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**PRELIMINARY INVESTIGATION ON
MECHANICAL PROPERTIES OF
PALMYRAH TIMBER**



BY

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ABSTRACT

The studies on mechanical properties of palmyrah timber were designed on the hope of finding the possibility of using the local timber resources in science, in constructing building, in applied design works and in other purposes. Examining the mechanical properties of timber is essential in science before we think of using it.

In this connection the preliminary studies were carried out on palmyrah to determine the basic mechanical properties. The palmyrah timber samples were collected from Batticaloa district and basic mechanical properties such as Young's modulus, moisture content and density were determined.

In this experiment strain gauges were used to determine the Young's modulus of palmyrah timber and this value was determined to be $(2.65 \pm 0.10) \times 10^{10} \text{ Nm}^{-2}$. The moisture content of four palmyrah samples were determine by oven-dry method, and the values found to be 16.14%, 15.66%, 15.69% and 15.90%. The densities of these four samples were also determined and these values are 700.1 Kgm^{-3} , 1042.3 Kgm^{-3} , 1003.0 Kgm^{-3} and 685.1 Kgm^{-3} .

Further studies are required to investigate the other mechanical and heat properties of palmyrah timber.

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