

**UJI KONSENTRASI CENDAWAN ENTOMOPATOGEN
Beauveria bassiana (Bals). Vuil TERHADAP ULAT GRAYAK
JAGUNG (*Spodoptera frugiperda* J.E. Smith)
(LEPIDOPTERA: NOCTUIDAE)**

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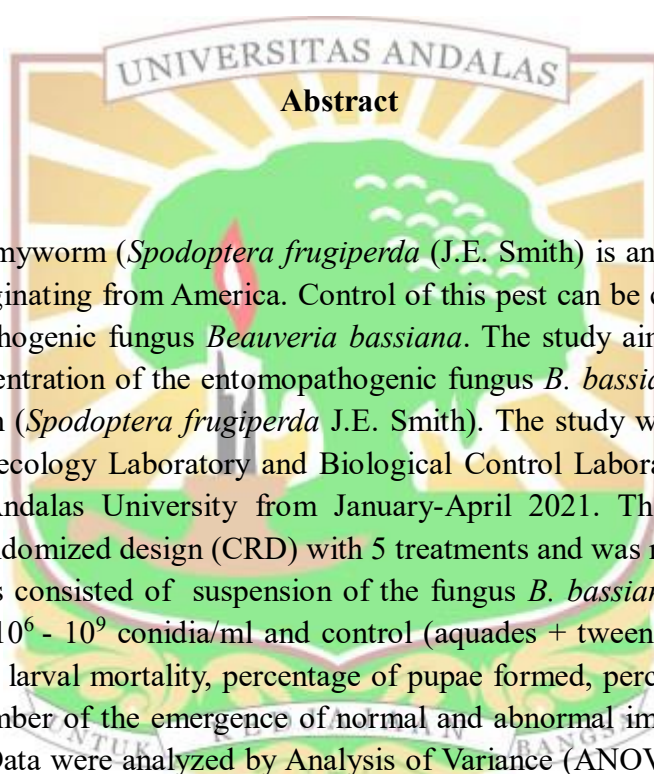
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Abstrak

Ulat grayak jagung (*Spodoptera frugiperda* (J.E. Smith) merupakan hama invasif di Indonesia, yang berasal dari Amerika. Pengendalian hama ini dapat dilakukan dengan menggunakan cendawan entomopatogen *Beauveria bassiana*. Penelitian bertujuan untuk mendapatkan konsentrasi cendawan entomopatogen *B. bassiana* yang efektif untuk mengendalikan ulat grayak jagung (*Spodoptera frugiperda* J.E. Smith). Penelitian dilakukan di Laboratorium Bioekologi Serangga dan Laboratorium Pengendalian Hayati, Fakultas Pertanian, Universitas Andalas dari bulan Januari-April 2021. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan diulang sebanyak 5 kali. Perlakuan terdiri dari suspensi cendawan *B. bassiana* dengan kerapatan yang berbeda yaitu 10^6 - 10^9 konidia/ml dan kontrol (aquades + tween 80). Parameter yang diamati yaitu mortalitas larva, persentase pupa terbentuk, persentase imago muncul, jumlah munculnya imago normal dan cacat serta imago jantan dan betina. Data dianalisis dengan *Analysis of Variance* (ANOVA) dan jika berbeda nyata di uji lanjut dengan LSD pada taraf 5%. Hasil penelitian menunjukkan bahwa konsentrasi cendawan entomopatogen *B. bassiana* yang efektif untuk mengendalikan ulat grayak jagung *S. frugiperda* adalah suspensi cendawan entomopatogen *B. bassiana* dengan konsentrasi 10^9 konidia/ml dengan persentase mortalitas larva sebesar 84%. Suspensi cendawan *B. bassiana* konsentrasi 10^9 konidia/ml mampu menekan pembentukan pupa hanya 4% dan kemunculan imago hanya 2%.

Kata kunci: *Beauveria bassiana*, *Spodoptera frugiperda*, cendawaan entomopatogen, konsentrasi.

**ENTOMOPATHOGENIC FLOW CONCENTRATION TEST
Beauveria bassiana (Bals). VUIL AGAINST FALL ARMYWORM
(*Spodoptera frugiperda* J.E. Smith) (Lepidoptera: Noctuidae)**



Fall armyworm (*Spodoptera frugiperda* (J.E. Smith)) is an invasive pest in Indonesia, originating from America. Control of this pest can be carried out using the entomopathogenic fungus *Beauveria bassiana*. The study aimed to obtain an effective concentration of the entomopathogenic fungus *B. bassiana* as control of fall armyworm (*Spodoptera frugiperda* J.E. Smith). The study was happened at the Insect Bioecology Laboratory and Biological Control Laboratory, Faculty of Agriculture, Andalas University from January-April 2021. This study used a completely randomized design (CRD) with 5 treatments and was repeated 5 times. The treatments consisted of suspension of the fungus *B. bassiana* with different densities, i.e. 10^6 - 10^9 conidia/ml and control (aquades + tween 80). Parameters observed were larval mortality, percentage of pupae formed, percentage of imago appearing, number of the emergence of normal and abnormal imago and female, male imago. Data were analyzed by Analysis of Variance (ANOVA) and if it was significantly different, it was further tested with LSD at the 5% level. The results showed that the effective concentration of the entomopathogenic fungus *B. bassiana* to control the fall armyworm *S. frugiperda* was a suspension of the entomopathogenic fungus *B. bassiana* with a concentration of 10^9 conidia/ml with a larval mortality percentage of 84%. The suspension of the fungus *B. bassiana* with a concentration of 10^9 conidia/ml was also able to suppress the formation of pupae by only 4% and the emergence of imagos by only 2%.

Keywords: *Beauveria bassiana*, *Spodoptera frugiperda*, entomopathogenic fungus, concentration

