

Title Storage quality of 'Neang' sugar apple treated with chitosan coating and map
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Abstract

Sugar apple (*Annona squamosa* Linn.) is in the Annonaceae, the same family with cherimoyas (*A. cherimola* Mill.). Mature fruit become soft and ready to eat in 1 to 2 days at ambient temperature that shortens the shelf life. Chitosan coating, individual wrapping with linear low density polyethylene (LLDPE), and poly-ethylene (PE) bagging were applied to 'Neang' sugar apple fruit in attempt to delay ripening and extend the quality at 13°C and 95%RH. Chitosan coating at 0.5 and 1.0 % and LLDPE wrapping did not delay fruit softening and soluble solids increasing but PE bagging did. PE bags extremely reduced weight loss from the fruit following by plastic wrapping while chitosan slightly reduced. Keeping in PE bags at 6 μ M and 15 μ M thicknesses effectively maintained skin and pulp colour of stored fruit. However, after day 12, fruit kept in 15 μ M PE bags showed skin darkening after removal from the bags. CO₂ inside PE bags were highest at day 3 when 6 and 15 μ M PE bags contained 18% and 51% CO₂, respectively. Thus the darkening of fruit stored in thicker PE bags may be caused by too high concentrations of CO₂ in the package during storage. Fruit kept in 6 μ M PE bags had storage life for 18 days.