

Chilling injury incidence and antioxidant enzyme activities of *Carica papaya* L. 'Frangi' as influenced by postharvest hot water treatment and storage temperature

ABSTRACT

The effect of double-dip hot water treatment (42 °C for 30 min and 49 °C for 20 min) with two different storage temperatures (6 and 12 °C, 85–90% RH) and storage durations (0–3 weeks) on peel and pulp chilling injury incidence and antioxidant enzyme (catalase, ascorbate peroxidase, superoxide dismutase) activities of Frangi papayas, were investigated, with untreated fruit as controls. Peel and pulp chilling injury (CI) incidence was reduced in the treated fruit, especially in fruit stored at 6 °C, which was accompanied by increased ascorbate peroxidase activity. Thus, hot water dips followed by low storage temperature could prolong the storage life and reduce CI incidence of Frangi papaya.

Keyword: Catalase; Ascorbate peroxidase; Superoxide dismutase activity