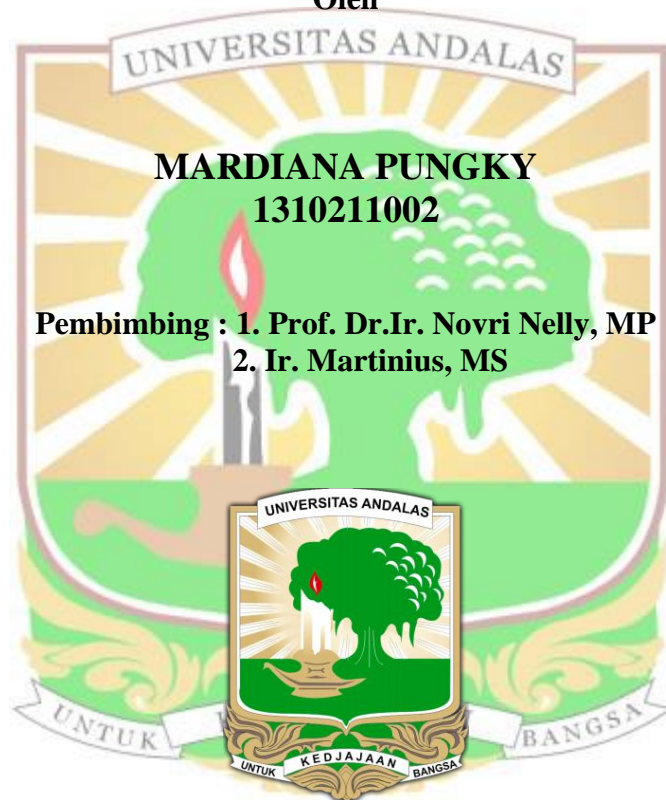


**SELEKSI CENDAWAN ENDOFIT DARI TANAMAN JAGUNG
(*Zea mays* L.) YANG BERPOTENSI SEBAGAI
ENTOMOPATOGEN**

SKRIPSI

Oleh



**MARDIANA PUNGKY
1310211002**

**Pembimbing : 1. Prof. Dr.Ir. Novri Nelly, MP
2. Ir. Martinius, MS**

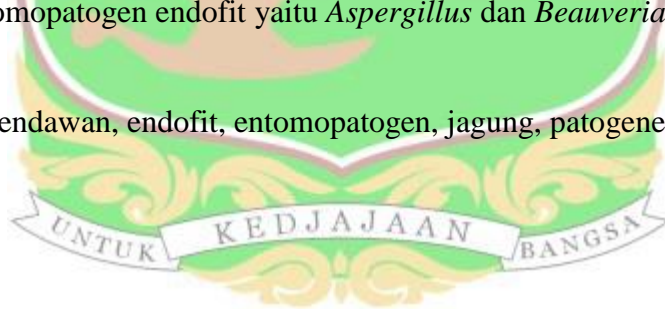
**FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2019**

SELEKSI CENDAWAN ENDOFIT DARI TANAMAN JAGUNG (*Zea mays* L.) YANG BERPOTENSI SEBAGAI ENTOMOPATOGEN

Abstrak

Penelitian tentang seleksi cendawan endofit dari tanaman jagung yang berpotensi sebagai entomopatogen telah dilaksanakan di laboratorium Pengendalian Hayati Fakultas Pertanian Universitas Andalas Padang. Tujuan penelitian ini adalah untuk mendapatkan cendawan endofit yang berasosiasi dengan tanaman jagung (*Zea mays* L.) yang bersifat patogen pada serangga (entomopatogen). Sampel tanaman jagung diperoleh di Jorong Ophir Nagari Koto Baru Kecamatan Luhak Nan Duo Kabupaten Pasaman Barat. Penelitian ini menggunakan metode Rancangan Acak Lengkap (RAL), pengujian menggunakan 15 perlakuan dan diulang sebanyak 3 kali. Uji patogenesitas isolat cendawan endofit dilakukan terhadap larva *Tenebrio molitor*. Isolat yang bersifat patogen terhadap larva *Tenebrio molitor* dan bersporulasi diidentifikasi secara makroskopis dan mikroskopis. Tingkat kolonisasi cendawan endofit pada masing-masing sampel tanaman jagung berkisar antara 38,90 - 55,80%. Hasil penelitian menunjukkan bahwa isolat B.1.3 (*Beauveria*) yang berasal dari bagian batang tanaman jagung memiliki patogenitas tertinggi dengan mortalitas larva 78,00% dan sporulasi tertinggi 100%. Berdasarkan hasil identifikasi ditemukan 2 genus cendawan entomopatogen endofit yaitu *Aspergillus* dan *Beauveria*.

Kata kunci: cendawan, endofit, entomopatogen, jagung, patogenesitas.



SELECTION OF ENDOPHYTIC FUNGI FROM MAIZE (*Zea mays* L.) THAT HAVE POTENTIAL AS ENTOMOPATHOGENIC

Abstract

Research on the selection of endophytic fungi from maize that have the potential as entomopathogenic has been carried out at Biological Control laboratory of Faculty of Agriculture, University Andalas, Padang. The purpose of this study was to obtain endophytic fungi that associated with maize (*Zea mays* L.) which were pathogenic to insects (entomopathogen). The maize samples were obtained at Ophir Jorong, Koto Baru Nagari, Luhak Nan Duo District, West Pasaman Regency. This study used a completely randomized design (CRD), using 15 treatments and 3 repetitions. Pathogenicity test of endophytic fungi isolates was carried out on *Tenebrio molitor* larvae. Pathogenic isolates against *Tenebrio molitor* larvae and sporulation were identified the macroscopically and microscopically. The colonization rate of endophytic fungi in each sample of maize ranged from 38.90 - 55.80%. The results showed that B.1.3 isolate (*Beauveria*) originating from the stems had the highest pathogenicity with larvae mortality (78.00%) and the highest sporulation (100%). There were 2 genera of endophytic entomopathogenic fungi found, namely *Aspergillus* and *Beauveria*.

Keywords : fungi, endophytic, entomopathogenic, maize, pathogenicity

