

HIGHLY LEACHED SAND

General Description: *Very thick bleached sand, organically darkened at the surface, over a dark weakly coherent sandy subsoil*

Landform: Undulating dunefield.

Substrate: Windblown sand.

Vegetation:



Type Site:	Site No.:	SE016	1:50,000 mapsheet:	6924-2 (Lucindale)
	Hundred:	Joyce	Easting:	446470
	Section:	492	Northing:	5909790
	Sampling date:	13/05/1994	Annual rainfall:	590 mm average

Midslope of sand dune, 8% slope. Soft surface with no stones.

Soil Description:

Depth (cm)	Description
0-18	Dark grey soft single grain loamy fine sand. Sharp to:
18-58	Pinkish grey loose single grain fine sand. Gradual to:
58-95	Pinkish grey loose single grain fine sand. Diffuse to:
95-135	Brown and brownish yellow soft fine sand with minor clayey lamellae. Diffuse to:
135-170	Brown and brownish yellow soft fine sand with minor clayey lamellae.



Classification: Fragic, Sesquic, Aeric Podsol; medium, non-gravelly, sandy / sandy, very deep



Summary of Properties

- Drainage:** Rapidly drained. The soil never remains wet for more than a few hours.
- Fertility:** Inherent fertility is very low, as indicated by the exchangeable cation data. Most nutrient retention capacity is provided by organic matter. Surface phosphorus levels are low, but subsoil accumulations indicate substantial leaching. Concentrations of other tested nutrient elements are adequate to marginal, but subsurface levels are low.
- pH:** Acidic at the surface, strongly acidic at depth.
- Rooting depth:** 170 cm in pit, but few roots below 18 cm.
- Barriers to root growth:**
- Physical:** There are no physical barriers.
 - Chemical:** Low nutrient retention capacity and status, and low pH restrict root growth. There are no toxic barriers.
- Waterholding capacity:** Approximately 60 mm in the rootzone.
- Seedling emergence:** Fair due to water repellent surface.
- Workability:** Soft surface is easily worked.
- Erosion Potential:**
- Water:** Low.
 - Wind:** 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	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	5.4	5.1	0	0.06	0.61	2.1	8	110	-	0.3	0.3	13	3.0	2.7	6.2	4.1	0.7	0.16	0.17	na
0-18	5.7	5.5	0	0.04	0.47	1.3	5	86	-	0.3	0.3	10	2.4	2.7	4.7	3.8	0.7	0.11	0.17	na
18-58	4.8	4.8	0	0.01	0.09	<0.1	<4	21	-	<0.1	<0.1	4	<0.1	0.2	0.6	0.2	0.1	0.10	0.03	na
58-95	4.5	4.6	0	0.01	0.09	<0.1	4	18	-	<0.1	<0.1	13	<0.1	0.1	0.6	0.3	0.1	0.10	0.04	na
95-135	4.4	4.4	0	0.01	0.11	0.1	25	23	-	<0.1	<0.1	30	<0.1	0.1	0.9	0.3	0.1	0.10	0.11	na
135-170	4.7	4.5	0	0.01	0.09	0.1	13	19	-	<0.1	<0.1	37	<0.1	0.1	1.1	0.4	0.1	0.11	0.05	na

Note: Paddock sample bulked from 20 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](#)

