

THICK SAND OVER RED SANDY CLAY LOAM (Sandhill soil)

General Description: *Thick sandy surface soil overlying a red sandy clay loam with abundant carbonate accumulations at depth*

Landform: Low sand dunes

Substrate: Bungunna Limestone capped by secondary carbonate

Vegetation: Eucalyptus socialis, Triodia spp. and Myoporum spp.

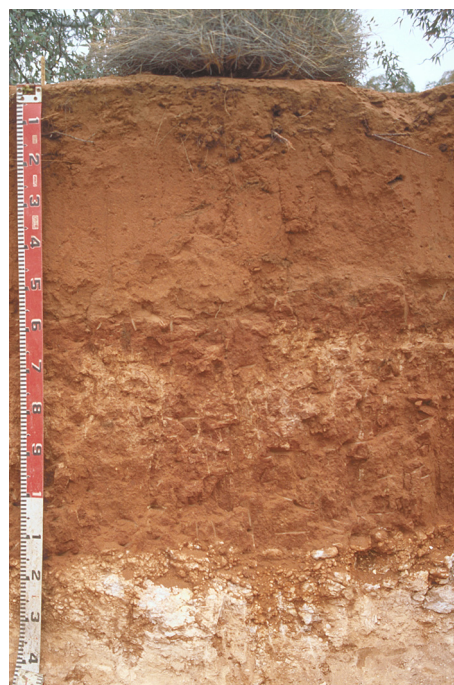


Type Site:	Site No.:	CM076	1:50,000 mapsheet:	6830-2 (Bunyung)
	Hundred:	Bunyung	Easting:	386300
	Section:	Block 970	Northing:	6256450
	Sampling date:	18/11/96	Annual rainfall:	230 mm average

Low sand rise on a gently undulating plain, soft surface.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-10	Reddish brown loose loamy sand. Abrupt to:
10-25	Red soft loamy sand. Gradual to:
25-50	Red friable light loamy sand. Abrupt to:
50-56	Light red friable light loamy sand. Abrupt to:
56-65	Red hard light sandy clay loam with weak blocky structure. Abrupt to:
65-90	Red hard very highly calcareous sandy clay loam with weak coarse prismatic structure and 10-20% fine carbonate. Clear to:
90-115	Red hard moderately calcareous light sandy clay loam with weak coarse prismatic structure and 2-10% nodular carbonate. Abrupt to:
115-130	Orange very highly calcareous light sandy clay loam with more than 50% nodular (Class III C) carbonate. Abrupt to:
130-140	Limestone.



Classification: Sodic, Lithocalcic, Red Kandosol; thick, non-gravelly, sandy / clay loamy, deep



Summary of Properties

Drainage: Rapidly drained. The soil is never likely to remain wet for more than a few hours.

Fertility: Inherent fertility is low due to low clay content.

pH: Neutral at surface, strongly alkaline with depth.

Rooting depth: 130 cm in pit, but few roots below 115 cm.

Barriers to root growth:

Physical: No physical barriers.

Chemical: Very high pH and sodicity from 65 cm.

Waterholding capacity: Approximately 110 mm in rootzone.

Seedling emergence: Good.

Erosion Potential:

Water: Low.

Wind: High.

Laboratory Data

Depth cm	pH H ₂ O	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	
Paddock	7.0	6.9	0	0.03	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-10	7.3	6.9	0	0.03	0.22	-	-	-	-	-	-	-	-	4.7	2.9	0.8	0.14	0.40	3.0	
10-25	6.7	6.1	0	0.05	0.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25-50	8.0	6.9	0	0.03	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50-56	8.2	7.0	0	0.04	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
56-65	8.8	8.1	0	0.16	0.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
65-90	9.3	8.3	5	0.23	0.65	-	-	-	-	-	-	-	-	8.5	4.3	3.7	1.60	0.50	18.8	
90-115	9.4	8.4	1	0.25	0.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
115-130	9.7	8.3	19	0.31	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: Paddock sample bulked from cores (0-10 cm) taken around the pit.

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](#)

