

**Title** Response of 'Nam Dok Mai' mangoes to hot and cool air treatments  
**Author** D. Loyma and S. Photchanachai  
**Citation** ISHS Acta Horticulturae 837:189-196. 2009.  
**Keyword** mango; hot air treatment; quality

#### **Abstract**

The quality of mango (*Mangifera indica* L.) fruit cv. 'Nam Dok Mai' during hot air treatment at 40 and 50°C for 150 min and during cold room storage at 13°C was investigated. The fruit exposed to 40 and 50°C showed a rapid raise in temperature (1 cm below the surface) and reached approximately 35 and 40°C after 90 min, respectively. After 150 min the temperature of the fruit heated at 40 and 50°C increased to 36 and 42°C, respectively. The heated fruit were immediately subjected to storage at 13°C. Their temperature fell to 14±1°C after 150 min. After storage at 13°C and 90-95% RH for 15 days, the hot air treatment did not significantly affect water loss, change of peel and pulp colour, total ascorbic acid and dehydroascorbic acid content as well as total soluble solids of the mangoes compared to the untreated fruit. The ethylene production and disease incidence were significantly lower in the fruit heated at 50°C compared to 40°C and the control fruit. Therefore, the hot air treatment at 50°C for 150 min before transferring to the storage room at 13°C was the most effective to maintain the fruit quality.