

**EFFECT OF ADDITION OF GUAVA SKIN POWDER IN DEEP FRIED COATED
SWEET POTATO**

By

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

**DEPARTMENT OF FOOD SCIENCE
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ENDORSEMENT

The project report entitled **Effect of Addition of Guava Skin Powder in Deep Fried Coated Sweet Potato** by **Amira binti Abdullah** Matric No **UK17003** 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 degree of Food Science (Food Technology), Faculty of Agrotechnology and Food Science, University Malaysia of Terengganu.



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DECLARATION

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

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ABSTRACT

The purpose of this study was to determine the effect of addition of guava skin powder on the physicochemical characteristics of the fried sweet potato and their acceptance level. The analyses conducted were included ash, protein, moisture, fat, fiber, and color determination on guava skin powder, viscosity, batter pickup and color on batter suspension and texture analyses and sensory evaluation on fried sweet potato. The results obtained from analyses on guava skin powder were 1.14% ash, 3.79% protein, 12.01% moisture, 3.65 fat, 43.87% fiber and *L= 68.91, *a= -1.53 and *b= 19.72 on color. The results of analyses on batter suspension of formulation Control, 1, 2, 3 and 4 were 54.67 cP, 107.33 cP, 156.67 cP, 299.33 cP and 530.00 cP respectively on viscosity, 12.49%, 21.00%, 27.49%, 43.08% and 61.39% respectively on batter pickup and 40.06, 27.34, 25.10, 23.75 and 22.73 respectively on color. Analyses on fried sweet potato according to sample formulation of Control, 1, 2, 3 and 4 resulted 36.89%, 47.88%, 51.01%, 56.29% and 56.84% respectively on moisture, 7.68%, 8.87%, 10.63%, 13.52% and 18.33% respectively on fat, 15.54, 16.40, 16.67, 17.29 and 19.54 respectively on color, 191.5g, 126.24g, 264.80g, 392.85g and 374.67g respectively on hardness, 38.11mm, 38.94mm, 40.82mm, 42.71mm and 42.25mm respectively on fracturability. The most acceptable formulation was sample Control.

ABSTRAK

Tujuan kajian ini dijalankan adalah untuk mengenalpasti kesan penambahan serbuk kulit jambu batu dari segi ciri- ciri fizikokimia pada ubi keledak goreng dan tahap penerimaannya. Beberapa analisis kimia dan fizikal telah dijalankan. Analisis yang dijalankan ialah penentuan pengabuan, protein, lembapan, lemak, fiber dan warna terhadap serbuk kulit jambu batu, ujian kelikatan, pikap adunan dan warna pada adunan dan analisis tekstur dan penilaian deria terhadap ubi keledak goreng. Keputusan yang diperoleh daripada analisis terhadap serbuk kulit jambu batu 1.14% abu, 3.79% protein, 12.01% lembapan, 3.65 lemak, 43.87% fiber and $*L= 68.91$, $*a= -1.53$ and $*b= 19.72$ nilai warna. Keputusan yang diperoleh daripada analisis terhadap adunan untuk formulasi kawalan, 1, 2, 3 and 4 adalah 54.67 cP, 107.33 cP, 156.67 cP, 299.33 cP dan 530.00 cP setiapnya pada tahap kelikatan, 12.49%, 21.00%, 27.49%, 43.08% dan 61.39% setiapnya pada pikap adunan dan 40.06, 27.34, 25.10, 23.75 dan 22.73 setiapnya pada warna. Analisis terhadap ubi keledak goreng mengikut formulasi sampel kawalan, 1, 2, 3 and 4 berkeputusan 36.89%, 47.88%, 51.01%, 56.29% dan 56.84% setiapnya pada lembapan, 7.68%, 8.87%, 10.63%, 13.52% dan 18.33% setiapnya terhadap lemak, 15.54, 16.40, 16.67, 17.29 dan 19.54 setiapnya pada warna, 191.5g, 126.24g, 264.80g, 392.85g dan 374.67g setiapnya pada kekerasan, 38.11mm, 38.94mm, 40.82mm, 42.71mm dan 42.25mm setiapnya pada kepatahannya. Formulasi yang paling diterima ialah sampel kawalan.