

EVALUATION OF AN EFFECTIVE GROWING MEDIUM FOR *Impatiens repens* AS A FLOWERING ORNAMENTAL POTTED PLANT FOR COMMERCIAL CULTIVATION

M.W.K.P.Silva¹, M. Wickramasinghe² and D. M. D. Dissanayake¹

¹Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka

²Royal Botanic Gardens, Peradeniya, Sri Lanka.

The *Impatiens repens* is a wild, endemic plant in Sri Lanka and it is also a valuable medicinal plant. Thus it is necessary to find out identification of an effective growing medium for commercial cultivation of *Impatiens repens*.

Thus, in the present study, effect of five different growing media on growth and flowering of *Impatiens repens* was investigated. Medium which consisted with sand alone was used as the control (T₀). Other media consisted with Coir dust : Sand, 1:1 (T₁), Coir dust only (T₂), Sand : Compost, 1:1 (T₃), and Sand : Compost : Coir-dust, 1:1:1 (T₄). Each treatment consisted of three replicates. CRD was used as the experimental design. pH and the C/N ratio of the media, number of leaves per plant, stem length, number of flowers per plant, time taken to flowering, pest and disease conditions, root length, root dry weight and plant dry weight were measured.

The best vegetative growth was observed in T₃ but it did not perform well in reproductive stage and delayed in flowering. When considered the vegetative phase, treatment T₄ performed well in vegetative phase but it was next to T₃. The treatment T₂ gave poor growth and development. Therefore, coir dust alone is not suitable to use as a growing medium for *Impatiens repens*. T₀ performed better than T₁. It showed moderate results in reproductive and vegetative phases. T₄ provided excellent performances in reproductive phase than all other treatments. Therefore, T₄ can be introduced as an

effective growing medium for *Impatiens repens* as a flowering ornamental potted plant for commercial cultivation.

Key words : Wild, Endemic, Growing medium, *Impatiens repens*.