

Site code¹	MM237
Location	Mannibadar (Lismore Pittong Road), Linton district, south-west Victoria
Landform	Undulating low hills
Geology	Devonian Tiac Granodiorite: <i>intrusive biotite granodiorite, coarse grained</i>
Element	Lower slope

Profile morphology

Horizon	Depth (cm)	Description
A1	0–30	Very dark greyish brown (10YR3/2); loam; weak consistence (dry); clear boundary to:
A2	30–45	Pale brown (10YR6/3), conspicuously bleached, light grey (10YR7/2 dry); sandy clay loam; sharp boundary to:
B21	45–90	Yellowish brown (10YR5/6) with brown (2.5YR4/6) mottles; heavy clay; strong coarse blocky structure; very firm consistence (moderately moist); clear boundary to:
B22	90–140	Grey (10YR6/1) with brown (2.5YR4/6) mottles; heavy clay; very firm consistence (moist); clear boundary to:
B23	140+	Light brownish grey (10YR6/2) with brown (10YR5/8) mottles; heavy clay; firm consistence (moist).

ASC: Eutrophic, Mottled-Mesonatric, Brown Sodosol

Analytical data²

Site MM237 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	5.7	N/R	0.08	N/R	1.7	1.7	0.2	0.4	N/R	10.5
A2	30–45	5.9	N/R	0.05	N/R	0.8	0.8	0.1	0.3	N/R	4.3
B21	45–90	6.8	N/R	0.23	0.04	2.5	2.5	0.4	4	N/R	9.2
B22	90–140	6.7	N/R	0.35	0.07	N/R	N/R	N/R	N/R	N/R	7.4
B23	140+	6.5	N/R	0.35	0.07	1.5	1.5	0.2	3.5	N/R	6

Site MM237 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m ⁻³
A1	0–30	22.3	10.8	38	23	16	17	3.1	1.37
A2	30–45	15.3	4.1	50	24	14	9	N/R	1.23
B21	45–90	45.7	27.6	11	9	4	75	N/R	N/R
B22	90–140	N/R	N/R	16	15	8	57	N/R	N/R
B23	140+	N/R	N/R	35	13	8	41	N/R	N/R

Management considerations

Texture contrast soil with a bleached A2 horizon indicates restricted drainage and poor soil structure. The presence of very sodic subsoils may result in poor soil structure and dispersion whilst the presence of mottles indicates periodic waterlogging. The application of gypsum may be used to counter the effect of sodicity, while improved drainage methods would reduce the waterlogging. Penetration by deep rooted crops is also useful as is minimum tillage which avoids bringing the sodic, dispersive material to the surface.

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.