

P-118 (126)**STUDY OF MORPHOLOGICAL AND POMOLOGICAL CHARACTERISTICS, NUTRIENT CONCENTRATION AND RESISTANCE TO PHYTOPHTHORA IN SOME STONE FRUIT ROOTSTOCKS**

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In modern and industrial fruit production, rootstock plays a crucial and determining role in yield, garden economy, pruning, life span of trees, product harvest and ultimately in garden management. The selection of the suitable rootstock for different cultivar and soil and climatic conditions is of similar importance as selection of grafting cultivars. In the first experiment of this study, morphological and pomological characteristics and nutrient concentration of six rootstocks (Saint Julian, Cadaman, GF 677, Nemaguard, Mr.s 2/5 and Penta) in horticulture Research station of Kamalshahr, Karaj (Iran), were investigated. There are significant differences between some traits that can be considered as a key to identification of a specific rootstock. Nemaguard and Penta had the highest absorption of Mg, Ca and P while the lowest absorption of P, K, Mg belonged to GF677. There was no significant difference for N absorption in all trees. In the second experiment, the resistance of Penta, Tetra, GF 677, Cadaman and Mr.s 2/5 rootstocks to *P. cactorum* and *P. drechsleri* fungi with three direct assessment methods of cut-tings, *in vivo* cut-tings and inoculated potted seedlings were investigated. In potted seedlings, the necrosis length was measured after 4 months. In all methods, necrosis length was lengthiest in GF 677 and Cadaman, mildest in Mr.s 2/5 and shortest in Tetra and Penta. Accordingly, the Tetra and Penta had a higher relative resistance to crown rot.

Keywords: phytophthora, morphology, nutrient, rootstock