

Site code¹ CLRA15



Hills of the Deans Marsh district

Location Deans Marsh (Cemetery Road), Otway Ranges, south-west Victoria

Landform Hills

Geology Palaeogene Eastern View Formation: *fluvial gravel, sand, clay, brown coal*

Element Valley flat

Slope 0–1%

Aspect North-west



Haplic, Self-mulching, Black Vertisol/
Melacic, Eutrophic Brown Kandosol

Horizon	Depth (cm)	Description
A1	0–25	Very dark grey (10YR3/1), dark grey (10YR4/1 dry); light clay; strong medium subangular blocky structure; rough ped fabric; very firm consistence (dry); clear smooth boundary to:
B21t	25–55	Very dark grey (10YR3/1), light brownish grey (10YR6/2 dry); medium heavy clay; strong medium prismatic, parting to medium angular blocky structure; smooth ped fabric; strong consistence (dry); slickenside cutans; clear smooth boundary to:
B22gt	55–90	Dark grey (10YR4/1) with many medium distinct yellowish brown (10YR5/6) mottles; medium heavy clay; apedal massive structure; slickenside cutans; strong consistence (dry); clear smooth boundary to:
B23gt	90–120+	Grey (10YR5/1) with many medium distinct brownish yellow (10YR6/8) mottles; medium heavy clay; apedal massive structure; slickenside cutans; strong consistence (dry).

¹ Source: Robinson et al (2003) A land resource assessment of the Corangamite region. Department of Primary Industries, Centre for Land Protection Research Report No. 19

Analytical data²

Site CLRA15 Horizon	Sample depth cm	pH		EC dS/m	NaCl %	Ex Ca cmol _c /kg	Ex Mg cmol _c /kg	Ex K cmol _c /kg	Ex Na cmol _c /kg	Ex Al mg/kg	Ex Acidity cmol _c /kg	FC -10kPa %	PWP -1500kPa %	KS %	FS %	Z %	C %
		H ₂ O	CaCl ₂														
A1	0-15	5.2	4.3	0.07	N/R	6.1	6.2	0.37	0.45	260	20	44.1	47.8	1.6	9	30	54
B21t	35-50	6	4.7	0.05	N/R	3.3	7.9	0.26	0.87	110	13	36.2	19.9	1.1	14.4	35.5	46
B22gt	65-80	6.1	4.8	0.07	N/R	2.4	7.7	0.27	1.3	90	N/R	35.1	18.0	1	18.4	37	43.5
B23gt	95+	6.5	5.2	0.11	N/R	2	7.7	0.21	1.9	N/R	4.9	N/R	N/R	N/R	N/R	N/R	N/R

Management considerations

This soil is a clayey depositional soil (note reduced clay content with depth) with a friable strongly structured surface and upper subsoil which grades into a poorly structured lower subsoil which is vertic (there are polished clay surfaces). Deep drainage is restricted as evidenced by pale colours and mottling as well as landscape position (alluvial flat). This site would be wet in winter but hold moisture for much of summer. Nutrient availability is moderate with slightly acidic subsoil but the surface soil is strongly acidic with reduced nutrient availability and increasing availability of Aluminium. Root penetration would be restricted by lack of gas (air) exchange but no chemical restrictions (neutral pH).

² Source: Government of Victoria State Chemistry Laboratory.