

SKRIPSI

**DINAMIKA POPULASI SERANGGA PENGGEREK PUCUK
Scirpophaga excerptalis (LEPIDOPTERA) PADA TANAMAN
TEBU (*Saccharum officinarum* L.) VARIETAS DOMINAN DI
WILAYAH 1 PG CINTA MANIS**

***POPULATION DYNAMIC OF WHITE TOP BORER *Scirpophaga
excerptalis* (LEPIDOPTERA) ON SUGAR CANE (*Saccharum
officinarum* L.) DOMINANT VARIETY IN REGION 1 CINTA
MANIS SUGAR MILL***



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**PROGRAM STUDI PROTEKSI TANAMAN
JURUSAN HAMA DAN PENYAKIT TUMBUHAN
FAKULTAS PERTANIAN
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LEMBAR PENGESAHAN

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Sebagai Syarat untuk Mendapatkan Gelar Sarjana Pertanian
Pada Fakultas Pertanian Universitas Sriwijaya

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Pembimbing:

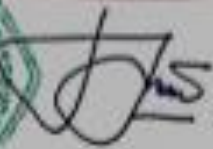


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SUMMARY

JIMI AGUSTIAN. Population Dynamic of White Top Borer (*Scimophaga excerptalis*) (Lepidoptera) on Dominant Variety of Sugarcane (*Saccharum officinarum*) in Region I, Cinta Manis Sugar Factory (Supervised by **YULIA PUJIASTUTI**)

Rubber tree is one of agricultural commodities with important roles in Indonesian and world economics. Rubber production in Indonesia fluctuates which influences rubber export value. Rubber production is always triggered to produce optimal latex yield.

One of main factors which is responsible for decreasing rubber production is the damage caused by white root fungus (*Rigidiporus microporus*).

Study was aimed to determine antagonist fungus diversity on surrounding root (rhizosphere) from rubber nursery, TM0 rubber tree clone, and TM5 rubber tree clone, and was conducted in Research Laboratory of Perkebunan Nusantara, Indonesian Rubber Research Institute, Sembawa, Banyuwangi, from September 2019 to April 2020.

Soil samples were taken from healthy rubber tree, were isolated in the laboratory to obtain pure fungus inoculum, and then *in vitro* antagonist test was carried out.

Results showed that *Trichoderma spp.* and *Aspergillus sp.* were identified. Fungus isolate which could inhibit *R. microporus* was rejuvenated and Completely Randomized Design was applied with 6 treatments and 3 replicates.

Exploration test results showed that 26 antagonist candidate isolates were identified, and after *in vitro* test 4 antagonist isolates were identified, i.e., II.1, II.2, III.9, and III.14. Further tests were carried out, namely test on White Root Fungus stick.

It was concluded that antagonist fungus could inhibit fungus growth on the stick and caused abnormal growth on fungus mycelium.

Keywords: Rubber tree (*Hevea brasiliensis*), White Root Fungus (*Rigidiporus microporus*), *In vitro* Test, Antagonist