

Abstract

Fruit quality assessment and sorting of fruit are standard procedures done prior to storage or sending off for market. The procedures are difficult to perform as the fruit quality could not be simply visualized from the skin appearance, such as for sapodilla fruit. There is a need for a more advanced technique to be used for sorting of built quality attributes of the fruit. The use of a non-destructive technique applying impact response using Fruit Firmness 1 (FF1) to assess and predict internal quality and storage life of sapodilla fruit var. Subang at 12 °C was briefly described. Sapodilla fruits were sorted according to scores acquired from the device. The ability of the technique to predict the parameter needed is very convincing. Sapodilla fruit with the score of below 6.0 at harvest was more acceptable by the sensory panelists. Fruits with scores ranging from 6.1 to 7.0 can be stored for a longer period, however the quality was not as good as those fruits having FF1 score of below 6.0 at harvest. Fruits having scores of below 4.5 will ripen within 1-3 days after harvest, thus not suitable for storage. The power line ($Y=0.02X^{3.6026}$), which was derived from the relationship of score resultant from the device and duration of the fruit to ripen at storage temperature (12 °C), can be applied as a reference chart to sort the fruit according to the predicted storage duration. Thus the technique could be used to group the fruits into either storage-marketing and utilization purposes, or only suitable group for certain market. This strategy can be used to promote sapodilla fruits for a distance market. Postharvest losses which occurred during storage and transportation also can be minimized.