

[< Previous](#)[Next >](#)

## DISEASE NOTES



# First Report of Anthracnose of *Capsicum chinense* in Brazil Caused by *Colletotrichum brevisporum*

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Fruit of “yellow lantern” chili pepper (*Capsicum chinense* L.) with typical symptoms of anthracnose were observed in the city of Manaus in 2008 and Manacapuru in 2014, in Amazonas state, Brazil. The symptoms initially consisted of small dark-brown lesions, circular, depressed, with defined edges, progressing to the center and becoming gray to black, with concentric circles. Losses of up to 100% have occurred in some plantings. Isolation of the fungus was carried out from masses of spores present on the fruit lesions. Colonies were grown on potato dextrose agar (PDA) at 25°C and 12-h photoperiod. Monosporic cultures were obtained and the isolates were deposited in the Microorganisms Culture Collection of the National Institute of Amazonian Research, Manaus, Brazil (INPA 1858 and INPA 2800). After 7 days on PDA, single spore colonies had a cottony appearance and the color ranged from white to brownish, with orange-colored masses of conidia. Conidia were hyaline, aseptate, cylindrical with rounded ends, and measured 10.2 to 17.7 µm in length × 3.3 to 5.6 µm in width. Appressoria formed were dark-brown in color, irregularly shaped or lobate, and measured 5.9 to 12.0 µm in length and 5.5 to 8.9 µm in width. Partial sequences of actin (ACT) and glyceraldehyde-3-phosphate dehydrogenase (GAPDH) genes were amplified and comparted to GenBank accession nos. KU315567 and



clade with high support (posterior probability = 1). Pathogenicity tests with isolates INPA 1858 and INPA 2800 were conducted on healthy chili peppers using the wound inoculation method by droplet ( $10^6$  conidia/ml) on the fruit surface (Lin et al. 2002). Pathogenicity tests were done with 10 fruit per isolate (INPA 1858 and INPA 2800) replicated three times. The controls were inoculated with sterile water. Typical symptoms of anthracnose were observed 7 days post inoculation, while the controls did not show any symptoms. The fungus *C. brevisporum* was recovered from the inoculated chili peppers, thereby confirming Koch's postulates. *C. brevisporum* was described in Thailand causing symptoms in *Neoregalia* sp. and in *Pandanus pygmaeus* (Noireung et al. 2012), in Korea in *Lycium chinense* (Paul et al. 2014), and in Brazil in *Carica papaya* and *Sechium edule* (Bezerra et al. 2016; Vieira et al. 2013). To our knowledge, this is the first report of *C. brevisporum* on *C. chinense* fruits in Brazil.



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