First report of *Athelia rolfsii* (*Sclerotium rolfsii* Sacc.) causing collar rot disease on sunflower in Turkey

Ceren Cer¹ · Ayşe Uysal Morca²

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Sclerotium rolfsii Sacc. (teleomorph *Athelia rolfsii* (Curzi) C.C. Tu & Kimbr.), the causal organism of collar rot of sunflower (*Helianthus annuus* L.) is a soil-borne facultative parasite of over 500 plants (Aycok 1966). In recent years, especially in the north-west of Turkey, sunflower crop losses have been increasing due to basal rots caused by *Sclerotinia* species. In June of 2017, basal rot symptoms were observed in some sunflower plantations in Dikili district of Izmir province (TU). The disease incidence ranged from 15 to 30%. Stems were infected near the soil line and a light brown lesion developed at the base of the stem and girdled the plant. Whitish mycelium masses developed on the girdled lesion on the stem of some diseased plants. After isolation, three morphologically similar pure cultures were obtained that developed single sclerotia. The isolates produced white cottony mycelium with silky strands. Sclerotia were white at first but became reddish to dark brown with age, with size of 1–3 mm in diameter. ITS-PCR amplification of all isolates was performed using ITS1/ITS4 primers. BLASTn search of sequenced PCR products (655 to 686 bp) revealed 99–100% similarity to several isolates of *A. rolfsii* (GenBank Accession Nos. MK721537, MK721538 and MK721539). Based on molecular and morphological features the isolates were identified as *Athelia rolfsii* (Curzi) C.C. Tu & Kimbr.

(anamorph *Sclerotium rolfsii* Sacc.), as described by Mordue (1974). To test pathogenicity, 15-day-old sunflower seedlings of the cvs. Sambro and Transol were inoculated by placing one mycelial plug of isolates at the base of each plants (Hernandez-Morales et al. 2018) in a climate room at 22 ± 2 °C with a 16-h light photoperiod. Inoculated plants exhibited symptoms after 20 days and *A. rolfsii* was consistently reisolated from all the inoculated plants, while no symptoms or signs were observed on the uninoculated plants. This is the first report of *A. rolfsii* on sunflower in Turkey.

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✉ Ceren Cer
ceren.karagoz@tarimorman.gov.tr

¹ Directorate of Plant Protection Research Institute-Bornova, Izmir, Turkey

² Directorate of Plant Protection Central Research Institute, Ankara, Turkey