Title The effect of high temperature treatment on quality of fruits and vegetables

Author S. Lurie

Citation ISHS Acta Horticulturae 712: 158-164, 2006

Keywords heat treatment; quality; ripening; senescence; decay; heat damage; fresh-cut

## **Abstract**

High temperature air or water treatments for various purposes, for cleaning produce, reducing pathogen inoculum, and controlling insect pests, has been integrated into the chain of postharvest treatments for different commodities. These treatments may have effects on the fruit or vegetable beyond their stated purpose because a high temperature stress can trigger changes in plant tissue that affect many physiological processes. These processes include inhibition of ethylene production and other ripening and senescence related processes, induction of defense compounds against pathogen attack, and induction of resistance to other stresses, including low temperature stress or irradiation. The result of the treatments is to maintain fruit and vegetable quality following the heat treatment. Examples will be presented of the use of high temperature treatments in postharvest production systems and their effect on the quality of fruits and vegetables.