

## ***Crotalaria Retusa* L. as a Potential Potted Dwarf Ornamental Plant**

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Exotic plants are popular in the ornamental plant industry in Sri Lanka due to their attractiveness. However, maintenance cost of these plants are high due to higher water and nutrient requirements. In Sri Lanka though we have a rich flora, native plants are yet to be introduced to the ornamental plant industry that creates advantages than exotics. *Crotalaria retusa*, a native annual herb which bears striking yellow flowers that attracts butterflies in large numbers was identified as a potential plant to develop as an ornamental potted plant. Hence, the present study is an attempt to develop *C. retusa* as a potted plant. Seedlings were raised in black polythene bags in a rain shelter and Paclobutrazol (PBZ) was applied twice as a soil drench with 0.5, 1, 2, 4 and 8 mg per 100 ml concentrations at two weeks interval. Distilled water was used as the control and the pots were arranged in completely randomized design with 15 replicates. Plant height was measured and numbers of leaves were counted in one day interval up to three months in 5 plants per treatment. Leaf colour was measured by using RHS colour chart. Dry weight of shoot, root and leaf of each treatment was measured separately after 12 weeks and the data were analysed by using ANOVA technique. Concentration of 4 mg per 100 ml PBZ exhibited the significantly lowest dry weight and plant height ( $p < 0.05$ ) among the treatments. PBZ inhibits sterol and depress the gibberellin biosynthesis which led to the reduction of intermodal distance resulting dwarf plants. However, the concentrations beyond 4 mg per 100 ml, the plant height was not significantly ( $p < 0.05$ ) reduced irrespective of the concentration. Increasing PBZ levels progressively increased green colour of the leaves and reduced the size of the flowers. Hence, based on the present study, 4mg per 100ml PBZ could be recommended to produce dwarf potted plants of *C. retusa* for ornamental plant industry.

**Keywords:** *Crotalaria retusa*, Native plant, Paclobutrazol, Potted plant