

**INFLUENCE OF ZEATIN AND ZIP ON *IN VITRO* PROPAGATION  
OF *VACCINIUM VITIS-IDAEA* L.**

**Emília Ondrušková<sup>1\*</sup>, Mária Gabriela Ostrolucká<sup>1</sup>, and Štefan Hraška<sup>2</sup>**

<sup>1</sup>Institute of Plant Genetics and Biotechnology, Slovak Academy of Science, Akademická 2, 950 07 Nitra,  
Slovak Republic

\*Fax: +421-37-7336660, \*E-mail: ondruskova\_e@yahoo.com, gabriela.ostrolucka@savba.sk

<sup>2</sup>Department of Botany and Genetics, Faculty of Natural Sciences, Constantine the Philosopher University,  
94974 Nitra, Slovak Republic, E-mail: shraska@ukf.sk

**REFERENCES**

- Anderson W. C. (1980). Tissue culture propagation of red and black raspberries, *Rubus idaeus* and *Rubus occidentalis*. *Acta Horticulturae*, 112: 30-31.
- Debnath S. C. (2003). Micropropagation of small fruits. In: Jain S. M., Ishii K. (Eds.). *Micropropagation of woody trees and fruits*. Kluwer Academic Publishers: 465–506.
- Debnath S. C. (2004). *In vitro* culture of lowbush blueberry (*Vaccinium angustifolium* Ait.). *Small Fruits Review*, 3: 393-408.
- Debnath S. C. (2005a). Micropropagation of lingonberry: influence of genotype, explant orientation, and overcoming TDZ-induced inhibition of shoot elongation using zeatin. *HortScience*, 40: 185-188.
- Debnath S. C. (2005b). Effects of carbon source and concentration on development of lingonberry (*Vaccinium vitis-idaea* L.) shoots cultivated in *in vitro* from nodal explants. *In vitro Cellular and Developmental Biology-Plant*, 41: 145-150.
- Debnath S. C., McRae K. B. (2001). *In vitro* culture of lingonberry (*Vaccinium vitis-idaea* L.): The influence of cytokinins and media types on propagation. *Small Fruits Review*, 1: 3-19.
- Debnath S. C., McRae K. B. (2005). A one-step *in vitro* cloning procedure for cranberry (*Vaccinium macrocarpon* Ait.): The influence of cytokinins on shoot proliferation and rooting. *Small Fruits Review*, 4: 57-75.
- Hosier M. A., Flatebo G., Read P. E. (1985). *In vitro* propagation of lingonberry. *HortScience*, 20: 364-365.
- Jaakola L., Tolvaren A., Laine K., Hotola A. (2001). Effect of N<sup>6</sup>-isopentenyladenine concentration on growth initiation *in vitro* and rooting of bilberry and lingonberry microshoots. *Plant Cell, Tissue and Organ Culture*, 66: 73-77.
- Ostrolucká, M. G., Gajdošová A., Libiaková G. (2002). Influence of zeatin on microclonal propagation of *Vaccinium corymbosum* L. *Propagation of ornamental plants*, 2 (2): 14-18.
- Popowich E. A., Filipenya V. L. (1997). Effect of exogenous cytokinin on viability of *Vaccinium corymbosum* L. explants *in vitro*. *Russian Journal of Plant Physiology*, 44: 104-107.
- Reed B. M., Abdelnour-Esquivel A. (1991). The use of zeatin to initiate *in vitro* cultures of *Vaccinium* species and cultivars. *HortScience*, 26: 1320-1322.
- Serres R. A., Pan S., McCown B. H., Stang E. J. (1994). Micropropagation of several lingonberry cultivars. *Fruit Varieties Journal*, 48: 7-14.
- Sidorovich E. A., Kutas E. N., Filipenya V. L. (1995). Effect of osmotic inhibitors on maintenance of viability in introduced varieties of *Vaccinium corymbosum* L. and *Vaccinium vitis-idaea* L. in *in vitro* culture. *Doklady Akademii Navuk Belarusi*, 39: 63–66 (in Russian).
- Sidorovich E. A., Kutas E. N. (1997). The explant influence on the process of clonal micropropagation of introduced cultivars of *Vaccinium corymbosum* L. and *Vaccinium vitis-idaea* L. in *in vitro* culture. *Vesci Akademii Navuk Belarusi*, 4: 12–17 (in Russian).
- Sidorovich E. A., Kutas E. N. (1998). Dependency of clonal micropropagation process of selected introduced cultivars *Vaccinium corymbosum* L. and *Vaccinium vitis-idaea* L. in *in vitro* culture on season. *Vesci Nacyjanalnaj Akademii Navuk Belarusi*, 2: 5–9 (in Russian).