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DISEASE NOTE

First report of *Neoscytalidium novaehollandiae* associated with branch dieback and stem cankers on plum in Turkey

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Plum (*Prunus domestica*) is an economically important fruit tree in Turkey. In the summer of 2021, canker symptoms were observed on the plum trees in an orchard located in Adıyaman province, Turkey, with an incidence of approximately 4%. Symptoms included branch dieback, gummosis, dark vascular discoloration, and stem canker. Samples of diseased tissues were collected, surface-sterilized with 1% sodium hypochlorite for 2 min and plated onto potato dextrose agar containing 0.5 g L^{-1} streptomycin sulfate. The plates were incubated for 10 days at 23 °C in dark. Arthroconidia produced on aerial mycelium as arthric chains were dark brown, thick-walled, disarticulating, cylindrical to oblong, 0 to 1 septate, 9.25–4.37 × 4.27–2.96 µm (n = 30). Pycniospores occurring on pine needles were hyaline, ellipsoidal to oval, 0–1 septate, 3.5–4.5 × 10.5–13.2 µm (n = 30). Morphological characters of the isolates were like *Neoscytalidium novaehollandiae* (Pavlic et al. 2008). For accurate identification, the internal transcribed spacer (ITS) and translation elongation factor 1-α (EF1-α) loci of representative isolate AUZF-1035 deposited in Ankara University Culture Collection were sequenced using primers ITS1/ITS4 and EF1-728F/EF1-986R (White et al. 1990; Carbone and Kohn 1999). The sequences were deposited in GenBank (accession Nos. MZ566847 for ITS, MZ576213 for EF1-α) and showed 100%-99.3% similarity to *N. novaehollandiae* strain CBS 122,071 (ITS: MH863173, EF1-α: EF585580). Phylogenetic analysis showed the close genetic relationship among *N. novaehollandiae*. Koch's postulates were completed by inoculating 35 cm cut-branches from 5 year-old healthy trees. Six branches were wounded with a 4 mm cork borer and inoculated by a mycelial plug, while control branches were inoculated with sterile PDA plugs. All branches were wrapped with parafilm and incubated at 25 °C in moist chambers. After 8 weeks, dark brown necrotic lesions appeared at inoculation points, but not on controls. *N. novaehollandiae* was re-isolated from lesions and identified based on morphology. This is the first report of *N. novaehollandiae* associated with branch dieback and stem canker of plum trees in Turkey.

Declarations

Ethical statement This article does not contain any studies with human participants or animals.

Conflict of interest All authors declare that they have no conflict of interests.

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