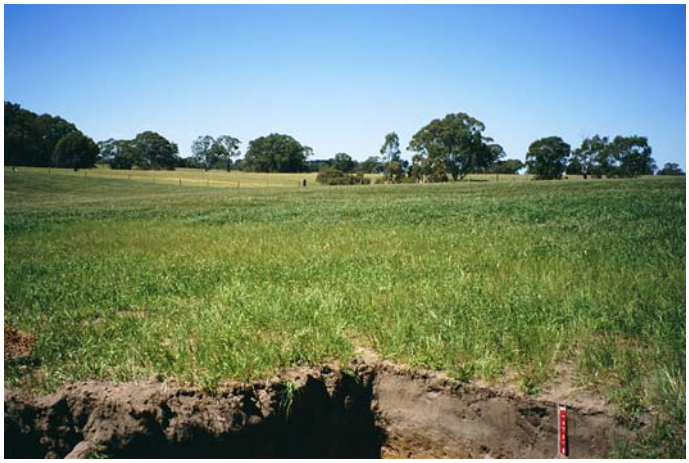
DEEP LOAMY SAND

General Description: *Very thick soft loamy sand with a bleached subsurface layer, becoming yellower and slightly more clayey and compact with depth*



Landform: Gently undulating plain.

Substrate: Coarse grained Tertiary age sediments.

Vegetation:

Type Site: Site No.: SE112

1:50,000 sheet:	7023-1 (Struan)	Hundred:	Joanna
Annual rainfall:	600 mm	Sampling date:	16/10/06
Landform:	Midslope of low rise, 2% slope.		
Surface:	Soft with no stones.		

Soil Description:

Depth (cm)	*Description*
0-10	Dark greyish brown soft loamy sand with weak granular structure. Clear to:
10-30	Dark greyish brown soft single grain loamy sand. Abrupt to:
30-55	Light grey (bleached) soft single grain loamy sand. Clear to:
55-77	Light yellowish brown and yellowish brown soft single grain loamy sand with 10-20% soft and nodular ferruginous-organic segregations. Clear to:
77-115	Reddish yellow and pink soft sand with 2-10% segregations as above. Abrupt to:
115-124	Greyish brown and yellowish brown friable massive clayey sand. Abrupt to:
124-160	Strong brown, yellowish brown and greyish brown mottled firm massive heavy sandy loam.

Classification: Acidic, Arenic, Bleached-Orthic Tenosol; thick, non-gravelly, sandy / loamy, very deep

Summary of Properties

Drainage: Well drained. The profile is unlikely to remain wet for more than a day or so following heavy or prolonged rainfall.

Fertility: Inherent fertility is low, as indicated by the exchangeable cation data. This is a reflection of the low clay content throughout the soil. In the sampling pit, levels of K, Cu and Zn are low. Note N leaching in sandy soil. Due to absence of subsoil reserves, deficiencies of macronutrients may occur in some species.

pH: Neutral on the surface, acidic in the subsurface, and neutral with depth.

Rooting depth: 115 cm in sampling pit, but few roots below 55 cm

Barriers to root growth:

Physical: There are no apparent physical barriers.

Chemical: Low nutrient availability is likely to restrict root growth. Marginal aluminium toxicity in subsurface.

Water holding capacity: Approximately 75 mm in the potential rootzone.

Seedling emergence: Good, although water repellence may be a problem in some seasons.

Workability: Soft sandy surfaces are easily worked

Erosion Potential

Water: Low.

Wind: Moderately low.

Laboratory Data

Depth cm	pH H_2O	pH $CaCl_2$	CO_3 %	EC1:5 dS/m	ECe dS/m	Cl mg/kg	Org.C %	NO_3+ NH_4 mg/kg	Avail. P mg/kg	Avail. K mg/kg	SO_4-S mg/kg	React Fe mg/kg	Ext Al mg/kg	Boron mg/kg	Trace Elements mg/kg (EDTA)				Sum cations cmol (+)/kg	Exchangeable Cations cmol(+)/kg				Est. ESP
															Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
0-10	6.2	5.3	0	0.03	0.39	5	0.83	4	24	73	6.3	400	0	0.6	0.25	78	26.4	1.93	3.1	2.59	0.28	0.07	0.18	na
10-30	5.3	4.4	0	0.02	0.17	3	0.50	3	23	55	2.2	410	5.2	0.5	0.23	97	5.54	0.91	1.0	0.65	0.11	0.09	0.17	na
30-55	5.2	4.4	0	0.02	0.18	3	0.31	4	17	35	3	370	5.8	0.5	0.28	75	4.97	0.63	0.5	0.26	0.07	0.09	0.11	na
55-77	5.2	4.9	0	0.03	0.48	7	0.11	13	6	27	4.4	653	3.8	0.4	0.12	56	70.1	0.64	0.7	0.43	0.12	0.07	0.11	na
77-115	5.8	5.7	0	0.03	0.52	6	0.06	14	2	15	2.1	236	0	0.5	0.18	24	8.96	0.40	0.5	0.26	0.07	0.07	0.06	na
115-124	6.2	5.7	0	0.03	0.44	7	0.09	10	2	47	1.6	671	0	0.4	0.22	24	9.91	0.40	2.7	1.70	0.72	0.08	0.15	na
124-160	6.6	6.1	0	0.02	0.25	7	<0.05	7	1	33	2.2	892	0	0.5	0.23	20	2.67	0.43	2.7	1.57	0.87	0.14	0.12	na

Note: Sum of cations, in a neutral to alkaline soil, approximates the CEC (cation exchange capacity), a measure of the soil's capacity to store and release major nutrient elements.

ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC, in this case estimated by the sum of cations.