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DISEASE NOTE

First report of *Fusarium proliferatum* causing canker on apricot (*Prunus armeniaca*) in Turkey

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Turkey is one of the most important producers of apricot in the world. During summer 2022, about 3% of apricot (*Prunus armeniaca* L. cv. Hacıhaliloğlu) trees in a newly planted 15 decares commercial orchard in Malatya province (38°09'10.7"N, 37°56'29.2"E) showed symptoms of desiccation, necrosis, darkening of bark and wood tissues, and stem canker. Wood pieces from diseased branches of four trees were surface sterilized in 1% sodium hypochlorite for 2 min, placed onto potato dextrose agar (PDA), and incubated in dark at 23 °C. Fungal colonies with abundant aerial mycelium were initially white, turned purple-violet with age, morphologically like to the genus *Fusarium*. Macroconidia were thin-walled, slender, 3 to 5 septate with curved apical cells and poorly developed basal cells and measured 3.5 to 5.7 × 23.5 to 35.8 µm (n = 30). Microconidia were single celled, ovoid, and produced abundantly in chains or in false heads, and measured 3.2 to 3.8 × 5.5 to 7.4 µm. No chlamydospores were observed. The cultures were identified as *Fusarium proliferatum* based on morphological characteristics (Leslie and Summerell 2006). Identity of a representative isolate was confirmed by sequencing of the RNA polymerase II subunit 2 (RPBII) and translation elongation factor gene (EF1- α) (Liu et al. 1999; Geiser et al. 2004). Sequences were deposited in GenBank (accession Nos. EF1-α: OP994347, RPB2: OP994349) and proved to 99.6–100% match in BLAST searches with *F. proliferatum* sequences (EF1-α: JX118983, RPB2: JX162527), respectively. Phylogenetic analysis with concatenated sequences further confirmed the identification. To fulfill Koch's postulates, five mm mycelial plugs of the pathogen culture were applied to the same size bark wounds on the middle point of six branches of approximately 40 cm and covered with Parafilm. Sterile PDA plugs were applied to control plants. Inoculated branches were maintained for 5 weeks at 23 °C in moist chambers. All inoculated branches showed dark brown necrotic lesions on inoculation points, while control plants remained symptomless. The pathogen was reisolated from lesions of inoculated branches, thus fullling Koch's postulates. To our knowledge, this is the first report of apricot dieback and canker caused by *F. proliferatum* 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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