

Fruit quality of 'Karthacolomban', 'Ampalavi' and 'Willard' mangoes (*Mangifera indica*) in Jaffna, Sri Lanka

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Abstract

The most popular mango cultivar in Jaffna is 'Karthacolomban' especially known as the Jaffna mango. Other popular dessert cultivars are 'Ampalavi' and 'Willard'. Mature nonripened mangoes of 'Karthacolomban', 'Ampalavi' and 'Willard' were harvested after ninety days from full bloom and kept for ripening. Taste panel results showed that the taste of the 'Karthacolomban' mangoes was excellent. Quantitatively taste was the balance between °Brix and acidity. °Brix/ acidity value of 'Karthacolomban' was 19.79/0.15 after ripening. Average weight range of 'Karthacolomban' was 175-500 grams and storage life was 8 days with poor color development. Twenty percent of the fruits were rejected for marketing due to the stem end rot and anthracnose during ripening. 'Ampalavi' mangoes were considerably larger in size. Disappearance of green color and appearance of dark yellow color was observed after 7 days of ripening. Qualitatively, taste was fairly good and °Brix /acidity of 'Ampalavi' was 22.79/0.21. Seventy percent of the fruits were acceptable for marketing and thirty percent of the fruits were severely affected by stem end rot. 'Willard' mangoes had excellent taste after 7 days of ripening. The °Brix /acidity was 24.8/0.15 and color of 'Willard' mangoes was bright yellow with red color at the stem end. 'Willard' fruits were small and 30% were not acceptable for marketing due to anthracnose. Hot water treatment of temperatures ranging from 53-50°C for 5 minutes effectively reduced the symptoms of anthracnose and stem end rot by 20-30% in 'Karthacolomban', 'Ampalavi' and 'Willard' mangoes. 'Karthacolomban' mangoes developed an attractive orange color when ripe after the hot water treatment. Hot water treatment also enhanced fruit quality by inducing uniform ripening in 'Karthacolomban', 'Ampalavi' and 'Willard' mangoes and increased their market value.

Author keywords

Anthracnose; Marketing; Quality; Stem end rot