Chemical Composition of Kelempayan (*Neomalarckia cadamba*), Pulai (*Alstonia angustiloba*), and Sesendok (*Endospermum diadenum*)

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ABSTRACT

A study on chemical composition of Kelempayan, Pulai and Sesendok was conducted. Fibres from all 3 species were ground in ball mils and screened to pass through a 60 mm mesh. The major chemical composition of fibres was determined. These include analyses of dispersed fibre in 1% of NaOH, extractive content, holocellulose, lignin content and ash content. Prior to the determination of extractive, holocellulose and lignin, extractive free material were prepared by using ethanol: benzene (1: 2 proportions) solvent mixture by extraction in a Soxhlet for a period 4 to 6 hours. The extractive free samples were then oven dried at 103 ± 2°C overnight. The analyses were based on TAPPI (Technical Association of the Pulp and Paper Industries). Chemical composition studies showed that Pulai contained the highest percentage of extractive (73.9011%) and holocellulose (85.3300%). While for 1% NaOH solubility and lignin content were highest in Kelempayan (29.2394%) and Sesendok (31.2113%). Kelempayan exhibit the highest content of ash (1.9100%).