

Title Physical and chemical changes in minimally processed green asparagus during cold-storage
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Abstract

The purpose of this research is to study effects of an innovative packaging method on the shelf-life of minimally processed green asparagus. The physical–chemical parameters analyzed (weight loss, colour, texture, chlorophyll and citric acid), and monitored by untrained panellists during the cold storage period at 6 °C, showed that pairing of a semi-permeable film with an adsorbent material and immersion in ascorbic acid solution were able to extend the shelf-life of green asparagus. Also, on the basis of the results obtained, a study of the chlorophyll and toughness degradation kinetics of green asparagus was conducted during cold storage. These data showed the toughening of asparagus spears to be faster than chlorophyll degradation. Thus, the former can be used as a reliable quality index to predict the shelf life of such products.