



First report of leaf and twig blight of Indian hawthorn (*Rhaphiolepis indica*) caused by *Neofusicoccum parvum* in Italy

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During the winter of 2018 symptoms of leaf and twig blight were observed on about 15% of 7500 4-year-old potted plants of Indian hawthorn [*Rhaphiolepis indica* (L.) Lindl.] grown in a commercial nursery in Catania province, Italy.

Necrosis was found in the petioles, moving upward through the mid rib and blade, showing brownish V-shape lesion at the bottom of the leaves and leading to a complete blight of the twigs. Under the bark, discolored tissue was found. Diseased tissues were surface disinfected for 1 min in 1.5% sodium hypochlorite solution, rinsed in sterile water, placed on PDA amended with 100 mg/l of streptomycin sulfate, and then incubated at 25 °C for seven days. A fungus like *Neofusicoccum* sp. was consistently isolated. ITS region of rDNA and part of *tef1* gene were amplified using ITS5, ITS4 and EF1-728F, EF1-986R primers, respectively. The sequence data were deposited in GenBank. BLAST analysis identified the fungus as *Neofusicoccum parvum* (Pennycook & Samuels) Crous, Slippers & A.J.L. Phillips. The obtained ITS sequences (GenBank accession Nos. MN128645; MN128646) of the isolates CBS 145794, CBS 145795 showed 99.65% and 99.83% identity with the tester isolate (KJ657701) respectively, and *tef* sequences (MN175951; MN175952) showed 100% and 98.97% (KJ126847). The isolates have been registered in the CBS Westerdijk Fungal

Biodiversity Institute collection (Utrecht). Pathogenicity tests were conducted inoculating 10 twigs with a mycelial plug. Control consisted of sterile PDA plugs. Plants were moved into a growth chamber at 25 °C ± 1 °C. The same symptoms observed in field appeared on 90% of the inoculated twigs after 10 days and complete twigs blight of the apical part of the plant after 17 days. Re-isolations completed Koch's postulates. This fungus is spreading in Sicily on different important crops (Guarnaccia et al. 2016; Ismail et al. 2013) but for our knowledge, this is the first report of leaf and twig blight caused by *N. parvum* on Indian hawthorn.

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