



First report of *Colletotrichum siamense* causing fruit anthracnose on Indian jujube in Taiwan

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Indian jujube (*Ziziphus mauritiana*), planted in tropical and subtropical areas, is a delicious fruit with high nutritional value. In November 2016, an anthracnose-like disease was observed on Indian jujube fruit planted in an orchard in Liouguei District, Kaohsiung City. The disease incidence was about 30% in the orchard. On potato dex-trose agar (PDA), the single spore isolates produced white, aerial, and cottony mycelia on the outer range of the colony, and abundant salmon-colored conidial mass in its center. The conidia were hyaline, single-celled, round cylindrical at both ends, thin-walled, and guttulate, and measured 16.0 to 21.0 (mean = 18.2) × 4.0 to 6.0 (mean = 4.7) μm (n = 40). DNA was isolated from one of the isolates (JC3) and used for amplification of partial sequences of the internal transcribed spacer (ITS), actin (*ACT*), chitin synthase 1 (*CHS-1*), glyceraldehyde-3-phosphate dehydrogenase (*GAPDH*), β-tubulin 2 (*TUB2*) (Weir et al. 2012). The species of JC3 was confirmed to be *Colletotrichum siamense* by multigene [GenBank accession numbers: MT197190 (ITS), MT199866 (*ACT*), MT815920 (*CHS-1*), MT199867 (*GAPDH*), MT199868 (*TUB2*)] phylogenetic analysis due to its clustering with *C. siamense* ICMP 18578. A conidial suspension (1×10^6 conidia mL⁻¹) prepared from JC3 isolate was inoculated by spraying onto detached, ripe, healthy, and unwounded jujube fruit [cv. Kaohsiung 11 (Honey), n = 4]. Four control fruit were sprayed with sterile water. Fruit were kept in a moist chamber (> 90% relative humidity, 24–28 °C) for 24 h and maintained in the laboratory for 5 days. The inoculated fruit showed symptoms similar to those observed in the orchard.

C. siamense was reisolated from symptomatic fruit and showed morphological characteristics similar to the JC3 isolate, thus fulfilling Koch's postulates. No symptom was observed on fruit treated with water. To our knowledge, this is the first report of *C. siamense* causing Indian jujube fruit anthracnose in Taiwan.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s42161-023-01567-y>.

References

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