



First report of fruit rot caused by *Botryosphaeria dothidea* on olive in Turkey

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During the years 2012 and 2013, in the Aegean region (Western Turkey), fruit rot symptoms occurred on olive (*Olea europea* L.) cvs Gemlik, Memecik and Ayvalık with an infection incidence 50%. Infected olives showed an initial brown color and then fruits increase in size and the lesions are fused until they become completely desiccated and mummified. Infected fruit parts were disinfected with 1% sodium hypochloride for 2 min, rinsed in sterile distilled water twice and dried in sterilised filter paper. The infected fruit parts were placed on potato dextrose agar (PDA) and incubated at 25 °C in darkness for 5 days. Fungal cultures showed fusiform, hyaline, aseptate conidia typical of the genus *Fusicoccum*, dark walled, ovoid, ellipsoid or fusiform and other conidia types were different that had 1–2 septate averaging $22.7 \times 5.3 \mu\text{m}$ (Philips et al. 2005). Nucleotide sequence of the internal transcribed spacer region (primer pair ITS1/ITS4) of ribosomal DNA and part of translation elongation factor 1-alpha (EF1- α ; EF1-688F/EF1-986R) were amplified. The sequences, obtained from three different samples from the same fungus, were deposited in GenBank under accession Nos. MG598525, MG753998 and KX898358 for the ITS region and MG816210, MG816211, MG816213 for the EF1- α region. The gene homology analyses showed that the three ITS

sequences were 99–100% identical to *Botryosphaeria dothidea* (EF638755). Similar results were obtained for the three samples of the EF1- α sequences, all showing 100% gene homology to *B. dothidea* (EF638732) (Lazzizzera et al. 2008). Pathogenicity was conducted by placing a 5 mm disk of PDA colonized with *B. dothidea* on selected two branches each with 25 fruits of native olive cultivar Gemlik. As a control, fruits were inoculated with uncolonized discs on selected third branch (25 fruits) (Delen and Saribay 1972). Branches were covered with plastic bags after the application to provide high humidity. After 10 days of incubation, the pathogen was successfully re-isolated from the fruit surface to fulfill Koch's postulates. Previously, drupe rot caused by *B. dothidea* has been reported on olive in Greece (Philips et al. 2005). To the best of our knowledge, this study is the first report of *B. dothidea* causing olive fruit rot from Turkey.

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