SPECIFIC GRAVITY AND FIBER MORPHOLOGY FROM GELAM TREE (*Melaleuca spp*) BASED ON MIDDLE AND TOP STEM HEIGHT

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ABSTRACT

This project was carried out with the objective to determine physical characteristic of Gelam wood, to determine the fiber morphology of Gelam according to middle and top stem height and to determine the specific gravity of Gelam. Gelam is one particular kind of swamp forest tree and have the bark that peeling off in paper thin sheet that give it's other name The Paper Bark Tree. The result shows, the range of specific gravity for Gelam is 0.632 to 0.654. For fiber Morphology of Gelam, the fiber length is decrease from middle above that is 1.91 mm to 1.83 mm. Fiber diameters is increase from the middle to top that is 47.19 μm and 47.74 μm. For lumen diameter, the value is increase from 20.33 μm for middle to 20.93μm for top. The value of cell wall thickness is influence by the value of fiber and lumen diameter. So, cell wall thicknesses also increase with the value 13.43 μm for middle to13.57 μm for top.