

**FATTY ACID PROFILE AS A MEANS OF
AUTHENTICATION OF BEESWAX**

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ABSTRACT

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The objectives of this study were to study the different between fatty acid in beeswax from different geographical location and to determine amount of acid value in each of beeswax. Total seven (7) samples of beeswax each of type were analysed by using Gas Chromatography – Mass Spectrum (GC-MS). The type of fatty acid obtain is palmitic acid and stearic acid. The obtain result of ratio palmitic acid per stearic acid (PA/SA) showed that beeswax from Terengganu have (1.07), beeswax from Cameron highland (1.58), for commercial beeswax (SOAP CELLAR, GREEN HERBALOGY, TAKE IT GLOBAL AND GALORE) has an area ratio (0.84), (0.85), (2.45) and (2.33) respectively. For candle wax the area ratio is (1.14). The highest and lowest area ratio come from commercial beeswax. While for the beeswax the area ratio is average but for the candle waxes the area ratio is quite high maybe when the production of candle waxes there is a mixed with beeswax so that why the area ratio quite high. For the acid value determination beeswax from Terengganu and Cameron highland is highest (28.05mgKOH/g and 30.09mgKOH/g) than others. Candle wax is the lowest amount of acid value (12.75mgKOH/g).

TABLE OF CONTENT

	PAGES
ACKNOWLEDGEMENTS	III
TABLE OF CONTENTS	IV
LIST OF TABLES	VI
LIST OF FIGURES	VII
LIST OF ABBREVIATIONS	VIII
ABSTRACT	IX
ABSTRAK	X
CHAPTER 1 INTRODUCTION	
1.1 Background of study	1
1.2 Problem statement	2
1.3 Significant of study	3
1.4 Scope and limitation of study	3
1.5 Objectives of study	4
CHAPTER 2 LITERATURE REVIEW	
2.1 Beeswax	5
2.1.1 Composition of beeswax	6
2.1.2 Uses of beeswax	8
2.2 Wax	9
2.3 Fatty acid	10
2.4 Different beeswax between original and adulterate	12
2.5 Acid value	14
CHAPTER 3 METHODOLOGY	
3.1 Material	
3.1.1 Raw material	15
3.1.2 Chemical	15
3.1.3 Apparatus	16
3.2 Method	
3.2.1 Sample preparation	16
3.2.2 Saponification	17
3.2.3 Preparation of methyl esters	18
3.2.4 Analysis of methyl esters	18

3.2.5	Determination acid value	19
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CHAPTER 4 RESULT AND DISCUSSION

4.1	Fatty acid profile in different type beeswax	20
4.2	Determination of acid value	26

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

CITED REFERENCES	30
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APPENDICES	34
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CURRICULUM VITAE	36
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LIST OF FIGURES

Figure	Caption	Page
4.1	GC-MS chromatography of fatty acid in beeswax 1	21
4.2	GC-MS chromatography of fatty acid in beeswax (Candle waxes)	21
4.8	Amount of acid value in different type of beeswax	26