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**ANALYSIS OF SOME OF THE ESSENTIAL
MACRO-NUTRIENTS IN THE SOIL
COLLECTED AT MUTHURWA ESTATE IN
NAIROBI.**

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ABSTRACT:

The analysis was for some of the essential macro-nutrients in the soil collected at Muthurwa Estate in Nairobi. The macro-nutrients are Potassium, phosphorus, calcium and magnesium. The soil was contained in polythene bags and zigzag method of sampling was employed. Three methods of analytical instruments were employed. Atomic absorption spectroscopy analysed calcium and magnesium levels in the soil solution. Ultra-Violet(visible) spectrophotometer, analysed phosphorus. Flame photometer analysed potassium levels in the solutions. The readings of the standards were used to draw calibration curves from which the level of the parameters are obtained by extrapolating the curve and eventually the contents of sample parameters are calculated taking into account the dilution factors and weight of the samples used. Results are tabulated in chapter three while conclusions and recommendations are in chapter four. Results for potassium, phosphorus and magnesium are given in parts per million(PPM) while results for calcium are in percentage.

The results for sample parameters indicated that their levels are below the recommended standards and therefore correct amendments are given to correct the deviations in terms of amount of fertilizer and manure to be added.