P3-7 Combined Effects of Postharvest Heat Treatment and Chitosan Coating on Quality of Fresh-Cut Mangoes (Mangifera indica L.)

Tassadit Djioua (a), Florence Charles (a), Murillo Freire Jr (b), Heloisa Filgueiras (c), Marie-Noëlle Ducamp-Collin (d), Huguette Sallanon (a)
(a) Université d'Avignon et des Pays de Vaucluse, Laboratoire Physiologie des Fruits et Légumes (EA 4279), F-84018 Avignon, France.
(b) Embrapa-Agrodustria de Alimentos, Avenida das Américas, 29501-Guaratiba, 23020-470 Rio de Janeiro, Brazil.
(c) Embrapa Agroindustria Tropical, Fortaleza, Brazil.
(d) French Agricultural Research Centre for International Development, TA B 95/16, Avenue Agropolis, 34398 Montpellier Cedex 5, France.
Email: tassora@gmail.com

High perishability of fresh-cut mangoes limits the marketability of these fruit. The aim of this work was to study the effects of combining heat treatment and coating on sensory analysis, physico-chemicals characteristics (firmness, color, pH, titratable acidity, total soluble solids and total carotenoids content) and microbiological quality of fresh-cut mangoes. Whole mangoes (Mangifera indica cv Tommy Atkins) were subjected to hot water dipping (HWD) at 50 °C / 30 min and cooled for 15 min before the fresh-cut process. Heated and unheated fruits were minimally processed and mango cubes were coated with aqueous chitosan solution (0.25 % w/v dissolved in 0.5 % w/v citric acid) and were stored for 9 days at 6 °C. Distilled water was used as control. Results showed that neither HWD 50 °C / 30 min nor 0.25 % chitosan coating, applied alone or in combination, affected the taste and the flavor of mango cubes. Furthermore, HWD 50 °C / 30 min was beneficial to maintain firmness and color of fresh-cut 'Tommy Atkins' mangoes during 9 days at 6 °C. In addition, the chitosan coating inhibited the microbial growth during storage at 6 °C. This study showed that there are no combined effects of the two treatments and the heat treatment was more effective than the chitosan coating to maintain the quality of fresh-cut mangoes

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