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# Soil Chemical Changes and Growth of Fluted Pumpkin (*Telfairia occidentalis* Hook F) Resulting from Untreated Petroleum Industry Effluent Application

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**Abstract** This article revealed the results of the impact of untreated petroleum industry effluent on some soil chemical properties and agronomic characters of fluted pumpkin (*Telfairia occidentalis*).A completely randomized design was used. In this greenhouse trial, the following rates of 0, 100, 200, 300, 400 and 500 ml per 5 kg topsoil were used. The chemical properties determined in the soil treated with the effluent appreciated higher when compared to the control. The Exchangeable Acidity however decreased significantly with increased effluent application. Except N which increased up to 100 ml treatment and the0, 100, 200, 300, 400 and 500 ml per 5 kg topsoil were used n declined, the P, K, Mg, Ca and Na components of the plant increased with increased petroleum industry effluent treatments.Significantly higher Cu, Cr, Ni and Pb content was also achieved in plants treated with the effluent. The plant height, number of leaves and dry matter yield were significantly higher in control and 100 ml treatments compared to other treatments. Due to increased heavy metals in soil and the plant even though they were below toxic level, the use of petroleum industry effluent as means of irrigation and or as source plant nutrient should be abolished.

***Keywords:*** *Petroleum industry effluent, Soil chemical properties, Impact, Changes, Plant growth*

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