

**Title** Changes in postharvest quality of loquat (*Eriobotrya japonica*) fruits influenced by chitosan

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#### **Abstract**

The effects of chitosan coating on extending postharvest life of loquat (*Eriobotrya japonica*) fruits and maintaining their quality were investigated. Fruits were treated 0, 0.25, 0.5, 0.75, and 1.0% (w/v) chitosan and then stored at 7°C with 88 ± 2% relative humidity for 28 days. Browning index, weight loss, total soluble solids (TSS), titratable acidity (TA), vitamin C, phenolic compounds, total polyphenols, and antioxidant activity in fruits were measured. The chitosan coating significantly reduced weight loss and suppressed flesh browning of fruits during cold storage as compared to control and the most effective chitosan concentration was 0.75%. The storage for 28 days at 7°C significantly increased TSS, TSS/TA ratio, pH, and vitamin C. However, the fruits treated with 0.75 and 1.0% chitosan exhibited the higher values of those. Chitosan coating also induced total polyphenol and phenolic compounds such as catechin and quercetin and maintained antioxidant capacity in fruits during cold storage. Overall, the results demonstrated that the chitosan coating followed by cold storage significantly extended fruit storage life and maintained the quality.

<http://www.springerlink.com/content/b161180w71758583/fulltext.pdf>