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RESEARCH ARTICLE

Molecular characterization of *Pseudomonas fluorescens* inhibiting the chickpea wilt pathogen *in vitro*

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ABSTRACT

Chickpea (*Cicer arietinum* L.) is the most important pulse crop of India. Wilt caused by *Fusarium oxysporum* f.sp. *ciceri* is the major limiting factor of chickpea production. The *Pseudomonas fluorescens* is used as a biocontrol agent against the chickpea wilt pathogen. However, the diversity of such bacteria that can exhibit antagonism against wilt pathogen is poorly exploited. Plant growth-promoting rhizobacterial strains belonging to fluorescent Pseudomonads were isolated from the rhizosphere of chickpea. Ten isolates which exhibited strong antifungal antagonistic activity against *Fusarium oxysporum* f.sp. *ciceri* mainly through the production of antifungal metabolites were characterized by PCR-RAPD analysis. A considerable level of molecular diversity was determined among the rhizobacterial isolates of *Pseudomonas fluorescens* isolated from different chickpea growing areas of Gujarat.

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