Kali Nadi water quality status in Muzaffarnagar district of Uttar Pradesh, India

SUSHIL KUMAR* AND G.R. SINGH

Department of Agricultural Chemistry and Soil Science, C.C.R. (P.G.) College, MUZAFFARNAGAR (U.P.) INDIA

ABSTRACT

Water is the most important natural resource which needs to be properly and scientifically utilized for improving the productivity, environment and economic condition of the rural area. The present study is conducted to kali Nadi water quality status in town of Muzaffarnagar, Uttar Pradesh, for irrigation purpose. The Kali Nadi water samples were analyzed for their chemical properties total salt (electrical conductivity), pH, Anions (Cl, HCO_3, SO_4, NO_3, F, B), Cations (Ca^{2+} + Mg^{2+}, Na^+, K^+). Water samples total salt (EC) 0.32 to 0.98 dSm^{-1}, pH 7.1 to 8.0, Potassium 4.6 to 11.73 mg L^{-1}, Sodium 25.30 to 134.78 mg L^{-1}, Ca +Mg 21.-57 mg L^{-1} to 63.46 mg L^{-1}, Bicarbonate 154.33 to 475.80 mg L^{-1}, chloride 13.14 to 31.85 mg L^{-1}, Sulphate 11.45 to 54.78 mg L^{-1}, Nitrate 6.82 to 58.90 mg L^{-1}, Floride 0.45 to 2.81 mg L^{-1} and Boron 0.54 to 4.10 mg L^{-1}. Correlation also works out between different parameters. The Nitrate, Sulphate, Chloride, Potassium. The correlation co-efficient (r) Among nine Kali Nadi water quality parameter namely total salt (Electrical conductivity), pH, Anions (Cl, HCO_3, SO_4, NO_3, F, B), Cations (Ca^{2+} + Mg^{2+}, Na^+, K^+) were calculated for correlation analysis. The EC shows good positive correlation with chloride, sulphate, Ca + Mg, Nitrate, bicarbonate, potassium, sodium and negative correlation with pH.

Key words : Kali Nadi Water quality assessment, Irrigation purpose and Correlation

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* Author for correspondence.