

### Abstract:

The aim of this research work was to evaluate the effect of fruit dropping from the tree on postharvest conservation of mango fruit (*Mangifera indica* L.) cv. Rosa, in the green-yellowish (mature-green) and yellow-greenish (pre-climacteric maturity stages). The treatments were: fruits dropped from an average height of 5-m and the control (mango harvested using a 6-m rod provided with a 20x40-cm cloth basket at the end), for each maturity stage. Mangoes of each treatment were kept at room temperature ( $24 \pm 2$  °C). Fruit weight loss, total soluble solids (TSS), total titratable acidity (TTA), skin color, and external and internal appearances were evaluated. As measured by external appearance, mango harvested in yellow-greenish maturation stage was much more affected by dropping. For green-yellowish fruits, the symptoms resulting from dropping were impaired or uneven ripening, followed by decay. For yellow-greenish mango fruits, the impacts resulted in an accentuated rate of weight loss, darkened skin, pulp browning, fungi infection, and soaked areas. Skin black spots were observed in dropped yellow-greenish fruits four days after harvesting, paralleled by an increased pulp's TTA, and presence of fermentative off-flavor. Dropping mango cv. Rosa from the tree reduced the shelf life by about four days for yellow-greenish, as compared with green-yellowish non-dropped fruits. Fruit dropping resulted in acceleration of the senescence process, mainly for mango harvested at pre-climacteric, yellow-greenish maturity stage.