Title Effect of 1-MCP in combination with $CaCl_2$ on postharvest storage and quality of green olives

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Abstract

Green olives cultivars "Conservolea" and "Mission" were harvested at the mature green stage and either treated with 1methylcyclopropane (1-MCP) in concentration of 1.8 $\mu l.l^{-1}$ for 24 h at 20°C or non-treated as a control. Both, treated and non-treated fruits then immersed in water containing $CaCl_2$ of 0 (control), 50 and 100 μM for 2 h under 1.2 bar pressure. Fruits were then surface dried and put into the plastic basket and stored at 6°C and relative humidity of 80% on refrigerators for 13 weeks. The non-l-MCP treated fruit softened within 6 weeks after harvest. While, the 1-MCP treatment inhibited fruit softening and color changes. Treated fruit by $CaCl_2$ resulted in delay in fruit softening, but has no effects on fruit color. Treated fruits with combination of 1-MCP and $CaCl_2$ were supper in preventing fruit softening and losing green color and fruits remained for 13 weeks at 6°C with minimum loss.