

DEVELOPMENT OF NATURAL SEASONING FROM  
KAFFIR LIME (CITRUS HYSTRIX) LEAVES

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**DEVELOPMENT OF NATURAL SEASONING FROM  
KAFFIR LIME(*CITRUS HYSTRIX*) LEAVES**

**BY**

**BEH NGIN SEE**

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

**FACULTY OF AGROTEKNOLOGY AND FOOD SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU  
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## DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged.

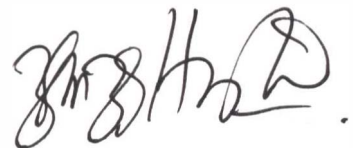
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Approved by



PUAN ZAMZAHAILA BINTI MOHD ZIN  
(Supervisor)

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## ABSTRACT

Kaffir lime leaves are commonly used to season food in South-East Asia. Both its leaves and fruits have a pleasant lemon smell. The study included development of natural seasoning from kaffir lime leaves and selection of the best drying methods in order to produced high quality of natural seasoning from kaffir lime leaves. There were three drying method used in this study, such as air oven drying, vacuum drying and freeze drying. Moisture contents, colour profile, fiber and ash percentage of dried kaffir lime leaves were determined in different drying methods. In addition, antioxidant and phenolic compound were conducted to evaluate the highest antioxidant activities of kaffir lime leaves in different drying method. From the result, there were significant( $p < 0.05$ ) different in antioxidant activities between kaffir lime leaves extract in different drying method as compared to tocopherol and BHT. For moisture contents and ash percentage, there were not significant( $p < 0.05$ ) different between samples in three drying methods. From the result, there were significant( $p < 0.05$ ) different in colour between kaffir lime leaves in different drying method. For fiber analysis, there were not significant( $p < 0.05$ ) different between samples in vacuum drying and freeze drying methods but there are significant( $p < 0.05$ ) different between sample in air oven drying method.

## PERKEMBANGAN PRODUK BAHAN PERISA DARIPADA DAUN LIMAU

### PURUT(*Kaffir lime*)

#### ABSTRAK

Daun limau purut biasanya digunakan sebagai bahan perisa di Asia Timur. Buah dan daunnya juga mempunyai bau limau. Kajian ini meliputi perkembangan bahan perisa dengan menggunakan daun limau purut dan pemilihan kaedah yang paling baik untuk menghasilkan bahan perisa yang berkualiti tinggi. Terdapat tiga kaedah pengeringan dalam kajian ini iaitu as air oven drying, vacuum drying and freeze drying. Kandungan air, warna, gentian kasar, dan kandungan abu telah dikaji melalui tiga jenis kaedah pengeringan. Selain itu, antioxidant dan phenolik telah dikaji. Daripada keputusan, tidak terdapat perbezaan antara antioxidant daripada tiga jenis kaedah pengeringan. tidak terdapat perbezaan( $p < 0.05$ )antara antioxidant daripada tiga jenis kaedah pengeringan bagi kandungan air dan abu. Daripada keputusan, terdapat perbezaan( $p < 0.05$ )antara sampel bagi warna pada kaedah pengeringan yang berbeza. Bagi penentuan gentian kasar, terdapat perbezaan( $p < 0.05$ )antara kaedah vakum dengan kaedah freeze tetapi tidak terdapat perbezaan untuk kaedah oven.