

Vegetative propagation of *Plumbago indica* (Rathnetul) by rooting of stem cuttings

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Plumbago indica is an economically important medicinal plant and widely used in a wide range of Ayurvedic preparations in Sri Lanka. Propagation of seeds has not been successful. Therefore, a method was developed for vegetative propagation by rooting cuttings of this species

Combinations of three types of cuttings (about 8 cm long shoot tip, single nodal and two nodal) and two types of potting mixtures i.e. MD1 (1:1:1 sand: top soil: cow dung) and MD2 (1: 1: 2 sand: top soil: cow dung) were used as treatments. Three types of cuttings were established in polythene bags filled with two potting mixtures and kept in a humid chamber made out of polythene. Twenty cuttings were used for each treatment. A foliar liquid fertilizer "Maxi crop" was sprayed at 10 day intervals. Watering was done once a day.

All types of cuttings showed a high survival percentage (over 98%). The highest shoot growth (9.1 cm) was observed in two nodal cuttings. Of the two media tested, the shoot growth was higher in MD2 (7.4 cm) medium than MD1 (5.2 cm) among the three types of cuttings. The number of leaves produced was significantly higher in two nodal cuttings (3.7). A significantly higher number of leaves were observed in cuttings rooted in MD2 medium. The other parameters such as, growth score, number of roots and root lengths were not significant. The cost of production was calculated by raising 1,000 cuttings and determined as Rs. 5.75 per cutting. Rooted cuttings were successfully grown in the field and produce tubers after 9 months.

Financial assistance by Conservation and Sustainable Use of Medicinal Plants Project is gratefully acknowledged.

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