

Title of Article: Assessment of Organochlorine Pesticide Residues in Irrigation Groundwater of Lagos

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Abstract: Organochlorine pesticide (OCP) contamination of groundwater used in irrigating some vegetable farms in Lagos has been assessed. Seven samples of well water from three selected vegetable farms were collected and analysed for the presence of the following organochlorine pesticide residues: α , β , δ (HCH), lindane, PP'- DDT, aldrin, dieldrin, endrin and heptachlor. The study revealed traces of organochlorine pesticide residues in the environment. The residues were determined using gas chromatography. Varied mean concentrations of the residues were obtained from the different wells. The highest mean concentration of 0.008 $\mu\text{g/L}$ was obtained for α -HCH in Abule-Ado. Lindane, dieldrin and endrin gave the same mean concentration of 0.001 $\mu\text{g/L}$ in all the samples investigated. The mean levels for α -HCH, β -HCH, δ -HCH, PP'- DDT and aldrin were 0.006 $\mu\text{g/L}$, 0.002 $\mu\text{g/L}$, 0.003 $\mu\text{g/L}$, 0.002 $\mu\text{g/L}$ and 0.004 $\mu\text{g/L}$ respectively. For heptachlor, a mean level of 0.003 $\mu\text{g/L}$ was recorded for all the farms. The values obtained from the selected wells were within the permissible levels prescribed by Federal Environmental Protection Agency and United States Environmental Protection Agency.