

COMPARISON OF THE PERFORMANCE OF DIFFERENT MANGO HARVESTING DEVICES

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ABSTRACT

Harvesting is one of the most important activities in the post harvest life of fruits. In most part of the country, mango harvesting is still carried out in the traditional manual harvesting method, which consumes more time and labour. The structure of the mango tree and irregular maturity period are the major obstacle for introducing mechanical harvesters. Anyhow, mechanical harvesters are expected to result high yield compare to traditional harvesters.

The harvesting techniques such as improved mango harvester, picking poles and hand picking were taken to the selected testing area and mangos were harvested in a particular period from different mango varieties like Willard, Karutha Columban and Vellai Columban. Then the harvesting rate and harvest and post harvest losses were compared in each technique with different varieties.

Harvesting performance was high in improved mango harvester in all tested mango varieties (270 mangoes in Willard and 188 and 196 mangoes in Karutha Columban and Vellai Columban, respectively). The lowest harvesting performance was observed in hand picking in all varieties (170 mangoes in Willard and 130 and 130 mangoes in Karutha Columban and Vellai Columban, respectively). Higher harvesting performance was observed in Willard mango tree in all tested mango harvesting devices (270, 220 and 170 mangoes in Improved harvesting device, picking pole and hand picking, respectively). Harvesting performance in Karutha Columban and Vellai Columban mango trees were almost same in all tested harvesting devices. Harvest and post harvest losses of mango were minimum in improved mango harvesting technique when compare to other techniques.

Key Words: hand picking, harvesting rate, improved harvester, mango, picking poles, postharvest life