DISEASE NOTE

FIRST REPORT OF TOBACCO VEIN BANDING MOSAIC VIRUS INFECTION OF WILD EGGPLANT IN CHINA

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Tobacco vein banding mosaic virus (TVBMV), a member of the genus Potyvirus, mainly infects solanaceous plants, including tobacco (Habera et al., 2000), Datura stramonium (Roggero et al., 2000), and potato (GenBank accession No. DQ917752). In autumn 2013, two plants of wild eggplant (Solanum torvum) displaying vein banding and leaf spot were collected from the province of Guizhou (China). Total RNA was extracted with TRIzol (Invitrogen, USA) and reverse transcribed to first-strand cDNA with primer M14T (5’-GTTTTCCCAGTCAC-3’) and reverse primers specific to CP (5’-GTITGYGTKGAYGAYTTYAAYAA-3’) and random primers. A specific product of 1700 bp containing the partial sequence of the NIb (ca. 950 bp) and CP (ca. 750 bp) coding regions was amplified by PCR with degenerate potyvirus primer pairs P5’-GTTTTCCCAGTCAC-3’ and R5’-GTRTGBCKYTTCGTRTYYTC-3’. Nucleotide sequence analysis confirmed the presence of the suspected TVBMV (GenBank accession No. KJ010807) with 98%, 92% and 91% nucleotide sequence identity with TVBMV isolates YN9.1 (KF444434), YND (EF219408) and JX (JN630471), respectively. To the best of our knowledge, this is the first report of TVBMV on Solanum torvum.

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DISEASE NOTE

FIRST REPORT OF GANODERMA AUSTRALE ON SCHIZOLOBIUM PARAHYBUM IN MALAYSIA

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Tower tree (Schizolobium parahybum) is a common ornamental plant in Malaysia. In 2013, a tower tree at Kota Damansara (Selangor, Malaysia, 3.151177N, 101.5710143W) showed leaf yellowing and shoot dieback. The tree died 4-6 months after the first manifestation of symptoms. Whitish mycelium was first observed near the basal collar above the roots, followed by the growth of a blackish brown bracket-like, sessile, non-lacate basidiocarp. Most of the other morphological characteristics of the basidiocarp were similar to those observed by Loguercio-Leite et al. (2005). Basidiospores were bitunicate, 8.50-11x4.1-6.2 µm, ellipsoid or ovoid, truncate at apex, frequently containing one big oil drop. Radial growth rate of mycelium on malt extract agar (MEA) at 24°C was 2.3±1 mm/day, whereas under anaerobic conditions at 24°C (BD GasPak™ EZ anaerobic container system sachets) it was 1.6 mm/day. Genomic DNA was extracted (FastDNA Spin kit, MP Biomedicals, USA) from a pure isolate, the 18S rDNA region was amplified using the NS1/NS8 primer set and sequenced (Macrogen, Korea). Following BLAST analysis, the sequence (accession No. KF925451) obtained from pure culture showed 98% similarity with G. australe (accession No. AY336763), a pathogen reported to infect Acacia in Thailand (Bao and Lenné, 1994) and Lagerstroemia in China (Cui et al., 2008). To the best of our knowledge, this is the first report of G. australe in Malaysia associated with a tower tree disease (Farr and Rosman, 2013). A new tower tree planted on the same site upon removal of the infected plant also became diseased. A whitish mycelium developed after approximately 1-2 months, while foliar symptoms appeared after 3-4 months from planting.

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