

Postharvest behaviour of artichoke genotypes (*Cynara scolymus* L.) Under different storage conditions

M.N. Sabi, V. Logegaray, A. Chiesa

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Abstract

The artichoke is a highly perishable vegetable due to its high metabolic activity. In recent years, there has been considerable interest in sexual reproduction of this crop because new cultivars obtained from seed produce high yield, homogeneous plants and it has less plant diseases. Moreover, they have good performance for using by the industry. The aim of this study was to evaluate the behavior and postharvest quality of three genotypes of globe artichoke in two storage conditions. Two hybrids obtained by sexual reproduction (Madrigal and Concerto) and the most commonly cultivar used in Argentina obtained by vegetative propagation (Romanesco) were evaluated. The material was harvested, packed and stored in chambers for two weeks. Postharvest treatments were: a) stored in refrigerated chamber 1°C and 90% RH, and b) stored in non refrigerated chamber at room temperature. Both treatments were stored for 14 d. Weight loss, colour and organoleptic characteristics (visual quality, external browning, pilosity, bracts opening) were measured during storage period. Genotypes showed no significant differences in weight loss percentage at seven days. Significant differences were found in weight loss due to storage temperature. After eight days, Concerto had lower weight loss than other materials. Only Concerto had not significant differences in colour parameters during storage period. All artichoke cultivars stored at room temperature reached no more than seven days of shelf life. In contrast, hybrids stored at 1°C maintained the visual quality for two weeks.