

VARIATION ON FIBRE DIMENSION AND CELL PROPORTION OF
REACTION WOOD THE TRUNK OF SUREN (*Toona sureni* Merr.)
AT DIRECTION AXSIAL

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ABSTRACT

Wood have been used for various uses such as construction, article of furniture, transportation appliance, and fuel. That is special characteristic of wood which not replaced by other substance or product. Considering wood role which important in human life hence need the development of forest with the system of forest management have principality to continue and *resources based development* that optimal use of natural resources, one of them is effective and efficien, and also use all part of wood. The growth of wood not always normally but can grow abnormal. The growth abnormal such as oblique tree grow from vertical direction, so that formed reaction wood. The wood as used with effective and efficient if adjusted between characteristic and the purpose.

This research use completely randomized design with 2 factor, those are reaction wood and axial direction in the trunk. Reaction wood factor consist of 2 arrases, they are tension wood (t), and opposit wood (O). Axial factor consist of 3 arrases, they are base (P), middle (T), and top (U). So, we have 6 treatment combination with 3 replication each. Parameters observed are fiber dimension and cell proportion. Fiber dimension consist of fiber lenght, fiber diameter, lumen diameter, and cell wall thickness. Cell proportion consist of vessel cell, ray cell, parenchyma cell, and fiber cell proportion.

The fiber dimension values are ; fiber length 1, 20, fiber diameter 15,07 μm , lumen diameter 13,25 μm , and cell wall thickness 2,04 μm . Wood reaction factor affect cell wall thickness significantly on probability 5 %. The proportion cell values are : vessel cell 8,59 %, ray cell 14,12 %, parenchyma cell 6, 51 %. And fiber cell 70,46 %. Wood reaction and direction axsial factor affect non significant on probability 5 %.

Key words : Suren, reaction wood, axsial direction, fiber dimension, cell proportion

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