

Abstract

The influences of storage temperature and modified O₂ and CO₂ concentrations in the atmosphere on the post-cutting life and quality of fresh-cut pineapple (*Ananas comosus*) were studied. Temperature was the main factor affecting post-cutting life, which ranged from 4 days at 10 °C to over 14 days at 2.2 and 0 °C. The end of post-cutting life was signaled by a sharp increase in CO₂ production followed by an increase in ethylene production. The main effect of reduced (8 kPa or lower) O₂ levels was better retention of the yellow color of the pulp pieces, as reflected in higher final chroma values, whereas elevated (10 kPa) CO₂ levels led to a reduction in browning (higher *L* values). Modified atmosphere packaging allowed conservation of pulp pieces for over 2 weeks at 5 °C or lower without undesirable changes in quality parameters.