First report of southern blight caused by *Sclerotium rolfsii* on sesame in Mexico

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Sesame (*Sesamum indicum* L.) is an oleaginous crop of great importance worldwide. During December 2015, in sesame plantations of Guerrero, Mexico, plants with root and basal stem rot were collected. Compact mycelial masses and numerous whitish to dark brown sclerotia were observed on these plants. Pieces of tissue were cut from the lesion and disinfested with 1.5% NaOCl, transferred to PDA and incubated at 28 °C. After one week, pure cultures were obtained. Subsequently, after 21 days of incubation, colonies developed white, silky mycelium and abundant globoid to irregular sclerotia, 1 to 3 mm in diameter. Based on morphological characteristics, the fungus was identified as *Athelia* (*Sclerotium*) *rolfsii* (Mordue 1974). Identification was confirmed by amplifying and sequencing a 658 bp fragment of the ITS region using ITS1/ITS4 primers (GenBank accession No. MF428429) (White et al. 1990). This sequence showed 99%

identity with *Athelia rolfsii* (teleomorph of *S. rolfsii*) (AB042626 and AB075298). Pathogenicity tests were carried out on 20 healthy sesame plants in a greenhouse at 24 ± 2 °C. A mycelial plug of *S. rolfsii* was deposited at the base of each plant. In ten plants a sterile PDA plug was placed to serve as uninoculated controls. After 25 days, inoculated plants exhibited symptoms similar to those observed in the field, from which *S. rolfsii* was re-isolated and identified morphologically. In control plants, no damage was observed. *S. rolfsii* has been reported to infect sesame in Korea, Taiwan, Cambodia, Cuba, Greece, and India (Farr and Rossman 2017). This is the first report of *S. rolfsii* causing southern blight on sesame in Mexico.

References

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