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ABSTRACT BOOK

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Micropropagation of an Intraspecific Hybrid Genotype, *Pistacia vera* L. x *Pistacia vera* L.

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An in vitro micropropagation technique was developed on an intraspecific hybrid genotype, *Pistacia vera* L. x *Pistacia vera* L. Seeds of *P. vera* L. x *P. vera* L. were produced by classical hybridization in the collection garden of Gaziantep Pistachio Research Station in Turkey. Mature seeds were surface sterilized by shaking them in 20% NaOCl for 20 min and the seeds were rinsed 5 times in sterilized water. Successful in vitro establishment was achieved for the seeds of hybrid genotype (90%). Shoots and nodal tips were removed from germinating seeds. The nodal buds and shoot tips were cultured in MS medium containing 1 mg/l BA and 30 g/l sucrose for the production of clonal stock culture. The effects of the cytokinins such as 6-benzylaminopurine (BA), kinetin (Kin), 2-isopentenyl adenine (2iP) and thidiazuron (TDZ) (each at 1 mg/l) were evaluated individually, and the combination of the best resulting cytokin with different concentrations of gibberellic acid (GA₃) (0.25, 0.5 and 1.0 mg/l) were also tested for the optimum shoot proliferation. The most suitable dose for promoting shoot multiplication cultures was obtained using 1.0 mg/l BA + 0.5 mg/l GA₃. The effect of the different concentrations of indole-3-butyric acid (IBA) (0.5, 1.0 and 2.0 mg/l) on rooting was examined by using at least 2 cm long shoot tips subcultured 4 times. The best rooting percentage (72%) was obtained on Murashige and Skoog (MS) medium supplemented with 2.0 mg/l of IBA. The regenerated plants were successfully acclimatized (80%) and transferred to soil. Chromosome numbers and karyotype analysis from the root tips of in vitro raised hybrid plantlets were determined first time ever in this study. According to somatic metaphase plates, the chromosome numbers of *P. vera* L. x *P. vera* L. hybrid was determined as 2n=30, and the karyotype formula was 8S+3n+2S₁+1t+XXXY and without satellite.

Keywords: Chromosome number, hybrid rootstock, micropropagation, *Pistacia vera* L. *X Pistacia vera* L.