Antioxidant capacity of mango pulp and peel stored at two temperatures

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Abstract

Mango (*Mangifera indica* L.) is an important tropical fruit that is receiving increased attention because of its potential antioxidant activity. In the present study, changes in antioxidant capacity of mango pulp and peel extracts stored at two temperatures were examined. Mature-green mangoes 'Nam Dok Mai' stored at 15 or 25°C were evaluated for antioxidant capacity every three days during storage. Antioxidant activity of mango pulp and peel extracted in methanol was determined using DPPH free radical scavenging activity. Results showed that antioxidant capacity of mango pulp and peel increased during 6 d of storage and after that declined at both temperatures. The antioxidant capacity of mango pulp stored at 15°C was about two-fold higher than that stored at 25°C. The highest increase in antioxidant capacity occurred at 15°C. Mango fruits stored at 25°C had lower antioxidant capacity than those stored at 15°C. Antioxidant capacity of mango peel was higher than that of pulp at both temperatures. These results suggest that low temperature storage may provide a good technique to increase antioxidant capacity in mango fruits. Mango peels which are discarded after processing may be valuable for use in nutraceutical and functional foods.