SANDY CLAY LOAM OVER RED CLAY
(Coulta / Greenpatch soil)

General Description: *Hard sandy clay loam with a pale ironstone gravelly A2 layer, over a red or brown well structured clay with variable ironstone gravel*

Landform: Undulating rises.

Substrate: Tertiary clay with variable ironstone.

Vegetation:

No landscape image available

Type Site: Site No.: EL085

1:50,000 sheet:	5929-2 (Coulta)	Hundred:	Warrow
Annual rainfall:	500 mm	Sampling date:	06/08/93
Landform:	Midslope of outwash fan, 3% slope		
Surface:	Hard setting with no stones		

Soil Description:

Depth (cm)	*Description*
0-13	Brown firm sandy clay loam with moderate fine subangular blocky structure, and minor quartz and ironstone gravel. Gradual to:
13-22	Reddish brown hard light clay with moderate fine subangular blocky structure, 20-50% quartz and 20-50% ironstone gravel (6-20 mm). Gradual to:
22-77	Yellowish red hard medium clay with strong medium angular blocky structure and 10-20% quartz gravel (6-20 mm). Gradual to:
77-103	Yellow and red very hard medium clay with strong medium angular blocky structure and more than 50% quartz gravel (6-20 mm).

Classification: Sodic, Eutrophic, Red Dermosol; medium, non-gravelly, clay loamy / clayey, deep

Summary of Properties

Drainage Moderately well drained. The soil rarely remains wet for more than a week following heavy or prolonged rainfall.

Fertility Inherent fertility is moderately low, as indicated by the exchangeable cation data. Although the surface soil has more than 25% clay, the exchange complex has limited capacity. However, the levels of all tested nutrient elements are adequate at the sampling site. Nitrogen levels depend on legume component of pastures and cropping history. Organic carbon concentrations are low for the rainfall zone.

pH Slightly acidic throughout.

Rooting depth 103 cm in pit.

Barriers to root growth

Physical: The hard clayey subsoil reduces root densities, but does not prevent root growth.

Chemical: There are no chemical barriers.

Water holding capacity Approximately 95 mm in root zone.

Seedling emergence: Fair to satisfactory, depending on degree of surface sealing.

Workability: Fair to good, depending on structural condition of surface. Compacted surface soils have a limited moisture range for effective cultivation.

Erosion Potential

Water: Moderately low.

Wind: Low.

Laboratory Data

Depth cm	pH H_2O	pH $CaC1_2$	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	
0-13	6.4	5.5	0	0.04	0.29	1.3	44	291	-	1.7	1.9	34	19.2	0.7	9.1	5.2	1.7	0.44	0.89	4.8
13-22	6.6	6.1	0	0.08	0.53	0.6	12	229	-	1.5	0.1	14	5.8	0.5	8.6	5.7	2.2	0.46	0.70	5.3
22-77	6.7	6.1	0	0.07	0.31	0.3	7	228	-	2.3	< 0.1	9	1.6	0.6	11.1	5.2	4.0	0.62	0.85	5.6
77-103	6.7	6.1	0	0.07	0.28	0.3	4	237	-	2.9	< 0.1	4	0.5	0.1	12.3	5.3	5.3	0.76	0.93	6.2

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