

Title Influence of moderate heat pre-treatments on physical and chemical characteristics of kiwifruit slices

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Abstract

The effect of mild heat treatments, applied to whole kiwifruit, on physical characteristics and chemical composition of minimally processed fruit was studied. Fruits were subjected to heat treatments at 45 °C for 25 and 75 min, cooled for 24 h, minimally processed and stored at 4 °C for 12 days. Heat-treated fruits showed increased respiration rates in the first 2 days of storage. Samples colour was marginally affected either by heat treatments or by minimal processing. The application of heat treatments leads to an increment of slices firmness due to cross linking between demethylated galacturonic acid chains and endogenous calcium. An increment in sucrose, L-malic, citric, quinic and ascorbic acids was observed as a consequence of applied heat treatments. Heat treatment at 45 °C for 25 min applied to whole fruits allows quality retention of minimally processed fruit during 9 days at 4 °C.

<http://www.springerlink.com/content/jv1v472437w7821t/fulltext.pdf>