

The effect of number of leaves and length of the cutting on rooting of Masbedda (*Gymnema sylvestre*) cuttings

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Gymnema sylvestre is grown over many parts of India and some parts of Sri Lanka too. The species has a reputation in traditional medicine as a remedy to control diabetes. Though, it has a ready demand in the market, systematic cultivation is yet to be practiced and thus the natural habitats have been over exploited. The present study focused on vegetative propagation of *Gymnema sylvestre* by means of cuttings.

The healthy, disease-free, semi hard wood cuttings were incorporated for the experiment. Two parallel experiments were conducted in order to study the effect of number of leaves remains (experiment 1, with four treatments) and length of the cutting (experiment 2, with three treatments) on rooting. The Randomize Completely Block Design (RCBD) was used with four replicates. Rooting was assessed 75 days after planting. The percentage survival was significantly ($p \leq 0.05$) high (91%) in cuttings with two leaves, followed by single leaf cuttings (78%), whereas the lowest survival (19%) recorded from the cuttings with four leaves. However, no significant ($p \leq 0.05$) differences in the number of roots per cutting and the length of roots were recorded among the cuttings with two, three and four leaves. Though results demonstrated that the importance of leaf area on rooting, retention of too many leaves on cuttings might cause increased water loss, which can eventually lead to death of the cutting. Results of the experiment 2 revealed that the percentage survival and number of roots per cutting were significantly ($p \leq 0.05$) lower in single nodal cuttings than that of any other cuttings. *Gymnema sylvestre* can be propagated by means of cuttings. Double nodal semi hard wood cuttings demonstrated better results, furthermore, rooting performance of cuttings with two leaves was impressed.

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