

**ENDOPHYTIC BACTERIA CONTROLLING *FUSARIUM OXYSPORUM*  
AND *RHIZOCTONIA SOLANI* IN *SOLANUM TUBEROSUM***

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**ABSTRACT**

This study was conducted to test multiple endophytic bacteria as biological control agents against *Rhizoctonia solani* and *Fusarium oxysporum*. A total of 26 endophytic bacteria were isolated from potato plants. Two strains of *Bacillus amyloliquefaciens* (strain21 and strain53) were found to be potential biological control agents based on their radial growth inhibition percentage (RGIP) in dual culture test. The biocontrol potential of the two most effective antagonist strains was evaluated in potato plants under greenhouse conditions against *R. solani* and *F. oxysporum*. As a result, both bacteria promoted growth and development of the crop by increasing chlorophyll content, biomass fresh weight, root weight, stem diameter, plant height and crop yield. Both bacteria favored the health of potato plants in 909.09% against *R. solani* and 303.03% against *F. oxysporum*. This study suggests the use of endophytic bacteria to minimize losses caused by wilt diseases and root rot in greenhouses.

**Keywords:** Antagonism, endophytes, incidence, severity, *Bacillus amyloliquefaciens*.