Research Article

Morphological Diversity in Isolates of *Colletotrichum chlorophyti* Causing Anthracnose of Safed Musli (*Chlorophytum borivilianum* Santapau and Fernandez) in Southern Rajasthan

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Abstract

Colletotrichum Chlorophyti is a most important pathogen causing anthracnose of safed musli, it has often been confused with other Colletotrichum species, especially C. dematium and C. Truncatum based on morphology. To understand the pathogen involved in anthracnose in safed musli, twenty five isolates of C. Chlorophyti collected from the diseased leaf samples from different localities of Southern Rajasthan during survey in Kharif 2013 and 2014 and were characterized based on morphological criteria viz., Size of acervulus, number of setae/acervulus, presence/absence of appressoria/microconidia and size of conidia/setae/chlamydospores or acervulus. The cultures of C. Chlorophyti exhibited cylindrical with both apices rounded or with one apex rounded and the other end pointed of conidia. All the isolates varied in morphological characters, where the conidial measurement ranged from $2.8-24.5 \times 2.0-7.2 \mu m$. Among twenty five isolates number of appressoria was found in 10 isolates and microconidia or setae each were found in 14 isolates. Isolates varied in size of acervulus ranged average $75.3-224.1 \mu m$ and setae ranged average $70.0-145.5 \times 3.4-6.9 \mu m$ and were found diverset in morphological characters.

Key words: Anthracnose, Colletotrichum chlorophyti, morphological diversity, safed musli

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