EFFECT OF COMPACT SALT AFFECTED SOIL ON THE GROWTH OF EUCALYPTUS CAMALDULENSIS (LOCAL)

*Aslam, M., M. Nasim, R. H. Qureshi, S. Nawaz and Z. Ahmad**

ABSTRACT

Deterioration of soil structure because of dispersion of soil particles in saline sodic/sodic soils is a common phenomenon, whereas, occurrence of compact layers at lower horizon in these soils because of downward clay movement is not conducive for root development. A pot culture study was conducted with a naturally salt affected soil (clay loam, EC_e 19.6 dS m^{-1}, pH_s 8.4, SAR 22.7 [mmol $L^{-1}]^{1/2}$) at two bulk densities (0.91 $\pm$ 0.02 and 1.36 $\pm$ 0.02 Mg m^{-3}) to study the effect of soil compactness on the growth of Eucalyptus camaldulensis (Local). The bulk density of 1.36 Mg m^{-3} was developed in pots artificially. Plants showed significant differences in growth after 22 weeks of planting: growth (plant height, root length, shoot and root fresh and dry weights) depressed significantly in compact salt affected soil compared to non-compacted soil. Root growth was less affected as compared to shoot growth.