

CHARACTERIZATION AND CLASSIFICATION OF SOILS OF JHALARAPATAN BLOCK, JHALAWAR DISTRICT OF RAJASTHAN

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Abstract: A detailed soil survey of cluster of 10 villages in Jhalarapatan block, Jhalawar district of Rajasthan was carried out at 1: 8000 scales. Five typifying pedons representing undulating and alluvial plain landforms were studied for their morphological and physico-chemical properties. The soils were shallow to very deep, well to moderately well drained, moderately eroded, clay in texture developed over sandstone and basaltic parent materials. Soils of the undulating belong to *Typic Haplustept* while soils of the plain were classified as *Typic Haplustert*. The soils were slightly alkaline to strongly alkaline in reaction pH (7.78-8.76). Electrical conductivity ranged between 0.10-2.65 dSm⁻¹, organic carbon varied from 0.08-0.99 g kg⁻¹, cation exchange capacity ranged from 13.0- 56.5 cmol (p⁺) kg⁻¹. Soils were low in available nitrogen (68.0-184.7 kg ha⁻¹), low to medium in phosphorus (3.4-20.2 kg ha⁻¹) and high in available potassium (1092 kg ha⁻¹). Soils were medium to high in available zinc (0.18-3.6 mg kg⁻¹), high in available iron (5.84-26.46 mg kg⁻¹) and copper (0.67-4.32 mg kg⁻¹). Available manganese was low to high (1.24-21.86 mg kg⁻¹).

Keywords: Soil, Survey, Morphology, Land resources

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