

Effect of Rootstock on Witches' Broom Disease of Lime in Scions of Different Persian Lime (*Citrus latifolia* Tanaka) Genotypes

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In order to assess the effect of different rootstocks on reaction of scions of Persian lime genotypes against witches' broom disease of lime (WBDL), an experiment was conducted as factorial arrangement in randomized complete block design with two factors including rootstock (Bakraei, Mexican lime, Volkamer lemon and Sour orange) and scion (IAC, Tahitian lime, Deperse lime and Persian lime) in Agricultural Research Station of Minab during 2014-2017. The grafted plants were produced via T-budding. Reactions of the grafted plants and seedlings was evaluated via graft inoculation with Mexican lime scion infected with WBDL phytoplasma. Based on PCR assays, detection of WBDL phytoplasma was the earliest (40 days post inoculation) in the scions on Mexican lime rootstock and the latest (116 days post inoculation) in the scions on Volkamer lemon rootstock. Symptoms of WBDL were observed in all seedlings except Volkamer lemon and during the course of this study it was not observed in the grafted plants. The time between graft inoculation and WBDL symptoms appearance was shortest in Mexican lime seedlings. Totally, Volkamer lemon rootstock is introduced as the best rootstock for Persian lime genotypes in the WBDL-infected areas.

Keywords: Inoculation, Persian lime genotypes, Phytoplasma, Volkamer lemon.

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