Title Effects of different pre-storage heat treatments on the shelf quality and mold control of strawberry fruit

Authors K. Tu, L. Chen and X.J. Pan

Citation ISHS Acta Horticulturae 712: 805-810. 2006.

Keywords fresh strawberry; hot water; hot air; quality; decay; respiration; heat damage

Abstract

Fresh harvested Strawberries (*Fragaria x ananassa* Duch. cv. YongFeng) were subjected to heat treatments. Based on preliminary experiments, four treatment conditions were applied to strawberries by exposure to hot air (46°C, 1 h and 48°C, 30 min) and immersion in hot water (44°C, 20 min and 46°C, 15 min). Afterwards, the fruits respiration and quality were monitored after 1 day of cold storage (1°C) and during 3 days of shelf life (18°C) conditions. It was found that fruits with heat treatments had weaker respiration. Hot water immersion was effective in control of *Rhizopus stolonifer* which is one category of mold often causing postharvest decay of strawberry. Fruits heated at 48°C, 30 min with hot air and 44°C, 20 min with hot water had higher quality values than others.