

ABSTRACT

This study of soil microbial characteristics from salt affected barren and cultivated land of district Bahawalnagar during 2015. Three different sites i.e. Chubiana, Takhat Mahal and Fatah Kot were selected. Soil microbial biomass nitrogen and total mineral nitrogen were estimated.

The soils were worked out to have alkaline Sandy loam and Loamy sand soil in reaction and had electrical conductivity (EC) gradient from 12.1 to 30 dSm^{-1} . Microbial indices showed a decreasing trend with increasing EC. The microbial biomass carbon ranged from 108.7 to 270.025 mg kg^{-1} soil with EC between 12.1 to 30 dSm^{-1} and microbial biomass nitrogen 14.575 to 59.275 mg kg^{-1} in soils with EC of greater than 12.1 dSm^{-1} . The nitrogen and carbon available in soil showed negative relationship with salinity and decreased proportionally with increasing salinity these results suggested that soil microbial biomass is highly sensitive to salinity and can be used as indicator for assessment of salt affected soils.