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DISTRIBUTIOIN OF CITRUS HUANGLONGBING DISEASE AND ITS VECTOR IN SOUTHERN IRAN *

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Abstract

Huanglongbing (HLB) has been previously reported in southern Iran. In the present study, additional information is given on the distribution of HLB agent and its vector. The psyllid *Diaphorina citri*, vector of '*Candidatus* Liberibactor asiaticus' was found in all surveyed citrus growing areas of Sistan- Baluchistan, Hormozgan, Kerman (Jiroft and Kahnooj) and Fars (Darab and Lar) provinces. Using direct and nested PCR with specific primer pairs 103 out of 140 psyllid samples from Ghasre Ghand (Sistan- Baluchistan province), Minab and Roodan (Hormozgan province) were positive for Asian form of HLB. By the same PCR methods positive reactions were obtained from 22 Valencia and two local sweet orange and 1 mandarin trees from Nikshhar and Sarbaz (Sistan- Baluchistan province) and 16 Valencia sweet orange from Roodan and Senderk (Hormozgan province). Using PCR with designed primers a 909 bp segment of *opm* gene of two HLB isolates from Sistan- Baluchistan and Hormozgan was amplified, cloned and sequenced (Acc. No. HQ267229 and HQ267230, respectively). The two isolates showed 100% sequence identity and were identified as *Ca*. L. asiaticus but not *Ca*. L. africanus. Graft inoculation of grapefruit (*Citrus paradis*) and Valencia sweet orange seedlings with scions from a symptomatic Valencia sweet orange from Sarbaz caused blotchy mottle, a specific symptom of HLB. *D. citri* is reported for the first time from Fars province. Based on the results of the present study HLB disease appears to be widely distributed in citrus growing regions of Sistan- Baluchistan and Hormozgan provinces.

Keywords: Citrus, Huanglongbing, Greening, Candidatus Liberibacter asiaticus, Asian citrus psyllid, Southern Iran.

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