GRADATIONAL SANDY LOAM OVER CALCRETE

(Deep Terre soil)

General Description: *Sandy loam grading to a red sandy clay loam, calcareous with depth*

Landform: Gently undulating plain with low sandhills.

Substrate: Calcrete.

Vegetation:

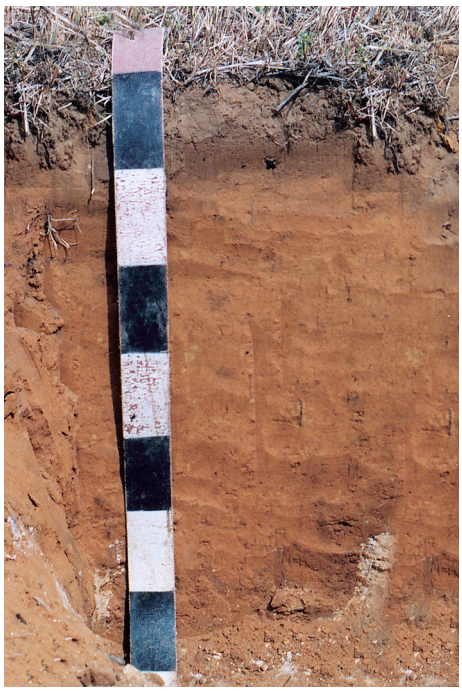
Type Site:

Site No.:	EC087	1:50,000 mapsheet:	6030-4 (Murdinga)
Hundred:	Cowan	Easting:	558490
Section:	35	Northing:	6270850
Sampling date:	10/11/1993	Annual rainfall:	385 mm average

Depression between sandhills. Soft surface with 2-10% calcrete stone.

Soil Description:

Depth (cm)	*Description*
0-10	Dark brown soft sandy loam. Clear to:
10-43	Strong brown and yellow soft heavy sandy loam. Gradual to:
43-65	Yellowish red friable sandy clay loam with weak fine subangular blocky structure. Abrupt to:
65-	Calcrete.



Classification: Haplic, Petrocalcic, Red Kandosol; medium, slightly gravelly, loamy / clay loamy, moderate

Summary of Properties

Drainage: Well drained. The soil never remains wet for more than a couple of days at a time.

Fertility: Inherent fertility is moderately low, as indicated by the exchangeable cation data. Phosphorus levels are high, but copper appears to be deficient. Nitrogen levels depend on legume content of pastures and cropping history. Organic carbon concentrations are satisfactory.

pH: Slightly acidic at the surface, slightly alkaline at depth.

Rooting depth: 65 cm in pit.

Barriers to root growth:

Physical: The calcrete prevents deeper root growth.

Chemical: There are no chemical barriers.

Waterholding capacity: Approximately 85 mm in the rootzone.

Seedling emergence: Satisfactory.

Workability: Soft surface is easily worked.

Erosion Potential:

Water: Low.

Wind: Moderately low.

Laboratory Data

Depth cm	pH H_2O	pH $CaCl_2$	CO_3 %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO_4 mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
0-10	6.2	5.8	0	0.05	0.24	1.1	50	151	-	0.5	0.1	20	7.4	0.5	6.1	5.6	0.9	0.13	0.46	2.1
10-43	6.9	6.3	0	0.04	0.13	0.3	8	64	-	0.8	0.1	4	1.8	0.1	6.9	8.2	1.1	0.18	0.23	2.6
43-65	7.8	7.5	0.2	0.14	0.80	0.3	4	47	-	0.3	0.1	5	0.4	0.2	10.5	8.4	1.5	0.33	0.19	3.1

Note: CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements. ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

Further information: DEWNR Soil and Land Program