Occurrence of leaf spot disease on date palm caused by *Neopestalotiopsis clavispora* in Iran

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In May 2016, symptoms of circular leaf spots with concentric rings, later developing into irregular lesions were observed on the leaves of date palm (*Phoenix dactylifera* L.) in Sari County, Iran. Fungal isolations were done based on conventional methods (Mirhosseini et al. 2017). Woolly-cottony white colonies were grown on PDA. After 10 days, black acervuli distributed in concentric circles appeared throughout the entire plate. Conidia were fusiform, straight, and had five cells. Basal and apical cells were hyaline while third and fourth cells were dark brown. All conidia had one basal appendage (average 8.7 µm) and two to four (commonly four) apical appendages (average 23.7 µm). Morphological identification, corresponding with *Neopestalotiopsis clavispora*, was confirmed by sequencing of the ITS region amplified by ITS5 and ITS4 primers and comparison with sequences in GenBank. BLAST algorithm showed 100% homology with *N. clavispora* (Accession No. MH685414.1). Pathogenicity was confirmed by placing six mycelial plugs from the three representative actively growing fungi on the seedling. Two plants, each containing three leaves, were used for this test. Plants were kept in a glasshouse at about 25 °C with a 14-h photoperiod. All inoculated leaves developed dark lesions after 8 days of incubation, whereas control leaves remained asymptomatic. There are some reports of *N. clavispora* causing disease on strawberry worldwide

(Chamorro et al. 2016; Mahapatra et al. 2018) and Macadamia in Brazil (Santos et al. 2019), but this is the first report of leaf spot caused by *N. clavispora* on date palm in Iran.

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