

Title Woolliness control and pectin solubilization of 'IAC Douradão' peach after heat shock treatment

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Abstract

Peach fruit ripens and senesces rapidly at room temperatures, but use of cold storage is limited by chilling injury which resulted in internal browning or woolliness, it is difficult to extend their storage life. In this study, effect of high and moderate temperatures on incidence of woolliness and changes of pectin solubilization of 'IAC Douradão' peach fruit during cold storage were investigated. The treatments were: heating at 50°C during 1 and 2 hours (50°C/1h and 50°C/2h); heating at 20°C during 48 hours (20°C/48hs) and no treated fruits (control). Fruit were stored at 1°C for 30 days and were analyzed each 10 days (plus 3 day at 25°C). Woolliness symptoms at control, 50°C/1h and 50°C/2hs treatments were observed after 20 days. The treatment with heating at 20°C/48hs reduced the woolliness symptoms, but this one induced greater solubilization of pectin and consequently high loss of firmness. This probably occurs due of increase of activity of enzymes polygalacturonase and pectinmethylesterase. Heat shock treatment when used properly extend the postharvest storage life of peach fruits.

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