

SANDY LOAM OVER RED SODIC CLAY (Cleve / Deakin soil)

General Description: *Hard sandy loam over a coarsely structured and usually dispersive red clay*

Landform: Undulating low hills.

Substrate: Clayey outwash sediments.

Vegetation:



Type Site: Site No.: EE045

1:50,000 sheet: 6131-2 (Carapsee)

Hundred: Campoona

Annual rainfall: 370 mm

Sampling date: 14/04/89

Landform: Slope of low hill

Surface: Firm with no stones

Soil Description:

Depth (cm)	Description
0-10	Dark yellowish brown weakly structured sandy loam. Clear to:
10-20	Yellowish brown massive sandy loam. Abrupt to:
20-40	Yellowish red light medium clay with moderate medium subangular blocky structure. Clear to
40-55	Orange medium clay with strong medium lenticular structure. Gradual to:
55-100	Dark red sandy clay with strong medium lenticular structure.



Classification: Eutrophic, Subnatric, Red Sodosol; medium, non-gravelly, loamy / clayey, moderate

Summary of Properties

Drainage	Well drained. Water perches on top of the clayey subsoil for up to a week at a time following heavy or prolonged rainfall.
Fertility	Inherent fertility is moderate, as indicated by the exchangeable cation data. Regular phosphorus applications are needed and nitrogen status depends on cropping history and legume content of pastures. Zinc and sulphur deficiencies are likely from time to time.
pH	Acidic at the surface, slightly acidic with depth.
Rooting depth	Not recorded. Estimate 55 cm in pit.
Barriers to root growth	
Physical:	Dense subsoil clay affects root growth from 40 cm.
Chemical:	There are no chemical barriers.
Water holding capacity	Approximately 65 mm in the root zone.
Seedling emergence:	Fair to satisfactory, depending on compactness of surface.
Workability:	Fair to good, depending on condition of surface.
Erosion Potential	
Water:	Moderate.
Wind:	Moderately low.

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	
0-10	5.7	4.9	0	0.09	0.97	-	-	-	-	1.3	0.28	18	4.58	0.24	6.90	2.80	1.00	0.12	0.29	1.7
10-20	5.7	4.9	0	0.08	0.74	-	-	-	-	1.3	0.25	18	0.42	0.09	5.40	2.40	0.95	0.18	0.20	3.3
20-40	6.1	5.1	0	0.10	0.66	-	-	-	-	4.0	0.16	11	0.12	0.06	14.00	3.50	4.10	0.88	0.59	6.3
40-55	6.2	5.1	0	0.11	0.47	-	-	-	-	5.9	0.12	7.8	0.07	0.04	24.00	4.20	7.30	1.60	0.91	6.7
55-100	6.7	5.5	0	0.09	0.50	-	-	-	-	7.0	0.22	8.3	0.06	0.09	15.00	2.50	4.90	1.40	0.57	9.3

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.