

**EFFECT OF DIFFERENT RELATIVE HUMIDITY ON PHYSICAL
AND MECHANICAL PROPERTIES OF MOULDED LAMINATED
COCONUT VENEER LUMBER (LCVL) BACKREST**

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ABSTRACT

EFFECT OF DIFFERENT RELATIVE HUMIDITY ON PHYSICAL AND MECHANICAL PROPERTIES OF MOULDED LAMINATED COCONUT VENEER LUMBER (LCVL) BACKREST

The development and advanced utilization of multipurpose tree plantations is vital to meeting the demands for woody materials. Coconut palm (*Cocos Nucifera L*) is one of the major fast growing species used in plantation forestry programs throughout Asia and the Pacific. Due to its rapid growth and tolerance of very poor soils, Coconut palm is playing an increasingly important role in efforts to sustain commercial supply of tree products while reducing pressure on natural forest ecosystems. This study was able to provide relevant information on some of the physical and mechanical properties of laminated coconut veneer lumber that will benefit product designers and engineers. The laminated coconut veneer lumber (LCVL) can feasibly be a supplementary material, if not alternative material, for the wood-based industry. Laminated coconut veneer lumber is a low cost material compared to others wood-based material. Since the coconut used is grown in plantation, this LCVL will lead to a positive eco-environmental impact. The conclusion of the study was that the serviceability of LCVL production depends on its condition of exposure and also loading condition. At lower % RH the MOE and MOR were higher than the values of samples at higher % RH. In general, the LCVL samples performed better when subjected to Load Condition 1 as compared to Load Condition 2.