

Studies Concerning of Petunia Rooting from Cuttings

Maria CANTOR, Adelina DUMITRAȘ, Erzsebet BUTA, Adrian ZAHARIA

Faculty of Horticulture, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca,
3-5 Manastur Street, 400372, Cluj-Napoca, Romania; marcantor@yahoo.com

SUMMARY

Petunia hybrida is an economically important ornamental plant species (Mol *et al.*, 1985; Huits *et al.*, 1994). They have a long flowering period, are easy to grow and are available in many forms and colors. Petunias are bright and lively, bloom from spring until frost, and scent the air with lovely fragrance. Best of all, they are amazingly easy to grow, both in the garden and in containers. Many petunias, especially white and lavender cultivars have a very sweet fragrance. The types of petunias best suited to growing in the world are the multifloras, millifloras and spreading petunias. In Romania more cultivate it is grandiflora, multifloras and in the last time period new varieties were introduced from Holland, especial 'Surfina' variety. The aim of this investigation was to search for valuable rooting variants of the *Petunia hybrida* plant. The biological material used in this experience in was represented by the specie *Petunia hybrida* multifloras type. The experiment was made in the greenhouse of the Department of Floriculture. As rooting substrate were used as follows: perlite, peat + perlite (1: 1) and mixed soil. For vegetative multiplication were used cuttings obtained from healthy mother biological pure plants. The cutting was performed 1-2 mm below the basal node and after that was removed the upper third leaves to reduce transpiration. The average of cutting length was different: 6 cm for long cuttings, 4 cm for medium cuttings and 3cm for short cuttings. Before rooting the cuttings were treated with a Radistim (root stimulator). The experimental data were calculated and statistically interpreted using DL test for each variant studied (Ardelean *et al.*, 2002). On the bases of results obtained we can conclude that the best rooting results were given when used medium cutting stimulate with Radistim in mixed substrate, consisting of perlit and peat in equal proportion. The best variants obtained for rooting of *Petunia hybrida* will be recommend for multiplication vegetative of the new varieties for can rapidly promote in culture.

Keywords: multiplication, rooting substrate, Radistim

REFERENCES

1. Ardelean, M., R. Sestraș and M. Cordea (2002). Tehnică experimentală horticola. Ed. AcademicPres, Cluj-Napoca.
2. Huits, H. S. M., A. G. M. Gerats, M. M. Kreike, J. M. N. Mol and R. E. Koes (1994). Genetic control of dihydro-flavonol 4-reductase gene expression in *Petunia hybrida*. PLANT J. 6: 295-310.
3. Mol, J. M. N., R. Koes, E. A. van den Berg, H.J. Reif , F. Kreuzaler. And E. Veltkamp (1985). The genetics of secondary metabolite production in higher plans: the flavonoid genes of petunia as a model system. ADV. Agri. Biotechnol.13:122-123.