

GRAVELLY LOAMY SAND

General Description: *Thick to very thick loamy sand to sandy loam with more than 50% transported gravels*

Landform: Undulating rises and gently sloping outwash fans with well defined water courses.

Substrate: Cemented ironstone (buried layer of older soil).

Vegetation:

No landscape image available

Type Site: Site No.: EL084

1:50,000 sheet: 5929-2 (Coulta)

Hundred: Warrow

Annual rainfall: 525 mm

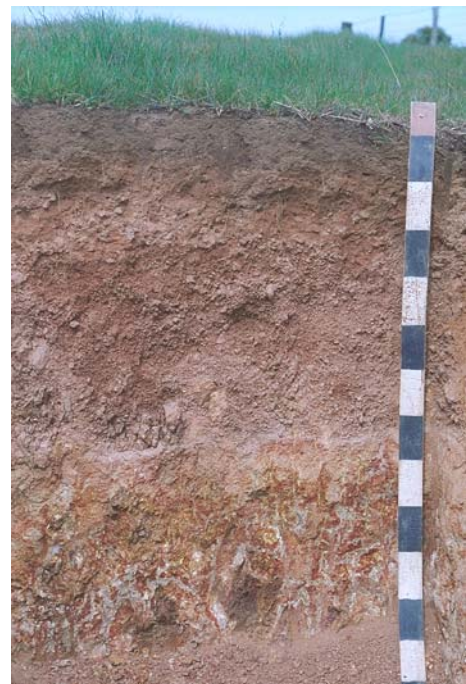
Sampling date: 06/08/93

Landform: Midslope of outwash fan, 3% slope

Surface: Soft with no stones

Soil Description:

Depth (cm)	Description
0-10	Brown friable sandy loam with weak fine subangular blocky structure. Clear to:
10-30	Strong brown friable loamy sand with weak fine subangular blocky structure and 20-50% fine ironstone gravel. Clear to:
30-70	Reddish brown soft massive coarse sand with more than 50% variable fine (less than 6 mm) gravel. Clear to:
70-120	Cemented ironstone nodules and fragments (ferricrete).



Classification: Basic, Ferric, Brown-Orthic Tenosol; medium, non-gravelly, loamy / sandy, moderate

Summary of Properties

Drainage	Well drained. The soil rarely remains wet for more than a couple of days at a time.
Fertility	Inherent fertility is low, as indicated by the exchangeable cation data. There is insufficient clay to adequately retain nutrients, and acidification has resulted in cation leaching. Phosphorus levels are low. Nitrogen levels are dependent on legume content of pastures and cropping history. Organic carbon levels are satisfactory, and trace elements are not deficient.
pH	Strongly acidic at the surface, acidic with depth.
Rooting depth	50 cm in pit.
Barriers to root growth	
Physical:	The ferricrete prevents any deeper root growth.
Chemical:	Low nutrient status caused by low clay content and cation leaching are the main chemical barriers - there are no problems of sodicity, salinity or boron toxicity.
Water holding capacity	Approximately 35 mm in the root zone.
Seedling emergence:	Satisfactory.
Workability:	The soft surface is easily worked.
Erosion Potential	
Water:	Moderately low.
Wind:	Moderately low.

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO ₄ -S 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	5.4	4.5	0	0.04	0.23	1.7	12	119	-	0.7	0.9	95	9.6	2.5	5.5	2.8	0.6	0.27	0.34	4.9
10-30	5.4	4.6	0	0.03	0.33	0.1	9	78	-	0.4	0.7	44	2.7	1.0	2.9	1.1	0.3	0.23	0.23	7.9
30-70	6.4	5.8	0	0.04	0.36	0.5	6	64	-	0.4	0.1	87	14.7	0.2	2.5	1.4	0.6	0.43	0.19	17.2
70-120	6.6	6.0	0	0.04	0.40	0.1	5	75	-	0.3	0.1	84	13.7	1.4	2.8	1.6	0.7	0.44	0.20	15.7

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.