

**Title** Effect of 1-MCP (1-methylcyclopropene) and chitosan on storage and quality of Mulberry (*Morus alba* L.) cv. 'Chiangmai' Fruit

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#### **Abstract**

Mulberry (*Morus alba* L.) fruit can be used for consumption and contains high nutrition. However it loses water and is damaged by disease rapidly resulting in short storage life. We fumigated two stages of mulberry fruits (mature and ripe) with 0, 300, 600 and 900 nLL<sup>-1</sup> 1-MCP prior to waxing with 1% chitosan compared with control. Then they were packed in a plastic box before putting in an ice tank and were stored at 4 C, 85% RH. Mulberry coated with 1% chitosan and fumigated with 1-MCP more efficiently extended storage life than coated with 1% chitosan solely. Both of maturity stages were not affect on shelf life. Role of chitosan and 1-MCP were retarded weight loss, delayed ripening, reduced micro-organism invasion, therefore, disease incidence were low and prolonged life span. The finding revealed that mulberry were fumigated with 300 nLL<sup>-1</sup> 1-MCP for 12 hours and then coated with 1% chitosan, extended stroage life to 24 days.