New Disease Reports

First report of *Wisteria vein mosaic virus* on *Wisteria sinensis* in Iran

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Received: *15 Oct 2018.* ***Published:*** *06 Nov 2018.*

Wisteria vein mosaic virus (WVMV) is a member of the *Potyvirus* genus in the family *Potyviridae* (Bos, 1970). The virus has been reported in *Wisteria* spp. in Australasia, China, the United States, and a number of European countries (Clover *et al*., 2003, 2015; Liang *et al*., 2004). In August 2017, a plant of *W. sinensis* in the Pardis campus of the Ferdowsi University of Mashhad, in the northeast of Iran was observed to have mosaic and chlorotic mottling on leaves (Fig. 1) which resembled the symptoms caused by wisteria mosaic disease (Bos, 1970; Clover *et al*., 2003; Liang *et al*., 2004).

RNA was extracted from the symptomatic plant with an RNeasy Plant Mini Kit (Qiagen, Germany) and tested using generic potyvirus primers oligo1n/oligo2n (Marie-Jeanne *et al*., 2000), CIF/CIR (Ha *et al*., 2008) and WVMV-specific primers WVMVF1/WVMVR1 (Clover *et al*., 2003). Amplicons of the expected sizes, 327, 700 and 703 bp respectively, were obtained. The larger products were cloned and then bi-directionally sequenced (GenBank Accession no. MH800196). A BLAST search in GenBank showed 90% nucleotide sequence identity with WVMV from China (AY656816).

During 2017, 12 further samples were collected from symptomatic plants in the Pardis campus of Ferdowsi University of Mashhad (*W. sinensis* cv. Prolific). These samples all tested positive using the WVMVF1/WVMVR1 primers. To our knowledge this is the first report of WVMV infecting *W. sinensis* in Iran. Approximately 10% of the *Wisteria* plants in the Pardis campus of Ferdowsi University of Mashhad were infected with WVMV. Infected plants appeared to be randomly distributed and were often situated adjacent to healthy plants. It seems likely that the disease is spread primarily through vegetative propagation rather than by aphid or mechanical transmission. This disease reduces the quality and value of the ornamental plant by inducing chlorosis and mottling of the leaves.

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Figure 1

To cite this report: Al Jaberi M, Zakiaghl M, Mehrvar M, 2018. First report of *Wisteria vein mosaic virus* on *Wisteria* sinensis in Iran. *New Disease Reports* **38**, 18. http://dx.doi.org/10.5197/j.2044-0588.2018.038.018

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