

**EFFECT OF SOLVENT ON PERCENTAGES YIELDS OF CONDENSED TANNIN IN
DIFFERENT TYPES OF TEA (*CAMELLIA SINENSIS*)**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Applied Chemistry
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

APRIL 2009

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Date: 25 MAY 2009

ACKNOWLEDGEMENTS

In the name of Allah S.W.T the creator for all creations. All praises be to him the most Merciful the Most Blessings. Thanks to Allah for giving me the inner strength, skill and knowledge to face the challenge of completing this thesis (CMT 679).

I would like to record my heartiest gratefulness to my supervisor, Pn. Maryam binti Husin for his benevolent guidance or else this thesis could not come to its ending. I would say that she has put his responsibilities as to guide me and ensuring my thesis comes within its trade. This experience is much appreciated and unforgettable.

I would like to thank to all of the staffs in Forest Research Institute in Malaysia (FRIM) who have cooperated with me during the research. Special thanks to En. Abd. Rashid from the Biotechnology department who have contributed tremendously to my research. I would also like to thank the staffs who have provided a lot of assistance to my research. I sincerely owe my deepest appreciation to the coordinator of CMT 679, Cik Sabrina binti M.Yahya for her valuable opinion, critical thoughts, advice and support. For those individuals who have helped me especially the laboratory assistances, their warm cooperation and information very avail for me in completed my thesis.

Finally, I am thankful to my beloved parents, classmates, senior and all friends for their loves, unforgettable support and prayers.

The successful completion would be impossible without the assistance and guidance of many individuals who have provided invaluable help to me directly and indirectly throughout my whole research. I would like to express my gratitude to every individual who has contributed to this research

I hope that this study will give some benefits for us. Insyallah.

Above all, I pray that this thesis will benefit those who are interested in this particular study.

Thank to all of you...

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ABSTRACT

EFFECT OF SOLVENT ON PERCENTAGES YIELDS OF CONDENSED TANNIN IN DIFFERENT TYPES OF TEA (*CAMELLIA SINENSIS*)

Plant condensed tannins (proanthocyanidins, PAs) have both positive and negative effects on feed digestibility and animal performance, depending both on quality and biological activity of the tannins that are present. In this project, analyses of condensed tannins (PAs) are examined. Our focus is on the analytical method used to evaluate tannins. The section on methods is subdivided into a discussion of methods to determine the amount of condensed tannins or total phenolics in a sample and a section on extracted condensed tannins by using different solvents. The effects of different extracting solvents, used in Butanol-hydrochloric acid method, on the total condensed tannins contents of green tea, black tea and oolong tea were studied. Water and organic solvents, used in mixtures: acetone/water/ (80/20) and methanol/water (80/20), significantly affected total condensed tannins content. The results showed that solvents with different polarities had significant effects on total of condensed tannins. The condensed tannins of samples were extracted using methanol and acetone at same concentrations with water. Among solvents tested, 80% acetone, containing 20% water, extracted a maximum amount of condensed tannins from green tea, black tea and oolong tea. Condensed tannins extracted were assayed using a 2% ferric ammonium sulphate solution containing 2M HCl (v/v). The green tea contains the higher amount of condensed tannin in both solvent extraction following by oolong tea and black tea.