

Accepted Manuscript

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

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PII: S0885-5765(16)30190-4

DOI: [10.1016/j.pmpp.2016.12.003](https://doi.org/10.1016/j.pmpp.2016.12.003)

Reference: YPMPP 1224

To appear in: *Physiological and Molecular Plant Pathology*

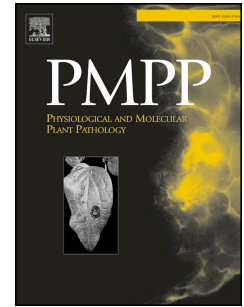
Received Date: 19 April 2016

Revised Date: 6 December 2016

Accepted Date: 7 December 2016

Please cite this article as: Kilam D, Saifi M, Abdin MZ, Agnihotri A, Varma A, Endophytic root fungus *Piriformospora indica* affects transcription of steviol biosynthesis genes and enhances production of steviol glycosides in *Stevia rebaudiana*, *Physiological and Molecular Plant Pathology* (2017), doi: 10.1016/j.pmpp.2016.12.003.

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

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15
16 **Abstract**

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

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