

Title Improved postharvest technologies in marang
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Abstract

The research was conducted to survey, assess, and improve current postharvest practices in marang, identify the right maturity indices, exploit existing strategies in regulating ripening, develop processing technologies and products to enhance the profitability of marang production through value-adding activities. A benchmark survey on the current postharvest practices was carried out to assess the gaps to reduce postharvest losses. Ripening of the fruits was manipulated using packaging materials, ethylene inhibitors and ethylene inducers. Possible processing technologies were also explored to develop marang products (minimally-processed and processed). Results showed that the right stage of maturity for harvesting of the commercially-available 'Evergreen' and 'Brown' cultivars in the local markets is 80-90 days from fruit set. To minimize losses, harvesting should be done using modified tools. Storability and shelf life can be prolonged using appropriate packaging materials and cold storage. Regulation of ripening can be attained through the following: washing and covering the fruit with wet sack or cloth were found to be faster, easier and economical ripening techniques than using ripening agents e.g. calcium carbide, kakawati [*Gliricidia sepium*] leaves and other ripening materials. On the other hand, ethylene scrubber and packaging in a closed polyethylene bag or kept under modified atmosphere (MA) condition delayed the ripening. For minimally processed marang pulps, addition of an antioxidant, metabisulfite, when packed in either polyethylene bag (Ziploc), vacuum sealed bags or styrofoam delays and minimizes browning. Moreover, with these treatments, taste was rated acceptable. Cold storage at 0 and 4 deg C also gave an acceptable appearance of the pulps. These results proved that it is possible to bring minimally processed and processed marang products from Mindanao to other parts of the Philippines without affecting its sensory quality. The following marang products were developed: frozen pulps or arils, puree, concentrates, jam, conserve, vacuum-fried, dehydrated, spray-dried, ice cream, and other by-products.