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Lihat Sebelah

DEVELOPMENT OF HARUAN CRACKER

(CHANNA STRIATUS)

By

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

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DECLARATION

I hereby declare that the thesis is based on may original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any degree at UMT or other institutions.

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ABSTRACT

This study was conducted to development of Haruan (*Channa Striatus*) cracker. Objectives of the study are to study the development of Haruan cracker and also to study the chemical and physical characteristic as well as the sensory attributes of the Haruan cracker using differences formulation. This study also being conducted to compare between the commercial cracker with the Haruan cracker. There were four formulation was carry out for this study which the different among the formulations are different amount of flour and fish content. The Haruan cracker were check for proximate analysis for moisture content, crude fat, crude protein and carbohydrate using ventricell oven for moisture analysis, Soxhlet extractor for the fat and Foss Tecator ,Kjeltex System (Sweden) for protein analysis. For physical analysis attributes such as color, fracturability and hardness has been tested. Overall, for protein, fat and carbohydrate content, sample A with 55% of fish and 45% of flour scored the highest percentage of fat, protein and carbohydrate content compared to the others. The trend shows that the increases of fish flash will increased the percentage of fat, protein and carbohydrate of the crackers. Meanwhile, for the moisture analysis, sample D (control) scored the higher percentage which is 11.52 ± 4.86^{a}. For physical analysis, there is no significant different ($p>0.05$) for the lightness and hardness of the crackers. The fracturability is based and closely related to the vaLue of hardness. The sensory evaluation was done for the attribute of color, odour, fracturability, crispiness, oiliness, taste and overall acceptance. Overall, sample D (control) with 45 % of fish and 45% of flour scored the highest rate of acceptability for the entire attribute being tested. However there is no significant difference ($p>0.05$) between sample A with 55% of fish and 35% of flour, B with 45% of fish and 45% of flour and C with 35% of fish and 55% of flour.

PENGHASILAN KEROPOK IKAN HARUAN

ABSTRAK

Kajian ini dijalnkan untuk penghasilan keropok ikan Haruan. Objektif kajian ini adalah untuk mengkaji penghasilan keropok ikan Haruan, dan juga mengkaji ciri-ciri kimia dan fizikal disamping penerimaan sensori ke atas formulasi keropok keeping yang berbeza. Kajian ini juga dijalankan untuk melihat perbandingan di antara keropok keping komersial dan keropok ikan haruan yang dihasilkan. Empat formulasi yang berbeza telah digunakan dalam kajian ini di mana setiap formulasi adalah berbeza dari segi kuantiti ikan dan tepung yang digunakan. Analisis proksimat telah dijalankan ke atas keropok ikan haruan iaitu analisis penentuan kelembapan, kandungan lemak kasar, kandungan protein kasar dan juga kandunagn karbohidrat menggunakan Ventricell Oven bagi penentuan kelembapan, Soxhlet extractor bagi penentuan lemak kasar dan Foss Tecator ,Kjeltex System (Sweden) bagi penetuan protein kasar. Bagi analisis fizikal, ciri-ciri seperti warna, kekerasan dan kebolehpatahan telah diuji. Secara keseluruhannya, bagi analisis proksimat, sampel A yang mana mengandungi 55% isi ikan dan 45% tepung telah mencatatkan peratusan tertinggi bagi analisis kandungan protein, lemak dan karbohidrat berbanding sampel-sampel yang lain. variasi menunujukkan bahawa peningkatan kandungan lemak, protein dan karbohidrat adalah berkadar terus dengan peningkatan isi ikan yang digunakan untuk setiap formulasi. Manakala, bagi analisis penentuan kelmbapa, sampel D (kawalan)telah mencatatkan peratusan paling tinggi iaitu sebanyak 11.52 ± 4.86^{a} . Bagi analisis fizikal, tidak terdapat perbezaan yang signifikan ($p>0.05$) bagi atribut kecerahan dan kekerasan bagi kesemua sampel. Nilai kebolehpatahan adalah berkadar langsung dengan nilai kekerasan sampel. Penilaian sensory yang telah dijalankan adalah terhadap atribut warna, bau, kebolehpatahan, kerangupan, berminyak, rasa dan penerimaan keseluruhan. Secara keseluruhan, sampel D (kawalan) iaitu 45% isi ikan dan 45% tepung mencatatkan nilai tertinggi bagi semua atribut yang diuji. Walaubagaimanapun, tidak terdapat perbezaan yang signifikan ($p>0.05$) bagi sampel A dengan 55% isi ikan dan 35% tepung, B dengan 45% isi ikan dan 45% tepung dan C dengan 35% isi ikan dan 55% tepung..