Letter to editor

First report on the occurrence of *Cladosporium fulvum* strains in Cuba that can overcome the *Cf- 9* resistance gene

Primer informe sobre la presencia en Cuba de cepas de *Cladosporium fulvum* que pueden vencer el gen de resistencia *Cf- 9*

https://eqrcode.co/a/EXtLTD

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Dear editor:

Leaf mould of tomato, caused by the fungus *Cladosporium fulvum* Cooke (syn. *Passalora fulva* (Cooke) U. Braun & Crous), does hardly occur in outdoor grown tomatoes in Cuba. However, with the recent increase in production of tomato hybrids grown under anti-aphid mesh covers and greenhouses, it has become a major fungal disease, suggesting that the pathogen quickly evolves by accumulating mutations to overcome tomato *Cf* resistance genes. Globally, many races of *C. fulvum* have evolved so that can overcome single or sometimes multiple *Cf* genes present in commercially grown cultivars of tomato. Identification of the virulence spectrum of the *C. fulvum* population in Cuba is important for effective management of the disease by deployment of tomato hybrids with new *Cf* genes or combinations thereof. In recent years for this purpose, 36 single conidial strains obtained from diseased tomatoes collected in different provinces of Cuba were inoculated on a defined set of near-isogenic lines (NILs) of the tomato cultivar *MoneyMaker* carrying no *Cf* (for *Cladosporium fulvum*) resistance gene (MM- Cf-0) and the *Cf- 9* resistance gene (MM- *Cf- 9* =LA3047). Moreover, PCR amplification of the *Avr 9* gene was analyzed by using the specific primers described by Stergiopoulos *et al.* All 36 strains could infect LA3047, indicating that they all can overcome the *Cf- 9* gene, which was confirmed through the non-amplification of the *Avr 9* gene. This is the first report on the occurrence of *C. fulvum* isolates in Cuba that can overcome the *Cf- 9* resistance gene.

Sincerely

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