DEVELOPMENT OF CHOCOLATE FILLING FROM MIXED FRUITS (*Mangifera foetidus* SIP AND DURIAN)

NORSYAMIMAR BTE SAAT

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI SULTAN ZAINAL ABIDIN

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Lihat Sebelah

DEVELOPMENT OF CHOCOLATE FILLING FROM MIXED FRUITS (*Nypa fruticans* SAP AND GUAVA)

NORISKANDAR BIN SAIM

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

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DECLARATION

I hereby declare that this research project is based on my original work except for quotations and summaries which have been duly acknowledged.

10th June 2007

NORISKANDAR BIN SAIM
UK 9333

10th June 2007

Approved by,

MR. MOHAMAD KHAIRI B. MOHD ZAINOL
(Supervisor)

10th June 2007

PUAN FARIDAH YAHYA
(Co-Supervisor)

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ABSTRACT

A response surface methodology (RSM) was used for the determination of optimum amount Nypa Fruticans Sap and guava to produce acceptable of chocolate filling from mixed fruits (Nypa Fruticans and guava) among consumer. Chocolate filling from mixed fruits (Nypa Fruticans and guava) was developed using drying method with different independent variables which is amount of Nypa Fruticans Sap (200.00-400.00 ml) and guava (50-100 g). A total of fourteen combinations (including five repeated formulations which is formulation 1, 2, and 3) were chosen in random order according to central composite design (CCD) configuration for two factors. The effect of the amounts on water activity (Aw), pH, moisture content, total soluble solid (Brix), brightness (L^*), redness (a^*), yellowness (b^*), color, sweetness, sourness, suitability between sweet and sour, foreign taste, suitability between chocolate and filling and overall acceptability were studied by employing a second-order CCD. Based on surface and contour plots, optimum amount of *Nypa Fruticans* Sap and guava for development of chocolate filling from mixed fruits (Nypa Fruticans and guava) were 200.00 ml and 75.00 g, respectively.

PEMBANGUNAN COKOLAT BERINTIKAN JEM BUAH-BUAHAN CAMPURAN (NIRA NIPAH (*Nypa fruticans* Sap) DAN JAMBU BATU) MENGGUNAKAN KAEDAH RESPONSE SURFACE (RSM)

ABSTRAK

Response Surface Methodology (RSM) telah digunakan untuk penentuan kandungan optimum nira nipah dan jambu batu dalam menghasilkan cokolat berintikan jem campuran buah-buahan (nira nipah dan jambu batu) yang dapat diterima dikalangan pengguna. Jem campuran buah-buahan (Nira nipah dan jambu batu) dihasilkan melalui kaedah pengeringan dengan pemalar yang berbeza di mana kandungan nira nipah (200.00-400.00 ml) dan jambu batu (50.00-100.00 g). Sejumlah empat belas kombinasi (termasuk lima formulasi berulang iaitu formulasi 1, 2, dan 3 telah dipilih secara rawak mengikut tatarajah *central composite design* (CCD) untuk dua faktor. Kesan kandungan ke atas aktiviti air (Aw), pH, jumlah kandungan pepejal (Brix), kandungan kelembapan,, kecerahan (L^*), kemerahan (a^*), kekuningan (b^*), warna, kemanisan, kemasaman, kesesuaian antara rasa manis dan masam, rasa asing, kesesuaian antara cokolat dan inti serta penerimaan keseluruhan dianalisis dengan menggunakan *second-order CCD*. Berdasarkan plot permukaan dan kontor, kandungan optimum bagi nira nipah dan jambu batu untuk penghasilan cokolat berintikan jem campuran buah-buahan (nira nipah dan jambu batu) adalah masing-masing 200.00 ml dan 75.00 g.