

عنوان مقاله:

Morphological and phylogenetic investigation on selected Fusarium species belong to Gibberella fujikuroi species complex in Iran

محل انتشار:

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خلاصه مقاله:

The Gibberella fujikuroi species complex with Fusarium anamorphs is the causal of diverse diseases of many important plants. Many of the known species in this species complex produce a wide range of secondary metabolites. In this study, morphological characteristics of ۴۶ isolates from rice, maize, sugarcane and onion and phylogenetic relationships of ۲۲ isolates on the basis of ITS1-۵.۸S-ITS۲ region and EF-۱α gene sequences were investigated. According to the morphological characteristics of ۴۶ isolates, five species including F. fujikuroi, F. proliferatum, F. sacchari, F. thapsinum, and F. verticillioides were identified. Moreover, earlier morphologically two isolates obtained from sugarcane were very similar to F. verticillioides but, using EF-۱α gene sequence were identified as F. andiyazi. On the basis of EF-۱α sequence, six clades were identified and differentiated all of six species (F. andiyazi, F. fujikuroi, F. proliferatum, F. sacchari, F. thapsinum and F. verticillioides) from one another. Moreover, sequencing of ITS1-۵.۸S-ITS۲ region identified five clades and differentiated F. proliferatum and F. verticillioides from each other but this region could not differentiate F. proliferatum and F. fujikuroi or F. andiyazi and F. verticillioides from each other. Generally, EF-۱α gene was appropriate for differentiation of Gibberella fujikuroi species complex.

کلمات کلیدی:

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