

DEVELOPMENT OF DEWY BEAN BEANS, WILKED AND

WILKED BEANS

WILKED BEANS

WILKED BEANS
WILKED BEANS
WILKED BEANS

2005

1100089987

Pusat Pembelajaran Digital Sultanah Nur Zahirah (UMT)
Universiti Malaysia Terengganu.



LP 36 FASM 3 2006



1100089987

Development of drink from papaya, tomato and bottle gourd /
Soh Hwei Jun.

**PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH
UNIVERSITI MALAYSIA TERENGGANU (UMT)
21030 KUALA TERENGGANU**

1100089987		

Lihat Sebelah

**HAK MILIK
PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH**

**DEVELOPMENT OF DRINK FROM PAPAYA, TOMATO AND
BOTTLE GOURD**

SOH HWEI JUN

**RESEARCH PROJECT submitted in partial fulfillment of the requirement for the
degree of Bachelor of Food Science (Food Service and Nutrition)**

**FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
MENGABANG TELIPOT
2005/06**

This project report should be cited as:

SOH, H.J. 2006. Development of Drink from papaya, tomato and bottle gourd. Undergraduate thesis, Bachelor of Food Science (Food Service and Nutrition), Faculty of Agrotechnology and Food Science, Kolej Universiti Sains dan Teknologi Malaysia, Terengganu. 56p.

No part of this report may be reproduced by any mechanical, photographic or electronic process, or in the form of photographic recording, nor may it be stored in a retrieval system, transmitted or otherwise copied for public or private use, without written permission from the author and supervisor(s) of the project.

LP
36
KASIM
3
2006

DECLARATION

I hereby declare that this final year project is based on my original work except for the quotation and citations, which have been duly acknowledge.


15.6.06



SOH HWEI JUN
UK 8644

Approved by,

15.6.06



DR. AMIR IZZWAN ZAMRI
(Supervisor)

ACKNOWLEDGEMENTS

First and foremost, I would like to express my highest appreciation and sincere gratitude to my supervisor, Dr. Amir Izzwan Zamri for his patient incredible general knowledge, continual supervision and constructive opinion in helping me to finish this final year project.

Secondly, I would like to thank my parent, brother and sister for their support and loving encouragement that enables me to finish this project on time.

Thirdly, I would also like to extend my warmest gratitude and appreciation to all Food science lab assistants such as Cik Nasrenim, Cik Suzana, Pn. Fadhlina, Cik Aniza, Pn. Dayang, En. Aswady, En. Roslan and others staff for their continuous help, guidance and invaluable advices.

Last but not least, there are special thanks to those who have been directly and indirectly in helping me to finish this project and especially to my course mates and others. With this, I could easily go through the difficulty and solved the problems that I faced.

ABSTRACT

This study was conducted to develop drink from papaya, tomato and bottle gourd. Four formulations which were stand from three types of fruit and vegetables. These samples of drinks made from were papaya; tomato and bottle gourd were prepared through freeze drying method to retain the enzymes content. Study of drinks in chemical analyses which included was total fiber dietary, carbohydrate, ash content, amylase, protease and lipase. There were only 2 significantly differences ($p < 0.05$) in determination of fiber dietary. Sample A have the average composition of 33.33% of papaya in powder form, 33.33% of tomato in powder form and 33.33% bottle gourd in powder form score the highest mean score in determination of fiber dietary and carbohydrate. Sample B have the composition of 50% of papaya in powder form, 25% of tomato in powder form and 25% of bottle gourd in powder form have the highest mean score in determination of ash content. Besides that, only bottle gourd showed chemical reaction towards amylase test, test indicates that only papaya consisted of protease enzyme, and lastly papaya; tomato and bottle gourd showed chemical reaction toward lipase test. Four combination of formulation in (33.33:33.33:33.33, 50:25:25, 25:50:25, 25:25:50) were selected for sensory evaluation. A group pf 30 untrained panels were involved in the evaluation. Sensory evaluation of the drink using the System Analysis Statistic program (SAS) showed no significant different was showed in the sensory evaluation test, ($p < 0.05$) in attributes which were color, aroma, viscosity, taste, flavor, mouth feel and overall acceptance. Therefore, sample B which consisted of 50% papaya powder form, 25% tomato powder form and 25% bottle gourd powder form scored the highest in overall acceptance.

PENGHASILAN MINUMAN DARIPADA BUAH BETIK, TOMATO DAN LABU AIR

ABSTRAK

Kajian ini telah dilakukan dalam menentukan perkembangan minuman daripada buah betik, tomato and labu air. Empat jenis formulasi telah disediakan daripada buah dan sayuran tersebut dengan menggunakan cara '*freeze drying*' bagi mengekalkan kualiti enzim dalam bahan mentah tersebut. Kajian analisis kimia yang dilakukan termasuk penentuan jumlah fiber dietari, karbohidrat, jumlah abu, amylase, protease and lipase. Hanya terdapat dua perbezaan signifikan ($p < 0.05$) dalam kajian penentuan jumlah fiber dietary. Sampel A dengan formulasi 33.33% buah betik dalam bentuk tepung, 33.33% tomato dalam bentuk tepung dan 33.33% labu air dalam bentuk buah tepung mempunyai min skor tertinggi dalam penentuan jumlah fiber dietari dan karbohidrat. Sampel B dengan formulasi 50% betik dalam bentuk tepung, 25% tomato dalam bentuk tepung dan 25% labu air dalam bentuk tepung mempunyai min skor tertinggi dalam penentuan abu. Seterusnya, hanya labu air menunjukkan tindak balas kimia dalam ujian amylase, buah betik menunjukkan tindak balas kimia dalam ujian protease dan akhirnya buah betik, tomato dan labu air menunjukkan tindak balas kimia dalam ujian lipase. Empat jenis penggabungan formulasi (33.33:33.33:33.33, 50:25:25, 25:50:25, 25:25:50) disediakan dalam penilaian sensori. 30 panel tidak terlatih terlibat dalam penilaian sensori. Penilaian sensori akan dinilai dengan menggunakan Program Sistem Analisis Statistik (SAS) dan menunjukkan tiada perbezaan signifikan, ($p < 0.05$) dalam atribut warna, aroma, kepekatan, kesukaan, rasa, '*mouth feel*' dan penerimaan keseluruhan. Kesimpulannya, sample B yang mengandungi 50% buah betik dalam bentuk tepung, 25% tomato dalam bentuk tepung dan 25% labu air dalam bentuk tepung menskor nilai tertinggi dalam penerimaan keseluruhan.