

A comparison of yield potential and cultivar performance of 20 collected purslane (*Portulaca oleracea* L.) accessions employing seeds vs. stem cuttings

ABSTRACT

A glasshouse experiment was conducted in Universiti Putra Malaysia (UPM) to evaluate the regeneration and yield potential in purslane using both seeds and stem cuttings of 20 collected accessions from different locations in Western Peninsular Malaysia. Analysis results revealed significant variations ($P < 0.05$) for morphological traits viz., plant height, number of main branches, number of nodes, internodal distance, stem diameter, number of leaves, leaf area, number of flowers, root length, fresh and dry weight but no significant difference were observed for physiological traits viz., total chlorophyll, net photosynthesis, stomatal conductance, transpiration, water vapor deficit and for either major micro or macro minerals. Hope our research findings will eliminate the doubt of using cutting methods for purslane propagation and cultivation among producers and consumers and will promote their determination to follow purslane production in this summer at any season and anywhere. To the best of our knowledge, this is the first attempt to evaluate and to detect any significant variations arising in morphological, physiological, and especially mineral nutrition in purslane propagated through cuttings vs. through seeds.

Keyword: Mineral nutrition; Morphological and physiological traits; *Portulaca oleracea* L; Purslane; Regeneration