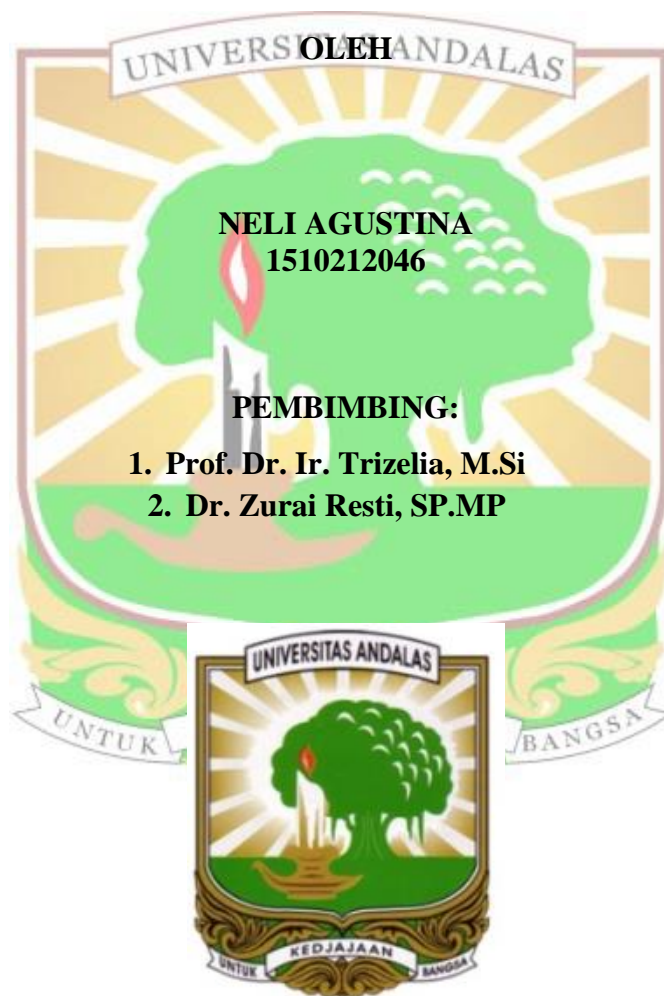


**KEMAMPUAN ANTAGONIS ISOLAT *Beauveria bassiana*
ENDOFIT TERHADAP *Colletotrichum capsici* (Syd.) Bulter and
Bisby PENYEBAB ANTRAKNOSA PADA TANAMAN CABAI
(*Capsicum annum* L.) SECARA *IN VITRO***

SKRIPSI



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Abstrak

Beauveria bassiana merupakan salah satu jamur entomopatogen yang berpotensi mengendalikan patogen tanaman. Penelitian ini bertujuan untuk mendapatkan isolat *B. bassiana* endofit yang efektif dalam menghambat pertumbuhan jamur *C. capsici* secara *in vitro*. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan 4 ulangan. Perlakuan terdiri atas kontrol dan 4 isolat *B. bassiana* endofit (PB211, PD114, PA221, dan TD312). Pengujian daya antagonis isolat *B. bassiana* endofit terhadap jamur *C. capsici* menggunakan metode biakan ganda dan metode uap biakan. Pada metode biakan ganda semua isolat *B. bassiana* endofit mampu menghambat pertumbuhan jamur *C. capsici* dengan persentase daya hambat 14.23-15.75% pada umur 11 hsi. Isolat *B. bassiana* endofit mampu menghambat luas koloni, jumlah konidia, dan daya kecambah jamur *C. capsici* pada metode uap biakan, namun tidak berpengaruh terhadap berat segar dan berat kering jamur *C. capsici*. Dari keempat isolat *B. bassiana* endofit yang diuji, isolat *B. bassiana* PB211 paling efektif menghambat pertumbuhan jamur *C. capsici*.

Kata kunci: *Beauveria bassiana*, *Colletotrichum capsici*, antagonis, metode biakan ganda, metode uap biakan



THE ANTAGONISTS ABILITY OF ENDOPHTYTYIC *Beauveria bassiana* ISOLATES AGAINST *Colletotrichum capsici* (Syd.) Bulter and Bisby AS A CAUSE OF ANTRACNOSE ON CHILI PLANTS (*Capsicum annum* L.) IN VITRO

Abstract

Beauveria bassiana is an entomopathogenic fungus that has the potential to control plant pathogens. The research aimed to obtain endophytic *B. bassiana* isolates, which were effective in inhibiting the growth of *C. capsici* fungus in vitro. This study used a completely randomized design (CRD) with five treatments, four replications. The treatment consisted of control and four endophytic *B. bassiana* isolates (PB211, PD114, PA221, and TD312). The Antagonistic test of endophytic *B. bassiana* isolates against *C. capsici* used the dual culture and the culture steam method. In the dual culture method, all endophytic *B. bassiana* isolates were able to inhibit the growth of *C. capsici* with a percentage of inhibition of 14.23-15.75% at 11 dpi. Endophytic *B. bassiana* isolates were able to inhibit colony area, conidia number, and germination capacity of *C. capsici* in the culture steam method, but did not affect the fresh weight and dry weight. From the four endophytic *B. bassiana* isolates was tested, PB211 isolate was the most effective isolate to inhibit the growth of *C. capsici*.

Keywords: *Beauveria bassiana*, *Colletotrichum capsici*, antagonists, dual culture method, culture steam method

