

Title Effect of sunning as post harvest treatment for insect pests on antioxidants and other chemical and physical properties of date palm fruits

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Keywords

Abstract

Sunning as an insect pest postharvest control and its effect on the antioxidants and other chemical and physical properties of mature dates was studied. Three date palm (*Phoenix dactylifera*) fruit cultivars (Khalas, Shiashy and Rizez) were used. Edible parts of the date fruits were evaluated before and after sunning. This study was aimed at replacing chemical fumigations with the use of direct sunlight for dates. Dates were infected with larvae and eggs of *Ephestia cautella*, the major pest of date fruits in Saudi Arabia, and placed under clear plastic sheets under direct sunlight for different exposure times. Temperature and relative humidity were recorded every one h for 24 h. The mortality of larva was recorded and LT50 was calculated. The promising results suggested that exposure to direct sunlight may be an alternative to chemical fumigation with little loss of quality characteristics of date fruits.