

DISEASE NOTE

**FIRST REPORT OF FUSARIUM WILT
OF *ALBIZIA JULIBRISSIN* CAUSED
BY *FUSARIUM OXYSPORUM* f. sp.
PERNICIOSUM IN SPAIN**

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In 2014, *Albizia julibrissin* trees located in gardens at Logroño municipality (La Rioja, Northern Spain) showed wilt symptoms, including defoliation, internal black streaks and, finally, tree death. Necrotic wood samples were surface disinfected for 1 min in 1.5% NaOCl, washed twice with sterile distilled water, plated onto potato dextrose agar (PDA) amended with streptomycin sulfate (0.5 g l⁻¹), and incubated at 25°C in the dark. *Fusarium* colonies were consistently isolated and transferred to Spezieller Nährstoffarmer agar (SNA). Ten days after incubation at 25°C, all isolates were identified as *F. oxysporum*, based on the presence of short monophialides, abundant microconidia produced in false heads (length 7.5 to 12.5 µm, average 9.20 µm) and chlamydospores, and sparse, usually three-septate, macroconidia (length 21.25 to 40 µm, average 29.70 µm) (Leslie and Summerell, 2006). The translation elongation factor 1-alpha gene (TEF) region of the isolates was amplified with primers EF1 and EF2 (O'Donnell *et al.*, 1998). Sequences showed 99% identity with a sequence of *F. oxysporum* f. sp. *perniciosum* (FJ985413). One sequence was deposited into GenBank (accession No. KU050689). Pathogenicity of isolates GIHF-019 and GIHF-021, was determined on one-year-old *A. julibrissin* plants grown in sterile peat moss, which were inoculated by watering the roots with 100 ml of a conidial suspension (10⁶ conidia ml⁻¹). Plants were maintained at 25°C in a growth chamber under a photoperiod of 12 h. Two months after inoculation all inoculated plants wilted and the fungus was reisolated from them. To our knowledge, this is the first report of *F. oxysporum* f. sp. *perniciosum* in Spain.

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O'Donnell K., Kistler H.C., Cigelnik E., Ploetz R.C., 1998. Multiple evolutionary origins of the fungus causing Panama disease of banana: concordant evidence from nuclear and mitochondrial gene genealogies. *Proceedings of the National Academy of Sciences USA* **95**: 2044-2049.

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DISEASE NOTE

**FIRST REPORT OF *PERSIMMON
CRYPTIC VIRUS* AND *PERSIMMON
VIRUS A* IN KOREA**

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In 2014, a total of 77 persimmon (*Diospyros kaki* Thunb.) trees from Korean commercial orchards were surveyed for *Persimmon cryptic virus* (PeCV) and *Persimmon virus A* (PeVA). Leaf samples were collected from symptomatic trees with necrosis (two), or mosaic and leaf malformations (one) and 74 asymptomatic trees. Total RNAs were extracted using the NucliSENS easyMAG system (bioMérieux) and subjected to RT-PCR using specific primer pairs PeCV F/PeCV R (5'-TTCCAATGGCAGACCAAGG-3'/5'-TGTGTAGGTCGGATGACG-3'; design based on GenBank accession number HE805114) and PeVAfor/PeVArev (Morelli *et al.*, 2014). PCR products of the expected sizes (526 bp and 250 bp for PeCV and PeVA, respectively) were directly sequenced. Results of RT-PCR revealed 67 PeCV (87%) and 11 PeVA (14.3%) positive samples, including nine samples with mixed infections of PeCV and PeVA. BLASTn of consensus sequences revealed 99% nucleotide sequence identity to Italian PeCV isolate SSPI (HE805114) and 98% to Japanese PeVA isolate (AB735628) respectively. The consensus sequences were deposited in GenBank as AB968365 (PeCV) and LC177111 (PeVA). Mixed infections of both viruses were detected in one plant showing vein necrosis, and in eight asymptomatic samples. To our knowledge, this is the first report of PeCV and PeVA infection of persimmon in Korea.

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