

Abstract:

After harvest, fig fruits are highly perishable at normal temperature. Pre- and postharvest applications of calcium salts have been successfully used on other fresh fruits to reduce loss of firmness and to slow down the ripening process. Short time heat treatments are also used to improve postharvest storage life of fruits. The objective of the present work was to study the effect of heat treatment and calcium chloride application on fig (*Ficus carica* L. cv. 'Lampa preta').

Treatments consisted of dipping figs for 2 min in a solution of 1% CaCl₂ or in a 1% CaCl₂ solution. Water temperature in the first treatment was 45°C, and in the second 2°C. Another treatment consisted of dipping figs for 2 min only in water at 45°C. Figs subjected to heat treatment were cooled in water of 2°C for 2 more minutes. Fruits were left to dry for 1 hour at ambient temperature and then stored at 2°C in single layer alveolar boxes. Control fruits were not dipped. Fruits were analysed at harvest and after 4, 7, 11 and 14 days of storage. Weight loss, soluble solids content (SSC), titrable acidity, skin colour, and taste were determined.

The treatments did not influence SSC or weight loss. SSC decreased from 7 to 14 days storage and weight loss increased significantly through storage time. Figs treated with 1% CaCl₂ at 45°C showed lower titrable acidity and higher a* value of colour than the other treatments. Fruits treated with 1% CaCl₂ and control were preferred in the taste panel after 14 days of storage. CaCl₂ treatments therefore can improve fig storage life. Heat treatment needs more research since this treatment resulted in the lowest values in the taste panel.