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Characterization and classification of rice growing soils of central Telangana region of Andhra Pradesh

M.ramprasad[1], V.Govardhan[2] and P. Ravi[1]
[1]Department of SSAC, College of Agriculture, ANGRAU, India
[2]Agriculture College, Acharya N.G. Ranga Agricultural University, India

Ten representative pedons from rice-growing soils of Central Telangana region were characterized and classified. The results showed that the soils were of sandy loam to clay in texture with low permeability. In general, the soils were neutral to slightly alkaline in reaction, high to low in organic carbon, mixed in mineralogy and moderately deep to very deep. Bulk density increased with depth and values ranged from 1.24 to 1.71 Mg $m^{-3.}$ Water retentions at 0.33 bars and 15 bars of soils ranged from 9.8 to 39.1 % and 4.7 to 23.6 %, respectively. Cation exchange capacity and soil pH followed no definite distribution pattern with depth. The status of N, P and K was low to medium, low to high and low to high respectively. The available N, P and K decreased with depth. Based on soil characteristics, the soils of Gajwel (P6) were classified as Entisol, soils of Sanga Reddy (P4), Eturnagaram (P9) and Ghanpur (P10) were classified as Alfisols, soils of Madhira (P1), Aswaraopeta (P2) and Malyal (P8) were classified as Inceptisols and soils of Pinapaka (P3) and Siddipeta (P5) were classified as Vertisols.

mullapudiramprasad@yahoo.co.in