

EFFECTS OF POLYMER AND FIBRE INCORPORATION ON
PHYSICOCHEMICAL AND SENSORY CHARACTERISTICS OF
KUIH BINGKA

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FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCES
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AND SENSORY CHARACTERISTICS
OF *KUIH BINGKA*

By
Ho Yuen Ching

Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Food Science (Food Service and Nutrition)

Department of Food Science
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

*Effect of paraffin and milk incorporation on
physicochemical and sensory characteristics of
kuching bingka.*

oleh *Ho Yuen Ching*, No.Matrik *UK 11121*

telah diperiksa dan semua pembedaan yang disarankan telah dilakukan. Laporan ini
dikemukakan kepada Jabatan *Sains Makanan*.

sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda
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FINAL REPORT ENDORSEMENT FORM

It is admitted and verified that the Final Year Project entitled: **Effects of Pumpkin and Milk Incorporation on Physicochemical and Sensory Characteristics of *Kuih Bingka*** by **HO YUEN CHING**, Matric No. **UK 11121**, had been checked and all suggested correction had been done. This report is submitted to Food Science Department in partial fulfillment of the requirements for the degree of Bachelor of Food Science (Food Service and Nutrition), Faculty of Agrotechnology and Food Science, University Malaysia Terengganu.

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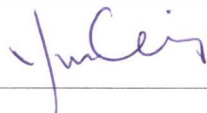
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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

Signature : 

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Date : 10 DEC 2008

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ABSTRACT

Effects of incorporating pumpkin and milk into *kuih bingka* were conducted since there has been no reported research regarding this area. Physical analysis namely colour profile and texture determination, proximate determination and sensory evaluation had been carried out to the studied formulations. Incorporation of pumpkin and milk into *kuih bingka* had imparted lighter and more yellow colour to the *kuih* with a darker and more red (based on colorimeter) top crust. However, the firmness and springiness of the *kuih* had been reduced. Formulations prepared by using pumpkin had improved nutritional content. Crude fat content, crude protein content and carbohydrate content had been reduced while crude fiber content, moisture content and ash content had been increased for both formulations prepared either by using milk or coconut milk. The results obtained from the incorporation of milk were almost the same with the incorporation of pumpkin. Crude fat content, crude fiber content and carbohydrate content had been reduced but crude protein content, moisture content and ash content had been increased. From the aspect of acceptance, in general, the incorporation of pumpkin was significantly more accepted compared with the control formulation. The addition of 10% and 20% pumpkin were more accepted however. Formulations with the addition of milk to the *kuih* were significantly more accepted in term of colour (5.73 ± 1.09^a for M20% and 3.53 ± 1.6^c for C0%). However, in general, addition of milk was significantly less acceptable from the aspect of odour (5.15 ± 1.23^a for C10% and 4.18 ± 1.63^c for M30%), taste and overall acceptance (5.18 ± 1.45^a for C10% and 3.88 ± 1.57^d for M30%). As a conclusion, the incorporation of pumpkin and milk into *kuih bingka* had improved its nutritional value. However, more studied have to be done to improve the texture, taste and odour of the *kuih bingka labu* prepared by using milk.

ABSTRAK

Kesan penambahan labu dan susu ke dalam kuih bingka telah dijalankan kerana tidak terdapat kajian mengenai tajuk tersebut dilaporkan sehingga kini. Analisis fizikal iaitu penentuan warna dan tekstur, penentuan proksimat dan penilaian sensori telah dilakukan terhadap formulasi yang dikaji. Didapati bahawa penambahan labu dan susu ke dalam kuih bingka telah menjadikan warna kuih lebih terang dan lebih kuning, dan kerak bahagian atas yang lebih gelap dan merah warnanya. Akan tetapi, keteguhan (*firmness*) dan kekenyalan (*springiness*) kuih telah dikurangkan. Formulasi kuih dengan penambahan labu didapati telah diperbaiki dari segi kandungan nutrisinya. Kandungan lemak kasar, protein kasar serta kandungan karbohidrat telah dikurangkan manakala kandungan gentian kasar, kandungan air dan kandungan abu telah dipertingkatkan. Penambahan susu ke dalam kuih bingka didapati mempunyai keputusan yang tidak jauh berbeza dengan keputusan penambahan labu. Kandungan lemak kasar, kandungan gentian kasar dan kandungan karbohidrat telah dikurangkan manakala kandungan protein kasar, kandungan air dan kandungan abu telah dipertingkatkan. Daripada aspek penerimaan kuih, secara keseluruhannya, penambahan labu adalah lebih dapat diterima secara signifikan, berbanding dengan formulasi yang tidak ditambah labu. Didapati juga bahawa penambahan labu sebanyak 10% dan 20% adalah lebih diterima. Penambahan susu ke dalam kuih adalah lebih dapat diterima dari atribut warna secara signifikan (5.73 ± 1.09^a untuk M20% dan 3.53 ± 1.6^c untuk C0%). Akan tetapi, secara keseluruhannya, penambahan susu ke dalam kuih adalah kurang dapat diterima dari atribut bau (5.15 ± 1.23^a untuk C10% dan 4.18 ± 1.63^c untuk M30%), rasa dan penerimaan keseluruhan (5.18 ± 1.45^a untuk C10% dan 3.88 ± 1.57^d untuk M30%) secara signifikan. Secara kesimpulannya, penambahan labu dan susu ke dalam kuih bingka telah meningkatkan nilai nutrisinya. Namun, lebih kajian adalah diperlukan untuk menambahbaik lagi tekstur, rasa dan bau kuih bingka labu yang disediakan dengan menggunakan susu.