

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

F. Khezerlou, Z. Jabbarzadeh* and P. Noruzi¹

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 μ M) and 3 concentrations of IBA (0, 0.55 and 1.1 μ M) were used. The highest amount of regenerated shoots, fresh and dry weight of shoots and callus were obtained in medium containing 17.76 μ M BAP and 0.55 μ M IBA. Explants on media supplemented with TDZ, turned yellow with no regeneration. The longest shoots were observed in media containing 1.1 μ M IBA in combination with 4.44 and 8.88 μ M BAP and number of leaves and nodes were the highest in medium containing 8.88 μ M BAP with 1.1 μ M 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.

1. M.Sc. Graduated Student of Ornamental Plants, Assistant Professors, Department of Horticultural Science, Faculty of Agriculture, Urmia University, Urmia, Iran, respectively.

*Corresponding author, E-mail: (z.jabbarzadeh@urmia.ac.ir).