

Title Effects of post-harvest treatment and storage time on the organic acid content in Assaria and Mollar pomegranate (*Punica granatum* L.) fruit [Portugal]

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Abstract

The effects of postharvest treatment and storage at 5 deg C on changes in the organic acid content in the juice of Assaria and Mollar pomegranate were monitored. The fruit was chill stored after the following treatments: covering boxes with a 25-micron thick low-density polyethylene film and spraying with 1.5% CaCl₂; untreated fruit was used as control. The results showed that citric acid is the main organic acid in the Mollar cultivar, followed by tartaric acid, whereas three organic acids were present at similar levels in Assaria pomegranate: citric, oxalic and tartaric acids. Differences in the main organic acid content were detected when fruit was submitted to different treatments prior to cold storage. The different pre-treatments did not significantly interfere with the accumulation of organic acids in either cultivars. There were two exceptions. The ascorbic acid content was significantly higher in the Mollar cultivar when the fruit was treated with calcium, while the pyruvic acid content was significantly higher in the Assaria cultivar in the untreated fruit