

## **Effectiveness of rooting media on the propagation of miniature rose (*Rosa chinensis minima*) by stem cuttings**

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*Rosa chinensis minima*, a small bush like ornamental plant which belongs to the family Rosaceae is popular in home gardening in Sri Lanka. Therefore, the demand for this plant is increasing. Usually, farmers in Sri Lanka propagate this plant by stem cuttings using normal soil medium. However, the effectiveness of rooting is poor compared to the other species propagated by stem cuttings. Therefore, effectiveness of rooting of *Rosa chinensis minima* by stem cuttings in different rooting media was investigated. For this, different rooting media were combined with stem cuttings at varying maturity stages. Three types of rooting media namely, red podzolic soil, sand and sand: coir (1:1 ratio) were used. Highly mature, moderately mature and young stems cuttings of *Rosa chinensis minima* were used. A pot experiment was carried out according to the completely randomized block design. There were nine treatments with two replicates for each treatment. Fifteen of similar cuttings were planted in each pot. Parameters observed were the percentage survival of cuttings, root length, root fresh weight, root dry weight and root volume. Measurements were taken after 20, 30 and 40 days of planting. The data were statistically analyzed. The result revealed a significant effect of stem type on survival percentage (probability = 0.00), root length (probability= 0.00), root dry weight (probability = 0.00), and root fresh weight (probability=0.00) of *Rosa chinensis minima* cuttings. There were significant differences in survival percentage, root length, root dry weight and root fresh weight (probability = 0.0000 for each) among the different media used. The result indicated that hardwood is the best stem age for the rooting and the red podzolic soil is the best medium for the rooting of highly mature cuttings of *Rosa chinensis minima* among the media used in the experiment. For moderately mature cuttings the red podzolic soil and coir-sand media were best.

**Keywords:** miniature rose, *Rosa chinensis minima*, rooting media, stem cuttings

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