

PHYSICO-CHEMICAL PROPERTIES AND ACCEPTABILITY  
OF FRIED NOODLE SNACK WITH FISH  
INCORPORATION

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Physicochemical properties and acceptability of fried noodle snack with fish incorporation / Nurul Salina Atika Paiman.

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PHYSICOCHEMICAL PROPERTIES AND ACCEPTABILITY OF FRIED NOODLE  
SNACK WITH FISH INCORPORATION

By

Nurul Safina Atika binti Paiman

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

DEPARTMENT OF FOOD SCIENCE  
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE  
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## ENDORSEMENT

The project report entitled **Physicochemical Properties And Acceptability Of Fried Noodle Snack With Fish Incorporation** by **Nurul Safina Atika bt Paiman**, Matric No. **UK 16714** has been reviewed and corrections have been made according to the Department of Food Science in partial fulfillment of the requirement of the degree 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 acknowledge.

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

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## ABSTRACT

The main objective of this study was to develop fried fish noodle snack with different ratios of wheat flour and fish. Five formulations of fried fish noodle snack were used which were 100:0, 90:10, 80:20, 70:30 and 60:40 of wheat flour and fish, respectively. Several analysis were carried out on the fried fish noodle snack including the determination of physical (color and texture) and chemical properties (moisture content, crude fat, protein content, ash content, and carbohydrates). Sensory evaluation was performed to determine the acceptability on the fried fish noodle snack color, surface appearance, odor, crispiness, taste and overall acceptance attributes. The result showed that increased in fish incorporation increased the hardness of the fried fish noodle snack. However, the fracturability and color properties showed similarity between all formulations. For chemical properties, protein content was increased but carbohydrate content decreased with the increased of fish portion in formulation. Acceptance levels for all formulations were quite low (~4), especially for samples with 30% and 40% fish addition. Formulation with up to 20% of fish showed similar acceptability with control (0% fish). Fried fish noodle snack has potential to be produced commercially. However, further study is required to improve some of the physical properties of final product which resulted in the lower acceptability of this product.

## ABSTRAK

Objektif utama kajian ini adalah untuk membangunkan mi siput ikan dengan nisbah tepung gandum dan ikan yang berbeza. Lima formulasi mi siput ikan digunakan iaitu 100:0, 90:10, 80:20, 70:30 dan 60:40 nisbah tepung gandum dan ikan. Beberapa analisis dijalankan ke atas mi siput ikan, termasuklah penentuan ciri fizikal (warna dan tekstur) dan kimia (kandungan kelembapan, lemak kasar, protein, abu dan karbohidrat). Penilaian deria telah dijalankan untuk menentukan penerimaan mee siput ikan berdasarkan warna, rupa permukaan, bau, kegaringan, rasa dan penerimaan keseluruhan. Hasil kajian menunjukkan bahawa pertambahan peratusan ikan di dalam formulasi meningkatkan kekerasan mi siput ikan. Walau bagaimanapun, kebolehpatahan dan warna menunjukkan persamaan antara semua formulasi. Bagi sifat-sifat kimia, kandungan protein meningkat tetapi kandungan karbohidrat menurun dengan peningkatan peratusan ikan di dalam formulasi yang digunakan. Tahap penerimaan untuk semua formulasi agak rendah (~4), terutamanya formulasi dengan 30% dan 40% pertambahan ikan. Pertambahan sehingga 20% ikan menunjukkan penerimaan yang sama dengan sampel kawalan (0% ikan). Mi siput ikan mempunyai potensi untuk dihasilkan secara komersial. Walaubagaimanapun, kajian lanjut diperlukan untuk memperbaiki beberapa ciri fizikal yang menurunkan penerimaan produk ini.