First report of *Fusarium equiseti* causing wilt on lentils (*Lens culinaris* Medik.) in Pakistan

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Lentils (*Lens culinaris*) showing wilt symptoms including yellowing, plant stunting and vascular discoloration were observed at the production sites of Jhelum district of Punjab province. During 2011–12 and 2012–13, the disease incidence evaluated was 8% and 20%, respectively. Small root pieces disinfected with 1% sodium hypochlorite for 2 min were placed on potato dextrose agar (PDA) at 25 °C for 7 days. Colonies presented a compact to fluffy mycelium initially creamy white, then characterized by a pale brown pigmentation. Purified cultures produced slightly curved macroconidia (16.9–32 × 2.5–3.8 µm) with 5 septa, elongated apical and foot-shaped basal cell. Chlamydospores (7.0–12.8 µm) were spherical, intercalary and solitary or in short chains. The observed characters matches with the species description of *Fusarium equiseti* (Corda) Saccardo (Leslie and Summerell 2006). To confirm this putative identification, DNA was extracted (Cenis 1992; Abd-Elsalam et al. 2003) for the amplification of 700 bp translation elongation factor (TEF1-α) gene region using EF1/EF2 primers (Geiser et al. 2004). Sequences were deposited in GenBank (Accession Nos. KR108316 to KR108322) and BLAST analysis showed 99% identity to those derived from *F. equiseti*. Pathogenicity of isolates was evaluated in a greenhouse at 25 ± 2 °C by inoculating roots of susceptible lentil line (NARC-08-1) seedlings in 60 mL spore suspension (1 ×

10⁷ conidia/ mL), while control plants were treated with sterile water. Clear wilt symptoms were observed in all the fungal inoculated plants after 20–25 days with 100% incidence and 30% severity index (Kranz 1988) while control plants were symptomless. *F. equiseti* re-isolated from all the inoculated plants exhibited morpho-molecular characters similar to those observed among the isolates. To our knowledge, this is the first report of *F. equiseti* causing wilt on lentils in Pakistan.

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