

DEVELOPMENT OF PASTURE FROM WILD PRAIRIE

(Continued)

QUANTITIES OF WILD PRAIRIE GRASS

TABLE OF QUANTITIES OF WILD PRAIRIE GRASS

AND OF THE WILD PRAIRIE GRASS

IN THE WILD PRAIRIE

C.M: 9173

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Development of pastille from ulam raja (Cosmos caudatus) /
Sharizainor Sharina Mohamed Shariff.

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DEVELOPMENT OF PASTILLE FROM ULAM RAJA (*Cosmos caudatus*)

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2007**

This project should be cited as:

Shariff, S.S., 2007, Development of pastille from Ulam Raja (*Cosmos caudatus*). Undergraduate thesis, Bachelor of Food Science (Food Services and Nutrition). Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu. Mengabang Telipot, Terengganu. 60p

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DECLARATION

I hereby declare that this research project based on my original work except for quotations and summary which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any degree at Universiti Malaysia Terengganu or other institutions.

1 July 2007

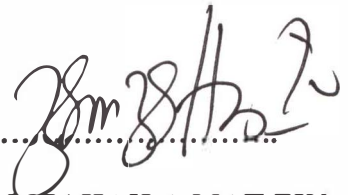


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ACKNOWLEDGEMENTS

Syukur Alhamdulillah to the Almighty Allah S.W.T. for giving me strength, patience and capability to complete this project and thesis write up.

I would like to express my deepest thanks and appreciation to my supervisor, Pn Zamzahaila bt Mohd Zin, lecturer of the Department of Food Science for giving me support, guidance, advice and ideas to help and guide me to a right path in order to finish my research. I would also like to express my thanks to Head of Food Science Department, Prof Madya Dr Amiza Mat Amin and all respectful lecturers for bright ideas and helpful suggestion. To En Fisal, Pn Suzana, Pn Fadlina, Miss Rose Haniza and all Food Science Department's staff, thank you for your cooperation and assistance throughout this research.

Deepest gratitude to my beloved parents, Mohamed Shariff B Ibrahim and Zainah Bt Mohamad for giving me support and always there when I needed. Last but not least, I would like to thank all my friends for precious time, encouragement and moral support in order to finish my research.

ABSTRACT

Cosmos caudatus or ulam raja consumed by local are know because of their taste, which adds variety and flavor as well as their healthy benefit. Due to the healthy benefit, *Cosmos caudatus* are used for the development of confectionary product to increase the consumption of local ulam especially for children. Children are likely to choose confectionary product than the raw vegetable. This research was carried out to develop pastille from *Cosmos caudatus* and evaluate the physical and chemical properties of the product. The research also done to differentiates the acceptance between pastilles with the different amount of *Cosmos caudatus*. Five different formulation was developed with different amount of *Cosmos caudatus* (0%, 5%, 10%, 15% and 20%). Color analysis, determination of moisture content, ash content, fiber content, protein content, carbohydrates content, water activity and sensory evaluation (affective test) were carried out. Result for color, the 'L' value increases with the increasing amount of *Cosmos caudatus*. However, there were differentiate in 'a' and 'b' value due to heat processing. Result for protein and carbohydrates analysis showed increasing with the increases amount of *Cosmos caudatus* used. On the other hand, water activity and moisture content are decreased. The concentrated of *Cosmos caudatus* used in pastille, the fewer amounts of bound water and free water in pastille bring to the lower amount of water activity and moisture content. Although there are differences in physicochemical of pastille, there are not significantly different at $p>0.05$ for sensory evaluation. Result of the research showed that the physicochemical properties in pastille from *Cosmos caudatus* did not effect on acceptance of the product.

PENGHASILAN PASTIL DARIPADA ULAM RAJA (*Cosmos caudatus*)

ABSTRAK

Cosmos caudatus atau ulam raja disukai oleh masyarakat tempatan disebabkan oleh rasanya yang menambahkan kepelbagaian dan perasa dalam makanan seharian. *Cosmos caudatus* digunakan untuk penghasilan produk konfeksi bagi meningkatkan pengambilan ulam tempatan terutamanya pada kanak-kanak. Kanak-kanak lebih cenderung mengambil dan memilih produk konfeksi jika dibandingkan dengan ulam. Penghasilan produk pastil dipasaran semakin meningkat disebabkan oleh tekstur pastil yang unik. Kajian ini dijalankan untuk menghasilkan pastil daripada *Cosmos caudatus*. Kajian ini juga dilakukan untuk menilai ciri-ciri fizikal, kimia serta penerimaan terhadap produk pastil daripada *Cosmos caudatus*. Lima formulasi dibentuk dengan mengubahsuai jumlah kandungan *Cosmos caudatus* iaitu 0%, 5%, 10%, 15% dan 20% untuk dilakukan analisis. Analisis yang dilakukan adalah analisis warna menggunakan Minolta Chrome Meter CR 300 Japan, penentuan kelembapan, serat, abu, protein, karbohidrat, aktiviti air dan penilaian sensori. Untuk analisis warna, nilai L meningkat dengan peningkatan penggunaan *Cosmos caudatus* didalam pastil. Terdapat perbezaan pada nilai a dan b disebabkan oleh pemprosesan. Daripada kajian yang dilakukan, kandungan protein dan karbohidrat meningkat dengan peningkatan *cosmos caudatus* di dalam pastil tetapi terdapat penurunan bagi aktiviti air dan kandungan kelembapan. Penurunan nilai aktiviti air dan kandungan kelembapan disebabkan oleh kepekatan jus *Cosmos caudatus* yang dimasukkan kedalam pastil. Walaupun terdapat perbezaan dalam ciri kimia dan fizikal pada pastil, penerimaan terhadap pastil tidak menunjukkan sebarang perbezaan yang signifikan pada $p>0.05$. Daripada keputusan kajian, boleh disimpulkan bahawa perubahan ciri-ciri fizikal dan kimia pada pastil daripada *Cosmos caudatus* tidak memberikan kesan terhadap penerimaan produk.