

Site code¹	MM232
Location	Cobden (Cobden Warrnambool Road), Cobden district, south-west Victoria
Landform	Gently undulating basalt plains
Geology	Quaternary Newer Volcanics: <i>extrusive tholeiitic to alkaline basalts, minor scoria and ash</i>
Element	Flat

Profile morphology

Horizon	Depth (cm)	Description
A1	0–30	Dark brown (10YR3/3); clay loam; very weak consistence (moist); boundary to:
A2	30–50	Light yellowish brown (10YR6/4), conspicuously bleached, very pale brown (10YR7/3 dry); clay loam; weak consistence (moist); sharp boundary to:
B21	50–90	Dark yellowish brown (10YR4/4) with yellowish brown (10YR5/8) mottles; medium clay; moderate medium blocky structure; very many fine segregations; clear boundary to:
B22	90+	Yellowish brown (10YR5/6) with red (2.5YR4/6) mottles; medium clay; strong medium blocky structure.

ASC: Bleached-Ferric, Eutrophic, Brown Chromosol

Analytical data²

Site MM232 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
		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	0–30	5.8	N/R	0.08	N/R	2.3	2.3	0.2	0.5	N/R	17.7
A2	30–50	5.9	N/R	0.04	N/R	1.7	1.7	0	0.3	N/R	10.2
B21	50–90	5.8	N/R	0.1	N/R	4.6	4.6	0.3	1.2	N/R	15.2
B22	90+	5.8	N/R	0.1	N/R	4	4	0.3	1.6	N/R	15

Site MM232 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m ⁻³
A1	0–30	34.6	19	4	42	28	19	4	1.07
A2	30–50	26.7	10.2	7	38	29	23	N/R	N/R
B21	50–90	53.2	41	3	7	5	83	N/R	1.06
B22	90+	N/R	N/R	1	10	9	79	N/R	N/R

Management considerations

The surface soil is hardsetting with a strong texture contrast between the surface soil and the subsoil which may impact upon subsoil permeability. Mottled subsoils are other prominent features of this soil type.

The application of gypsum would be suitable for soil structure and improved permeability, while increasing organic matter and maintaining vegetative cover is important to help improve the soil structure. Penetration by deep-rooted crops is also useful.

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.