DETERMINATION OF β-CAROTENE IN VARIETIES OF MALAYSIAN MANGO BY THIN LAYER CHROMATOGRAPHY

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TABLE OF CONTENTS

		PAGE
ACKNOWLEDGEMENT		**iii**
TABLE OF CONTENTS		**iv**
LIST OF TABLES		**vi**
LIST OF FIGURES		**vii**
LIST OF ABBREVIATIONS		**viii**
ABSTRACTS		**ix**
ABSTRAK		**x**
CHAPTER 1: INTRODUCTION		
1.1	Background Study	1
1.2	Problem Statement	2
1.3	Significance of the Study	3
1.4	Objectives of the Study	4
CHAPTER 2: LITERATURE REVIEW		
2.1	Mango	5
	2.1.1 Mango Cultivation	6
	2.1.2 Nutrient Composition of mango	7
	2.1.3 Pharmacological uses of mango	8
2.2	Caratenoids	9
	2.2.1 β-carotene	10
2.3	Thin Layer Chromatography	12
2.4	Spectrophotometry	14
CHAPTER 3: METHODOLOGY		
3.1	Materials	
	3.1.1 Raw Materials	15
	3.1.2 Chemicals	15
	3.1.3 Apparatus	15

3.2 Methods
3.2.1 Sample preparation 16
3.2.2 Extraction of β-carotene using solvents 16
3.2.3 Purification using Thin Layer Chromatography 18
3.2.4 Determination of β-carotene content 19
3.3 Data Analysis 20

CHAPTER 4: RESULTS AND DISCUSSION
4.1 Thin Layer Chromatography – Retention factor value 21
4.2 β-carotene content in mango samples 24

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS 27

CITED REFERENCES 28
APPENDICES 35
CURRICULUM VITAE 39

ABSTRACT

DETERMINATION OF β-CAROTENE IN VARIETIES OF MALAYSIAN MANGO BY THIN LAYER CHROMATOGRAPHY

β–carotene is a precursor to Vitamin A that commonly found in orange pigmented fruits and vegetables. β–carotene is an important natural product to maintain a healthy body as it is useful for reducing chances to get diseases such as cancer and heart disease due to its various positive effects. Mango is characterized by a significantly high content in β–carotene. It also can be directly consumed without being cooked. This study was designed with the objective of determining β–carotene content of three types of Malaysian mango are Maha 65 (MA165), Mas Muda (MA204) and Golek (MA162). Thin Layer Chromatography was used for the purification of β–carotene, while UV/Visible spectrophotometry was used for the analysis of β–carotene content in these varieties of mango. Therefore, from the results it can be concluded that Maha 65 (MA165) has the lowest β–carotene content which is 33.963μg/g. In contrast, Mas Muda (MA204) was found to have the highest β–carotene content which is 80.953μg/g. As for the Thin Layer Chromatography, one spot from each sample had been observed that represent different types of compound separated due to their different in Rf value. The results obtained from this research can be used to compare β–carotene content in varities of Malaysian mango.