ANALYSIS OF PROXIMATE COMPOSITION ON SELECTED FRESH AND STORED LOCAL MALAYSIAN HONEY

NUR AINA SHAHIRAH BINTI AMINUDDIN

Final Year Project Report Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Sciences (Hons.) Biology In the Faculty of Applied Sciences Universiti Teknologi Mara

JANUARY 2017

This Final Year Project Report entitled "Analysis of Proximate Composition on Selected Fresh and Stored Local Malaysian Honey" was submitted by Nur Aina Shahirah binti Aminuddin, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

Amirah binti Sharif Supervisor Faculty of Applied Science Universiti Teknologi MARA Cawangan Negeri Sembilan 72000 Kuala Pilah Negeri Sembilan

Ilyanie Hj Yaacob Project Coordinator Faculty of Applied Sciences Universiti Teknologi MARA Cawangan Negeri Sembilan 72000 Kuala Pilah Negeri Sembilan Dr. Nor' Aishah Binti AbuShah Head of School of Biology Faculty of Applied Sciences Universiti Teknologi MARA Cawangan Negeri Sembilan 72000 Kuala Pilah Negeri Sembilan

Date:	

TABLE OF CONTENT

	PAGE
ACKNOWLEDGEMENTS TABLE OF CONTENTS LIST OF FIGURES LIST OF ABBREVIATIONS ABSTRACT ABSTRAK	iii iv vi vii viii ix
CHAPTER 1: INTRODUCTION	
1.1 Background of study	1
1.2 Problem statement1.3 Significant of study	2 3 3
1.4 Objectives of study	3
CHAPTER 2: LITERATURE REVIEW	
2.1 Production of honey	4
2.2 Health benefits of honey	4
2.3 Determinations of botanical origins of honey	6
2.4 Physical characteristics of honey	7
2.5 Honey crystallization	9
CHAPTER 3: METHODOLOGY	
3.1 Materials	10
3.1.1 Raw materials	10
3.1.2 Chemicals and apparatus	10
3.2 Methods	11
3.2.1 Sample preparation	11
3.2.2 Determination of moisture	11
3.2.3 Determination of fats	12
3.2.4 Determination of ash	14

3.2.5 Determination of protein	15
3.2.6 Determination of total sugar content	16
3.3 Statistical analysis	17
CHAPTER 4: RESULTS AND DISCUSSION	
4.1 Determination and comparison proximate composition	17
4.2 Moisture content	18
4.3 Ash content	20
4.4 Fats content	22
4.5 Protein content	24
4.6 Total sugar content	25
CHAPTER 5: CONCLUSION AND RECOMMENDATION	27
CITED REFERENCES	28
APPENDICES	33
CURRICULUM VITAE	36

ABSTRACT

ANALYSIS OF PROXIMATE COMPOSITION ON SELECTED FRESH AND STORED LOCAL MALAYSIAN HONEY

Honey is a sweet and natural substance that is produced by honey bees. Honey that is used in this experiment were Tualang, Royal Jelly, Beekeeper's and Kelulut. A proximate analysis of honey composition was conducted in order to determine the differences between fresh honey (F) and stored honey (S). This experiment exposed five parameters which were moisture, ash, fats, protein and sugar (sucrose). Moisture analysis was determine by oven drying method, ash analysis used gravimetric method, fats analysis using acid-hydrolysis method, protein analysis was determined by Kjedhal method while total sugar content analysis by refractrometry. In this experiment, it was found that all results showed no significant different (P>0.05) in terms of proximate composition among fresh honey and stored honey. It can be concluded that most of honey content were approximately similar regardless their time and date collected.