

Title Effect of 1-methylcyclopropene on the storage life of broccoli  
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#### Abstract

Broccoli (*Brassica oleracea*, cv. Green Belt) florets were treated with 1-methylcyclopropene (MCP) at concentrations of 0.02–50  $\mu\text{l l}^{-1}$  for 1–6 h at 20°C followed by storage at 20 or 5°C in air containing 0.1  $\mu\text{l l}^{-1}$  ethylene and treatment at 5°C followed by storage at 5°C. MCP markedly extended the storage life through a delay in the onset of yellowing at 20 and 5°C and in development of rotting at 5°C. The beneficial effect at both temperatures were dependent upon concentration and treatment time. For broccoli treated and stored at 20°C, maximum extension in storage life of >100% was achieved with exposure to 1  $\mu\text{l l}^{-1}$  MCP for 6 h while a 50% increase in storage life was obtained with treatment for 1 h. For storage at 5°C, treatment at 20°C was more effective in extending storage life than treatment at 5°C; treatment with 1  $\mu\text{l l}^{-1}$  MCP for 6 h at 20°C resulted in 250% extension in storage life compared to 200% when treated at 5°C. These effect of MCP are likely to be of considerable commercial significance.