Project Name: CAN
Project Code: CAN **Site ID:** CP153 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By: G.A. Stewart
Date Desc.: 13/06/79
Map Ref.: Sheet No. : SH8635 1:100000
Northing/Long.: 148.966666666667
Easting/Lat.: -31.5
Locality: 2.7KM from main Gilgandra/Coonabarabran Rd.
Elevation: 460 metres
Rainfall: 500
Runoff: Very slow
Drainage: Imperfectly drained

Geology

ExposureType: No Data
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Slightly porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 2 %
Pattern Type: Plain
Relief: No Data
Slope Category: Very gently sloped
Aspect: 20 degrees

Surface Soil Condition (dry): Cracking, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification: Endocalcareous-Endohypersodic Self-Mulching Black Vertosol
Mapping Unit: N/A
Principal Profile Form: Ug5.15
ASC Confidence: Analytical data are incomplete but reasonable confidence.
Great Soil Group: Black earth

Site Disturbance: Cultivation. Rainfed

Vegetation: Low Strata - Sod grass, <0.25m, Closed or dense. *Species includes - Avena sativa

Tall Strata - Tree, , Isolated plants. *Species includes - Eucalyptus species

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

0 - 0.04 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Weak grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Field pH 6.7 (pH meter);
0.04 - 0.1 m	Very dark brown (10YR2/2-Moist); ; Medium heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Weak consistence; Moderately plastic; Slightly sticky; Field pH 6.9 (pH meter);
0.1 - 0.2 m	Very dark brown (10YR2/2-Moist); ; Medium heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Weak consistence; Moderately plastic; Slightly sticky; Field pH 7.1 (pH meter);
0.2 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence; Field pH 7.5 (pH meter);
0.3 - 0.4 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence; Field pH 7.9 (pH meter);
0.4 - 0.5 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence; Field pH 8.2 (pH meter);
0.5 - 0.6 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence; Field pH 8.4 (pH meter);
0.6 - 0.7 m	Dark brown (7.5YR3/3-Moist); ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.5 (pH meter);
0.7 - 0.8 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 0-2% ; , 0-2% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.5 (pH meter);
0.8 - 0.9 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 2-10% ; , 2-10% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);

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0.9 - 1 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 2-10% ; , 2-10% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.6 (pH meter);
1 - 1.1 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 10-20% ; , 10-20% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.5 (pH meter);
1.1 - 1.2 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 10-20% ; , 10-20% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.4 (pH meter);
1.2 - 1.3 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.3 (pH meter);
1.3 - 1.4 m	Dark brown (7.5YR3/3-Moist); , 10YR34, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.3 (pH meter);
1.4 - 1.5 m	Dark yellowish brown (10YR3/4-Moist); , 7.5YR33, 20-50% ; , 20-50% ; Medium clay; 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8.3 (pH meter);
1.5 - 1.6 m	Dark yellowish brown (10YR3/4-Moist); , 7.5YR33, 10-20% ; , 10-20% ; Medium clay; 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8.2 (pH meter);
1.6 - 1.7 m	Dark yellowish brown (10YR3/4-Moist); , 7.5YR33, 2-10% ; , 2-10% ; Medium clay; 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8.1 (pH meter);
1.7 - 1.8 m	Dark yellowish brown (10YR3/4-Moist); , 7.5YR33, 0-2% ; , 0-2% ; Medium clay; 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Concretions; Field pH 8.1 (pH meter);
1.8 - 1.9 m	Dark yellowish brown (10YR3/5-Moist); ; Medium clay; 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Concretions; Field pH 8.2 (pH meter);

Morphological Notes

Observation Notes

MARKED SMOOTH SHINY SURFACES FROM 20CM

Site Notes

TOORAWENAH

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.04	6.7A	0.06A	18K	6.4	1.7	0.28	13.5B	39.9J		0.70
0.04 - 0.1	6.9A	0.05A								
0.1 - 0.2	7.1A	0.05A								
0.2 - 0.3	7.5A	0.05A								
0.3 - 0.4	7.9A	0.07A								
0.4 - 0.5	8.2A	0.17A								
0.5 - 0.6	8.4A	0.18A								
0.6 - 0.7	8.5A	0.18A								
0.7 - 0.8	8.5A	0.2A								
0.8 - 0.9	8.6A	0.22A								
0.9 - 1	8.6A	0.23A								
1 - 1.1	8.5A	0.26A								
1.1 - 1.2	8.4A	0.29A								
1.2 - 1.3	8.3A	0.3A								
1.3 - 1.4	8.3A	0.32A								
1.4 - 1.5	8.3A	0.29A								
1.5 - 1.6	8.2A	0.29A								
1.6 - 1.7	8.1A	0.26A								
1.7 - 1.8	8.1A	0.3A								
1.8 - 1.9	8.2A	0.34A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.04		2.08D							7D	21	25	42
0.04 - 0.1												
0.1 - 0.2												
0.2 - 0.3												
0.3 - 0.4												
0.4 - 0.5												
0.5 - 0.6												
0.6 - 0.7												
0.7 - 0.8												
0.8 - 0.9												
0.9 - 1												
1 - 1.1												
1.1 - 1.2												
1.2 - 1.3												
1.3 - 1.4												
1.4 - 1.5												
1.5 - 1.6												
1.6 - 1.7												
1.7 - 1.8												
1.8 - 1.9												

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.04								0.19B		

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0.04 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 1
1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4
1.4 - 1.5
1.5 - 1.6
1.6 - 1.7
1.7 - 1.8
1.8 - 1.9

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15G_C_AL1	Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P3B_GV_15	15 BAR Moisture g/g - Gravimetric using pressure plate