

B-14: Evaluation of a mango variety Malwana Amba (Under Ground)

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High quality fruit that is reliably free from pests and disorders with high storability will improve access to overseas markets. To achieve these requirements, available mango varieties were evaluated with a new selection.

Five recommended varieties namely Karatha Colomban, Vallai Colomban, Willard, Peterpasand, Petti amba and local existing line named Malwana amba (Under ground] were evaluated. Malwana variety was grafted and planted in three different agro-ecological regions (Dry, Intermediate and Wet zones) in 1979 to study the suitability and the yield performance. In 1994 the variety Malwana with other five varieties were grafted onto Peterpasand root stock and planted in Wariyapola (IZ) adaptive research unit. The design used was RCBD with four replicates. Fruits of these varieties were evaluated by assessing their physico-chemical characteristics, storability, and palatability and pest problems and yield performances.

The average yield of Malwana variety planted in 1979 at Vanathavillu (DL 3) was 500-1000 fruits/tree (over 8 years). The trial at Wariyapola is still in progress.

The variety Malwana consists of high sweetness (Brix 23), more flesh (68%) and low fibre (0.6%) content compared to other varieties. Colour of the skin of ripe fruit is yellowish green and the flesh colour is attractive yellowish orange. Hedonic test with twenty two panellists was used to evaluate the palatability. According to the test, majority of panellists stated that Malwana had a very pleasant aroma, sweet in taste and low in fibre content. Kartha Colomban was ranked next in Brix value and highest percentage of flesh (71%).

To study the shelf life of mango, the varieties were stored in different packages namely perforated polypropylene bags, polypropylene without perforation, perforated polyethylene, polyethylene without perforation, gunny bags, cardboard cartons with 4 holes, perforated normal shopping bags and shopping bags without perforation. This study showed that the variety Malwana could keep for longer period than other varieties and can be stored well for about 11 days in ambient condition. The other varieties except Karatha Colomban could keep only for 5 to 8 days in ambient conditions. Deterioration of fruits was much lower in Malwana variety stored in all packages.

The percentage of fruitfly and seed weevil count were taken and these were high in Karatha Colomban (11%) and Petti amba (68%) respectively. The variety

Malwana had also high percentage of seed weevil (61%) damage but no fruitfly damage.

The variety Malwana has high consumer preference, high sweetness, more flesh, low fibre, better keeping quality and low fruitfly damage. The variety was officially released as Malwana amba in 1996 by the Department of Agriculture.