

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 sheet: 6630-1 (Burra)

Hundred: Hanson

Annual rainfall: 450 mm

Sampling date: March 1990

Landform: Upper slope of undulating rise, 4% slope

Surface: Hard setting, 2-10% surface stone

Soil Description:

Depth (cm)	Description
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.

Water holding capacity: Approximately 55 mm in the potential root zone.

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