



# 35<sup>th</sup> ANNUAL CONFERENCE

SOIL RESOURCES MANAGEMENT,  
GLOBAL CLIMATE CHANGE AND FOOD SECURITY

MINNA, march 7-11, 2011

UNIVERSITY AUDITORIUM, MAIN CAMPUS (GIDAN KWANO)  
FEDERAL UNIVERSITY OF TECHNOLOGY,  
MINNA, NIGER STATE, NIGERIA.

## BOOK OF ABSTRACTS



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matter content of 2.44% was recorded for this treatment against 1.49% under control treatment. Application of sewage sludge increased ( $P < 0.05$ ) soil Ni content relative to control soil. It is recommended that 30t/ha sewage sludge be applied for soils of the study area for short term improvement of soil organic matter content. At the long term this application rate may improve the yield of *Dioscorea dumentorum*, a long duration crop.

PAPER C-30

#### EFFECT OF PESTICIDE RESIDUES IN SOIL ON CROP PRODUCTION

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#### ABSTRACT

The use of pesticides in food production inevitably leaves residues. The overuse, abuse or misuse of pesticides poses serious consequences in food production and can hereby endanger man. This project work is meant to analyze the effects of pesticide residues in soil in crop production, the percentage occurrences of the types of pesticide found in the soil of the study area, the chemical composition of the soil. Three samples were tested and analyses shows that the chemical content of the soil for the three samples at the various soil depths were: % organic carbon (3.69, 3.54, 3.42), % organic matter (6.38, 6.12, 5.12), % sand (69.08, 70.48, 73.08), % silt (13.28, 12.28, 9.28) % clay (17.64, 17.64, 17.64). The percentage occurrences of pesticides found also were: Profenofos (18, 23, and 29), p, p-DDT (33, 47 and 57), p, p-DDD (31, 37 and 43), p, p-DDE (68, 75 and 78) and Endosulfan I (56, 60 and 42). Most of the pesticides found and detected were all found to be within the legal threshold and traces found were mostly due to spray drifts. It is highly recommended that there should be a periodic review of pesticides in use, their contamination of food and water, treatment of pesticides and the regulatory system.

Keywords: pesticides, residues, soil and crop production

PAPER C-31

#### EFFECT OF SOIL AMENDMENT ON JUVENILE MAIZE

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#### ABSTRACT

Soil amendments provide the soil with dynamic benefits which includes improving its physical properties such as water retention, permeability, water infiltration, drainage, aeration and structure. The study was carried out on the use of soil amendment (Agrisorb) as amelioration for saline soils planted to maize harvested 36 days after planting in a pot experiment. Pots were filled with 2 kg of Normal soil (Lafia soil) and Saline soil (Keana soil). Half of the pots were amended with 3.2 g/2 kg soil of agrisorb (soil amendment) and the remaining pots unamended making a total of 4 treatments (Lafia soil, Lafia soil amended, Keana soil and Keana soil amended). The treatments were replicated 4 times which gave a total of 16 pots. The