Enhancement of postharvest sensory quality and antioxidant capacity of sweet pepper fruits by foliar applying calcium lactate and ascorbic acid

Taher Barzegar, Mahsa Fateh and Farhang Razavi

Scientia Horticulturae 241: 293-303. (2018)

Abstract

In this experiment, the impact of foliar spraying of ascorbic acid (AsA; 100, 200, and 300 mg L^{-1}) and calcium lactate (CaL; 0.5, 1 and 1.5 g L^{-1}) on sensory quality and antioxidant capacity of sweet pepper fruits during storage at 7 °C for 30 days was investigated. Our results showed that sweet pepper fruits sprayed by AsA or CaL exhibited higher fruit firmness, chlorophyll, carotenoid, total soluble solids (TSS) and titratable acidity (TA) accompanied by lower weight loss. In addition to enhancing sensory quality, sweet pepper fruits sprayed by AsA or CaL exhibited higher DPPH scavenging capacity arising from higher phenols, flavonoids and ascorbic acid accumulation during storage at 7 °C for 30 days. According to our results, foliar AsA or CaL spraying may be promising strategies for enhancing sensory and nutritional quality of sweet pepper fruits during storage at 7 °C for 30 days.