

Site code¹	MM238
Location	Scotts Creek (Bucks Road), Cobden district, south-west Victoria
Landform	Rolling hills
Geology	Neogene Gellibrand Marl: <i>marine silty clay, clayey silt, calcareous, minor calcarenite</i>
Element	Crest

Profile morphology

Horizon	Depth (cm)	Description
A1	0–10	Dark greyish brown (10YR4/2); clay loam; apedal massive structure; very firm consistence (dry); boundary to:
B21	10–25	Dark grey (10YR4/1) with brown (10YR3/4) mottles; heavy clay; strong coarse blocky structure; strong consistence (dry); clear boundary to:
B22	25+	Dark greyish brown (2.5Y4/2); heavy clay; strong coarse blocky structure; strong consistence (moderately moist); common fine calcareous segregations.

ASC: Calcic, Mottled-Hypernatric, Grey Sodosol

Analytical data²

Site MM238	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
Horizon	cm	H ₂ O	CaCl ₂	dS/m	%	cmol _c /kg	cmol _c /kg	cmol _c /kg	cmol _c /kg	mg/kg	cmol _c /kg
A1	0–10	5.8	N/R	0.08	N/R	2.3	2.3	0.3	1.1	38	4
B21	10–25	6.7	N/R	0.12	N/R	6.1	6.1	0.6	3.6	N/R	9.2
B22	25+	8.9	N/R	0.59	0.09	7.1	7.1	0.9	6.4	N/R	2.4

Site MM238	Sample depth	FC	PWP	KS	FS	Z	C	Org C	Bulk density
Horizon	cm	(-10kPa) %	(-1500kPa) %	%	%	%	%	%	t m ⁻³
A1	0–10	30.1	14.2	13	38	23	20	3	1.54
B21	10–25	44.2	24.5	7	27	20	45	N/R	1.38
B22	25+	N/R	N/R	8	21	19	50	N/R	N/R

Management considerations

Shallow and hardsetting topsoils are a key feature of this texture contrast soil. Highly sodic and alkaline clay subsoils with calcium carbonate nodules are features of this soil type. The application of gypsum may be used to counter the effects of sodicity, while growing alkaline tolerant species is an option.

¹ Source: Maher JM, Martin JJ (1987) Soils and landforms of south-western Victoria. Department of Agriculture and Rural Affairs. Research Report No. 40.

² Source: Government of Victoria, State Chemistry Laboratory.