Forest Pathology

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SHORT COMMUNICATION

The Potential of *Pseudomonas koreensis* R4.45P to Suppress *Hymenoscyphus fraxineus* Development in *Fraxinus excelsior* Leaves

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ABSTRACT

Due to the intense ash dieback in Europe, which begins with the appearance of leaf infection, this study presents the results of the research on the impact of a selected isolate *Pseudomonas koreensis* R4.45P on the development of *Hymenoscyphus fraxineus* in the rachises of *Fraxinus excelsior*. Preliminary in vitro testing of *P. koreensis* R4.45P showed a statistically significantly lower growth of *H. fraxineus* compared to control cultures that were not exposed to this bacterium. The results of the in planta test on *F. excelsior* seedlings showed a statistically significant decrease in dieback occurrence and the length of necrotic lesions caused by *H. fraxineus* in rachises treated with *P. koreensis* R4.45P compared to untreated rachises. Additionally, leaf mortality in *F. excelsior* seedlings treated with *P. koreensis* R4.45P was statistically significantly lower. This study is the first to show the possibility of application of antagonistic bacteria *P. koreensis* R4.45P to effectively slow the initial stage of *H. fraxineus* development.