



First report of *Gilbertella persicaria* causing soft rot in eggplant fruit in China

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In August 2018, eggplant fruits (*Solanum melongena*) were collected with circular, light brown and slightly sunken lesions at the apex containing little white mycelium (infection incidence was 1–2%) from a local market in the Haidian district, Beijing, China. Purified fungal isolates initially produced white colonies; later individual colonies covered the entire PDA plate surface (90 mm diam) within 3 days. Sporangiothecae were smooth walled, simple to branched, erect and curved below the sporangium. Sporangia were globose to subglobose, 36.5–247.5 × 37.4–250.5 μm, columella (ovoid, pyriform or subglobose), 21.5–108.2 × 24.5–135.6 μm. Sporangiospores were globose to ellipsoid, hyaline, smooth, one-celled, 7.8–13 × 5.2–10.4 μm. Based on the morphological characteristics the fungus was identified as *Gilbertella persicaria* (Hesseltine 1960). Fungal DNA of eight isolates were amplified for partial ITS regions using ITS1/IT4 primers and sequenced. Obtained sequences showed a 100% similarity with various ITS sequences of *G. persicaria* (KR076759, KR076758, KT213049). The

ITS sequence (MH753636) of a representative isolate (YC-1K2) was submitted in GenBank and showed 99.83% similarity with the ex-type sequence NR_111692. Koch's postulates were fulfilled by inoculating three asymptomatic eggplant fruits. A sporangiospores suspension (1×10^5 sporangiospores/ml) was sprayed on punctured sites on each fruit, kept in plastic boxes and placed in a moist chamber at 25 °C for 5 days. Sterile distilled water was sprayed on a set of three eggplant fruits for control. Inoculated fruits showed symptoms (circular, light brown spots) after 48 h of inoculation and sporangiothecae evolved into rotted lesion after 5 days. The re-isolated and identified fungus from infected fruits corresponded to *G. persicaria*. Recently, *G. persicaria* has been reported to cause soft rot on dragon fruits (*Hylocereus* spp.) in China and Taiwan (Guo et al. 2012; Lin et al. 2014). To our knowledge, this is the first report of *G. persicaria* soft rot in eggplant fruit in mainland China.

Ibatsam Khokhar and Irum Mukhtar contributed equally to this work.

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