

DEVELOPMENT OF LOWMOISTURE
(*Edgewise*)

6. MOISTURE CONTENT, 17.1% DRY

FACULTY OF AGRICULTURE AND FOOD SCIENCE
UNIVERSITY OF CALIFORNIA, DAVIS
MENDOTA, CALIFORNIA

DEVELOPMENT OF LOKAN SAUCE

(Polymesoda expansa)

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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)

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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DECLARATION

I hereby declare that this final year project is based on my original work except for the 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 institution.



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ABSTRACT

Lokan (*Polymesoda expansa*) was made into lokan sauces. This food item was subject to physical and chemical analysis as well as comparative sensory evaluation characteristic. Three formulations were produced and the differences were based on the amount of lokan extraction is added into the sauces which are formulation A (10%), formulation B (20%), and formulation C (30%). Physical analyses that are tested were determination of colour ('L', 'a' 'b'), pH, total soluble solid (°Brix), viscosity (mPas⁻¹), and water activity. There were no significant difference ($p < 0.05$) among the sauces formulated in colour analysis ('L', 'a' 'b'), pH, and water activity. Whereas, for the total soluble solid (°Brix), viscosity (mPas⁻¹), the value showed the significant difference ($p < 0.05$) in sauces formulation. In proximate analysis, carbohydrate content, protein content, and fat content were determined. There was significant difference ($p < 0.05$) among the sauces formulated in carbohydrate content and protein content. The sensory profile and the acceptability of four sauces were measured formulation A (10%), formulation B (20%), formulation C (30%), and formulation D (30%). The attributes for sensory evaluation are colour, aroma, viscosity, taste, foreign taste, and overall acceptance. A total 60 panels had greater preference on lokan sauce made from formulation B (20 %) than other sauces formulation. However, results revealed that lokan sauces were the most accepted based on attribute for overall acceptance in sensory evaluation (mean score for 20 % formulation B - 5.40).

PENGHASILAN SOS LOKAN.

ABSTRAK

Lokan (*Polymesoda expansa*) telah digunakan untuk menghasilkan sos. Beberapa analisis fizikal, kimia dan ujian penilaian sensori telah dijalankan bagi menentukan kandungan yang terdapat dalam sos lokan. Tiga formulasi telah dihasilkan dan mempunyai nilai yang berbeza bergantung kepada kandungan ekstrak lokan yang terdapat dalam sos tersebut iaitu formulasi A (10%), formulasi B (20%), and formulasi C (30%). Analisis fizikal yang telah dijalankan adalah dalam penentuan warna ('L', 'a', 'b'), pH, kandungan pepejal larut ($^{\circ}\text{Brix}$), kepekatan (mPas^{-1}), dan aktiviti air. Tiada perbezaan signifikan ($p < 0.05$) di antara formulasi sos terhadap warna ('L', 'a', 'b'), pH, dan aktiviti air. Walaubagaimanapun, tiada perbezaan signifikan ($p < 0.05$) antara kandungan pepejal larut ($^{\circ}\text{Brix}$), dan kepekatan (mPas^{-1}) dalam formulasi sos. Kandungan karbohidrat, protein, dan lemak diuji dalam analisis proksimat. Terdapat perbezaan signifikan ($p < 0.05$) diantara formulasi sos dalam kandungan karbohidrat dan kandungan protein. Ujian sensori dan penerimaan terhadap empat formulasi sos telah dijalankan iaitu formulasi A (10%), formulasi B (20%), formulasi C (30%), dan formulasi D (control) dalam penentuan warna, aroma, kepekatan, rasa, rasa asing, dan penerimaan keseluruhan. Sejumlah 60 orang panel telah melakukan ujian sensori lebih gemar sos yang diperbuat daripada 20 % formulasi B. (min skor bagi 20 % formulation B - 5.40) berdasarkan kepada penentuan keseluruhan.