

SAND OVER FRIABLE SANDY CLAY LOAM

General Description: *Thick bleached sand overlying a friable brown, yellow and red sandy clay loam, calcareous with depth*

Landform: Undulating rises in relict coastal dune - corridor systems.

Substrate: Calcreted calcarenite.

Vegetation: Pink gum.



Type Site: Site No.: SE043

1:50,000 sheet: 6925-1 (Keith)

Hundred: Stirling

Annual rainfall: 470 mm

Sampling date: 08/11/95

Landform: Lower slope of undulating rise, 3% slope

Surface: Soft with no stones

Soil Description:

Depth (cm)	Description
0-13	Soft dark grey loamy sand. Abrupt to:
13-30	Soft brown light loamy sand. Sharp to:
30-45	Soft bleached sand. Sharp to:
45-70	Firm orange and brown sandy clay loam with weak coarse columnar breaking to weak polyhedral structure. Abrupt to:
70-110	Firm orange and yellow sandy clay loam with weak polyhedral structure and 10-20% calcrete fragments.



Classification: Bleached, Hypocalcic, Yellow Chromosol; thick, non-gravelly, sandy / clay loamy, deep.

Summary of Properties

Drainage	Rapidly drained. The soil is unlikely to remain wet for more than a few hours.
Fertility	Natural fertility is low due to the low clay content of the surface. The CEC values indicate that surface soil fertility is mainly due to its favourable organic matter levels. Data indicate that phosphorus, potassium and sulphur levels are adequate, but magnesium and calcium deficiencies are possible.
pH	Slightly acidic in the surface, slightly alkaline in the deep subsoil.
Rooting depth	110 cm, but few roots below 70 cm.
Barriers to root growth	
Physical:	None apparent.
Chemical:	None apparent.
Water holding capacity	Approximately 100 mm in root zone (moderate).
Seedling emergence	Fair to good depending on degree of water repellence (strong at sampling site).
Workability	Good.
Erosion Potential	
Water:	Moderately low.
Wind:	Moderate, due to sandy water repellent surface.

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 -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	
0-13	6.4	5.4	0	0.07	0.49	1.3	34	304	10	0.5	-	-	-	-	4.4	2.93	0.71	0.09	0.59	na
13-30	6.6	5.9	0	0.04	0.22	0.5	35	131	10	0.4	-	-	-	-	3.0	2.43	0.59	0.02	0.23	na
30-45	6.4	5.6	0	0.02	0.13	0.1	22	61	6	0.1	-	-	-	-	1.4	0.77	0.36	0.02	0.08	na
45-70	7.0	6.1	0	0.05	0.19	0.3	10	187	9	1.0	-	-	-	-	8.2	6.17	1.67	0.14	0.59	1.7
70-110	7.4	6.7	0	0.09	0.72	0.2	<4	162	25	0.9	-	-	-	-	10.5	7.70	1.89	0.16	0.37	1.5

Note: 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.