

Title Postharvest quality of green onion grown in soilless culture: effect of packaging and storage temperature

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Abstract

The aim of this study was to evaluate postharvest quality of green onion grown in soilless culture, packed in different packaging films and stored at two different temperatures. Green onions were obtained from perlite production system. At harvest, plants were trimmed (leaf tips and roots cut), washed with chlorinated water and packed in bags (80 \pm 5 g of product per bag). Two packaging films were used, a non-perforated and a perforated one. The bags were stored 10 days in refrigerated chambers at 1 \pm 0.5 deg C and 8 \pm 2 deg C. Overall visual quality, gas concentration inside the bags (carbon dioxide and ethylene), colour parameters, total chlorophyll, weight loss and reducing sugars were measured during the storage. Electrolyte leakage was evaluated at the end of the storage period. Experiments were conducted as completely randomized design with three replicates. The best quality was obtained maintaining the product at 1 \pm 0.5 deg C in non-perforated films. Our results indicate that it is possible to maintain green onion quality for up to ten days in modified atmosphere packaging with adequate storage temperature.