



Density And Dimensional Stability Of The Wood Of *Borassus aethiopum* (Mart) From A Derived Savannah Zone Of Southwestern Nigeria

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Abstract

The introduction of lesser-known timber species to the market will expand the resource base and make more raw materials available to the timber industries. Also, pressure will be taken off some of the few primary species. This study therefore investigated some properties of the wood of *Borassus aethiopum* to assess its utilization potentials. Samples for the study were obtained from a derived savannah location in Osun state, Nigeria. Five trees were sampled at the base, middle and top and along the radial position from bark to bark. The average density of the wood was 659.23Kg/m². They are as follow: 847.28Kg/m² for the base, 646.26Kg/m² for the middle and 457.30Kg/m² for the top. Radial shrinkage (RS) was 3.66%. It is as follow 2.99% for the base, 3.58 for the middle and 4.41% for the top. The mean tangential shrinkage (TS) was observed to be 3.84% and it is 3.35% for the base, 3.92% for the middle to 4.25% for the top. Volumetric shrinkage (VS) was 3.89%. These are 3.22% for the base, 3.76% for the middle and 4.68% for the top. Conclusively, it was observed that density of the wood varies consistently and significantly along the sampling height. From base to top, this gives an indication of the tendency of obtaining wood of better quality within the region of base and middle of the merchantable height and the wood of *Borassus eathiopum* can be regarded as a high density wood

Keywords: *Borassus aethiopum*, volumetric shrinkage, density, savannah, southwest