbial and sensory properties of the rambutan samples were judged acceptable for consumption after 21 d of storage.