

**CALCAREOUS SANDY LOAM**

(Bookabie / Wiabuna soil)

**General Description:** *Calcareous sandy loam grading to a very highly calcareous sandy clay loam with variable rubble, continuing below 120 cm*

**Landform:** Gently undulating rises.

**Substrate:** Very highly calcareous clayey sand to sandy clay (Woorinen Formation).

**Vegetation:** Mallee / bluebush



<b>Type Site:</b>	Site No.:	EF028	1:50,000 mapsheet:	5534-3 (Penong)
	Hundred:	Catt	Easting:	334350
	Section:	32	Northing:	6468950
	Sampling date:	09/03/1988	Annual rainfall:	310 mm average

Crest of low rise, firm surface with no stones.

**Soil Description:**

<i>Depth (cm)</i>	<i>Description</i>
0-10	Dark reddish brown highly calcareous sandy loam. Clear to:
10-30	Dark reddish brown highly calcareous light sandy clay loam. Gradual to:
30-60	Brown very highly calcareous light sandy clay loam. Clear to:
60-70	As above with more than 50% Class III C carbonate nodules. Clear to:
70-100	Orange very highly calcareous clayey sand. Gradual to:
100-140	Brownish yellow very highly calcareous fine sandy light clay with 10-20% Class III A carbonate nodules. Gradual to:
140-160	Reddish yellow very highly calcareous fine sandy light clay.



**Classification:** Hypervescent, Regolithic, Lithocalcic Calcarosol; very thick, non-gravelly, loamy / clay loamy, deep



## Summary of Properties

<b>Drainage:</b>	Well drained. The soil is never wet for more than a few days.
<b>Fertility:</b>	Inherent fertility is moderately low. High carbonate content to the surface reduces the availability of phosphorus, zinc, manganese and copper.
<b>pH:</b>	Alkaline at the surface, strongly alkaline at depth.
<b>Rooting depth:</b>	70 cm in pit.
<b>Barriers to root growth:</b>	
<b>Physical:</b>	There are no physical barriers.
<b>Chemical:</b>	High pH and boron concentrations from 60 cm limit root growth.
<b>Waterholding capacity:</b>	Approximately 85 mm in the rootzone.
<b>Seedling emergence:</b>	Satisfactory.
<b>Workability:</b>	Surface soil is firm to soft and easily worked.
<b>Erosion Potential:</b>	
<b>Water:</b>	Low.
<b>Wind:</b>	Moderately low.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaCl <sub>2</sub>	CO <sub>3</sub> %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO <sub>4</sub> mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
0-10	8.5	8.1		0.34	1.38					2.5	0.20	2.89	6.63	0.17						
10-30	8.8	8.3		0.20	0.74					3.2	0.29	1.89	3.41	0.10						
30-60	9.3	8.6		0.44	3.01					11.0	0.24	2.51	1.66	0.06						
60-70	9.9	8.8		1.14	8.82					28.0	0.57	1.45	0.48	0.25						
70-100	9.9	8.8		1.30	9.70					34.4	0.32	2.96	0.37	0.19						
100-140	9.9	8.8		1.20	9.26					28.1	0.34	2.61	0.50	0.13						
140-160	9.7	8.6		1.40	13.52					26.8	0.33	2.29	0.62	0.10						

**Note:** CEC (cation exchange capacity) is 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

**Further information:** [DEWNR Soil and Land Program](#)

