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DISEASE NOTE

First report of *Cladosporium cladosporioides* causing leaf spot on tomato in Mexico

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During 2017, a severe leaf spot disease was observed in a tomato greenhouse in Texcoco, Estado de México, Mexico. Symptoms on leaves included yellow irregular lesions on adaxial surfaces, whereas intense grayish brown sporulation developed on the undersides of the lesions. Disease incidence was approximately 35%. The pathogen was isolated on PDA medium and colonies exhibited sparse aerial mycelium, olivaceous-brown to brown, with a velvety texture and sporulation profuse. Conidiophores were solitary, straight to slightly flexuous, olivaceous-brown, narrowly cylindrical to subcylindrical-oblong, occasionally once geniculate, unbranched or occasionally branched, and measuring 40–300 × 2.5–3.5 μm. Conidia were catenated, in long branched chains, olivaceous-brown, smooth. Intercalary conidia were limoniform or sometimes subcylindrical, aseptate, of 5–12.5 × 1.8–2.4 μm. Secondary ramoconidia were aseptate or occasionally 1-septate, ellipsoid, cylindrical-oblong, of 12–15 × 2.5–3.5 μm. Based on morphological features, the fungus was identified within the *Cladosporium cladosporioides* species complex (Bensch et al. 2012). An isolate was deposited in the Culture Collection of Phytopathogenic Fungi of the Chapingo Autonomous University as UACH293. For molecular identification, the ITS region and part of EF1-α gene were amplified by PCR and sequenced using the primer sets ITS5/ITS4 and EF1-728F/EF1-986R, respectively. The sequences were deposited in GenBank (Accession Nos. ITS:MH785190 and EF1-α:MH785189). A phylogenetic analysis using Bayesian inference and including published ITS and EF1-α sequence dataset for *Cladosporium* species was performed. The phylogenetic analysis resulted in a well-supported clade grouped with the type species of *C. cladosporioides*. To verify the pathogenicity of the fungus, inoculations were performed on 20 leaves of two-month-old tomato plants by spraying a conidial suspension (10^5 spores/ml). Five leaves were mock inoculated with distilled water as a control. Symptoms of leaf spots were produced 10 days after inoculation, whereas the control leaves remained healthy. *Cladosporium cladosporioides* has been reported associated with tomato in Brazil, China, and Malaysia (Farr and Rossman 2018). To our knowledge, this is the first report of leaf spot on tomato caused by *Cladosporium cladosporioides* in Mexico.

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