## **CALCAREOUS SANDY LOAM**

(Penong soil)

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

Landform: Very gently undulating plain.

**Substrate:** Very highly calcareous

sandy clay loam (Woorinen

Formation).

Vegetation:

**Type Site:** Site No.: EF026

> Hundred: 328350 **Bagster** Easting: Section: 22

28/10/1988 Sampling date:

Flat with firm surface and no stones.

## **Soil Description:**

Depth (cm) Description

0-4 Orange soft massive highly calcareous loam.

Abrupt to:

4-9 Orange hard massive highly calcareous sandy clay

loam. Abrupt to:

9-30 Orange firm massive highly calcareous clay loam.

Gradual to:

30-60 As above with 20-50% carbonate nodules (Class

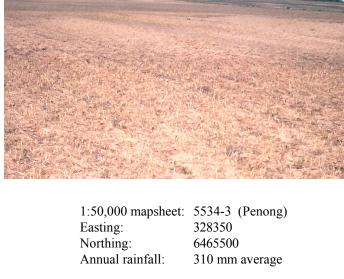
III B carbonate). Gradual to:

60-80 Orange friable massive highly calcareous sandy

clay loam.

**Classification:** Hypervescent, Regolithic, Supracalcic Calcarosol; medium, non-gravelly, loamy / clay loamy,

deep









## Summary of Properties

**Drainage:** Well drained. The soil is never wet for more than a few days.

**Fertility:** Inherent fertility is moderately low, as indicated by the exchangeable cation data.

High carbonate content to the surface reduces the availability of phosphorus, zinc,

manganese and copper.

**pH:** Strongly alkaline throughout.

**Rooting depth:** 60 cm in pit.

Barriers to root growth:

**Physical:** There are no physical barriers.

**Chemical:** High pH from the surface, high sodicity from 30 cm and high boron concentrations

from 10 cm combine to limit root growth.

Waterholding capacity: Approximately 60 mm in the rootzone.

**Seedling emergence:** Satisfactory.

**Workability:** Surface soil is firm to soft and easily worked.

**Erosion Potential:** 

Water: Low.

Wind: Moderately low.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaC1 <sub>2</sub>	_	EC1:5 dS/m	ECe dS/m	%	P		mg/kg		Trace Elements mg/kg (DTPA)				cmol	Exchangeable Cations cmol(+)/kg				ESP
							mg/kg mg/k	mg/kg			Cu	Fe	Mn	Zn	(+)/kg	Ca	Mg	Na	K	
0-4	8.7	7.8	19	0.28	2.94	-	-	-	-	10.50	0.54	2.69	18.9	0.37	16.0	-	3.30	0.74	3.70	5
4-9	9.0	8.0	18	0.60	7.06	ı	ı	-	ı	16.90	0.53	1.77	9.29	0.29	16.0	ı	3.40	1.90	4.60	12
9-30	9.2	8.2	32	0.60	6.76	ı	ı	-	ı	21.50	0.52	1.74	6.58	0.16	13.0	ı	3.70	2.10	3.70	16
30-60	9.9	8.7	59	0.90	8.23	ı	1	-	ı	34.60	0.40	1.61	0.97	0.07	8.0	ı	4.70	2.60	1.70	33
60-80	9.6	8.7	52	0.88	8.53	-	-	-	-	24.70	0.62	1.30	1.50	0.06	9.5	-	5.20	2.30	1.60	24

**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

\* Exchangeable calcium (Ca) values not included due to inappropriate laboratory procedure on very highly calcareous samples.

Further information: DEWNR Soil and Land Program



