



ELECTRICAL CONDUCTIVITY AND pH AS SOIL QUALITY INDICATOR OF AGRICULTURAL LAND OF MUNDRA TALUK IN KUTCH DISTRICT

PRAKASH L. PATEL, NIRMAL P. PATEL, PRAKASH H. PATEL & ANITA GHAREKHAN

Department of Physics, C. U. Shah Science College, Ahmedabad, Gujarat, India

ABSTRACT

450 surface soil samples (0-20cm) representing fifteen villages of Mundra taluk of Kutch district in Gujarat state were investigated. All samples were collected from Government of Gujarat under soil health card programme. Soil samples were collected by locally trained farmers and brought for analysis to Soil Test Laboratory of Bhuj. Standard Methods were applied for the soil analysis. Soil parameters, namely pH, EC, C, P, K, Fe, Cu, Zn, Mn, Ca, Mg, S were considered for study and analysis. The aim of this paper is to evaluate agricultural soil quality based on electrical conductivity, pH, OC, P and K through reaction index, salt index and nutrient index. Discriminate and Correlation analysis is used for statistical data treatment. This study shows that the electrical conductivity of all samples (100%) is in salt free (0-2) range with good salt index and it shows that the study area fairly good for agriculture. This paper concludes that the application of statistical analysis can provide a scientific stand for agricultural soil fertility management.

KEYWORDS: Electrical Conductivity, Kutch, Mundra, Micronutrients, Soil Parameter