[illegible] FROM [illegible]
GANODERMA BONINENSE
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The effects of extract from free-living amoeba on Ganoderma boninense, a pathogenic fungus of plant / Farah Zaidat Mohd Nadzri.

Lihat sebelah

THE EFFECTS OF EXTRACT FROM FREE-LIVING AMOEBA ON *GANODERMA BONINENSE*, A PATHOGENIC FUNGUS OF PLANT

By

Farah Zaidat bt. Mohd Nadzri

Research Report submitted in partial fulfillment of
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PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:
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Oleh: Farah Zaidat bt Mohd Nadzri no. matrik: UK 8271
telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains (Sains Biologi), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

%	percentage
°C	Degree Celcius
ANOVA	Analysis of Variance
g	gram
ml	mililiter
mg	milligram
mg/ml	miligram per mililiter
µg/ml	microgram per milliliter
µm	micron meter
L	liter
µL	micron liter
cm	centimeter
MICs	Minimum Inhibition Concentrations
PDA	Potato-Dextrose-Agar

LIST OF APPENDICES

ABSTRACT

A study has conducted to see the effect of two amoeba extracts on a plant pathogenic fungus; *Ganoderma boninense.* Two amoeba species isolated from marine environment designed as *Acanthamoeba* (P1) and *Acanthamoeba* (AK) were used in this study. The extracts of amoebae were labeled as P1 and AK extracts, accordingly and were obtained by sonication of the amoeba cell's pellets. Antifungal activities of the amoeba extracts were tested against *Ganoderma boninense* by spreading the extracts on PDA which later was used to culture the fungus. The amount of protein in the extracts was measured to inoculate the concentration of extracts exerted in this study. The concentration of extracts used in this studied were 250 µg/ml, 500 µg/ml, 1000 µg/ml and 2000 µg/ml. The growth of *Ganoderma boninense* was observed after eight days. Radial of the mycelial growth (in cm) were taken and recorded. Results of this study show that all the extracts at various concentration were gave a little effects on the growth of *Ganoderma boninense,* suggesting that both amoeba extracts used in this study do not have potential to been used as antifungal agents for *Ganoderma boninense.*

KESAN EKSTRAK DARIPADA AMOEBA BEBAS-HIDUP KE ATAS *Ganoderma boninense*, KULAT PATOGENIK TUMBUHAN

ABSTRAK

Kajian telah dijalankan untuk melihat kesan dua ekstrak ameba ke atas kulat patogenik tumbuhan; *Ganoderma boninense*. Dua spesis ameba yang digunakan dalam kaijan ini adalah diasingkan dari sekitaran marin dikenali sebagai *Acanthamoeba* (P1) dan *Acanthamoeba* (AK). Ekstrak ameba dilabelkan sebagai P1 dan AK dan diperolehi daripada pemecahan pelet sel ameba. Aktiviti antikulat ekstrak ameba diuji ke atas *Ganoderma boninense* dengan meletakkan ekstrak ameba ke atas PDA yang mana kemudian akan digunakan untuk mengkultur kulat tersebut. Jumlah protein dalam ekstrak diukur untuk mendapatkan ekstrak dengan kepekatan yang dikehendaki dalam kajian ini. Kepekatan yang digunakan ialah 250 µg/ml, 500 µg/ml , 1000 µg/ml dan 2000 µg/ml. Perkembangan *Ganoderma boninense* diperhatikan selepas lapan hari. Perkembangan jejari miselia (dalam cm) diambil dan direkodkan. Hasil kajian ini menunjukkan semua ekstrak dengan pelbagai kepekatan memberi sedikit kesan pada perkembangan *Ganoderma boninense,* mencadangkan kedua-dua ekstrak ameba tidak berpotensi untuk digunakan sebagai agen antikulat ke atas *Ganoderma boninense*.