

UNIVERSITI TEKNOLOGI MARA

**PHARMACOGNOSTICAL AND
PHYSICOCHEMICAL STUDIES OF THE LEAVES
OF *SYZYGIUM POLYANTHUM***

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TABLE OF CONTENTS

	Page
TITLE PAGE	
APPROVAL	
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vi
LIST OF TABLES	vii
LIST OF EQUATIONS	viii
LIST OF ABBREVIATION	ix
ABSTRACT	x
CHAPTER ONE (INTRODUCTION)	
1.0 Introduction	1
1.1 Statement of problem	3
1.2 Hypothesis	3
1.3 Scope and limitations	3
1.4 Significance of the study	4
1.5 Objectives	5
CHAPTER TWO (LITERATURE REVIEW)	
2.0 Introduction	6
2.1 Botanical and taxonomy of <i>S.polyanthum</i>	6
2.2 Biochemical properties and active agents	11
2.3 Ethnobotanical uses of <i>S.polyanthum</i>	11
2.4 Ethnomedicinal uses of <i>S.polyanthum</i>	12
2.5 Previous study	12
CHAPTER THREE (METHODOLOGY)	
3.1 General method	14
3.1.1 Chemical	14
3.1.2 Equipment	14
3.1.3 Sample and sample preparation	14
3.2 Macroscopic examination	16
3.2.1 Size	16
3.2.2 Colour	17
3.2.3 Surface characteristics, texture and fracture characteristics	17
3.2.4 Odour	17
3.3 Physicochemical analysis	17
3.3.1 Loss on drying	17
3.3.2 Determination of extraction value	18
3.3.2.1 Hot extraction	19
3.3.2.2 Cold extraction	21
3.3.3 Determination of Total Ash	23
3.5 TLC screening	24
3.4.1 Sample preparation	24
3.4.2 Saturation of the chromatographic chamber	25

ABSTRACT

Syzygium polyanthum (Myrtaceae), also known as “daun salam”, had been studied to have antifungal and antibacterial activities. This recent study aimed to generate various parameters of pharmacopoeial standards of this species such as macroscopic characteristics, loss on drying, total ash, extractive value and thin layer chromatography profiles. Most of the methods were based on World Health Organization (WHO) guidelines for quality control methods for medicinal plant materials. Powdered leaves of the plant showed high moisture content which could be represented by loss on drying ($6.38\% \pm 0.11$). Water-soluble extractive value ($12.65\% \pm 0.70$) of the sample was quite similar amount to ethanol extractive value ($10.07\% \pm 0.62$). Determination of total ash value gave result in $4.7\% \pm 0.11$. TLC of three different extracts which are hexane, chloroform and ethanolic extracts, using chloroform as mobile phase and silica gel as stationary phase showed 11 clearly spots in each extract that were detected under daylight and UV light (254 and 365 nm). The results of the study could be useful in setting some parameters for identification and preparation of a monograph of the plant.

CHAPTER 1

INTRODUCTION

1.0 Introduction

The used of the herbal remedies is extensive, increasing and complex. For example a 1998 survey of the use of herbs among more than 5000 adults in England reported that almost 20% of the sample had been purchased over-the-counter (OTC) in the previous year. In addition, almost 1% had consulted an herbal practitioner. (Thomas et al 2001). Similar nationwide surveys conducted in the United States have indicated that the proportion of adults who had self-treated with herbal medicines and those who had consulted the herbalist had increased significantly during the period 1990-1997.

Syzygium polyanthum is one of the herbal remedy that start to be recognized by people around the world. It is derived from family of Myrtaceae as a deciduous tropical tree with spreading branches and simple leaves (Economic-point org., 2006).

It is known as “Daun salam”, and “Manting” in Indonesia while in Malaysia it is known as “Kelat samak”, “Samak”, “Serah” or “Daun salam” (Tropilab). *S.polyanthum* grows wild in the Western part of the South East Asian peninsular which is around Burma to Malaysia and in Western Indonesia. *Syzygium polyanthum* is widely distributed in Burma,