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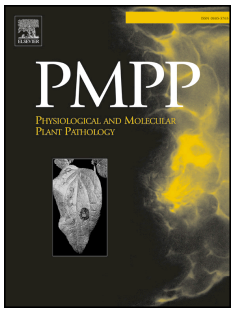

Endophytic root fungus *Piriformospora indica* affects transcription of steviol biosynthesis genes and enhances production of steviol glycosides in *Stevia rebaudiana*

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Endophytic root fungus *Piriformospora indica* affects transcription of steviol biosynthesis genes and enhances production of steviol glycosides in *Stevia rebaudiana*

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Abstract

Stevia rebaudiana (Bertoni) produces low calorie sweeteners, steviol glycosides (SGs) - stevioside and rebaudioside-A. Varying spore concentrations of *P. indica* were applied to *S. rebaudiana* grown *in vitro* and in the greenhouse to examine the effect on plant growth and synthesis of SGs. Symbiotic association of *P. indica* showed plant growth promotion and higher SGs content. The transcription profiles of eight key genes of the SGs biosynthetic pathway also showed strong upregulation. The results show that the symbiotic effect of