

Evaluation of Propagation Rate of Different Succulent Plant Species in Different Growing Media

N.M. Zameela¹, M. Anusiya^{1*}, and K. Jeyavanan²

¹Department of Biosystems Technology, Faculty of Technology,
University of Jaffna, Sri Lanka.

²Department of Agronomy, Faculty of Agriculture,
University of Jaffna, Sri Lanka.

* anusiyam@univ.jfn.ac.lk

Commercially produced succulent plants are increasingly becoming popular among plant collectors, landscapers, and interior designers, and therefore, it is necessary to enhance their propagation methods for the sustainability of the export market of ornamental plants. An experiment was conducted at agriculture research station, in the Gampaha District from December 2020 to March 2021 to evaluate the propagation rate of the different succulent species in different potting mixtures. In this experiment, leaf cuttings of five succulent species (*Echeveria gibbiflora*, *Echeveria elegans*, *Graptopetalum paraguayense*, *Pachyveria glauca* and *Sempervivum redlion*) were grown in four types potting mixtures (Treatment1- Soil, Sand, Gravel and Perlite (2:2:1:2), Treatment 2- Soil, Sand, Gravel and Coir dust (2:2:1:2), Treatment 3- Soil, Sand, Gravel and Charcoal (2:2:1:2) and Treatment 4- Soil, Sand, Gravel and Styrophorm (2:2:1:2). T1 was used as control. The experiment was laid out in a Complete Randomized Design (CRD) with three replications. The leaf cuttings were kept in Shade house. The data were assessed through ANOVA tests using SAS computer software package. The results showed that the growth performance of *Echeveria elegans* and *Graptopetalum paraguayens* was higher in the Treatment 1(control), *Echeveria gibbiflora* and *Sempervivum redlion* were performed well in Treatment 2 while *Pachyveria glauca* was highly performed in the Treatment 3. The result implies that growth and propagation efficiency of different succulent species may vary with the growing media. It was recommended that farmers should adapt the propagation of mentioned succulent species with suitable growing media to get higher propagation rate and increased productivity to fulfill the demand for succulent for export market.

Keywords: Growing Media, Leaf Cutting, Propagation Rate, Succulent