

Site Code¹ CLRA5



Low aeolian dunes near Indented Head

Location Indented Head (Ibbotson Street), St Leonards district, Bellarine Peninsula

Landform Dunes

Geology Quaternary Aeolian: coastal and inland dunes: *dune sand, some swamp deposits*

Element Lower slope

Slope 3%

Aspect North-west

Horizon	Depth (cm)	Description
A11	0–5	Very dark grey (10YR3/1); sandy loam; very few (2–6 mm) subangular quartz gravels; weak medium subangular blocky structure; rough ped fabric; weak consistence (dry); pH 6.0; smooth abrupt boundary to:
A12	5–20	Very dark grey (10YR3/1); sandy loam; very few (2–6 mm) subangular quartz gravels; weak medium subangular blocky structure; rough ped fabric; weak consistence (dry); very few (6–60 mm) ferruginous nodules; pH 5.5; smooth clear boundary to:
A21	20–40	Light brownish grey (10YR6/2); conspicuous bleach (10YR7/2); sand; very few (2–6 mm) subangular quartz gravels (2–6 mm); apedal massive structure; sandy fabric; loose consistence (dry); very few (6–60 mm) ferric nodules; pH 6.5; wavy clear boundary to:
A22	40–55	Brown (10YR5/3); conspicuous bleach (10YR7/3); sand; few (2–6 mm) subangular quartz gravels (2–6 mm); apedal massive structure; sandy fabric; very weak consistence (dry); few (6–60 mm) ferric nodules; pH 6.5; wavy abrupt boundary to:
B21	55–70	Brownish yellow (10YR6/6) with many very large red and light and dark brown (10R4/4, 10YR6/3, 10YR3/2) distinct mottles; medium clay; very few (2–6 mm) subangular quartz gravels; strong coarse columnar parting to medium prismatic structure; smooth ped fabric; common prominent clay skin and other cutans; very strong consistence (dry); pH 6.0; wavy clear boundary to:



Eutrophic, Mottled-Subnatric, Yellow Sodosol

¹ Source: Robinson et al (2003) A land resource assessment of the Corangamite region. Department of Primary Industries, Centre for Land Protection Research Report No. 19

BC	70–100	Brownish yellow (10YR6/6) with many very large red and light and dark brown (10R4/4, 10YR6/3, 10YR3/2) prominent mottles; fine sandy clay; very few (2–6 mm) subangular quartz gravels; weak coarse columnar parting to medium prismatic structure; smooth ped fabric; few distinct clay skin and other cutans; strong consistence (dry); pH 7.0; wavy gradual boundary to:
C1	100–125	Light grey (10YR7/2) with common large yellow (10YR6/6) prominent mottles; clayey fine sand; apedal massive structure; earthy fabric; very firm consistence (dry); pH 7.5; smooth clear boundary to:
C2	125–155+	Light grey (10YR7/2) with common large yellow (10YR6/6) prominent mottles; clayey fine sand; apedal massive structure; earthy fabric; weak consistence (moderately moist); pH 7.7.

Analytical data²

Site CLRA5	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC	PWP	KS	FS	Z	C
Horizon	cm	H ₂ O	CaCl ₂	dS/m	%	cmol _c /kg	cmol _c /kg	cmol _c /kg	cmol _c /kg	mg/kg	cmol _c /kg	–10kPa	–1500kPa	%	%	%	%
A11	0–5	5.2	4.5	0.1	N/R	3.5	1.2	0.24	0.34	<10	8.5	16.1	7.5	31.8	54.4	1	11
A12	5–20	4.9	4.2	0.05	N/R	2.2	0.46	0.06	0.19	22	7.4	18.7	4.2	54.9	33.9	3.5	4
A21	20–40	5.2	4.5	<0.05	N/R	0.61	0.11	<0.05	<0.05	23	3.3	9.3	1.3	50.4	42.6	3	3
A22	40–55	5.8	5	<0.05	N/R	1	0.5	<0.05	0.15	<10	4.3	9.7	2.9	59.9	28.8	5	6.5
B21	55–70	6.3	5.2	0.1	N/R	1.4	4.2	0.08	0.99	N/R	4.3	24.0	14.6	22.8	33.7	1	42.5
BC	70–100	6.8	5.8	0.14	N/R	0.5	3.1	0.06	1.2	N/R	2.5	19.1	11.0	2.2	63.8	9.5	22
C1	100–125	7.6	6.4	0.16	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
C2	125–135+	7.7	6.7	0.21	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Management considerations

This soil has a strong texture contrast between the deep sandy soil and the subsoil which is sodic. It is important to maintain or improve the upper soil by increasing organic matter (particularly in the subsurface soil). The organic carbon content of the litter surface is 3.2% and the surface is 1.6%. It would be advisable not to bring the very dispersive subsoil [Emerson class 2(4)] to the surface as it would promote surface sealing (hardsetting) as well as adverse nutrient affects.

Maintenance of a vegetative cover is important for soil stability particularly where the surface soil is light and susceptible to water and wind erosion.

Root penetration of the clayey subsoil may be difficult with the hardsetting nature of the soil, coarse structure and nutrient imbalance (alkalinity with high sodicity and some salinity), but the sandy soil above provides a suitable physical medium for growth though with little water and nutrient holding capacity.

² Source: Government of Victoria State Chemistry Laboratory.