

# BLEACHED SAND OVER SANDY CLAY LOAM

**General Description:** *Thick to very thick bleached sand over a brown sandy clay loam*

**Landform:** Flats on very gently undulating plains or dunefields

**Substrate:** Sandy limestones of the Padthaway Formation

**Vegetation:**



**Type Site:** Site No.: MM010  
1:50,000 sheet: 6926-3 (Tintinara)      Hundred: Coombe  
Annual rainfall: 465 mm      Sampling date: 08/03/93  
Landform: Flat  
Surface: Loose with no stones

## Soil Description:

Depth (cm)	Description
0-13	Dark greyish brown loose sand. Gradual to:
13-35	Very pale brown (bleached) loose sand. Diffuse to:
35-70	Very pale brown (bleached) soft sand. Diffuse to:
70-88	Very pale brown and yellow brown soft loamy sand. Sharp to:
88-98	Orange very hard fine sandy clay loam. Sharp to:
98-108	Calcrete pan. Sharp to:
108-162	White very highly calcareous soft sand. Abrupt to:
162-178	Pale yellow very hard very highly calcareous sandy clay loam. Clear to:
178-188	Calcrete pan. Abrupt to:
188-210	Pale yellow soft very highly calcareous loamy sand.



**Classification:** Bleached, Petrocalcic, Brown Chromosol; very thick, non-gravelly, sandy / clay loamy, moderate

## Summary of Properties

<b>Drainage</b>	Rapidly to well drained. Soil never remains saturated for more than a few days.
<b>Fertility</b>	Inherent fertility is low as indicated by the exchangeable cation data. Organic carbon levels are high, and only phosphorus is deficient according to the available data.
<b>pH</b>	Neutral at the surface, alkaline with depth.
<b>Rooting depth</b>	108 cm in pit, but few roots below 88 cm.
<b>Barriers to root growth</b>	
<b>Physical:</b>	No apparent physical barriers.
<b>Chemical:</b>	No chemical barriers other than low nutrient status / retention capacity.
<b>Water holding capacity</b>	Approximately 60 mm.
<b>Seedling emergence:</b>	Satisfactory, but can be reduced by water repellence in dry years.
<b>Workability:</b>	Loose to soft surface is easily worked.
<b>Erosion Potential</b>	
<b>Water:</b>	Low.
<b>Wind:</b>	Moderately low to moderate.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaCl <sub>2</sub>	CO <sub>3</sub> %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K 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	6.8	6.4	<0.1	0.06	0.51	1.0	19	97	0.8	0.17	-	1.7	0.67	4.3	4.82	0.61	0.02	0.37	0.5
0-13	6.7	6.3	<0.1	0.08	0.71	0.9	18	91	0.94	0.35	-	1.8	1.3	3.8	4.11	0.44	0.02	0.27	0.5
13-35	6.9	6.6	<0.1	0.04	0.50	0.1	5	53	0.31	<0.05	-	0.12	<0.06	1.1	1.61	0.28	0.01	0.24	na
35-70	7.1	6.8	<0.1	0.02	0.26	<0.1	<2	<40	0.19	<0.05	-	<0.06	<0.06	0.9	1.08	0.25	0.03	0.17	na
70-88	7.2	6.8	<0.1	0.02	0.18	<0.1	3	40	0.13	0.08	-	<0.06	<0.06	1.5	1.26	0.35	0.03	0.17	na
88-98	7.3	6.8	<0.1	0.07	0.60	0.2	<2	94	1.1	0.06	-	0.09	0.08	9.7	5.74	2.30	0.17	0.35	1.8
98-108	8.8	8.1	35	0.13	0.64	0.2	<2	66	0.70	0.11	-	0.09	<0.06	6.4	5.64	2.32	0.17	0.24	2.7
108-162	9.2	8.3	4	0.10	0.74	<0.1	<2	44	0.21	0.07	-	<0.06	<0.06	2.9	2.85	1.11	0.13	0.16	4.5
162-178	9.4	8.4	20	0.17	1.05	0.2	<2	83	1.0	0.05	-	<0.06	<0.06	4.4	3.85	2.15	0.39	0.24	8.9
178-188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
188-210	9.3	8.3	3	0.08	0.46	<0.1	<2	99	0.35	0.09	-	<0.06	<0.06	4.3	3.32	2.06	0.15	0.31	3.5

**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.