

Peach rootstock propagation under intermittent mist system

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Many *Prunus* spp. genotypes has been studied as rootstocks for stone fruits but there is limited information about clonal propagation by herbaceous and semi-hardwood cuttings. Two trials were conducted under a mist system with temperature and air relative humidity controls. Cuttings (12-cm long, 6-12 mm in diameter) with entire leaves attached on the distal 2/3 section were prepared and placed in bottom perforated, plastic boxes (53 x 26 x 6.5cm) filled with course vermiculite. The first trial was done with herbaceous cuttings (June-July, 2011) in a completely randomized 3x3x2 factorial design [rootstock: 'Krymsk® 86', Lovell and *Prunus americana*; indole-3-butyric acid (IBA) concentrations: 0, 3,000 and 6,000 ppm; and IBA sources: IBA and IBA-K salt]. Semi-hardwood cuttings (August-October, 2011) were used for the second trial, which was a completely randomized 3x3 factorial design (rootstock: Guardian®, 'Krymsk® 86' and *P. munsoniana*; and IBA concentrations: 0, 3,000 and 6,000 ppm). After 50 days under intermittent mist, there were significant differences among genotypes for all variables related to rooted cutting percentage, root quality, and new shoot formation, with the best results for 'Krymsk® 86'. This genotype was easily propagated even without IBA (100% and 98.6% of rooted cuttings for herbaceous and semi-hardwood types, respectively). Vegetative buds of Guardian® and Lovell (both *P. persica*) cuttings did not break during the rooting period. An unique effect of the IBA-K salt was to decrease root dry mass. We conclude that IBA at 3,000 ppm was the best concentration for these genotypes.

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