Title Response of 'Numdokmai' mangoes to Hot and Cool Air Treatments

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Abstract

Temperature of mango fruit cv. Namdokmai (1.0 cm depth from the surface) during hot air treatment at 40 and 50°C and then cooling by cool air at 13°C is investigated. The fruit exposed to 50°C shows a rapid increase in temperature within 60 min. The temperature gradually increases to 33.8°C at 150 min. The rapid increase of mango temperature exposed at 40°C is found during 30-60 min subsequence of slow increase of temperature to 29.9°C at 150 min. The reduction behavior of temperature of the hot air treated mangoes by cool air treatment at 13°C reveals a linear curve. The reduction rate of mango with initial temperature at 33.8°C is $y = -0.1438x + 32.783$) whereas the mango with 29.9°C is ($y = -0.1245x + 29.461$). the mango temperature achieves to 11.1-12.0°C within 150. The hot air treatments do not effect to water loss and other qualities of the mangoes compared to the untreated fruit during storage for 15 days at 13°C. The disease incidence is significantly lower the hot air treated mangoes than that in the untreated fruit.