

Abstract:

Controlled atmosphere (CA) storage at low temperature represents an opportunity to maintain quality and extend storage life of minimally processed produce. In this study, the quality of shredded green papayas (*Carica papaya* L.) was evaluated at various CA conditions (1% O₂ + 5% CO₂, 1% O₂ + 10% CO₂, 5% O₂ + 5% CO₂ and 5% O₂ + 10% CO₂) for 30 days at 2°C, with exposure to air as control. Changes in weight loss, respiration rate, ethylene production, color and firmness were monitored. Results indicated that CA remarkably reduced weight loss, suppressed respiratory increases, and retarded losses in color and firmness. However, CA resulted to high ethylene production rates than air storage. The CA-stored shredded papayas remained acceptable for consumption for a period about two times longer than that in air. The combination of 5% O₂ and 10% CO₂ was found to be the best CA treatment.