

Abstract:

'Rong-rein' rambutan fruits were treated with 20% or 40% CO₂ for 30-120 minutes and then held in 40 µm-thick polyethylene bag as modified atmosphere pack (MAP) at 13°C and 90-95% RH. MAP, which established a 5-8% O₂ and 7-10% CO₂ atmosphere, markedly reduced pericarp browning shown as higher L*, weight loss, respiration and ethylene production. CO₂ had only slight inhibitory effect despite causing reduced stomatal aperture revealed by scanning electron microscopy. As a result, MAP fruits with or without CO₂ shock had comparable storage life, 16 days, while fruits held in air, 12 days. Soluble solid, titratable acidity and ascorbic acid did not vary with treatment.