

DEVELOPMENT OF LAKSAM'S GRAVY POWDER

NOOR HANIDAH ISHAK

FACULTY OF MARKETING, BUSINESS AND FOOD SCIENCES  
UNIVERSITI MALAYSIA TERENGGANU  
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# DEVELOPMENT OF LAKSAM'S GRAVY POWDER

By  
Nor Hamidah binti Ishak

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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:

DEVELOPMENT OF LAKSAM'S GRAVY POWDER

oleh NOR HAMIDAH BT ISHAK, No.Matrik UK11438

telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan SAINS MAKANAN sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda SAINS MAKANAN (PERKHIDMATAN MAKANAN DAN PETAHANAN), Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

Disahkan oleh:

Penyelia Utama

Nama:

Cop Rasmi:

FISAL H.J. AHMAD  
Lecturer  
Department of Food Science  
Faculty of Agrotechnology and Food Science  
Universiti Malaysia Terengganu  
21030 Kuala Terengganu

Tarikh: 21/12/2008

Penyelia Kedua (jika ada)

Nama:

Cop Rasmi

Tarikh: .....



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

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: 'Development of Laksam's Gravy Powder' oleh Nor Hamidah binti Ishak, No.Matrik UK11438 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 Sains Makanan (Perkhidmatan Makanan dan Pemakanan). Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

Disahkan oleh:

.....  
Penyelia Utama

Nama: Encik Fisal Bin Haji Ahmad

Cop Rasmi:

Tarikh:

## DECLARATION

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

Signature :.....  .....

Name :..... NOR HAMIDAH ISHAK .....

Matric No :..... UK 11438 .....

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## ABSTRACT

This study was conducted to develop laksam's gravy in powder form. This food items was subjected to chemical, physical as well as comparative sensory evaluation characteristics. Five formulations were produced and the differences were based on the amount of coconut milk and selayang fish being added into each formulation. Formulation 1 (70% coconut milk, 30% selayang fish), formulation 2 (75% coconut milk, 25% selayang fish), formulation 3 (80% coconut milk, 20% selayang fish), formulation 4 (85% coconut milk, 15% selayang fish), and formulation 5 (90% coconut milk, 10% selayang fish). Fat, protein, carbohydrate, ash, moisture and fiber content were determined in chemical analysis. There was significant different ( $p < 0.05$ ) among all formulations of laksam's gravy powder in term of chemical composition. However, fat was the highest composition in this product and followed by protein. Physical analysis that were tested are color profile ( $L^*$ ,  $a^*$ ,  $b^*$ ) and viscosity ( $\text{mPas}^{-1}$ ). Physical analysis was done for both the powder and after rehydration (liquid) form. There were significant different ( $p < 0.05$ ) in term of color and viscosity among all formulations. The sensory evaluation was done to five formulations and a control. Attributes of evaluation were appearance, color, odor, taste and overall acceptance. However, results revealed that laksam's gravy powder was the most accepted based on attribute of overall acceptance. Total 40 panels had greater preference on laksam's gravy powder made from formulation 3 than other formulations (mean score was 4.63).



## ABSTRAK

Kajian ini dijalankan untuk menghasilkan produk baru iaitu kuah laksam di dalam bentuk serbuk. Analisis kimia, fizikal dan ujian penilaian sensori telah dijalankan bagi menentukan kandungan yang terdapat di dalam kuah laksam serta tahap penerimaan pengguna. Lima formulasi telah dihasilkan dan nilainya berbeza berdasarkan kuantiti santan dan ikan selayang. Formulasi 1 (70% santan, 30% ikan selayang), formulasi 2 (75% santan, 25% ikan selayang), formulasi 3 (80% santan, 20% ikan selayang), formulasi 4 (85% santan, 15% ikan selayang) dan formulasi 5 (90% santan, 10% ikan selayang). Analisis kimia yang dijalankan adalah bagi menentukan kandungan lemak, protein, karbohidrat, ash, dan juga fiber. Terdapat perbezaan yang signifikan ( $p < 0.05$ ) di antara setiap formulasi terhadap kandungan komposisi kimianya. Kandungan lemak adalah yang tertinggi di dalam setiap formulasi dan diikuti oleh kandungan protein. Analisis fizikal yang dijalankan pula adalah warna ( $L^*$ ,  $a^*$ ,  $b^*$ ) dan juga kepekatan ( $\text{mPas}^{-1}$ ). Analisis fizikal dijalankan terhadap produk dalam bentuk serbuk dan juga yang telah dimasak iaitu di dalam bentuk cecair. Terdapat perbezaan yang signifikan ( $p < 0.05$ ) bagi ciri warna dan kepekatan bagi setiap formulasi. Penilaian sensori bagi kelima-lima formulasi dijalankan bersama dengan kawalan. Atribut yang digunakan untuk penilaian sensori adalah rupa bentuk, warna, bau, rasa dan juga penerimaan keseluruhan. Walaubagaimanapun, penerimaan keseluruhan adalah atribut yang digunakan untuk menentukan tahap penerimaan pengguna. Empat puluh orang panel yang telah menjalankan ujian sensori lebih menggemari kuah laksam yang menggunakan formulasi 3 berbanding formulasi yang lain. (min skor adalah 4.63).