

SANDY LOAM OVER RED CLAY ON ROCK

General Description: *Hard sandy loam to sandy clay loam abruptly overlying a red clay, calcareous with depth, grading to weathering basement rock within 100 cm.*

Landform: Slopes of undulating to rolling rises and low hills.

Substrate: Fine sandstones and siltstones (Tapley Hill Formation at this site).

Vegetation:



Type Site:	Site No.:	CM905	1:50,000 mapsheet:	6630-1 (Burra)
	Hundred:	Hanson	Easting:	298000
	Section:	60	Northing:	6273550
	Sampling date:	March 1990	Annual rainfall:	475 mm average

Upper slope of undulating rise, 4% slope. Hard setting surface, 2-10% surface stone.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-8	Reddish brown hard massive fine sandy loam. Abrupt to:
8-25	Dark reddish brown hard heavy clay with strong medium angular blocky structure. Gradual to:
25-40	Reddish brown hard highly calcareous light clay with strong medium angular blocky structure. Gradual to:
40-60	Reddish yellow hard very highly calcareous light clay with 20-50% weathering siltstone fragments and 10-20% fine carbonate segregations.
60-100	Weathering siltstone.



Classification: Haplic, Calcic, Red Chromosol; thin, slightly gravelly, loamy / clayey, moderate



Summary of Properties

- Drainage:** Well drained. The soil is unlikely to remain wet for more than a couple of days following heavy or prolonged rainfall.
- Fertility:** Inherent fertility is moderate. Surface clay content of less than 20% and organic carbon of less than 1% restrict nutrient retention capacity.
- pH:** Neutral at the surface, alkaline with depth.
- Rooting depth:** 60 cm in pit, but few roots below 25 cm.
- Barriers to root growth:**
- Physical:** Hard consistence throughout restricts root growth to some extent.
 - Chemical:** There are no apparent chemical barriers.
- Waterholding capacity:** Approximately 55 mm in the potential rootzone.
- Seedling emergence:** Fair. Hard setting surface tends to seal over, preventing full seedling emergence.
- Workability:** Fair. The surface soil tends to shatter if worked too dry, and puddle if worked too wet.
- Erosion Potential:**
- Water:** Moderately low to moderate.
 - Wind:** Moderately low.

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC 1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Boron mg/kg
0-8	7.0	6.3	0	0.10	-	0.81	30	1.2
8-25	6.9	5.9	0	0.16	-	0.59	2	4.2
25-40	7.7	7.7	-	0.48	-	0.65	2	5.5
40-60	8.1	8.1	14	0.24	-	0.25	3	2.3

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

