



## **Relating soil texture at different depths with volumetric soil water content and bulk density for central south west Nigerian soil types.**

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In this study the dual-energy gamma-ray transmission radiological method was used to simultaneously determine the volumetric soil water contents and bulk densities of eight (8) recognized soil associations or types of central south west Nigeria. These measurements were carried out at varying depths into the different soil profiles for the three seasons of the year (wet, dry and Harmattan). Using the mean values of the water contents and bulk densities at the different depths for different textural classes, multiple comparison of these parameters with the textural classes was made using Duncan multiple range test performed by the SPSS 10.0 statistical package. Different soil textures (along the soil depths) were related to significant differences in soil water contents and bulk densities.