

P-52 (148)**IN VITRO CALLUS INDUCTION OF PERSIAN IRONWOOD (PARROTIA PERSICA)****Dr. Abolfazl Jowkar**, Department of Horticultural Science, College of Agriculture, Shiraz University, Shiraz, Iran; ajowkar@gmail.com (Presenting author)**Zahra Salehi Ardali**, Department of Horticultural Science, College of Agriculture, Shiraz University, Shiraz, Iran; z.salehiardali69@gmail.com

Persian ironwood (*Parrotia persica*) is a native ornamental tree in Northern Iran which has unique features such as exfoliating cream-grey bark, naturally grafting branches and beautiful autumn leaves ranging from gold-orange to pink, crimson and purple colors. Although this tree is a worldwide famous plant used in the urban landscapes, it is facing gradual extinction in its center of origin, Iran. As a preliminary step to the proliferation of this valuable endangered species, plant growth regulators were studied for callus induction. Fresh leaves were taken to MS medium containing treatments of either TDZ (0, 0.01 and 0.02 mg/l) in combination with 2,4-D (0, 0.3 and 0.5 mg/l) or BA (0, 0.1, 0.5 and 0.9 mg/l) coupled with higher concentrations of 2,4-D (0, 0.3, 0.6, 1.2 and 2.4 mg/l). The highest callus formation (100%) was obtained by application of 0.02 mg/l TDZ + 0.3 mg/l 2,4-D treatment and also by 0.1 mg/l BA + 1.2 mg/l 2,4-D combination. Furthermore, the greatest callus size and quality was found using 0.02 mg/l TDZ + 0.3 mg/l 2,4-D combination.

Keywords: Calli formation, micropropagation, Persian ironwood, *Parrotia persica*