Czech Academy of Agricultural Sciences

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HORTICULTURAL SCIENCE

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Horticultural Science

***In vitro* shoot multiplication as influenced by repeated subculturing c shoots of contemporary fruit rootstocks**

Vujović T., Ružić Dj., Cerović R.:

[fulltext]

In vitro shoots of vegetative rootstocks fo cherry (Gisela 5 and Gisela 6), plum (Fereley Jaspi) and pear (Pyrodwarf) were repeatedly subcultured for 10 subcultures on Murashige and Skoog medium of unchanged hormonal composition. Shoot formation capacity decreased over repeated subculturing in all genotypes. The first significant

decrease in multiplication index was observed after first subculture in Gisela 6 and Fereley Jaspi, while in Gisela 5 the decline occurred after second subculture and remained at that level. As for Gisela and Fereley Jaspi, multiplication index was mainly stable from second to forth subculture, whereupon the second decline in shoot formation was observed. Although Pyrodwarf showed very low multiplication capacity, shoot multiplication slightly increased over the first three subcultures and then declined. This irreversible decline could be due to residual effects of hormones. However, n visible morphological variations or aberrations of shoots were found in successive subcultures in any genotype. Quality of shoots in terms of shoot length varied during subculturing, but the highest quality was observed in later subcultures (from fifth subculture onwards). After subculturing, several media were evaluated for induction of rhizogenesis in order to achieve high