

Site code¹ OTR601



Location Wurdiboluc
Landform Plateau
Geology Neogene Hanson Plain Sand
Element Flat plain
Slope 0%
Aspect -

Ferric, Mesotrophic, Brown Chromosol

Pasture seed crops north of Torquay

Horizon	Depth (cm)	Description
A1	0–20	Dark yellowish brown (10YR4/3); fine sandy loam; apedal single grain structure; occasional ironstone gravel; clear boundary to:
A3	20–30	Yellowish brown (10YR5/6); with some red (2.5YR5/8); mottles; light clay; moderate very fine (3 mm) subangular blocky structure; ironstone gravel common; gradual boundary to:
B21	30–90	Mottled yellowish brown (10YR5/6); and red (2.5YR5/8); medium clay; strong very fine (2 mm) angular blocky structure; clay skin cutans; abundant ironstone gravel; diffuse boundary to:
B22	90+	Mottled dark yellowish brown (10YR4/6); light–grey (2.5YR7/1); and red (10YR4/6); heavy clay; strong very fine (2 mm) angular blocky structure; abundant ironstone gravel often in layers or floaters of ironstone.

¹ Source: Pitt AJ (1981) A Study of the land in the catchments of the Otway Range and adjacent plains. TC-14. Soil Conservation Authority. Kew, Victoria

Analytical data²

Site OTR601 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC -10kPa	PWP -1500kPa	KS	FS	Z	C
		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	5.9	N/R	0.035	N/R	1.7	0.9	0.09	0.01	N/R	N/R	N/R	N/R	22	48	15	10
A1	10-20	5.8	N/R	0.034	N/R	1.1	1.1	0.08	0.02	N/R	N/R	N/R	N/R	18	48	17	15
A3	20-30	5.8	N/R	0.050	N/R	2.0	4.5	0.10	0.2	N/R	N/R	N/R	N/R	10	27	11	50
B21	50-60	5.8	N/R	0.070	N/R	2.1	6.5	0.09	0.3	N/R	N/R	N/R	N/R	7	20	10	63
B22	110-120	5.3	N/R	0.073	N/R	0.5	4.6	0.03	0.2	N/R	N/R	N/R	N/R	7	19	9	63

Management considerations

Strong texture contrast between the surface soil and the subsoil is a very important soil feature. This can have a major effect by reducing and/or redirecting the internal drainage and restricting root growth beyond the upper horizons. Options include reduced tillage, improving organic matter content and altering the subsoil through artificial drainage (ripping, mole drainage) and/or chemical amelioration (gypsum) to improve structure.

The sandy is likely to have poor plant water holding capacity and poor nutrient holding capacity due to the low level of bonding between soil particles. The surfaces are prone to wind, and sheet and rill erosion (depending on organic matter content and vegetative cover). These soils may be hydrophobic (in conjunction with organic coatings) when dry, taking time to reabsorb moisture. It is helpful to reduce the wetting/drying cycle and as well as increase organic matter and clay content (clay spreading is practiced in western Victoria). Sandy topsoils do however drain rapidly. Maintenance of a vegetative cover is important.

Mottled subsoils are common and are an indication of periodic waterlogging, particularly if the mottles are pale (low oxygen conditions). Some brighter mottling may be due to past soil mixing and clay illuviation. Improved drainage, with the application of gypsum for sodic subsoils may be beneficial.

² Source: Government of Victoria State Chemistry Laboratory.