

Characterization, Classification and Management of Olokoro Soils Umuahia, Abia State Nigeria for Increased Dioscorea Dumetorum Yields.

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Abstract

Trifoliolate yam (*Dioscorea dumetorum*) is an important food security crop in Nigeria, it occupies a prominent position in the diets and farming systems in the South East agroecological zone especially in Abia State. Olokoro Soils, Umuahia South, Abia State, Nigeria grown to Trifoliolate yam (*Dioscorea dumetorum*) were studied characterised and classified. Profile pits were dug and studied, using the rigid grid survey techniques, soil samples from pedogenetic horizons were collected processed and analysed, and results showed that the soils colour ranged from dark grayish brown (10 YR 4/2) to dark reddish brown, (5 YR 4/2), the soils were weakly to strongly aggregated, and posses loamy sand to sandy clay loam textures. pH ranged from 4.5 to 4.9 organic carbon ranged from 5 to 36mg kg⁻¹. The exchangeable bases and CEC were low while the base saturation ranged from 31 to 50%. Based on the criteria of soil Taxonomy the soils have been classified as Haplic Nitosol in the FAO/UNESCO Soil Map of the world legend. Integrated use of lime inorganic and organic fertilizer is recommended to ameliorate the soils and to increase and sustain good yields.

Keywords: Olokoro, Soils, Umuahia