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Preliminary studies on propagation methods of *Salacia reticulata Wight*

Salacia reticulate Wight. (Kothala himbutu) belonging to the family Hippocrateaceae is A plant used extensively in Ayurvedic medicine as a treatment for diabetes mellitus and has proven therapeutic efficacy. It is collected extensively form the wild and thus threatens its existence in the wild. Therefore in this investigation vegetative propagation using shoot and root cuttings and propagation by seeds were tested.

Mature shoot cuttings with a diameter of about 1 cm and juvenile shoot cuttings with a diameter of 0.5-0.75cm were used to check the effect of maturity of propagule on propagation potential. All cuttings were planted in poly bags and kept in a propagator at nearly 100% humidity and 30C temperature inside a green house. They were watered and monitored regularly with fertilizer application once a week after root initiation. Mature shoot cuttings proved to be ineffective as propagules (significant at 1% level) whereas juvenile shoot cuttings produced plants. Mature root cuttings with a diameter of 1.5-2.0cm and juvenile root cuttings with a diameter of 0.75-1.5cm were tested for sprouting. Both produced sprouts but more sprouts were generated form juvenile cuttings. The sprouting was initiated at the 2nd week in shoot cuttings and after 7 weeks in root cuttings. The growing medium consisted of two soil media with coconut fiber dust and compost and a synthetic medium "Rock wool". Both soil media proved to be effective for plant generation from rot and shoot cuttings but more plants were generated in the coconut fiver dust medium. The synthetic medium was proved to be ineffective as growth medium.

A commercially available rooting hormone "Secto" and a laboratory prepared IBA solution (0.4%) was used to test the effect of rooting houmones on root initiation in shot cuttings. The rooting houmone had no significant effect (5%0 on root initiation. However more plants were obtained when treated with "Secto" Few available seeds were planted in compost medium and they germinated producing plants.

The results indicate that it is possible to propagate Kothla himbutu through shoot and root cuttings and seeds.