

Visual Quality and Bruise Injury of 'Carabao' Mango in Samal Island, Philippines

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Abstract

The postharvest quality of 'Carabao' mango in Samal Island, Philippines, was assessed after harvest and fruit bruising through different drop heights (0, 1, 2, 3, 4, or 5 m) as well as combination of drop heights (0, 0.5, 1.0, or 1.5 m) and maturity (mature green, more yellow than green, turning or full yellow). Fruit were initially assessed after harvest and bruising then reexamined at table ripe stage (TRS). Of normally harvested mature green fruit, 80% had very good visual quality. However, at TRS, it declined to 47.1% while good and saleable samples were at 31.7%. Assessment of skin defects showed that blemish (55.2%) and scab (28.8%) were the main defects at harvest with the former observed to intensify at TRS (68.3%). Anthracnose (38.4%) and stem-end rot (29.4%) were high at TRS for mangoes under usual harvest practice. For fruit dropped from 0 to 5 m heights, there was an increasing trend in cracked fruit (6.7% to 80%) as drop height increased. Upon dissection, white mass in fruit pulp underneath the bruise surface was observed. At TRS, there was a distinct green color observed on the peel impact site. Weight loss and bruise percentage were higher in fruit dropped at 4 and 5 m than those dropped at lower heights. Similarly, weight loss and bruise percentage were also higher in fruit dropped at 1.5 and 1 m than 0.5 m regardless of fruit maturity when dropped. Diseases such as stem-end rot, sooty mold, and rot were high at TRS.