

DEVELOPMENT OF HIGH CANDY CONTINUOUS AND PROTEICANS SAP

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

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DEVELOPMENT OF HARD CANDY CONTAINING *Nypa fruticans* SAP

By

MOHD ABDUL TLA BIN AB RAHMAN

**RESEARCH PROJECT submitted in partial fulfilment of the requirement for the
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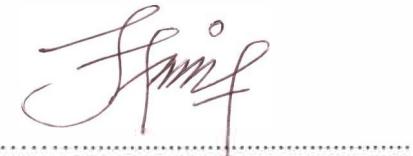
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DECLARATION

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.



28th June 2007

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Approved by,

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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.