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NOR AZAH BTE DURIAN

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EFFECT OF KOJIC ACID AND TARTARIC ACID ON BROWNING AND
CRUNCHINESS OF SPROUTS

By
Nor Azian bte Duriat

Research Report submitted in partial fulfillment of
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Department of Agrotechnology
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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**FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU**

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK ILMIAH I DAN II**

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

*Effect of kojic Acid and Tartaric Acid on Browning and
Crunchiness of Sprouts*

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diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini
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Sains Agroteknologi (Teknologi Lapastuai), Fakulti
Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

Disahkan oleh:

Penyelia Utama

DR. CHUAH TSE SENG

Nama:

Pensyarah

Jabatan Agroteknologi

Cop Rasmi:

Fakulti Agroteknologi dan Sains Makanan
Universiti Malaysia Terengganu
21030 Kuala Terengganu

Tarikh: *26 April 2009*

Penyelia Kedua (jika ada)

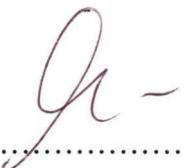
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DECLARATION

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

Signature : 

Name : Nor Azian bte Duriat

Matric No : Uk 13951

Date : 26 April 2009

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ABSTRACT

A study to investigate the effectiveness of anti browning agents from different compound groups in inhibiting enzymatic browning and loss in crunchiness of bean sprouts was conducted under laboratory conditions. Kojic acid (KA), a member of phenolic acids group and tartaric acid (TA) which belongs to carboxylic acid group were tested on bean sprouts under ambient temperature (28°C) and stored for 24 hours. The results of this study have shown that kojic acid as low as 0.005% can inhibit loss in crunchiness of bean sprouts while 0.0035% tartaric acid also gave positive effect. Only seven combinations of treatment exhibited significant effect in restraining the loss of crunchiness. These treatments were 0.02% KA + 0.007% TA, 0.02% KA + 0.0035% TA, 0.01% KA + 0.007% TA , 0.01% KA + 0.0035% TA and 0.01% KA + 0.0017% TA. However, none of the treatments show significant effect on preventing bean sprouts from the occurrence of enzymatic browning. This study suggests that 0.0035% of tartaric acid is found to be the most cost effective treatment in maintaining crunchiness of bean sprouts.