Pakistan J. Soil Sc. 1(4), 1986:pp 47-50

Soil Properties and Crop Yield as affected by different Waters Salinity Levels

Muhammad Ramzan Chaudhry, Muhammad Sadiq Rafique,
*Haider Ali and Liaqat Ali Shahid**

ASBTRACT

Research was carried out on 0.4 ha field of non-saline non-sodic loam soil involving four water salinity levels of 736, 1056, 1408 and 2000 ppm TDS with wheat-rice crop rotation. There was significant increase in the infiltration rate of soil from 1979-80 to 1982-83 in all the treatments. Hundred percent increase in the infiltration rate was observed where water of 736 ppm TDS salinity was used and this increase reduced to 56.7, 50.0 and 35.5% where waters of 1056, 1408 and 2000 ppm TDS salinity were used. On an average the ECe of soil was significantly decreased from 3.13 to 1.13 and 2.96 to 1.27 mmhos/cm in 0-15 and 0-30cm soil depths respectively during the same period of time. No significant effect of water salinity levels on the SAR of soil was observed. There was no significant effect of water salinity levels on the yield of wheat and rice, however, the yearly differences were significant. There was 7, 5, 13 percent decrease in wheat and 8, 11 and 17% decrease in paddy yield with the increase of water salinity levels from 736 ppm, TDS to 1056, 1408 and 2000 ppm, TDS respectively.