Title Extension of storage and shelf-life of sweet persimmon with 1-MCP

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Abstract

Changes in flesh firmness, respiration, peel color, fruit weight, and fruit diameter occurred as fruit ripened and softened during storage of 'Fuyu' persimmon, but all these processes were significantly delayed by 1-MCP treatment. 1-MCP treatment did not show any significant influence on flavor and taste of sweet persimmon. Treatment of 1-MCP improved storability of sweet persimmon more effectively than polyethylene (PE) film modified atmosphere storage. However, additional improvement in storage could be obtained by a combination of 1-MCP treatment followed by modified atmosphere storage. 1-MCP treatment before storage was more effective than the treatment during storage. Application of 1-MCP to the fruits stored for three months also improved storability of sweet persimmon. 1-MCP did not slow softening of cut flesh discs or fruit pieces. 1-MCP treatment could still maintain storability even if ethylene was applied exogenously. 1-MCP application maintained fruit firmness more effectively in less mature (more green) fruits than fully mature fruits.