

11. Sandy and poorly developed soils on lunettes, dunes and sand sheets (siliceous) on Quaternary aeolian sediments

These soils are generally sandy and unconsolidated (loose) with organic matter in variable amounts acting as the binding agent for the surface being the only significant pedological development in the surface soil (providing some structure). The subsurface soil and subsoil is generally deep (>100 cm) on dunes, bleached and loosely to weakly coherent. Depth to a pan, consolidated sand or clay rich sediment will generally depend on topographic position with less unconsolidated sand depth in the lower positions. On the siliceous deposits nutrient availability is very low and has low retention given the high sand content and high internal drainage (unless restricted by other materials or high watertables either inland or at sea level).

Notable characteristics are the light (sandy) textures, held only by organic matter at the surface with some cementation and possibly clay at depth, rapid permeability and low nutrient and water holding capacity.



Soil sites

Site code	Soil-landform unit	Component	ASC	FK	1:100 000 mapsheet
BD9	58	Upper slope	Parapanic, Sesquic, Aeric Podosol	Uc1.22	T7722 - BACCHUS MARSH
CLRA7	82	Crest	Melacic, Sesquic, Aeric Podosol	Uc2.34	T7821 - SORRENTO
OTR426	72	Mid slope	Acidic, Lithosolic, Clastic Rudosol	Uc2.2	T7520 - PRINCETOWN

Site code¹ BD9



Sandy ridge of aeolian sand over sediments

Location Lal Lal
Landform Gently undulating ridge
Geology Aeolian material over
 Ordovician sediments
Element Lunette
Slope 1–3 %



Parapanic, Sesquic, Aeric Podsol

Horizon	Depth (cm)	Description
A1	0–16	Greyish brown (10YR5/2); loamy sand; apedal massive structure; water repellent; pH 7.0; gradual boundary to:
A2	16–51	Pale brown (10YR6/3); sand; apedal massive structure; pH 5.0; sharp boundary to:
B2	51–100+	Yellowish brown (10YR5/6); clay sand; apedal massive structure; pH 5.5.

Management considerations

The soil is suitable for limited cropping with cereals, peas and summer fodder crops, but it is most suitable for growing lucerne or pastures. Potatoes can be grown but usually do not yield well without good summer rain, or supplementary irrigation. Like granitic soil, this aeolian sandy loam supports good autumn and winter growth, but dries out quickly at the end of spring. Consequently, spring growth stops early and summer fodder crops produce well only with good summer rain or irrigation.

¹ Source: Clarkson T (unpublished) Soils collected in the Ballarat district. DNRE