

DEVELOPMENT OF GREEN, BLACK, AND OOLONG TEA FROM
Camellia cordifolia

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Development of green, black, and oolong tea from *Cosmos caudatus* / Acmarina Nur Salwani Muhammad Dalib.

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DEVELOPMENT OF GREEN, BLACK, AND OOLONG TEA FROM

Cosmos caudatus

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2007

**DEVELOPMENT OF GREEN, BLACK, AND OOLONG TEA FROM *Cosmos*
*caudatus***

BY

ACMARINA NUR SALWANI BINTI MUHAMMAD DALIB

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

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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 acknowledge. I also declare that it has not been previously or concurrently submitted for any degree at UMT or other institutions.



10th JUNE 2007

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ABSTRACT

Ulam raja or *Cosmos caudatus* has been traditionally used for improving blood circulations and recommended for bone building of its high calcium content. Due to the presence of abundant antioxidant capacity, *C. caudatus* is seems to be potential as good source of natural antioxidant to prevent the development of chronic diseases as consequences to oxidation process in human body. The main objective of this study was to develop herbal tea product in three types of tea, namely green, oolong, and black tea as functional food. The study aimed to determine the antioxidative activity and total phenolic compound. In this study also had determined the acceptance of sensory attributes of the three types of tea. Methanol was used as extraction solvent and antioxidative assay was done using ferric thiocynate method (FTC) while total phenolic compounds (TPC) was determined using the folin-ciocalteu method. Result from FTC show that no significant difference ($p < 0.05$) was exhibited in antioxidative activity between ulam raja teas extract as compared to BHT. While result from TPC show that ulam raja teas has phenolic content especially ulam raja black teas which has the highest phenolic compound with significant different ($p < 0.05$) between samples. Ulam raja teas samples got low acceptance by panelist in sensory evaluation.

ABSTRAK

Ulam raja atau *Cosmos caudatus* telah digunakan secara tradisionalnya untuk pengaliran darah yang baik dan dapat membantu pembinaan tulang kerana kandungan kalsium yang tinggi. Disebabkan mempunyai kandungan antiosidan yang tinggi juga *C.caudatus* dilihat mempunyai potensi sebagai sumber antioksidan untuk mengelakkan terjadinya penyakit kronik akibat proses oksida dalam badan manusia. Objektif utama kajian ini adalah untuk menghasilkan produk teh herba dalam tiga jenis teh iaitu teh hijau, teh oolong, dan teh hitam dari *C.caudatus* sebagai minuman berfungsi. Kajian melibatkan penentuan tahap aktiviti antioksida dan kandungan fenolik dalam ketiga-tiga jenis teh tersebut. dalam kajian ini juga melibatkan penentuan tahap penerimaan sensori terhadap ciri-ciri ketiga-tiga teh ulam raja tersebut. Metanol telah digunakan sebagai pelarut untuk proses pengekstrakkan dan penentuan aktiviti antioksida telah menggunakan kaedah Ferric Thiocynate (FTC) manakala penentuan jumlah kandungan fenolik menggunakan kaedah Folin-Ciocalteu. Keputusan dari analisis FTC menunjukkan tiada perbezaan yang ketara ($p < 0.05$) apabila dibandingkan kesemua ekstrak teh ulam raja dengan BHT dalam aktiviti antioksidatif. Keputusan kandungan fenolik pula menunjukkan kesemua jenis the ulam raja mempunyai kandungan fenolik terutamanya the ulam raja hitam yang mempunyai kandungan fenolik yang tinggi dengan perbezaan yang ketara ($p < 0.05$) antara sampel. Teh ulam raja mendapat kurang penerimaan daripada panel dalam penilaian sensori.