

Application of *Aloe vera* coating delays ripening and extend the shelf life of papaya fruit

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Scientia Horticulturae 246: 769-776. (2019)

Abstract

The use of gel from *A. vera* for fruit coating has been shown to enhance shelf life of fruits. In the present study, papaya fruits were coated with *A. vera* and its effect on quality attributes, shelf life and antioxidant activity were evaluated during storage at 3 days interval for 15 days. Fresh and food grade *A. vera* gel (at 0, 15, 25 and 50%, v/v) were used to coat papaya fruits for 15 days at room temperature (28 ± 2 °C). Papaya fruits coated with the two types of *A. vera* showed no significant different in delaying ripening, suppressed fungal growth and maintained the quality of papaya fruits after 15 days of storage especially at 50% gel concentration. *A. vera* coated fruits were able to reduce loss in weight and firmness and maintained higher soluble solid concentration (SSC), pH, titratable acidity (TA), ascorbic acid (AA), total carotenoids content, total phenolic content (TPC), total flavonoids content (TFC) and DPPH scavenging activity as compared to uncoated papaya fruits that decayed within 12 days of storage. Evidences from present study indicate that coating fruits with *A. vera* can effectively extend the shelf life of papaya fruit.