## Evaluation of soil constraints and soil-site suitability of cotton in different landforms of Meghal Irrigation Command area of southern Saurashtra region of Gujarat

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**ABSTRACT :** The soil-site suitability for cotton cultivation was evaluated in Southern Saurashtra region of Gujarat. The soils were moderately alkaline in reaction and high  $CaCO_3$  content. The pH, EC, CEC and ESP increased with decrease in elevation. The major soil constraints identified were shallow soil depth, poor soil fertility (Low O.C.), high pH as well as bulk density, texture and low saturated hydraulic conductivity. The limitation levels of the land characteristics varied from crop to crop. The suitability classes can be improved if the correctable limitations (soil fertility characteristics) are altered through soil amelioration measures. The soils belong to undulating upper pediment (P<sub>1</sub>) of Maliya Taluka and coastal plain (P<sub>5</sub>) of Veraval Taluka of Junagadh district were in sustainable class (S<sub>2</sub>). However, the soils over undulating upper piedmont (P<sub>1</sub>) belongs to Typic Ustothrents, lower pediment (P<sub>3</sub>) belongs to Vertic Haplustepts, alluvial plain (P<sub>4</sub>) belongs to Calcic Haplustepts of Maliya Taluka and coastal plain (P<sub>5</sub>) belongs to Fluventic Haplustepts of Veraval Taluka of Junagadh district were marginally suitable (S<sub>3</sub>) for cotton cultivation.

Key Words : Soil-site suitability, cotton, land forms, south Saurashtra, soil constraints.