

<b>Site code<sup>1</sup></b>	<b>MM291</b>
<b>Location</b>	<b>Foxhow (Parishs Road), Lismore district, south-west Victoria</b>
<b>Landform</b>	Gently undulating rises
<b>Geology</b>	Quaternary aeolian lunette deposits: <i>sand, silt, clay</i>
<b>Element</b>	Mid slope

### Profile morphology

Horizon	Depth (cm)	Description
A11	0–15	Dark reddish brown (5YR3/4); clay loam; apedal massive structure; weak consistence (moderately moist); clear boundary to:
A12	15–20	Dark reddish brown (5YR3/4), yellowish red (5YR4/6 dry); clay loam; fragipan or earthy pan; sharp boundary to:
B21	20–40	Dusky red (2.5YR3/4); heavy clay; moderate medium blocky structure; gradual boundary to:
B22	40–55	Dark reddish brown (5YR3/4); heavy clay; moderate medium blocky structure; gradual boundary to:
B23	55+	Dark grey (10YR4/1); medium clay; strong fine blocky structure; many calcareous soft segregations.

**ASC:** Calcic, Hypernatric, Red Sodosol

### Analytical data<sup>2</sup>

Site MM291	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
Horizon	cm	H <sub>2</sub> O	CaCl <sub>2</sub>	dS/m	%	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	mg/kg	cmol <sub>c</sub> /kg
A11	0–15	5.4	N/R	0.18	0.05	N/R	N/R	N/R	N/R	N/R	N/R
A12	15–20	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	20–40	7.9	N/R	0.22	0.03	4.2	16	3.1	6	N/R	N/R
B22	40–55	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B23	55+	9.7	N/R	0.49	0.03	N/R	N/R	N/R	N/R	N/R	N/R

Site MM291	Sample depth	FC	PWP	KS	FS	Z	C	Org C	Bulk density
Horizon	cm	(-10kPa) %	(-1500kPa) %	%	%	%	%	%	t m <sup>-3</sup>
A11	0–15	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A12	15–20	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	20–40	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B22	40–55	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B23	55+	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

### Management considerations

Strong texture contrast between the surface soil and the subsoil is a very important soil feature and may impact upon subsoil permeability. The soil type also exhibits slightly acidic topsoils, with a fragipan forming a distinct boundary to the heavier textured and more alkaline subsoil. Calcium carbonate nodules are associated with alkaline soils and found in the subsoil also.

The application of gypsum to improve soil structure and permeability is recommended while penetration of the subsoil by deep-rooted crops is also useful. Minimum tillage practices will help to avoid bringing the sodic, dispersive material to the surface.

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

<sup>2</sup> Source: Government of Victoria, State Chemistry Laboratory.