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ANTIFUNGAL STUDIES OF LEMONGRASS (*Cympopogon citratus* L.) AS AN ALTERNATIVE STRATEGY TO CONTROL POSTHARVEST FUNGAL CAUSING ANTHRACNOSE OF PAPAYA (*Carica papaya* L.)

By

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Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Science Agrotechnology (Postharvest Technology)

Department of Agrotechnology
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
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FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
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PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK ILMIAH I DAN II

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:
Antifungal studies of lemongrass (Cympogon citratus L.) as an alternative strategy to control postharvest fungal causing anthracnose of papaya.

oleh Dilipkumar A/L MASILAMANY, No.Matrik UK13566 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Agroteknologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains Agroteknologi (Teknologi Lepas Tuai), Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

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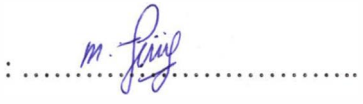
DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

Signature : 

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ABSTRACT

This research involves the isolation of *Colletotrichum gloeosporioides* from papaya which is affected by anthracnose and evaluate the antifungul activity of lemongrass extract on *C. gloeosporioides*. The lemongrass extract at the concentration of 10% has found to be very effective in restricting the *C. gloeosporioides* grown in medium, whereas the lemongrass extract concentration at 30% is effective in inhibiting anthracnose disease on papaya and both the exsperiments shows a significant results. It showed that, for the 30% concentration of lemongrass extraction sprayed on the surface of papaya does not show any changes in the aspects of color index and weight loss throughout the storage period. The present study suggests that, the use of lemongrass extraction is an alternative to the use of synthetic fungicides to control anthracnose on papaya.