

DEVELOPMENT OF A SUITABLE PROTOCOL FOR MICROPROPAGATION OF CEYLON BALSAM (*Impatiens repens*)

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The introduction of native flora to the floriculture sector is beneficial as a major issue at present. It gives solutions to the problems like the limitation of novelties in floriculture industry especially for foreign market. As an endemic rare plant, *Impatiens repens* has been identified for future introduction to the industry due to its beautiful flower and its attractive features.

Plant micropropagation provides higher number of plants with minimal damage to plants in the wild and also a base line for production of novel varieties using mutagenesis. Therefore the major objective of this study was to develop a suitable protocol for micropropagation of *Impatiens repens*.

This experiment was conducted at Royal Botanic Gardens, Peradeniya. For this experiments leaves and nodal segments with either apical or axillary buds of 1-1.5 cm length were surface sterilized using 70% alcohol for 20 seconds, 0.5% HgCl₂ for five minutes, 10% NaOCl + tween 20 for five minutes and 70% alcohol + 20% NaOCl for five minutes as four treatments.

According to the results that nodal segments sterilized with 0.5% HgCl₂ for five minutes was selected as the best sterilization method for micropropagation of *Impatiens repens*. 2 mg/l BAP + 1 mg/l Kinetin was found to be the most suitable hormone combination for induction of shoots and leaves.

Key words: Ceylon Balsam (*Impatiens repens*), Micro-propagation, Sterilization, *In-vitro*