

Effect of Growth Regulators on Proliferation of Leaf Explants of *Petunia hybrida* Double Cascade Series

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The present study, aimed to investigate the effects of different concentrations of plant growth regulators such as auxin (IBA) and cytokinin (BAP, TDZ) on shoot proliferation from leaf explants of *Petunia hybrida* on MS medium. The experiment was conducted as a factorial with completely randomized design including two factors and 3 replications. In this experiment, 4 concentrations of BAP or TDZ (0, 4.44, 8.88 and 17.76 μM) and 3 concentrations of IBA (0, 0.55 and 1.1 μM) were used. The highest amount of regenerated shoots, fresh and dry weight of shoots and callus were obtained in medium containing 17.76 μM BAP and 0.55 μM IBA. Explants on media supplemented with TDZ, turned yellow with no regeneration. The longest shoots were observed in media containing 1.1 μM IBA in combination with 4.44 and 8.88 μM BAP and number of leaves and nodes were the highest in medium containing 8.88 μM BAP with 1.1 μM IBA. The results showed that on proliferation of leaf explants of *Petunia hybrida* Double Cascade series, BAP was more efficient than TDZ.

Keywords: Benzyl Amino Purine, Cytokinin, regeneration, Thidiazuron, Tissue culture.

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