

**Mycoparasitism activity of trichoderma harzianum associated with chitinase expression
against ganoderma boninense**

ABSTRACT

The filamentous fungus *Trichoderma* is an important fungus due to its biocontrol properties. This study was conducted on mycoparasitism activity of *Trichoderma harzianum* T32 against *Ganoderma boninense* upm001 on the basis of Potato Sucrose Agar (PSA) under the scanning electron microscope observation or cell wall degrading enzyme of chitinase gene expression by reverse-transcriptase (RT) PCR. The mycoparasitism process of *Trichoderma harzianum* T32 showed the coiling or killing of the *Ganoderma boninense* upm001 in PSA media. Deformity and shrinkage of *Ganoderma* mycelia was also observed under the scanning microscope in presence of *Trichoderma*. The RT-PCR profile showed that chitinase gene was expressed during the mycoparasitism activity in *T. harzianum* against *G. boninense*. It could be concluded that chitinase gene was an important element in process of biocontrol activity of *Trichoderma* as the gene was expressed against *G. boninense*.