

**Title** Effect of maturity and 1-MCP on physiology of tomato slices  
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#### **Abstract**

A study was carried out to determine the effect of maturity and 1-methylcyclopropene (1-MCP) on the physiology of stored tomato slices. 1-MCP (1 µl/L, 20°C for 12 h) was applied directly to intact tomatoes from 'turning', 'pink', and 'light-red' stages of maturity. After slicing, slices were stored for up to 10 days at 5°C. 1-MCP treatment of 'turning' and 'pink' maturity fruit reduced ethylene production and respiration rate by slices, and slowed pericarp softening and rate of red colour development of the juice. Firmness and red colour development of the juice were not influenced by 1-MCP when slices from 'light-red' maturity stage fruit were treated. The results showed that application of 1-MCP to intact tomatoes was effective in slowing ripening of tomato slices only when 1-MCP was applied to fruit at early ('turning' and 'pink') stages of maturity.