

عنوان مقاله:

Effect of Root Colonizing Bacteria on Plant Growth and Fusarium Wilt in Cucumis melo

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خلاصه مقاله:

During ۲۰۰۳-۲۰۰۴, a number of rhizospheric soil samples were collected of either healthy or symptomatic field grown melon plants infected with *Fusarium oxysporum* f. sp. *melonis* race 1/۲ (Fom). Twenty one bacterial strains capable of inhibiting Fom including *Burkholderia* sp., *Bacillus* sp., *Streptomyces* sp. and *Pseudomonas fluorescens* were isolated. The strains colonized roots of "long melon" cultivar of Mashhad and, within two weeks, resulted in increased fresh and dry weight, length of stem and root, and number and area of leaves, in the absence and presence of Fom, under greenhouse and growth chamber conditions. The growth inhibition of Fom in vitro was due to antagonism, siderophore and antibiotic production, and secretion of exogenous compounds. All antagonistic strains reduced infection of long melon seeds with Fom under controlled conditions.

کلمات کلیدی:

Antagonist bacteria, *Fusarium oxysporum* f. sp. *melonis*, Long melon, Rhizosphere, Root colonizer bacteria

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