

Propagation of Masbedda (*Gymnema sylvestre*) as a tool for conservation

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Plants that are the main source of medicines are still considered solely as products of the wild rather than species to be cultivated. Deforestation and over exploitation has caused diminishing wild supplies of traditional medicinal plants. However, cultivation and propagation of rare medicinal plants can offer solution to the problems of diminishing supplies. Therefore, under this background, the current studies were undertaken to develop simple propagation techniques for *Gymnema sylvestre*, a useful rare medicinal plant.

After an extensive survey, few authentic mother vines were found from the southern region of the country and a plant stock was established using them at the Faculty of Agriculture, University of Ruhuna, Kamburupitiya, for the purpose of taking planting materials for studies. Both seed and vegetative means of propagation were studied over the last few years. Since it was observed that, natural regeneration of *Gymnema* is poor, several media were tested to assess the best media for seed germination. Several vegetative propagation studies were also carried out using stem cuttings to determine the best cutting type and potting media for rooting.

Results revealed that, seed germination in coir dust was very high (92%) compared to the other media tested (i.e. top soil, sand and a mixture of top soil, sand and compost). The high water holding capacity of the coir dust media may be the possible reason for higher germination. Number of roots per cutting, mean root length and root biomass was higher in semi hard wood cuttings than hard wood and soft wood cuttings. Rooting performances in the potting mixture of sand, top soil and compost (1:1:1) were better than the other media tested. Results could be concluded that *Gymnema sylvestre* can be propagated by both seed and vegetative means and semi hard wood cuttings planted in a mixture of sand, top soil and compost (1:1:1) would be recommended for vegetative propagation.