

EVALUATION OF PROMISING VEGETATIVE PROPAGATION TECHNIQUES FOR 'BER' (*Ziziphus jujuba*)

A.A.M. Jayawardena¹, K.W. Ketippearachchi², D.A.U.D. Devasinghe¹

¹Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama,
Anuradhapura, Sri Lanka.

²Fruit Crops Research and Development Station, Department of Agriculture,
Gannoruwa, Peradeniya, Sri Lanka.

Ber is an underutilized fruit tree in Sri Lanka. Standard propagation technique to explore the production of quality planting materials is lacking. Grafting and budding are the most popular methods of vegetative propagation. This study was conducted to evaluate the effect of grafting and budding of Ber at the Fruit Crops Research and Development Station at Gannoruwa. Seedlings of local species of Ber (*Ziziphus mauritiana*) were used as rootstocks. The scions were from high quality exotic species of Ber (*Ziziphus jujuba*). The grafting methods of T budding, Patch budding and Wedge grafting using hard wood and semi hardwood cuttings were employed. Experimental design was Completely Randomized Design (CRD) with four replicates. Percentage success of bud take-on, bud take-on time (days), total production of shoots and leaves and mean shoot length per successful graft were collected. Wedge grafting using semi-hardwood scion showed the highest success percentage (72.5%) of bud take-on in 17 days. Wedge grafting using hardwood scion showed the second highest success (32.5%) in 18 days of bud take-on. Budding methods took longer time period (31-32 days) for bud take-on with lower success range of 5-10%. This study indicated that the wedge grafting method using semi-hardwood scion is superior to the other methods for vegetative propagation of Ber.

Key words: Hardwood cutting, Semi-hardwood cutting, Success percentage, *Ziziphus jujuba*, *Ziziphus mauritiana*