

Title Quality changes of 12 commercial hybrids of carrots during storage
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Citation ISHS Acta Horticulturae 906:73-82.2011.
Keywords Brix; color; postharvest; roots; deterioration; cultivars

Abstract

Postharvest quality variables of 12 commercial carrot hybrids were evaluated. The hybrids were: 'Bangor F1', 'Nandrin F1', 'Napoli F1' and 'Norwich F1' from Bejo; 'Big Sur' and 'Sirkana' from Nunhems; 'Bolero F1' and 'Concerto F1' (VAC 03 F1) from Vilmorin; 'XCR3688' and 'S-505' from Sakata; 'Esperanza' and 'Dulce' from Seminis. A standard treatment was applied to all the carrots, including mechanical rinsing and scrubbing the roots with water and Kilol (product based on citric extracts with bactericidal effect, at 0.05 ml/L) right after harvest, followed by hydrocooling at 2°C and cold storage for 56 d at the same temperature. Two groups were formed from each hybrid. The first group was subjected weekly to quality variables including color, firmness, ratio xylem/phloem, soluble solids content (°Brix). The second group was also evaluated weekly, on color, weight loss and incidence of decay. Three different types of decays were found: physiological damage, pathogen induced, and others found without identifying any casual agent. There was no difference among the hybrids with respect to water loss. In color, only 'Big Sur' and 'Esperazon' were different from the rest. 'XCR3688' and 'Bolero F1' were firmer, while 'Bolero F1' showed the highest Brix. 'Dulce' and 'S-505' had reduced amount of postharvest deterioration. In conclusion the hybrids that best performed in postharvest storage were: 'Dulce', 'S-505', 'Sirkana', 'Bolero F1', 'XCR3688', 'Big Sur', 'Esperanza' and 'Bangor F1'.