

DISEASE NOTE

DETECTION OF WATERMELON SILVER MOTTLE VIRUS INFECTING WATERMELON IN YUNNAN, SOUTHWEST OF CHINA

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Watermelon is an economically important fruit crop in Yunnan province, China. During a survey in July 2013, watermelon plants showing symptoms of silver mottle on fruits and bud necrosis were discovered in Menghai county of Yunnan province in China. The incidence of symptomatic plants ranged from 80 to 90%. Leaves of ten symptomatic plants were collected and tested by electron microscopy and ELISA. Tospovirus-like spherical particles 80-90 nm in diameter were observed in the sap of diseased leaves, and the ten samples reacted positively to *Watermelon silver mottle virus* (WSMoV) and *Groundnut bud necrosis virus* (GBNV) antibodies (Agdia, USA). Total RNA was extracted from symptomatic leaves using TRIzol reagent (Invitrogen, USA) and used in RT-PCR with tospovirus universal primer J13 (5'- CCCGGATCCAGAGCAAT-3') (Cortez *et al.*, 2011). The RT-PCR products were cloned into pGEM-T Easy vector (Promega, USA) and sequenced. The S RNA sequence of the watermelon virus isolate from Yunnan (YN) was deposited in GenBank (accession No. KM242056). The complete sequence of S RNA was 3,554 nt, sharing 96 and 97% identity with WSMoV isolates from Taiwan (NC_003843) and Japan (AB042650), respectively. The nucleocapsid protein (N) gene of the YN isolate, the non-structural (NSs), and the intergenic region share 97 and 98% nucleotide sequence identity with the Taiwan and Japan isolates, respectively. WSMoV was first reported in Taiwan (Yeh *et al.*, 1995) and then in Guangzhou province of China (Rao *et al.*, 2013). To our knowledge, this is the first report of WSMoV infecting watermelon in Yunnan province, southwest region of China.

This work was supported by Special Fund for Agro-scientific Research in the Public Interest (Project nr. 201303028).

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Received September 14, 2014
Accepted September 18, 2014

DISEASE NOTE

FIRST REPORT OF DIEBACK OF OLIVE TREES CAUSED BY *NIGROSPORA* sp. IN TUNISIA

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During spring 2011, a new disease was observed on olive (*Olea europea*) cv. Chemlali in an orchard in Hencha (south east Tunisia). Inspection of the affected planting revealed reddish-brown necrotic lesions on the bark of dead twigs and branches. A fungus isolated on potato dextrose agar (PDA) from symptomatic twigs and branches had an initially white mycelium which turned gray with age. The fungus was identified as *Nigrospora* sp. based on morphological characteristics and analysis of the ITS gene region (White *et al.*, 1990). A BLAST search of GenBank database revealed 100% homology with a reference sequence of *Nigrospora* sp. (strain P19E2, accession No. JN 207298.1). Pathogenicity tests were conducted on 10 two-year-old olive trees of cv. Chemlali by placing a mycelial plug in a shallow wound on the stem of each plant. Control plants were inoculated with sterile PDA plugs. Two months post inoculation, brown discolorations and necrotic lesions developed on inoculated stems whereas controls remained healthy. *Nigrospora* sp. was recovered from the necrotic lesion, fulfilling Koch's postulates.

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Received September 18, 2014
Accepted November 3, 2014