

Title Heating fruits as a quarantine treatment

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Abstract

The use of heating as quarantine treatment increases the postharvest storage stability and shelf-life of fruits by disinfecting fruit flies and fungi, and by reducing respiration rate and sensitivity to chilling injury. The selection of a suitable time and temperature is the most critical step in the application of heat treatment. This is because even the slightest over heating may cause the destruction of heat labile enzyme systems or membrane integrity in fruit cells and may lead the sequent formation of a disorder called “heat injury”. The heat injured fruits are not acceptable by consumer. This is because they exhibit many defects such as discoloration, surface pitting, non-softening or non-ripening. In this article general principles for the selection of suitable heating time and temperature, and the heating procedures in quarantine treatment were introduced.