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Propagation studies on Jackfruit (*Artocarpus heterophyllu* L.)

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Jackfruit *(Artocarpus heterophyllus)* belongs to family Moraceae. It is important fruit to the people of Sri Lanka and it is traditionally called “rice tree”. The continuous seed propagation and heterogeneous nature has enriched the genetic diversity in the Jackfruit. However, with increased population pressure and use of land for more annual crop cultivation there has been progressive erosion of the diversity of Jackfruit. To produce true to type plants and perpetuate outstanding cultivars, asexual propagation is essential. Asexual propagation of Jack fruit has been studied and reported poor success in Sri Lanka. Therefore propagation studies were carried out through cleft grafting and inarching at Horticultural Crops research and development Institute (HORDI) Gannoruwa to find out a suitable method for multiplication.

For cleft grafting large seeds were selected and soaked in water for 24 hours. These seeds were sown in poly bags filled with soil, sand and compost to a ratio of 1:1:1. The seedling at different age types (15, 20, 25, 30, 35, and 40 days) was used as rootstock and 2 types of scion as varieties (Father long and Hirosa). Fifteen plants were used for each treatment and replicated 3 times. The grafted plants were covered with polythene bags and kept in a propagagator. The rate of success was recorded 1½ months after grafting. It was significant (Average 80%) when the scion was grafted on to root stock of 20 -30 days old seedling. But the success was little varying with the varieties

Plants of 5 month old seedling were taken without damaging the root system for inarching. Extra roots were removed and dipped in water added with root hormone known as “rootone F”. Then these were planted in poly bags filled with coir dust and tied. Then the top end of the stock was cut (20- 25 height) diagonally and inserted into the cut made on the scion tree. Fifty root stocks were used for

inarching. The bud union was tied with a polythene tape and left for 3 weeks. Then the cuts were subsequently made. Inarched plant was separated out two weeks after the 2nd cut. The plants were potted and kept in a propagator and success was recorded after 1½ months and the success rate was 40 %.

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