

Abstract

The combined use of organic acids and chitosan may stabilise the colour of litchi fruit after harvest (*Litchi chinensis* Sonn cv. Kwai Mi). While homogeneous responses were obtained from acid-chitosan treatments performed at pH 0.8, the response to treatments performed at pH 1 or 1.3 appeared less consistent and predictable. Treatment effectiveness depended on the conditions of coating application. Humidifying fruit prior to treatment favoured acid impregnation at a given storage temperature. The extent of browning may be estimated from an acid impregnation index (AII), defined as the titratable acidity-to-postharvest weight loss (in %) ratio. Results suggest that the response to acid-chitosan treatment is partially physiology-dependent (pericarp water content) and that treatments at higher pH (above 1) may be considered, provided that treatment and storage conditions are properly controlled.