

Site code¹	MM363
Location	Larpent (Middletons Road), Colac district, south-west Victoria
Landform	Gently undulating plains
Geology	Neogene Hanson Plain Sand: <i>fluvial gravel, sand, silt</i>
Element	Upper slope

Profile morphology

Horizon	Depth (cm)	Description
A1	0–20	Very dark greyish brown (10YR3/2); clay loam; apedal massive structure; very firm consistence (dry); clear boundary to:
A2	20–50	Greyish brown (10YR5/2), conspicuously bleached, light grey (10YR7/1 dry); clay loam; sharp boundary to:
B21	50–75	Very dark brown (10YR2/2) with brown (10YR4/6) mottles; medium heavy clay; strong medium blocky structure; gradual boundary to:
B22	75+	Dark brown (10YR3/3) with brown (7.5YR4/6) mottles; medium clay; moderate medium blocky structure.

ASC: Melanic, Eutrophic, Black Chromosol

Analytical data²

Site MM363 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	%	cmolc/kg	cmolc/kg	cmolc/kg	cmolc/kg	mg/kg	cmolc/kg
A1	0–20	5.5	N/R	0.08	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	20–50	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	50–75	6.4	N/R	0.05	N/R	5.3	12	0.23	1.3	N/R	14
B22	75+	6.5	N/R	0.12	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Site MM363 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m ⁻³
A1	0–20	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	20–50	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	50–75	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B22	75+	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Management considerations

This site has a hardsetting topsoil with a strong texture contrast between the surface soil and the subsoil. A bleached A2 horizon is an indication of restricted drainage, poor soil structure (often massive) and low organic matter and 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.