

Title Storability of orange flesh melons treated with 1-MCP

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Abstract

Orange flesh melons from the Mossoro-Acu Region, RN, Brazil, were treated with 0, 150, 300 and 600 ppb 1-methylcyclopropene (1-MCP), stored at room temperature of 25 ± 3 °C and $90\pm 5\%$ RH and evaluated after intervals of 0, 3, 6, 9, 12, 15, 18 and 21 days. A 4x8 factorial scheme was used, consisting of four 1-MCP and eight evaluation, in completely randomized experimental design, with four replications of one fruit each. Evaluations were carried out for of external and internal appearance, and peel color using; a subjective rating scale; peel and pulp color by colorimetry, weight loss, pulp firmness; pH, total soluble solids (TSS), total titratable acidity (TTA); and total soluble sugar (TSS). Concerning to the majority of the evaluated with most quality parameters evaluated there was no difference between fruit treated with 1-MCP controls (Tukey test ($p < 0.05$)). The shelf-life of Orange Flesh melons stored under room conditions (25 ± 3 °C and RH $90\pm 5\%$) was 15 days. Fruit treated with 1-MCP had the best external appearance and hence commercial acceptance than untreated fruit. Postharvest application of 150 ppb 1-MCP to Orange Flesh melons extended shelf-life to 18 days, and to 21 days when 300 and 600 ppb was applied