

***Alternaria capsicicola* sp. nov., a new species causing leaf spot of pepper (*Capsicum annuum*) in Malaysia**

ABSTRACT

A new species of *Alternaria* causing leaf spot of pepper (*Capsicum annuum*) obtained from the Cameron highlands, Pahang, Malaysia, was determined based on phylogenetic analyses, morphological characteristics, and pathogenicity assays. Phylogenetic analyses of combined dataset of the glyceraldehyde-3-phosphate dehydrogenase (*gpd*), *Alternaria* allergen a 1 (*Alt a1*) and calmodulin genes revealed that the new isolates clustered into a subclade distinct from the closely related *Alternaria* species *A. tomato* and *A. burnsii*. The solitary or short chains of conidia resemble those of *A. burnsii*. However, conidia with long beaks are morphologically similar to *A. tomato*. Hence, the pathogenic fungus is proposed as *Alternaria capsicicola* sp. nov. Pathogenicity assays indicated that *A. capsicicola* causes leaf spot on pepper.

Keyword: Morphological characteristics; Phylogenetic analyses; Systematics; Taxonomy