

Preliminary studies in the extraction of water soluble components from the bark of the tree *Colubrina arborescens* (or *Colubrina elliptica*).

My sincerest thanks to the following people without whose help this project would not have been possible.

**ABSTRACT**

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(1) My Supervisor Mr. L.A.A. Lambert for his guidance.

The determination of optimum extraction parameters and the development of the objectives of the research project. Mauby bark of three different particle sizes (A diameter greater than 2.88mm; B - 0.699mm - 1.675mm in diameter, and C - 0.251mm - 0.41mm in diameter) was boiled for different periods of time to determine the optimum boiling time and particle size to achieve maximum extractibles. There was no significant variation in pH or brix with respect to boiling time. Using units of phenolic content as the objective index level of extraction, the optimum boiling time was determined to be 2.5 hours. The optimum particle size was 0.699mm - 1.676mm (particle size B). Smaller sized particles seemed to encourage adsorption with resulting lower units of phenolic content. When these samples (2.5 hours boiling time) were subjected to taste testing by an untrained taste panel there was no difference in the taste between the diluted extracts of the three particle sizes although the extract from particle size C had a lower unit of phenolic content.

(5) Last but by no means least the late Professor G.M. Sammy who helped draft the project.