

DEEP SAND

General Description: *Deep siliceous sand, slightly calcareous with depth*

Landform: Low to moderate sandhills

Substrate: Windblown coarse textured deposits (Molineaux Sand).

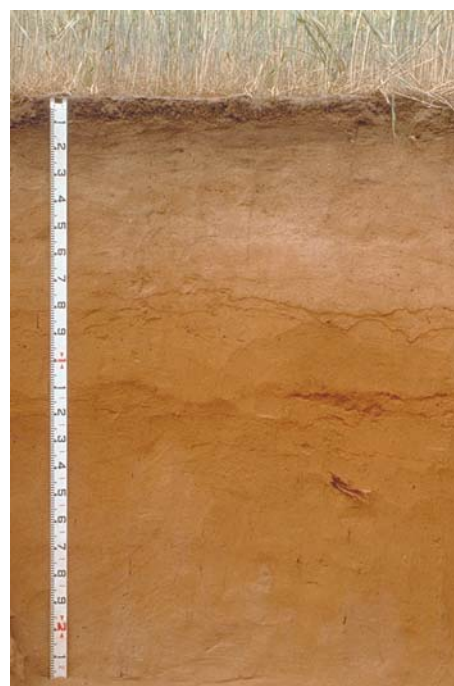
Vegetation: Mallee



Type Site: Site No.: MM022
 1:50,000 sheet: 6727-1 (Mobilong) Hundred: Burdett
 Annual rainfall: 325 mm Sampling date: 31/10/91
 Landform: Sandhill in undulating landscape of low to moderate dunes
 Surface: Loose with no stones

Soil Description:

Depth (cm)	Description
0-16	Dark brown loose loamy sand. Clear to:
16-32	Brown loose loamy sand. Diffuse to:
32-80	Yellowish red loose sand. Sharp to:
80-135	Yellowish red and light brown soft clayey sand with red sandy clay loam lamellae (6 cm in total within depth range). Diffuse to:
135-180	Yellowish red soft light sandy loam with minor soft fine calcareous segregations. Diffuse to:
180-220	Orange soft calcareous light sandy loam.



Classification: Calcareous, Argic, Brown-Orthic Tenosol; medium, non-gravelly, sandy / sandy, very deep

Summary of Properties

- Drainage** Rapidly drained. Soil never remains wet for more than a few hours.
- Fertility** Inherent fertility is low, as indicated by the exchangeable cation data and low clay content. Phosphorus, nitrogen, copper and zinc deficiencies are likely, confirmed by data (except nitrogen - no data). Organic carbon levels, although low, are satisfactory for a sandy soil in this rainfall environment.
- pH** Neutral at the surface, alkaline with depth.
- Rooting depth** 180 cm in pit, but few roots below 135 cm.
- Barriers to root growth**
- Physical:** No physical barriers.
 - Chemical:** Low nutrient status and retention capacity limit root growth.
- Water holding capacity** 55 mm in root zone.
- Seedling emergence:** Satisfactory although affected by water repellence in dry seasons.
- Workability:** Loose surface is easily worked.
- Erosion Potential**
- Water:** Low.
 - Wind:** Moderate to moderately 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	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	7.5	7.5	<1	0.06	0.46	0.6	6	170	0.9	0.14	5.8	2.9	0.25	3.8	3.07	0.49	0.12	0.19	3.2
0-16	7.1	7.2	<1	0.03	0.23	0.7	5	100	0.6	0.10	10	3.4	0.37	3.4	3.39	0.49	0.14	0.15	4.7
16-32	7.5	7.4	1	0.02	0.17	0.2	<2	57	0.5	<0.05	7.3	0.43	<0.06	3.0	2.41	0.47	0.16	0.11	5.3
32-50	7.7	7.2	<1	0.02	0.11	0.1	<2	70	0.5	0.05	4.5	0.22	<0.06	2.1	1.52	0.40	0.13	0.09	na
50-80	7.6	7.1	1	0.02	0.12	<0.1	<2	54	0.7	<0.05	3.2	0.16	<0.06	2.2	1.37	0.64	0.16	0.08	na
80-100	7.8	7.1	1	0.03	0.20	<0.1	<2	67	0.7	0.06	3.3	0.12	<0.06	3.4	1.83	1.10	0.22	0.09	6.5
100-135	7.9	7.0	1	0.03	0.22	<0.1	<2	74	0.5	0.05	3.3	0.23	<0.06	3.8	2.13	1.09	0.30	0.12	7.9
135-180	8.1	7.3	<1	0.09	1.03	<0.1	<2	87	0.5	<0.05	2.3	0.43	<0.06	3.2	1.97	0.75	0.37	0.14	11.6
180-220	9.2	8.1	1	0.10	0.56	<0.1	<2	74	0.5	<0.05	1.7	0.25	<0.06	3.5	2.92	0.71	0.41	0.17	11.7

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.