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DISEASE NOTE

First report of *Athelia rolfsii* on Alstroemeria in Turkey

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Alstroemeria spp. (Lily of the Inca, Peruvian Lily) is a cutting garden flower widely grown in many countries. In July 2021, symptoms of leaf chlorosis, wilting, root rot, and dark brown stem lesions near the soil level were observed on about 20% of *Alstroemeria* spp. plants in a greenhouse in Bursa province, Turkey. The pathogen produced abundant white, fluffy mycelium and brown sclerotia on infected tissues. Stem tissues with necrosis symptoms were surface-sterilized in 1% sodium hypochlorite for 2 min, placed onto potato dextrose agar (PDA) and incubated in darkness at 23 ± 1 °C. The fungus produced abundant white mycelium with hyphae septate, branched, 4–8 µm wide, and with typical clamp connections. Sclerotia were small, spherical, initially white, later browning, and 1–3 mm in diameter. Seventeen isolates from 5 plants were identified as *Athelia rolfsii* (*Sclerotium rolfsii* Sacc.) on the base of morphological and cultural characteristics (Mordue 1974). To confirm the identification, the internal transcribed spacer region (ITS) of rDNA of a representative isolate was sequenced with primers ITS1/4 (White et al. 1990) and deposited in GenBank (accession No. OL884217). BLAST analysis showed 100% similarity to *A. rolfsii* CBS:132,553 in GenBank. Phylogenetic analysis showed the close genetic relationship among the representative strain and reference *A. rolfsii* strains. To confirm Koch's postulates, 5 pots containing 3 plants each were inoculated by placing 5 pathogen colonized sorghum grains near the crown of each plant about 1 cm below the soil surface. Control plants were inoculated with sterile grains. The plants were placed in a growth room at 23 ± 1 °C for 4 weeks. Inoculated plants showed the same symptoms observed in the greenhouse. The fungus was re-isolated from the artificially inoculated plants. No symptoms were observed on the uninoculated plants. To our knowledge, this is the first report of *A. rolfsii* on Alstroemeria in Turkey (Farr and Rossman 2021).

Declarations

Ethical statement This article does not contain any studies with human participants or animals.

Conflict of interest All authors declare that they have no conflict of interests.

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