

OCCURRENCE OF RICE INFECTION BY *Bipolaris sorokiniana* IN IRAN

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Abstract

Diseased rice plants with foot rot as well as dark brown lesions on sheaths and stems were observed in a paddy field in Mazandaran province, Iran. Single lesions were excised and surface sterilized and then plated on water agar. The arising fungi were purified and refrigerated in agar slants. On the basis of morphological characteristics the fungus was identified as *Bipolaris sorokiniana*. The ITS sequence of the fungus was submitted to a BLAST search to find most similar sequences in GenBank. The search results showed highest similarity to eight strains of *B. sorokiniana* and *Cochliobolus sativus* (teleomorph). For phylogenetic comparison, the sequences of *Bipolaris* spp., *Cochliobolus* spp. together with other species belonging to closely related fungal genera were included. The resulted phylogram made with the neighbor-joining method using the program PAUP, showed that the Iranian strain (B54) formed a monophyletic group with seven *B. sorokiniana* and one *C. sativus* strain. To prove pathogenicity, several methods were done on two popular rice cultivars. This is the first record of *B. sorokiniana* on *Oryza sativa* in Iran.

Keywords: Pathogenicity, *Bipolaris sorokiniana*, *Oryza sativa*, spot blotch, Mazandaran province.

See Persian text for figures and tables (Pages ۳۵۳-۳۶۰).

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