APLIKASI BEBERAPA KONSENTRASI *Beauveria bassiana* ENDOFIT TERHADAP POPULASI SERANGGA HAMA UTAMA PADA PERTANAMAN KACANG TANAH

SKRIPSI

Oleh

RIZA PUTRI
1210212088

Pembimbing I : Prof. Dr. Ir. Novri Nelly. MP
Pembimbing II : Dr. Ir. Ujang Khairul. MP

FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
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Abstrak

Cendawan entomopatogen endofit *Beauveria bassiana* merupakan salah satu agens hayati yang berpontensi dalam mengendalikan hama tanaman termasuk hama pada tanaman kacang tanah. Penelitian ini bertujuan untuk mempelajari pengaruh konsentrasi penyemprotan cendawan entomopatogen endofit *B. bassiana* terhadap jenis dan perkembangan populasi hama kacang tanah di lapangan. Sebelum di aplikasikan di lapangan cendawan entomopatogen endofit di perbanyak terlebih dahulu di Laboratorium. Penelitian lapangan menggunakan rancangan acak lengkap (RAL) dengan 4 ulangan dan 5 perlakuan (10, 20, 30, 40 g/L dan tanpa *B. bassiana*). Hasil penelitian ditemukan enam jenis hama di pertanaman kacang tanah yaitu kutu kebul (*Bemisia tabaci),* kutu putih (*Maconellcoccus hirsutus),* wereng empoaska (*Empoasca flavencens),* ulat penggulung daun *(Lamprosema indicata),* kutu daun (*Aphis craccivora),* dan ulat jengkal (*Plusia chalcites).* Penggunaan berbagai konsentrasi penyemprotan cendawan entomopatogen endofit *B. bassiana* hanya berpengaruh terhadap populasi hama *B. tabaci* di pertanaman kacang tanah. Konsentrasi *B. bassiana* 40 g/L mampu menekan populasi *B. tabaci* yaitu 1,25 ekor/rumpun.

Kata kunci : *B. bassiana*, entomopatogen, konsentrasi, pengendalian hayati, dan serangga hama

THE EFFECTS OF APPLICATION OF SOME CONCENTRATIONS OF ENDOPHYTIC *Beauveria bassiana* ON MAIN PEST INSECTS POPULATION IN PEANUT PLANTS

Abstract

Endophytic entomopathogenic fungi of *Beauveria bassiana* is one of the potential biological agent in controlling plants pests including peanut plants pests. The aim of this research was to study the effect of endophytic entomopathogenic fungi *B. bassiana* spraying on type and development of peanut pest population in the field. Before being implemented in the field, the endophytic entomopathogenic fungi was being reproduced in the laboratory. The field research used completely randomized design (CRD) with 5 treatments (10, 20, 30, 40 g / L and without *B.bassiana*) and 4 replications. Six species of pests were found in the peanut plants, whitefly *(Bemisia tabaci),* mealybugs *(Maconellcoccus hirsutus),* empoaska leafhoppers *(Empoasca flavencens),* caterpillar roller *(Lamprosema indicata),* aphids *(Aphis craccivora*), and caterpillars inch *(Plusia chalcites).* The use of various concentrations of endophytic entomopathogenic fungi of *B. bassiana* had an effect on population of *B. tabaci* pest in peanut plants. The 40 g / L concentration of *B. Bassiana* was able to suppress the *B. tabaci* population 1.25 individuals / clump.

Keywords: *B. bassiana*, entomopathogenic, concentrations, biological control, and insect pests