

Title Postharvest cucumber quality and safety maintenance by edible coating treatment

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Abstract

An edible coating based on Aloe vera gel has been used as postharvest treatment to maintain cucumber fruit (cv. Danito) quality and safety. Cucumber fruits were coated by Aloe vera gel and with non-coated fruit as controls. Fruit were stored at 7 °C and sample from each treatment were removed from storage after 0, 4, 8, 12, 16 and 20 days, and placed at 20°C for 24 h. Non-coated fruit showed signs of wilting after 2 days at room temperature, while fruits coated with Aloe gel did not wilt after 16 days. During cold storage, uncoated fruits showed increase in decay, rapid weight loss and color changes, accelerated softening and increase microbial population. On the contrary, cucumber fruits treated with Aloe vera gel significantly delayed the above parameters related to postharvest quality losses, and storability could be extended.