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Dry rot causing species of fusarium prevalent in Republic of Tatarstan

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Abstract

Fusarium species are the most frequently fungal pathogens of potato worldwide. In this study we isolated Fusarium species causing dry rot in potatoes that were grown in Republic of Tatarstan in 2014. Isolated species were identified as *Fusarium oxysporum* (4 strains), *Fusarium solani* (1), *Fusarium avenaceum* (1), *Fusarium tricinctum* (1), *Fusarium sambucinum* (1) and *Fusarium redolens*(1) by sequencing the ITS regions of rRNA. Variable degrees of pathogenicity were observed with the collected Fusarium isolates after artificial inoculation of healthy potato tubers. *Fusarium oxysporum* strains (MG2, NK3, MG1) were the most aggressive and virulent followed by *Fusarium solani* NZ1, *Fusarium tricinctum* SA1 and *Fusarium sambucinum* NK2, *Fusarium avenaceum* NK1 were the least pathogenic. The results of the identification of prevalent pathogenic Fusarium isolates from potato tubers can contribute to development of regional strategies for controlling the disease development in this area.

Keywords

Dry rot, Fusarium, Pathogenicity, Potato, Potato fungal diseases