FIBER MORPHOLOGY OF JELAWAI (*TERMINILIA SPP)*

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ABSTRACT

Jelawai species or its scientific name (*Terminalia spp.)*. This species have the potential to be commercialized as a raw material in the furniture industry and in the manufacture of paper. However, information about these Jelawai tree species is still very limited, especially those related to the physical properties and the structure of wood anatomy. In this study, fiber morphology or fiber analysis is carried out because of its importance to determine its potential in paper making and its strength properties. Thus, two aspects of the study are concerned with the effects of fiber morphology on the height of the tree (top, middle and bottom) and the effect of fiber morphology on distance from near bark to near pith.The results have shown that the fiber length range of fiber morphology of Jelawai species from top to bottom is 1.4567 mm to 1.3727 mm as the middle portion is 1.4256 mm. For the fiber diameter, the range value is 26.2303μm to 22.8760μm for the middle and bottom portion as the top fiber diameter value is 26.1827μm. instead, the cell wall thickness shows a decreasing from the top to bottom portion with range value 6.4460μm to 5.7273μm.