Abstract

The tamarillo, or tree tomato, produced in Colombia, has great potential for commercialization in the global market for tropical exotic fruits, but suffers quality losses during the post-harvest phase due to the use of inappropriate technologies. In order to extend the postharvest life of these fruits, the effect of calcium chloride (CaCl₂) and different storage temperatures was evaluated. A completely randomized design was used, where the block criterion was the temperature with three treatments (control and calcium chloride doses of 570 and 862 mM) and three blocks (6, 9°C and ambient temperature [20°C]), for a total of nine experimental treatments monitored every five days for 20 days. The CaCl₂ treatments delayed softening over time, as compared to the control but did not affect the other quality attributes. Generally, the fruits stored at low temperatures lost less fresh weight and had a lower respiration rate as compared with the fruits stored at the ambient temperature. During the postharvest, it was observed that the fruits had a pH between 3.84 and 4.36, total acidity between 0.57 and 1.6% and 9.79°Brix on average. The physicochemical properties of the tamarillo were more affected by the ambient temperature than by the application of CaCl₂. The temperature of 9°C is recommended for maintaining the quality of this fruit for 20 days.

Keywords

Exotic fruits, firmness, weight loss, respiration, refrigeration.