

عنوان مقاله:

Effects of different storage temperature conditions on ripening quality and shelf life of mango (*Mangifera indica*) fruits in Ghana

محل انتشار:

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خلاصه مقاله:

Purpose: Physiologically matured fruits of Haden, Kent, Palmer, and Keitt mango varieties were used for experiment. The fruits were held at ambient (29-31 °C) and simulated-transit temperature (10-13 °C) conditions. Quality which includes fruit firmness, weight, and spoilage, were assessed and used to determine shelf life of stored fruits. Research Method: A Completely Randomized Design with four replications was used. For each of the four varieties, five mango trees were sampled at random in each of the four replications of a mango plantation when fruits were physiologically matured. Findings: For the ambient and simulated-transit temperature conditions, Kent (4.09 days and 3.85 days, respectively) and Keitt (4.08 days and 3.92 days, respectively) fruits stored longer. Haden fruits ripened significantly earlier (9.50 days and 3.5 days, respectively) than Keitt fruits (11.01 days and 5 days, respectively). Ripening time was statistically not different among Haden, Kent, and Palmer fruits. Softness, colour, and decay were limiting quality factors for all mango fruits stored at both conditions. Higher shriveling rates were observed in Haden and Palmer fruits with a slight preponderance of the former, for both conditions. Average weight loss was highest (6.50 % and 3.31 %, respectively) for Haden and lowest (4.09 % and 2.34 %, respectively) for Keitt, but generally lower in fruits stored under transit conditions. Research limitations: No limitations to report. Originality/Value: A single quality attribute cannot be used to express loss of quality of mango fruit over the normal physiological range of mango fruit growth and development.

کلمات کلیدی:

Mango fruit, ripening, Shelf life, Storage quality, Temperature

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