

Evaluation of Different Edible Coatings for Their Efficacy and Reducing Chilling Injury in Mangoes

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Abstract

The evaluation of different edible coatings for mitigating chilling injury in mangoes represents a crucial step in addressing postharvest losses and ensuring the prolonged quality of this tropical fruit. This research involves determining the effectiveness of edible coatings against chilling injury in mangoes. For each coating material, dedicated coating solutions were prepared with the desired concentration. The coated mangoes were stored at a chilling temperature for a month and quality was determined once a week during the storage. The quality parameters and physiological changes were meticulously recorded for each coating type. Furthermore, microbial stability and sensory attributes were evaluated and data were analysed and compared with the control treatment at the 0.05 level. The coating rate of mangoes were lower than that of controlled mangoes. In this research, the chilling injury rate was found to be lower in coating mangoes than in controlled mangoes and coating mangoes were found to have longer storage than controlled mangoes.

Keywords: Chilling injury, Corn starch coating, Potato starch coating, Quality parameters, Tapioca starch coating