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EXTENDING THE SHELF LIFE OF MINIMALLY PROCESSED MELON USING BIODEGRADABLE COATINGS

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Shelf life of food products is one of most debated issue in the regime of food processing and technology. Edible coating is a thin layer of edible material which provides a barrier against transfer of gasses, water vapors and solute particles across the food membrane. Melon is a rich source of nutrients like vitamins, minerals, flavonoids and phenolic compounds. It provides cooling effect to stomach. The present research is an effort to extend the shelf life of minimally processed melon fresh-cuts. Minimal processing offers additional value to fresh-cut produce regarding convenience and ready-to-eat attributes. For the purpose, different edible coating formulations like carbohydrate based chitosan 1% (T1), chitosan 2% (T2), chitosan 3% (T3) and alginate 1% (T4), alginate 2% (T5) and alginate 3% (T6) were developed. Additionally, coated fruit were also compared with that of control (To). During storage, melon dices were evaluated for various physicochemical analysis e.g. weight, color, total soluble solids, ascorbic acid after three days of interval to check the effect of edible coatings on these quality traits along with shelf life extension. It has been concluded after the analysis that T3 has proved to be effective treatment in maintaining acidity, total soluble solids and color as compared to other treatments.

Keywords: Melon, biodegradable coating, fresh-cut

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