

عنوان مقاله:

Edible coatings maintained postharvest quality and increased shelf life of guava fruits

محل انتشار:

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خلاصه مقاله:

**Purpose:** Guava is believed to be the most important commercial fruit crop in Bangladesh. Guava fruit exhibit very short storage life mainly due to high respiration rate, susceptibility to various pathogens and mechanical damages which can rapidly reduce the quality. However, the experiment was conducted to study the edible coatings effects on postharvest quality and shelf life of guava. **Research Method:** Commercially mature guava fruits (Swarupkathi and Thai) were treated with six edible coatings viz., (i) T<sub>۱</sub> : Control, (ii) T<sub>۲</sub> : Aloe vera gel (۲۵%), (iii) T<sub>۳</sub> : Carboxy methyl cellulose (CMC) (۱%), (iv) T<sub>۴</sub> : Chitosan(۱%), (v) T<sub>۵</sub> : Aloe vera gel (۲۵%) + Chitosan (۱%) and (vi) T<sub>۶</sub> : Green tea leaf extract. The two-factor experiment was designed with a Completely Randomized Design and three replications. **Findings:** The results showed that, Thai Piara with Chitosan ۱% treatment recorded the minimum weight loss (۶.۲۸%), the highest vitamin C content (۱۹۱.۴۴ mg/۱۰۰gFW), the lowest pH (۵.۳۰), the maximum total soluble solids content (۶.۷۷ °Brix) and the highest titratable acidity (۲.۰۴%) at ۱۰ days after storage compare to untreated Swarupkathi piara. Thai Piara treated with Aloe vera gel ۲۵ % + Chitosan ۱% exhibited the highest shelf life (۱۳.۰۰ days) followed by (۱۲.۶۷) in Chitosan (۱%) treatment. **Research Limitations:** The study did not focus on ethylene and respiration rate determination. **Originality/Value:** The study demonstrated that Thai Piara, treated with Chitosan ۱% solution showed better performance .followed by Aloe vera gel ۲۵% + Chitosan ۱% solution for maintaining postharvest quality and shelf life of guava

کلمات کلیدی:

aloe vera gel, Chitosan, quality, storage

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