

UNIVERSITI TEKNOLOGI MARA

**ANATOMICAL, PHYSICAL AND MECHANICAL
PROPERTIES OF LEUCAENA LEUCOCEPHALA
WOOD**

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ABSTRACT

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This study determine anatomical, physical and mechanical properties of *Leuceana leucecephala* wood with variables of tree diameter, tree height (top, middle and bottom) and distance from pith (near bark and near pitch) of that tree. The *Leuceana leucecephala* wood is selected to know either this species suitable or not to make various uses. The anatomical properties of *Leucaena leucocephala* wood was carried out by microstructure study on the wood samples. Results of the study on anatomical properties were compared to the classification of IAWA Committee (IAWA, 1957 and IAWA, 1989). The IAWA list of microscopic features for hardwood identification and wood anatomy for tropical woods are important standardized list of characters and terminology used in descriptive wood anatomical studies and identification. The mechanical properties test is used bending test. The test was conducted in accordance to the standard testing method, i.e. British Standard (BS 373: 1957 Testing Small Clear Specimen of Timber). From the testing can know modulus of elasticity (MOE), the modulus of rapture (MOE) and density. The physical properties test is to determine the density and determination was conducted in accordance to TAPPI Standard T 258 OM-94 (1996).