

**VARIATION OF FIBER MORPHOLOGY IN  
MAHANG KAPUR (*Macaranga hypoleuca*)**

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Variation of fiber morphology in Mahang Kapur (*Macaranga hypoleuca*) were ascertained. The variation of fiber properties of Mahang Kapur with three different portion from three trees were also determined . The samples representing with Diameter Breast Height (DBH) as their base, 50% as their middle and 80 % as their top. The result are indicated that the average of this three trees for fiber morphorology of Mahang Kapur were suitable for pulp and paper industries according to their fiber morphology were achieved the target and the standard .

## CHAPTER ONE

### 1.0 INTRODUCTION

In Peninsular Malaysia, there are about 28 species of *Macaranga* (*Euphorbiaceae*). Mahang is the standard Malaysian Name as well as the ASEAN Standard Name for the timber of the *Macaranga* species. The timber is easy to work with but it is non-durable under exposed condition. (Anon, 1983)

The propensity of *Macaranga* species to grow fast and gregariously in cleared areas coupled with its long fibers and its soft, pale wood suggests commercial possibilities are a source of timber for paper, particle board, chipboard etc. These possibilities as yet remain largely unexplored. The most promising for investigation are *M. amissa*, *M. hypoleuca*, *M. conifera*, *M. hosei*, *M. pruinosa*, *M. punctulata* and *M. recurvata*. *Macaranga hypoleuca* or its local name Mahang Kapur is one of the lesser-known indigenous timber species found in Malaysia. It belongs to the family of *Euphorbiaceae*.

*Macaranga hypoleuca* is a secondary forest tree reaching a height of 24 meters and a diameter of 180 cm and is usually found along rivers in primary forest. However, it is commonly found throughout Malaysia, Southern-most Thailand, Sumatra, and Borneo. They are small to medium trees. Their bark is smooth, gray, and often prominently hopped. The wood is soft, white colored with jelly like exudates found in