

DEVELOPMENT OF HARD CANDY CONTAINING *SIKPA FRUTIGANS* SAP

MUHAMMAD ABDULLAH BIN AB RAHMAN

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU

2007

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Development of hard candy containing Nypa fruticans SAP /
Mohd Abdulltla Ab Rahman.

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH
UNIVERSITI MALAYSIA TERENGGANU (UMT)
21030 KUALA TERENGGANU

1100090022	

Lihat Sebelah

DEVELOPMENT OF HARD CANDY CONTAINING *Nypa fruticans* SAP

By

MOHD ABDULTTLA BIN AB RAHMAN

**RESEARCH PROJECT submitted in partial fulfilment of the requirement for the
Degree of Bachelor of Food Science (Food Service and Nutrition)**

**FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
2007**

This project report should be cited as:

Rahman, M. A. (2007). Development of hard candy containing *Nypa fruticans* sap. Undergraduate thesis, Bachelor of Food Science (Food Service and Nutrition), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu. 86p

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DECLARATION

I hereby declare that this thesis research project is based on my original work except for quotations and citations which have been duly acknowledge. I also declare that it has not been previously or concurrently submitted for any degree at UMT or other institutions.



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28th June 2007

MOHD ABDULTTLA BIN AB RAHMAN

UK 10129

Approved by,

.....

28th June 2007

MR. MOHAMAD KHAIRI BIN MOHD ZAINOL

(Supervisor)

ACKNOWLEDGEMENT

Syukur Alhamdulillah to the Almighty Allah S.W.T for giving me strength, patience, and capability to complete this project and thesis write up. I would like to express my deepest appreciation and gratitude to my supervisor, Mr. Mohamad Khairi Bin Mohd Zainol for his guidance, constructive criticism, encouragement and valuable suggestion in accomplishing this study.

I would like to thank the Head of Food Science Department, Associate Professor Dr. Amiza Binti Mat Amin, all the lecturers and the staff of Food Science Department especially the food science laboratory staff for their kindness and cooperation throughout this study.

I would also like to thanks to my beloved parents, Mr. Ab Rahman Bin Awang Ahmad and Pn. Gayah Binti Zakaria who have always been there to give me support and words of love in everything that I have been doing.

I would like to thank all my dear friends, Mohd Fadzirul Hezly, Noriskandar, Noor Afzan, Noranida Balkis and as well as all those unnamed individuals for their help and support in finishing my project. Thank you for the precious time and moral support.

ABSTRACT

This research had been carried out to determine the finest formulation of hard candy containing *Nypa fruticans* sap. In this research, there was 5 samples tested which were sample A (hard candy containing 0% of *N.fruticans* sap), sample B (hard candy containing 7% of *N.fruticans* sap), sample C (hard candy containing 14% of *N.fruticans* sap), sample D (hard candy contains 21% of *N.fruticans* sap) and sample E (hard candy containing 27% of *N.fruticans* sap). Analysis that tested in this research was moisture content, water activity, colour analysis ('L', 'a' and 'b'), vitamin C, protein content and carbohydrate content. For sample A, it had the highest value for water activity and vitamin C analysis but lowest value for moisture content, carbohydrate and protein analysis. Sample B, C and D had moderate value in all analysis. Sample E had the highest value for moisture content, vitamin C, protein content and carbohydrate content but lowest value in water activity content. The attributes for sensory evaluation were colour, shape, fracturability, flavour, mouth feel and overall acceptance. Sample D was the most acceptable sample by panel due to the highest mean score in the overall acceptance. Besides that, sample D had the advantage in mouth feel, flavours and colour attributes.

PENGHASILAN GULA-GULA DARIPADA NIRA NIPAH (*Nypa fruticans*)

ABSTRAK

Kajian ini dilakukan untuk mengenalpasti perumusan yang terbaik bagi menghasilkan gula-gula mengandungi nira nipah. Terdapat 5 sampel yang dikaji dalam kajian ini iaitu sampel A (gula-gula yang mengandungi 0% nira nipah), sampel B (gula-gula yang mengandungi 7% nira nipah), sampel C (gula-gula yang mengandungi 14% nira nipah), sampel D (gula-gula yang mengandungi 21% nira nipah) dan sampel E (gula-gula yang mengandungi 27%). Analisis yang dijalankan adalah kandungan kelembapan, aktiviti air, penganalisaan warna ('L', 'a' and 'b'), kandungan vitamin C, kandungan karbohidrat dan kandungan protein. Sampel A mempunyai keputusan tertinggi dalam analisis aktiviti air dan vitamin C tetapi mempunyai kandungan terendah dalam analisis kandungan kelembapan, kandungan karbohidrat dan kandungan protein. Sampel B, C dan D pula mempunyai nilai yang sederhana dalam keseluruhan analisis yang telah dijalankan. Sampel E pula mengandungi nilai yang tinggi dalam analisis kandungan kelembapan, vitamin C, kandungan protein serta kandungan karbohidrat tetapi mempunyai nilai yang rendah dalam aktiviti air. Atribut yang dikaji untuk penilaian deria pula adalah penerimaan warna, bentuk, kerapuhan, rasa, kelicinan dan penerimaan keseluruhan. Sampel D merupakan sampel yang lebih diterima oleh panel dan mendapat purata skor yang tertinggi dalam penerimaan keseluruhan. Selain itu sampel D juga mempunyai kelebihan dalam atribut penerimaan kelicinan, rasa dan warna.