



Agropedology 2014, 24 (02), 146-156

Assessment of land suitability for soybean (*Glycine max*) in Bundi district, Rajasthan

G. L. MEENA¹, R.S. SINGH², SUMAN MEENA³, R.H. MEENA⁴ AND R.S. MEENA⁵

¹*ICAR-Central Soil and Water Conservation Research & Training Institute, Kota-324 002, India*

²*National Bureau of Soil Science and Land Use Planning, Regional Centre, Udaipur-313 001, India*

³*Assistant Directorate, Horticulture, Jhalawar-326 001, India*

⁴*Department of Agricultural Chemistry and Soil Science, RCA, MPUA&T, Udaipur-313 001, India*

⁵*Agricultural Research Station, SKRAU, Sri Ganganagar-335 001, India*

Abstract: Two transects namely Eastern Rajasthan Upland (ERU) and Vindhyan landscape (VL), both important physiographic units occurring in close association, were selected in the Bundi district of Rajasthan for studying the soil properties variability in relation to soybean crop yield under rainfed. The landforms included were hill, pediments, valley, plain (very gently to nearly gently sloping) and nearly level plain in the Eastern plain and hill, pediments, valley, plain (very gently to nearly gently sloping) and nearly level plain in the Vindhyan landscape. Soil survey identified 14 series in Eastern plain and 18 in Vindhyan landscape of which 6 series each which covering major areas of transect were selected. The soils of Bundi district were evaluated for soybean suitability. The land suitability evaluation of the soils of different landforms was carried out based on the climatic requirements of the crop and soil properties like drainage, slope, texture, soil depth, AWC, calcium carbonate, pH, OC, ESP and CEC reflecting the soil fertility status. The area receives an annual rainfall of 773 mm, soil depth is 100 cm with gravelly sandy clay loam to clayey texture (10 to 49.75 % clay) with good drainage. Area suitable for soybean cultivation was assessed at 50 percent of total geographical area of the Bundi district.