

INVESTIGATION ON MECHANICAL PROPERTIES OF YELLOW BAMBOO

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ABSTRACT

Bamboo has the potential to be one of the perfect green replacements for reinforcement steel in light weight concrete elements. The authors have previously conducted series of researches related to locally available bamboo species and this paper is mainly based on laboratory testing conducted on “*Yellow bamboo*” which is also known as “*golden bamboo*” (scientific name- “*bambusa vulgaris*”). Out of the 14 different species of bamboo available in Sri Lanka, the Yellow bamboo and Green bamboo are the only two types which can be used effectively as a building material.

Material and Mechanical properties of bamboo can be found in many literature conducted by researchers in various parts of the world. However, due to the limitations in precise instruments, studies on local bamboo species are very limited. The main idea of this study was to find and compare the material and mechanical properties of green and yellow bamboo. The study ended up with excellent results on density, compressive strength and transverse elastic modulus of yellow bamboo in both young and mature ages of the plant. A complete set of data on material and mechanical properties of Green and Yellow bamboo will be published in near future once the experimental work is done.

Everywhere in the world, people are looking for green alternatives and low cost solutions for construction. It is time for the Sri Lanka to embrace bamboo as a good construction material rather than limiting its usage to vertical props and in false work structures. Researches such as this are needed to provide awareness about bamboo and give confidence to the general public on its applications

Keywords: Green and Yellow Bamboo, material and mechanical properties