Comparative preservatives Net Dry Salt Retention (NDSR) and preservatives penetration class of 2 and 4 year-old tropical bamboo Gigantochloa scortechinii were studies. Three type of preservatives; ammoniacal copper quartenary, borax boric acid and copper chrome arsenic were used in the study at 1, 2, 4 and 8% concentrations. Three type of treatment techniques; soaking, vacuum impregnation and high pressure sap-displacement were used in treating the bamboo. The results of the study show that the 2 year-old G. scortechinii had higher NDSR when compared with the 4 year-old culms across all the treatment processes. In between the various treatment processes, the vacuum pressure process gave the highest NDSR. This was followed closely by soaking and then at a somewhat lower NDSR by high-pressure sap-displacement processes, respectively. This suggests that the vacuum pressure process and the soaking process may be more effective in term of the NDSR values. The treatment processes ranked in the following order of decreasing NDSR: Vacuum Pressure>Soaking>High Pressure Sap-Displacement. The type of preservative played an important role in influencing the preservative NDSR. Between the 3 preservatives used in the study, BBA, which has high diffusion ability, gave the highest NDSR followed by CCA and ACQ, respectively in the soaking process. CCA gave the highest NDSR in the vacuum pressure and high pressure sap-displacement process. There was a general proportionate relationship between the strength of preservative solution and NDSR in the treated culms. The top portion of the culm gave highest NDSR followed by middle and bottom portions, respectively. The preservative penetration tests carried out indicated that there was a general proportionate relationship between NDSR and penetration.