

Title Exposure to 1-methylcyclopropene (1-MCP) delays the effects of ethylene on fresh-cut broccoli raab (*Brassica rapa* L.)

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Abstract

Broccoli raab florets were treated with $1 \mu\text{L L}^{-1}$ of 1-MCP for 24 h at 20 °C and then stored, together with the untreated control, at 5 °C for 14 days in a humidified air flow and air + $100 \mu\text{L L}^{-1}$ of ethylene. Treatment with 1-MCP markedly extended the shelf life, reducing postharvest deterioration, retarding chlorophyll degradation, and delaying visual quality loss and flowering, as was also the case with samples stored in the presence of exogenous ethylene. Untreated broccoli raab florets stored either in air or in air + ethylene showed a significant increase in ammonia during storage, suggesting stressful storage conditions. These results indicate that a 1-MCP treatment could be a good candidate for extending shelf life, maintaining visual quality and reducing loss of quality in broccoli raab florets.