

Research Article

Status of available micronutrients on the basis of correlation between physico-chemical properties of pH, OC and available Fe, Mn, Zn and Cu in black soil of Navagarh block under Janjgir district in Chhattisgarh

■ DEEPIKA DEVDAS, L.K. SRIVASTAVA AND KUNAL CHANDRAKAR

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MEMBERS OF RESEARCH FORUM :**Corresponding author :**

DEEPIKA DEVDAS, Department of
Soil Science and Agricultural
Chemistry, Indira Gandhi Krishi
Vishwavidyalaya, RAIPUR (C.G.)
INDIA
Email: deepsdevdas@yahoo.com

Co-authors :

L.K. SRIVASTAVA AND KUNAL
CHANDRAKAR, Department of Soil
Science and Agricultural Chemistry,
Indira Gandhi Krishi
Vishwavidyalaya, RAIPUR (C.G.)
INDIA

Summary

The study was carried out to soil fertility on the basis of correlation between physicochemical characteristics of pH and EC and available micro nutrients , in black soil of Navagarh block under Janjgir district of Chhattisgarh. The soil pH varied from 5.8 to 8.0 (mean 6.24) and indicated that soils were found to be moderately acidic to slightly alkaline in reaction. The mean value of organic carbon was 0.58% and about 90% soils of this block comes under medium fertility group. The available iron manganese copper and zinc content ranged from 0.44 to 91.6 mg kg⁻¹ (mean 23.8 mg kg⁻¹), 0.70 to 87.6 mg kg⁻¹ (mean 27.6 mg kg⁻¹), and 0.16 to 28.1 mg kg⁻¹ (mean 3.23 mg kg⁻¹), 0.02 to 6.18 mg kg⁻¹ (mean 0.82 mg kg⁻¹), with a mean value of 0.82 mg kg⁻¹, respectively in soil of Navagarh block. Most of soil samples were found in sufficient levels of Fe, Mn and Cu but 32.21% soil samples were deficient in Zn content. The correlation studies between available micronutrient (Fe, Mn, Zn and Cu) and soil properties (pH, EC, OC) showed significant correlation with pH and EC but non significant with OC.

Key words : Correlation, pH, OC, Fe, Mn, Zn, Cu**How to cite this article :** Devdas, Deepika, Srivastava, L.K. and Chandrakar, Kunal (2013). Status of available micronutrients on the basis of correlation between physico-chemical properties of pH, OC and available Fe, Mn, Zn and Cu in black soil of Navagarh block under Janjgir district in Chhattisgarh. *Asian J. Soil Sci.*, 8(2): 401-403.