



## Effect of Surface Coatings on Physico-Chemical Characteristics of Stored Baramasi Lemon Fruits

Jaskirat Singh, S.K. Jawandha, Anita Arora and Ramandeep Singh Sidhu

Department of Fruit Science, Punjab Agricultural University, Ludhiana -141 004, India  
E-mail: jaskiratdhanoa@gmail.com

---

**Abstract:** The aim of this study was to access the efficiency of edible surface coatings on the extension of shelf life and fruit quality of Baramasi lemon cv. PAU Baramasi lemon-1. Mature light green, uniform and healthy fruits of Baramasi lemon cv. PAU Baramasi lemon-1 were harvested and subjected to surface coating with different concentrations (0.25, 0.50 and 0.75%) of chitosan, carboxymethyl cellulose and *Aloe vera* gel. The coated fruits were stored at  $11\pm 1^{\circ}\text{C}$  & 90-95% RH and analyzed after 15, 30, 45 and 60 days for various physico-chemical parameters. Results revealed that mean maximum peel percentage (45.89%) sensory quality rating (7.21) and mean minimum total soluble solids (7.18%), reducing sugars (1.28%) and non-reducing sugars (0.72%) were observed in the fruits coated with chitosan @ 0.75 per cent. Moreover, no spoilage was observed in fruits coated with chitosan @ 0.75 per cent during the entire storage period. Therefore, Chitosan @ 0.75 per cent was found the most effective surface coating to enhance the storage life of Baramasi lemon fruits at low temperature storage conditions.

**Keywords:** Baramasi lemon, Edible coatings, Shelf life, Fruit quality

---