

Title Modified atmosphere packaging storage of green bell peppers: Quality criteria
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Abstract

The influence of modified atmosphere packaging (MAP) of green bell peppers (*Capsicum annuum* L. cv *Twingo F1*) on the quality characteristics of the packaged produce was investigated. Three packaging films (LDPE-60, MDPE-30 and PVC) and two storage temperatures 5 and 10 °C were tested. The in-package O₂ concentration did not go below the 2% level which is considered as the lowest recommended. The in-package CO₂ concentration ranged between 2 and 5% in the polyethylene (PE) packaging. Packaging resulted in limited mass loss (<2% of the initial mass) and firmness reduction was small at both storage temperatures. Limited wilting and shrivelling at the end of shelf-life was noted in the unpackaged peppers initially stored at 10 °C. Peppers packaged with the PE films did not exhibit significant changes in ascorbic acid content during the storage period including shelf-life. Peppers packaged with the two PE films at 5 °C, showed significant less chilling injuries compared to the unpackaged peppers. The hue angle reduction was small in all treatments and the initial green colour was maintained at 5 °C. At 10 °C the hue angle was significantly reduced up to the 10th day of storage.