

DEEP SANDY LOAM

General Description: *Thick red or brown sandy loam with a paler subsurface layer and sometimes with a slight clay increase at depth, extending below 100 cm*

Landform: Alluvial fans and flats.

Substrate: Coarse grained alluvium.

Vegetation:



Type Site:	Site No.:	MO051	1:50,000 mapsheet:	6727-4 (Monarto)
	Hundred:	Mobilong	Easting:	335440
	Section:	158	Northing:	6122940
	Sampling date:	1976	Annual rainfall:	355 mm average

Upper slope of outwash fan, 2% slope. Soft surface, no stones.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-5	Dark reddish brown sandy loam (recent drift / wash). Abrupt to:
5-15	Yellowish red massive soft sandy loam. Clear to:
15-40	Yellowish red and dark reddish brown massive light sandy loam with 4 cm thick clayey band (lamella) at 20 cm. Clear to:
40-70	Yellowish red and dark reddish brown massive light sandy loam with 4 cm thick clayey bands (lamellae) at 40 and 60 cm. Clear to:
70-105	Yellowish red and dark reddish brown massive sandy loam with 4 cm thick clayey bands (lamellae) at 80 and 100 cm. Clear to:
105-160	Reddish brown massive friable slightly calcareous sandy loam. Diffuse to:
160-220	Reddish brown massive friable slightly calcareous sandy loam with 2-10% soft carbonate segregations.



Profile is micaceous throughout, especially below 105 cm.

Classification: Calcareous, Argic, Red-Orthic Tenosol; thin, non-gravelly, loamy / loamy, deep



Summary of Properties

Drainage:	Well to rapidly drained. Soil never remains wet for more than a few hours to a day following heavy or prolonged rainfall.
Fertility:	Inherent fertility is moderately low, as indicated by the exchangeable cation and clay percentage data. Nutrient retention near the surface is dependent on organic matter. Apart from nitrogen and phosphorus, deficiencies of zinc, copper and possibly manganese are the most likely.
pH:	Alkaline throughout.
Rooting depth:	Not recorded. Estimate 100 cm in pit.
Barriers to root growth:	
Physical:	No physical barriers.
Chemical:	No chemical barriers. Low nutrient status / retention capacity limits root growth
Waterholding capacity:	Approximately 120 mm in the rootzone.
Seedling emergence:	Satisfactory.
Workability:	Soft surface is easily worked.
Erosion Potential:	
Water:	Moderately low.
Wind:	Moderately low.

Laboratory Data

Depth cm	Coarse sand %	Fine sand %	Silt %	Clay %	pH H ₂ O	CO ₃ %	EC 1:5 dS/m	Cl mg/kg	CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
										Ca	Mg	Na	K	
0-5	36	52	3	9	8.6	0	0.06	<50	5	4.0	1.0	0.22	0.63	4.4
5-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-40	37	52	3	6	8.0	0	<0.06	<50	4	2.3	0.83	0.14	0.23	3.5
40-70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70-105	27	53	2	17	9.0	0	0.07	<50	8	2.8	2.7	0.68	0.62	8.5
105-160	-	-	-	-	-	-	-	-	-	-	-	-	-	-
160-220	20	58	4	16	9.8	2	0.28	200	6	2.6	2.0	1.2	0.73	20

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.

Further information: [DEWNR Soil and Land Program](#)

