

# Inhibition of ethylene action by 1-MCP in post-production ornamental peppers

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## Abstract

Several abiotic and biotic stresses may reduce the shelf life of potted plants, including exposition to ethylene. The aim of this work was to identify the effect of 1-MCP on the senescence of the ornamental pepper BGH-7073. Potted plants with 30% of ripe fruits were treated as follows: 1, bench control; 2, control in the closed container; 3, 12 h treatment with 1-MCP followed by 36 h with ethylene; 4, treatment with 1-MCP; 5, 48 h treatment with ethylene. Afterwards, all plants were placed in a chamber at 25°C with 8-10  $\mu\text{mol s}^{-1} \text{m}^{-2}$  of white fluorescent light. The evaluated variables were number of leaves and fruits abscised at 0, 48, 96 and 144 h after the treatments. The shelf life was established when at least 50% of abscission of the leaves and/or abscission of fruits had occurred. There was significant interaction between time of exposure to ethylene and treatments for the traits analyzed. The treatments with lower leaf abscission were the control bench, where plants remained in the interior of a room and plants treated with 1-MCP only.