

Assessment of physical properties of soil from different blocks of coastal areas, of Bapatla district of Andhra Pradesh, India

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ABSTRACT

A study was carried out to examine the physical characteristics of soils from various blocks in the coastal regions of Bapatla district, Andhra Pradesh. For this purpose, the surface soil samples were collected from six different villages of three different blocks of coastal areas, a total of 30 soil samples were collected and analysed for their physical parameters by using standard laboratory techniques. The results showed that the soil texture in Nizampatnam, Cherukupalle and Vetapalem blocks varied from sandy loam, sandy clay loam to loamy sand. The bulk density ranged from 1.22 to 1.43 g cm⁻³, particle density from 2.40 to 2.68 g cm⁻³, pore space ranged from 42.80 to 49.81 per cent and water holding capacity ranged from 10.4 to 32.8 per cent. These results suggest that the farmers should adopt appropriate soil management techniques such as crop rotation and conservation tillage, to maintain the soil physical characteristics and to ensure the sustainability of agricultural practices for the long term soil health.

Key words: *Soil density, Soil physical properties, Soil porosity, Soil texture, and Water holding capacity*