New Disease Reports

First report of *Wisteria vein mosaic virus* on *Wisteria* spp. in the United Kingdom

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Wisteria vein mosaic virus (WVMV) is a member of the *Potyvirus* genus (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; Liang *et al*., 2004). In August 2013, a plant of *W. floribunda* in the RHS Garden in Wisley, Surrey was observed to have chlorotic mottling and mosaics on some but not all leaves which resembled the symptoms caused by wisteria mosaic disease (Fig. 1) (Bos, 1970; Clover *et al*., 2003; Liang *et al*., 2004). RNA was extracted from the symptomatic plant with an RNeasy Plant Mini Kit (Qiagen, Manchester, UK) and tested using generic potyvirus primers oligo1n/oligo2n (Marie-Jeanne *et al*., 2000) and WVMV-specific primers WVMVF1/WVMVR1 (Clover *et al*., 2003). Amplicons of the expected size, 327 bp and 703 bp respectively, were obtained. The larger product was directly and bi-directionally sequenced (GenBank Accession No. KP161267) and a BLAST search in GenBank showed 99% nucleotide identity with WVMV (AF484549). During 2014, further samples were collected from symptomatic plants in the RHS Garden Wisley (*W. floribunda* cv. Enchantment and *W. sinensis* cv. Prolific), a domestic garden in Woodham, Surrey (*W. sinensis*) and a commercial nursery in Sittingbourne, Kent (*W. brachybotrys* cv. Okayama and *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. brachybotrys* (KP161266) and the first report of the virus in the UK. Approximately 5% of the *Wisteria* plants at RHS Wisley 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. Wisteria mosaic disease does not seem to reduce the vigour of infected plants but the chlorosis and mottling of diseased leaves reduces their quality and value.

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Figure 1

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