

In vitro Flowering of *Exacum trinervium*

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Exacum trinervium is a small flowering herb and an endemic to Sri Lanka. *In vitro* flowering provide the opportunity to study flowering requirements of a given species which can be used to overcome problems associated with flowering. In the present study effect of 3 different concentrations (3%, 6% and 9%) of sucrose, medium strength (half and full strength MS) and paclobutrazol (0.1 mg/l) on *in vitro* flowering of *E. trinervium* was investigated. Shoot length, leaf numbers, fresh and dry weight of the shoots and chlorophyll content were measured for 10 week period. Results showed a significant variation between some treatments. Sucrose concentration affected on shoot length, leaf number and chlorophyll content of the shoots. The highest ($P < 0.05$) shoot length, leaf number and chlorophyll content were obtained in the plants grown on 3% sucrose concentration. Different sucrose concentrations had no effect on the fresh and dry weights of the shoots. The application of paclobutrazol reduced shoot length, internode length and leaf area significantly ($P < 0.05$) compared to the plants grown without it. Half strength had no significant effect on shoot growth. High sucrose concentration (9%) was not favorable for *in vitro* growth of *E. trinervium* and 0.1 mg/L paclobutrazol application reduced the shoot length of *E. trinervium*. None of the treatment used in this study not induce *in vitro* flowering of *E. trinervium* until 11 weeks after initiation of the experiment.

Keywords: *Exacum trinervium*, Half MS and full MS, *In vitro* flowering, Paclobutrazol sucrose

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