





**EFFECT OF COCONUT MILK SUBSTITUTION WITH SOYMILK ON  
MICROBIOLOGICAL QUALITY AND SHELF LIFE OF CHICKEN CURRY**

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**Research Report submitted in partial fulfillment  
of the requirement for the degree of  
Bachelor of Food Science (Food Technology)**

**DEPARTMENT OF FOOD SCIENCE  
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU  
2012**

## ENDORSEMENT

The project report entitled **Effect of coconut milk substitution with soymilk on microbiological quality and shelf life of chicken curry** by Nurulakma binti Shaari, Matric no. **UK17366** has been reviewed and corrections have been made according to the recommendations by examiners. This report is submitted to the Department of Food Science in partial fulfillment of the requirement of the Bachelor of Food Science (Food Technology), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu.



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## DECLARATION

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

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## ACKNOWLEDGEMENTS

First of all, I am very grateful to Allah the Most Beneficent and Merciful, for giving me the strength to finish up this thesis. Special dedication to my family and siblings for continuous support, love and care.

I sincerely would like to extend my utmost gratitude and appreciation to my supervisor; Dr. Mohd Nizam bin Lani for his immeasurable support, invaluable advice, continuous supervision and guidance, dynamic help and encouragement and constructive suggestion, throughout this study. Besides that, I would like to thank my co-supervisor, Miss Zuraidah Nasution for her critical comments and guidances.

I would like to thank the Head of Food Science Department, Dr. Amir Izzwan Zamri, all lecturers and staff of Food Science Department especially the Food Science Lab staff, Pn Zarina Mohd Shariff and En. Azlizam Amin for their kindness and cooperation throughout this study. Thanks are also extended to my friends for their helps, time and encouragement. Thank you.

## ABSTRACT

This study was conducted to determine the effect of coconut milk substitution with soymilk on microbiological quality and shelf life of chicken curry. This study was divided into two different storage temperatures for each microbiological quality and shelf life studies which were stored at ambient ( $26\pm 2^{\circ}\text{C}$ ) and chilled temperatures ( $4\pm 1^{\circ}\text{C}$ ). Five formulations were prepared with the ratio coconut milk and soymilk were ranged from 100:0; 25:75; 50:50; 75:25 and 0:100. Results showed that the substitution of coconut milk with soymilk gave no significant differences ( $P>0.05$ ) between all samples in term of microbiological quality and shelf life for Aerobic plate count, Yeast and mould, *Staphylococcus aureus*, *Bacillus cereus*, *Enterobacteriaceae*, and *E. coli* both at ambient and chilled temperatures. No *Salmonella sp.* was detected in this study. The microbiological qualities of all samples were within the requirements limits recommended by microbiological standard and guideline criteria (Food Standard Australia and New Zealand). The results of study strongly indicated that soymilk has a potential to be used as substitution to coconut milk in chicken curry without affecting microbiological quality and shelf life.

## ABSTRAK

Kajian ini dijalankan untuk menentukan kesan penggantian santan dengan susu soya terhadap kualiti mikrobiologi dan jangka hayat kari ayam. Kajian ini telah dibahagikan kepada dua suhu penyimpanan yang berbeza untuk setiap kualiti mikrobiologi dan jangka hayat yang mana di simpan pada suhu bilik ( $26 \pm 2^\circ\text{C}$ ) dan suhu sejuk ( $4 \pm 1^\circ\text{C}$ ). Lima formulasi disediakan dengan nisbah santan dengan susu soya daripada julat 100:0; 25:75; 50:50; 75:25 dan 0:100. Keputusan menunjukkan bahawa penggantian santan dengan susu soya tidak menunjukkan perbezaan yang signifikan antara semua sampel dari segi kualiti mikrobiologi dan jangka hayat untuk *Aerobic plate count*, *Yeast and mould*, *Staphylococcus aureus*, *Bacillus cereus*, *Enterobacteriaceae* dan *E. coli* di kedua-dua suhu penyimpanan. *Salmonella sp.* tidak dikesan dalam kajian ini. Kualiti mikrobiologi semua sampel adalah di bawah had yang disyorkan oleh standard mikrobiologi dan garis panduan (Food Standard Australia and New Zealand). Hasil kajian menunjukkan bahawa susu soya mempunyai potensi untuk digunakan sebagai pengganti santan dalam kari ayam tanpa menjejaskan kualiti mikrobiologi dan jangka hayat.