

# *Aloe vera* gel coating delays postharvest browning and maintains quality of harvested litchi fruit

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## Abstract

Postharvest surface browning is the leading constraint for extension of shelf life and marketing of litchi fruit. In the present work, litchi fruit were treated with *Aloe vera* (ALV) gel coating [50% (v/v)] and kept at  $20 \pm 1$  °C for 8 d to investigate its effect on browning and postharvest quality. ALV gel coated fruit showed reduced browning index, weight loss, superoxide anion, relative electrolyte leakage, hydrogen peroxide and malondialdehyde content, compared to control. ALV coated fruit had higher total anthocyanin content and reduced peroxidase and polyphenol oxidase activities. ALV treatment had higher ascorbic acid content and total phenolic concentration, compared to control. In addition, ALV coated fruit maintained higher catalase, superoxide dismutase and ascorbate peroxidase activities along with higher total soluble solids and titratable acidity, than control. In conclusion, ALV gel coating could be considered an ecofriendly non-chemical alternative treatment for postharvest quality management of litchi fruit.