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Impact of abattoir waste on the soil quality in Ukwunwangwu, Uturu, Abia State

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This study investigated the impact of abattoir waste on the soil quality in Ukwunwangwu, Uturu, Abia State. The aim of this study was to assess the impact of abattoir wastes on soil quality at Ukwunwangwu, Uturu, Abia State. Experimental research design was used and it was carried out at Uturu, Abia State, Nigeria. Three sampling locations were chosen, the bone, dung and slurry sections respectively and two control points labeled A and B respectively. The first set of samples were collected in the morning to ensure freshness and the second set of samples were collected after two weeks making it a total of eight samples used for this study. These samples were collected at different sections so as to know the variations in concentrations of the following important physico-chemical parameters: pH, Temperature, Moisture Content, Soil Organic Carbon, Cation Exchangeable Capacity and Soil Exchangeable Acidity. The temperature was taken in-situ using a mercury-in-glass thermometer. Results of analyses

revealed that UK3A had the highest temperature of 35.00C in the first week and also 35.20C after two weeks, control A had the highest pH value of 8.2mg/l in the first week while UK2B had the highest pH of 8.5mg/l after two weeks. Control A had the higher moisture content value of 58.08% in the first week while UK3B had the highest value of 54.81% after two weeks. UK1A had the highest soil organic carbon 30.5 in the first week and also after two weeks. UK3A had the highest soil exchangeable capacity of 0.6 in the first week while UK3B had the highest value of 0.5 after two weeks. UK3A had the highest cation exchangeable capacity of 5.0 in the first week while UK2B had the highest value of 4.8 after two weeks. The correlation between the results was done using the Pearsons Correlation Moment. The study therefore recommended that strict environmental laws that can help curb the effects of abattoir wastes on the environment be enforced.

Biography

Ada ibeaja is working as a lecturer in Abia State University, Uturu, Abia State, Nigeria.