

ABSTRACT

EFFICACY OF *Trichoderma harzianum* AS RESISTANCE INDUCER TO CONTROL FOOT ROT IN BLACK PEPPER

By

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The objective of this study was to determine the efficacy of *T. harzianum* as resistance inducer in pepper seedling to control foot rot. The hypothesis proposed in this study was (1) *T.harzianum* as systemic resistance inducer can reduce the intensity of foot rot and (2) There are differences in the ability to control the disease among isolates *T.harzianum*. The research was carried out in the greenhouse of Faculty of Agriculture, University of Lampung from October 2011 to March 2012. The treatments in this experiment were arranged in a completely randomized design (CRD). There were five treatments and six replications so there were 30 experimental units. The treatments consisted of (1) *T. harzianum* isolate 1, (2) isolate 2, (3) isolate 3, (4) isolate 4 and (5) plants without the application of *T. harzianum* as a control. Observed variables were the diameter of the spots formed on the leaf and stem disease severity. All treatments used planting media of soil and sand mixture in the ratio of 2:1. The results showed that *T. harzianum* was not able to induce plant resistance in black pepper against *P.capsici*.

Key words: *P. capsici*, *T. harzianum*, Foot rot.