



First report of *Athelia rolfsii* (Curzi) causing stem and root rot on stevia (*Stevia rebaudiana* Bertoni) in Ecuador

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Commercial production of stevia (*Stevia rebaudiana* Bertoni) has increased in response to worldwide demand for steviol glycosides, which are used for production of non-calorific sweetener. In July 2017, wilting, and stem and root rot were observed in 2% of a commercial stevia field (5 ha) in Santa Elena province, Ecuador. Signs of white mycelia and dark brown sclerotia were also observed on these plants. From 16 samples, symptomatic tissue was excised, disinfested in 1.5% sodium hypochlorite and washed with sterile distilled water and placed in PDA plates maintained at 25 °C. All isolates produced white, silky mycelia, with a fan-shaped pattern and abundant dark brown sclerotia (0.5 to 2.5 mm). Hyphal-tip ($n = 2$) were deposited in the Coleção de Culturas de Fungos Fitopatogênicos da Universidade de Brasília (Accession codes CCUB2281 and CCUB2282). To identify the isolates, complete *ITS* and partial *LSU* regions were amplified with primers V9G (Hoog and Gerrits 1998) and LR5 (Vilgalys and Hester 1990) and Sanger sequenced (GenBank accessions Nos. MN421849 and MN421850). The sequences showed > 99.41% identity with *Athelia rolfsii*

accessions KX139196.1 and AY635773.1. Pathogenicity tests using two representative isolates were performed by inoculating 15 stevia plant stems with colonized PDA discs. Uninfested PDA discs were similarly inoculated on 15 plants as negative controls. Plants were incubated at 25 °C for 20 days. Mycelia and sclerotia were present on all inoculated plants, and all inoculated plants exhibited both wilting and root rot. Uninoculated plants remained asymptomatic. The pathogen was re-isolated from symptomatic plants, thus completing Koch's postulates. This pathogen was previously reported to infect stevia in several countries (Farr and Rossman 2020). To our knowledge, this is the first report of *A. rolfsii* causing stem and root rot on *Stevia rebaudiana* in Ecuador. This information is essential to effectively manage for this disease.

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