## SANDY LOAM OVER RED CLAY

General Description: Hard sandy loam abruptly overlying a well structured red clay,

calcareous with depth

**Landform:** Undulating rises.

**Substrate:** Weakly indurated Tertiary

sandstone, mantled by fine

carbonate.

Vegetation:



**Type Site:** Site No.: CM902

1:50,000 sheet: 6630-4 (Spalding) Hundred: Milne Annual rainfall: 475 mm Sampling date: 10/04/90

Landform: Upper slope of undulating rise, 4% slope

Surface: Hard setting with no stones

## **Soil Description:**

Depth (cm) Description

0-15 Reddish brown very hard massive sandy loam.

Abrupt to:

15-60 Dark reddish brown firm medium clay with strong

fine polyhedral structure. Clear to:

60-90 Yellowish red hard very highly calcareous

medium clay with more than 50% fine carbonate

segregations. Gradual to:

90-120 Yellowish red hard massive highly calcareous

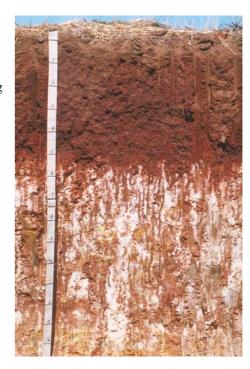
medium clay with 20-50% fine carbonate segregations and 20-50% weakly indurated yellow sandstone fragments. Gradual to:

120-150 Yellow hard massive sandy clay (weakly

indurated sandstone), with minor fine carbonate

segregations.

Classification: Sodic, Hypercalcic, Red Chromosol; medium, non gravelly, loamy / clayey, deep



## Summary of Properties

**Drainage:** Well drained. The soil rarely remains wet for more than a day or so following heavy

or prolonged rainfall.

**Fertility:** Inherent fertility is moderately low. Nutrient retention capacity is restricted by

relatively low clay content and low pH.

**pH:** Acidic at the surface, strongly alkaline with depth.

**Rooting depth:** Satisfactory root growth in upper 60 cm, limited growth below 60 cm.

**Barriers to root growth:** 

**Physical:** There are no significant physical restrictions.

**Chemical:** There are no apparent constraints in the upper 90 cm (below 90 cm, high pH is a

limitation). Possible causes of low root densities below 60 cm are restricted water

availability in highly calcareous clay, or low trace element availability.

Water holding capacity: Approximately 80 mm in the root zone.

**Seedling emergence:** Fair. Tendency for surface soil to seal and set hard affects plant establishment.

**Workability:** Fair. These soils tend to shatter if worked too dry, or puddle if worked too wet.

**Erosion Potential** 

Water: Moderately low.

Wind: Low.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaC1 <sub>2</sub>	CO <sub>3</sub> %	EC 1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Boron mg/kg
0-15	5.6	4.8	0	0.11	1	1.13	32	1.0
15-60	7.1	6.6	0	0.16	1	0.55	4	2.2
60-90	8.8	7.7	27	0.15	1	0.26	3	1.7
90-120	9.3	7.9	19	0.16	-	0.18	1	2.1
120-150	-	-	-	-	-	-	-	-