

**POTENSI ANTAGONISTIK TIGA *TRICHODERMA* SPP.
TERHADAP DELAPAN PENYAKIT AKAR
TANAMAN KEHUTANAN ***

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ABSTRACT

Antagonistic growth effect of three isolates of *Trichoderma* against eight isolates of root-rot pathogens was studied. The research objectives was to find out the variation and level of antagonistic potency.

Co-culture method in potato dextrose agar (PDA) medium was employed

The results indicated that all isolates of *Trichoderma* showed antagonistic growth effect and suppressed the growth of root-rot pathogens. Isolates of root-rot pathogens isolated from different hosts also showed different response, indicated by its growth inhibition, to the isolates of *Trichoderma*. *Trichoderma reesei* (isolate 13) had the highest antagonistic potential against all isolates of root-rot pathogens. Root-rot isolate obtained from lamtoro (*Leucaena leucocephala*) inhibited the most by all isolates of *Trichoderma* tested. Compared to the growth of root-rot pathogen on PDA, the growth inhibition of root-rot pathogen of 99.51% by *T.koningii*, 100% by *T. reesei* dan 89.35% by *T. harzianum* was noted. The lowest antagonistic potential was recorded on *T. harzianum* against root-rot pathogen isolated from sengon (*Paraserianthes falcataria*), with inhibition growth of 56.37%. It is obvious that the *Trichoderma* tested has the potential to be used as biological agent against root-rot pathogens. Further study of the ecology of *Trichoderma* is needed to develop an applicable and environmentally save method in using the biological agent to control root-rot disease in the field.

Key words : *Trichoderma*, antagonistic, root-rot disease

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