

**Title** Effect of gamma irradiation dose on postharvest quality and antioxidant activity of 'Trad Si Thong' pineapple

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**Citation** Abstracts of 7<sup>th</sup> International Postharvest Symposium 2012 (IPS2012). 25-29 June, 2012. Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia. 238 pages.

**Keywords** Disease severity; internal browning; taste

#### **Abstract**

Gamma irradiation has been use widely as a quarantine treatment. We have previously reported that maturity affects quality change in pineapple. Therefore, the objective of this research was to investigate the effect of gamma ray dose on postharvest quality and disorders in 'Trad Si Thong' pineapple fruit harvested at mid-maturity (commercial stage). Fruits were soaked in 500 ppm prochloraz and then dried at 22°C. Fruits were packed in carton boxes and irradiated with gamma rays at doses 0 (control), 0.5 and 1.0 kGy, and then stored at 13°C for 18 days. Gamma irradiation did not affect internal browning, hue angle of pulp, or disease incidence. Phenolic contents in irradiated fruits were higher than in control fruit. However, the dose of gamma ray significantly affected the Total Soluble Solids/Titratable Acids ratio and the antioxidant activity.