

## **Physical characteristics, anatomy and properties of managed *Gigantochloa scortechinii* natural bamboo stands**

### **Abstract**

The physical characteristics, anatomy and properties of managed *G. scortechinii* natural bamboo culms stands age 2 and 4 year-old were studied. The physical characteristics vary depending on aged and height along the culms. The cells wall thickness of both parenchyma and fibre were greater in the 4 year-old than in the 2 year-old culms. The increased in the cells wall thickness in parenchyma and fibres is part of by the maturing process in the bamboo culms. The frequency of vascular bundles is greater at the bottom and top portion than in the middle portion of both age-groups. There were no difference in vessel diameter between the 2 and 4 year-old culms at the middle of the culms wall thickness. The anatomical structure in bamboo has a very strong correlation with the moisture content and basic density. The basic density is higher in the 4 year-old culms than in the 2 year-old and increases from lower to upper internodes showing that there is a maturation process going on between the two age-group relative to the two of tissue types.