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Macronutrient Analysis of Soil Samples from the Akbarpur Area of Kanpur District, Uttar Pradesh, India

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ABSTRACT

The Akbarpur block is positioned in the Kanpur district. A detailed analysis of the soils in this area was performed to evaluate specific macronutrients. The macronutrients assessed included Organic Carbon, Total Nitrogen, Phosphorus, Potassium, Calcium, and Magnesium. This investigation, conducted during the 2023-24 timeframe (from June to March), focused on an extensive chemical examination of soil samples gathered from diverse locations within the district during different seasons. Soil samples were analyzed at three-month intervals (June, September, December, and March) to capture seasonal changes. The pH measurements indicated a highly alkaline soil composition, with values ranging from 8.1 to 12.6. The results generally suggested that the Organic Carbon levels were elevated in nearly all seasons. Conversely, the Akbarpur soil displayed a deficiency in Total Nitrogen, while Phosphorus and Potassium were present in adequate amounts, and an excess of Calcium and Magnesium was observed consistently across all seasons.

Keywords: - Soils, Macroelementts, Soil Fertility, pH, Organic Carbon, Total Nitrogen