

## Summary

# GENETIC DIVERSITY OF SUGAR BEET ISOLATES OF *RHIZOCTONIA SOLANI* REVEALED BY RAPD-PCR AND ITS-RDNA ANALYSIS

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Genetic diversity of Iranian isolates of *R. solani* associated with sugar beet root rot was studied using RAPD-PCR and ITS-rDNA analysis. Twelve of the 14 random oligo-primers used in RAPD-PCR yielded scorable polymorphism among the isolates. The DNA bands on agarose and polyacrylamide gels were scored using binary code and a similarity matrix based on simple matching coefficient, was generated using SPSS software. No correlation was found between the RAPD profiles and the geographic location and virulence level of, or the type of disease caused (host, tissue affected) by the isolates of *R. solani*. The isolates belonging to different anastomosis groups could be distinguished at 85% similarity level. A DNA fragment of 650-750 bp in size was amplified from DNA preparations of all isolates with the ITS4 and ITS5 primers. The fragments possessed no recognition site for endonuclease *Pst*I. The RFLP profiles generated through digestion of the amplified products with *Eco*R1 and *Tru*9I were useful in differentiating the isolates of different anastomosis groups.

**Key words:** Genetic diversity, ITS-rDNA, RAPD-PCR, *Rhizoctonia solani*, Sugar beet,

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