

Abstract:

Apricots are climacteric, highly perishable fruit characterised by very short postharvest life at normal temperature. Pre and postharvest applications of calcium salts on fruits have been successfully used to reduce loss of firmness and to slow down the ripening process. The objective of the present work was to study the effect of postharvest calcium chloride application on the quality preservation of apricot (*Prunus armeniaca* L. cv. 'Beliana' and cv. 'Lindo') during storage.

After harvest, apricots were dipped in 0, 1, 3 or 5% CaCl₂ solutions for 2 minutes. Fruits were left to dry for 1 hour at ambient temperature and then stored at 3°C and in single layer alveolar boxes. Fruits were analysed at harvest and after 6, 14, 21 and 28 days storage. Measurements of weight loss, firmness, soluble solids content (SSC), titrable acidity and skin colour were performed.

Fruits treated with 3 and 5% CaCl₂ lost more weight than the other treatments in both cultivars. The cultivar 'Lindo' lost generally more weight than 'Beliana'. Firmness decreased through storage without differences between treatments in 'Beliana', but 'Lindo' fruits treated with 3 and 5% CaCl₂ lost less firmness than the other treatments. Fruits of cultivar 'Beliana' did not show differences in SSC among treatments. However, 'Lindo' fruits had lower SSC when treated with 1% CaCl₂. There were no differences in titrable acidity among treatments for both cultivars. For each variety panellists preferred fruits of control or 1% treatment.

It seems that CaCl₂ treatments with concentrations $\geq 3\%$ are prejudicial for apricots. Dipping apricot fruits in concentrations up to 1% CaCl₂ can improve storage ability.