

COMPARATIVE RATES OF DISTORTION IN THREE AIR DRIED INDIGENOUS NIGERIAN HARDWOOD LUMBER SPECIES

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ABSTRACT

This study was carried out to investigate the comparative patterns of distortion in lumbers during air- drying. Three indigenous Nigerian hardwood lumber species namely, *Triplochiton scleroxylon*, *Nauclea diderichii* and *Ceiba pentadra* were used to study the distortional impact in careless air-drying by timber merchants, sawmillers and wood users. A total of twelve board, four of each of the threes species, were used with each board having a dimension 75cm x 30cm x 2.5mm. Two different air seasoning microclimates notably drying under the shed and drying in the direct intense heat of the sun was applied. Direct air drying under sun goes in conformity with what is actually employed by Nigerian wood dealers and sawmillers, while drying under shed is the normal air-seasoning method. Descriptive statistics have been used in analyzing data of dimensional changes of the lumbers due to drying. From this study, it was observed that boards directly exposed to the suns rays for drying had various forms of distortions which include warping, bowing, cupping, twisting with both surface and end checks while those seasoned under the shed were unaffected.

Keywords: Distortion, hardwood, tuber, seasoning.