First report of basal stem rot and blight of yardlong bean (*Vigna unguiculata* subsp. *sesquipedalis*) caused by *Athelia rolfsii* in India

Abdulmajeed Sajeena¹ · Deepthi S. Nair² · Teja Sri Peteti² · Jacob John¹ · Bhadra Sudha¹ · Altharackal Vikraman Meera¹

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In January 2019, Yardlong bean [*Vigna unguiculata* (L.) Walp. ssp. *sesquipedalis* (L.) Verdc.] plants (var. NS 621) exhibited wilting, stem shredding, rotting and ultimately, drying symptoms at IFSRS, Karamana (08°28'28" N, 76°57'47" E). The disease incidence ranged between 15% to 30%. At the stem base, pure white, fluffy, fan shaped mycelia were observed with mustard seed shaped sclerotia, which were detected up to 25 cm depth. The fungus was isolated following standard protocols. Cottony white, fluffy and silky mycelia were observed on potato dextrose agar (PDA) medium. The fungus completed its growth in Petri plates within 3 days of incubation. Irregular to circular, whitish (later tan coloured) sclerotia (0.5 to 2.1 mm) were produced from 6th day of incubation. Hyaline and septate hyphae had the presence of clamp connections. The ITS (internal transcribed spacer) region of rDNA was amplified using the universal primers ITS4/ITS5 (Kwon et al. 2014). Comparison of the sequence of amplicon using BLAST revealed 99.69% sequence similarity

with four isolates of *Athelia rolfsii* (*Athelia rolfsii* (Curzi) C.C. Tu & Kimbr.) with accession Nos. MN 121364, MG 836252, KY 216142 and HQ 420816, respectively. Based on morphological and molecular analyses, the fungus was identified to be *A. rolfsii* (syn. *Sclerotium rolfsii*; Mordue, 1974). The ITS sequence of the isolate was deposited in NCBI database (MN 696630.1). Twenty five, 2 week-old yardlong bean seedlings (var. NS 621) were inoculated with 5 mm culture discs of seven-day-old fungal colonies at stem base. The symptoms were exhibited on 20th day of inoculation. No symptoms were observed on uninoculated plants. The fungus was reisolated which exhibited the same morphological and cultural characters of *A. rolfsii*, thus proving Koch's postulates. To the best of our knowledge, this is the first report of basal stem rot and blight caused by *A. rolfsii* in yardlong bean in Kerala and elsewhere in India (Farr and Rossman 2020).

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✉ Abdulmajeed Sajeena
sajeenamanjima@gmail.com

¹ Integrated Farming System Research Station (IFSRS), Karamana, Thiruvananthapuram, Kerala Agricultural University, Kerala 695002, India

² Department of Plant Pathology, College of Agriculture, Vellayani, Thiruvananthapuram, Kerala Agricultural University, Kerala 695002, India