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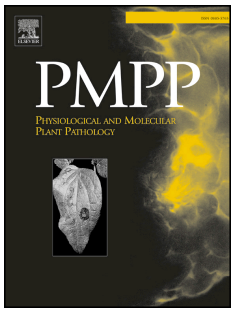

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TRANSCRIPTOME AND SECRETOME OF TWO *PYTHIUM* SPECIES DURING INFECTION AND SAPROPHYTIC GROWTH

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ABSTRACT

We analyzed the transcriptome and the secretome of *Pythium irregulare* and *Pythium iwayamai* when they were infecting bentgrass or growing saprophytically. Proteases, glycosidases, and ABC transporters showed the largest numbers of differentially expressed transcripts, but proteases appear to be the main class of enzymes secreted to degrade plant cell walls. There was no correlation between transcript level and protein secretion, and a very low correlation between the presence of signal peptide sequences and the actual secreted proteins. These results point to the usefulness of the proteomics analysis to study the direct interaction of plant pathogens with their hosts.

Keywords

Pythium irregulare; *Pythium iwayamai*; *Agrostis stolonifera;* transcriptome; secretome