

Abstract

Irradiation is an economical technology for reducing post-harvest losses, reducing microbial and fruit fly contamination and extending shelf-life of commodity. The effect of different doses of Cobalt 60 gamma rays at 0, 300 and 600 Gy on the, textural, colour quality attributes and disease of mangoes was investigated. These mangoes cv. Nam Dokmai and Chok Anan were harvested at 70% and 90% stages of maturity and assessed after ripening at 25°C. 'Chok Anan' mangoes harvested at 70% and 90% maturity were softer than untreated fruits. Contrary, irradiated 'Nan Dokmai' mangoes appeared firmer compared to untreated fruits. However, the polygalacturonase activity measured within 'Nam Dokmai' mangoes of 90% maturity was not affected by the gamma irradiation. Additionally, the gamma irradiation had no effect on fruit skin or flesh colour and soluble solids content of mangoes in both cultivars harvested at both maturity stages. The results conclude that gamma irradiation had no effect on ripening process of mangoes harvested at both maturity stages.