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 sheet:	6924-2 (Lucindale)	Hundred:	Joyce
Annual rainfall:	600 mm	Sampling date:	13/05/94
Landform:	Midslope of sand dune, 8% slope		
Surface:	Soft 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 Podosol; 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.

Water holding capacity Approximately 60 mm in the root zone.

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_2O	pH $CaC1_2$	CO_3 %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO_4-S 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