

**Title** Effect of 1-methylcyclopropene on the shelf life of mango (*Mangifera indica* Linn.) Cv. Nahm-dawg-mai-sri-tong

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#### **Abstract**

The objectives of this study were to determine the efficiency of 1-MCP, inhibitor of ethylene receptor, at various concentrations and treatment duration. Mango fruits (*Mangifera indica* L. cv. Namh-dawg-mai-sri-tong) were harvested from the local orchard and transported to laboratory within 2 hours. All of uniform mango fruits without any defects were selected and treated with 1-MCP at the concentration of 0, 500 and 1,000 ppb for 0, 6 and 12 hr. Following treatment, mango fruits were kept at 20°C for ripening. The results indicated that 1-MCP has tremendous potential for maintaining the quality of mango fruits cv. Namh-dawg-mai-sri-tong during storage. The most effective treatment to keep the mango quality after storage was 1000 ppb for either 6 or 12 hours. In addition, the highest 1-MCP concentration delayed changes of peel and pulp color, fruit softening, and extended the shelf life for 15 days in association with suppression of respiration and C<sub>2</sub>H<sub>4</sub> evolution.