

P-90 (117)**PRODUCTION AND ASSESSMENT OF TRANSGENIC PLUM ROOTSTOCK FOR RESISTANCE FOR PPV**

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Prunus species are highly susceptible to *Plum pox virus (PPV)* and conventional breeding has not produced highly resistant commercially acceptable cultivars. The genetically engineered plum rootstock 'Elita' (*Prunus pumila* L. x *P. salicina* Lindl.) x (*P. cerasifera* Ehrh.) has been produced by *Agrobacterium* mediated transformation of *in vitro* leaf explants. The system enables the transgenic plant generation with retention of the original rootstock traits of plum plants. The genetic construct containing the self-complementary sequences of fragment of PPV-CP gene separated by an intron was used for the induction of Sharka disease resistance through the mechanism of post-transcriptional gene silencing. Independent transgenic plum plants were produced and PCR-analysis confirmed the transgenic status of produced plants by amplification of the fragments of "hairpin"-PPV-CP gene. Greenhouse grown plants were inoculated by grafting of buds from the plum tree infected with PPV-M strain. Non-inoculated trees of plum rootstock were used as a control. The results of the assessment for PPV resistance will be discussed.

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