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THE STUDY OF POSSIBILITY EARLY DETECTION OF GRAFT INCOMPATIBILITY IN SOME COMMERCIAL PLUM CULTIVARS BY PHENOLIC COMPOUNDS ANALYSIS

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Incidence of incompatibility signs in grafting point can be delayed. Phenols analysis used as an applicable early sign for the detection of graft incompatibility. This study was conducted with the main purpose of investigated compatibility/incompatibility in ten ("Santarosa", "Ghatreh tala", "Shams", "Dargazi", "No 16", "No 17", "Laroda", "Simka", "Bokhara" and "Stanley") commercial plum cultivars grafted on myrobalan and apricot rootstocks and determination of the role of phenols in graft incompatibility during 2011-2012. Results showed that significant differences in stem diameter. Union graft location in "Shams", "Laroda", "Simka", "Stanley" and "Ghatreh tala" cultivars on apricot rootstock were thicker than the scions and stocks. In all of plum cultivars on myrobalan rootstock, phenolic compounds in union graft were decreased in compared with other sites. The most phenolic accumulation was in union graft on "Santarosa", "Ghatreh tala" and "Shams" on apricot rootstocks. It seems that phenolic compounds in plums, can be used as a biochemical marker in graft incompatibility.

Keywords: apricot rootstock, myrobalan rootstock, phenolic content, plum