The Final Year Project Report entitled **"Comparison of % composition of essential oil from peels and leaves of kaffir lime (*Citrus hystrix*) using hydrodistillation and solvent (ethyl acetate) extraction"** was submitted by Megawati Mohd Yunus, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons) Chemistry, in the Faculty of Applied Science, and was approved by

Prof Madya Yazan Zakaria
Supervisor
B.Sc. (Hons) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Dr Famiza Abd Latif

Project Coordinator
B.Sc (Hons) Chemistry
Faculty Of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Associate Prof. Dr. Faizah Mohd Salleh
Head of Programme
B.Sc (Hons) Chemistry
Faculty Of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Date: 11/5/09

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

COMPARISON OF % COMPOSITION OF ESSENTIAL OILS FROM PEELS AND LEAVES OF KAFFIR LIME (*Citrus hystrix*) BY HYDRODISTILLATION AND SOLVENT (ETHYL ACETATE) EXTRACTION

Essential oil from peels and leaves of kaffir lime were extracted by using hydrodistillation and solvent (ethyl acetate) extraction. Composition of essential oils were analysed by GC-Mass spectrometry. The major components of the hydrodistillated essential oils from peels of kaffir lime were limonene (16.85%) and cironellal (3.57%) whereas citronellal (2.80%), limonene (0.31%), and pinene (0.13%) were major components of essential oil of the ethyl acetate extract. The major component of the ethyl acetate extract from leaves of kaffir lime was citronellal (73.08%) and that from hydrodistillation was also citronellal (100%)