Project Name: CAN

Project Code: CAN Site ID: CP193 Observation ID: 1

Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By: D. McGarry Locality: Paddock C2 Cotton Research Unit Narrabri

Easting/Lat.: -30.2 Drainage: Imperfectly drained

Geology

ExposureType: No Data Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: No Data Substrate Material: Slightly porous, Unconsolidated material

(unidentified)

Land Form

Rel/Slope Class:Level plain <9m <1%</th>Pattern Type:Alluvial plainMorph. Type:FlatRelief:No DataElem. Type:PlainSlope Category:LevelSlope:0 %Aspect:No Data

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

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AEpicalcareous-Endohypersodic Self-Mulching Black VertosolPrincipal Profile Form:Ug5.15

ASC Confidence: Great Soil Group: Grey clay

All necessary analytical data are available.

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation:

Tall Strata - Forb, 1.01-3m, Closed or dense. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

0.1 - 0.13 m Greyish brown (10YR5/2-Dry); ; Light clay; Weak grade of structure, Granular; Coarse, (10 - 20)

mm crack; Very firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8 (pH

meter); Abrupt, Smooth change to -

0.13 - 0.22 m Very dark grey (10YR3/1-Moist); Greyish brown (10YR5/2-Dry); ; Medium clay; Strong grade of

structure, 50-100 mm, Prismatic; Very coarse, (20 - 50) mm crack; Very firm consistence; Very few (0 - 2 %), Calcareous, , Concretions; Field pH 8 (pH meter); Abrupt, Smooth change to -

0.22 - 0.3 m Very dark grey (10YR3/1-Moist); ; Medium clay; Strong grade of structure, Prismatic; 100-200

mm, Lenticular; Coarse, (10 - 20) mm crack; Very firm consistence; Very few (0 - 2 %),

Calcareous, , Concretions; Field pH 8.5 (pH meter); Abrupt, Smooth change to -

0.3 - 0.8 m Very dark grey (10YR3/1-Moist); , 10YR43, 2-10% , 15-30mm, Distinct; , 10YR33, 2-10% , 15-

30mm, Distinct; Medium clay; , Lenticular; 50-100 mm, Prismatic; Medium, (5 - 10) mm crack; Very firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 8.8 (pH meter);

Diffuse, Tongued change to -

0.8 - 1.5 m Brown (10YR4/3-Moist); , 10YR43; , 10YR31; Medium clay; Massive grade of structure; Fine, (0 -

5) mm crack; Very firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH

8.8 (pH meter);

Morphological Notes

Observation Notes

LAND-PLANED:SEDIMENTS DERIVED FROM BASALTIC (MAJOR)/SEDIMENTARY ROCKS

Site Notes

NARRABRI

Observation ID: 1

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Laboratory Test Results:

Laboratory Test Results:												
Depth	pН	1:5 EC		nangeable //g	Cations K	Na E	xchangeable Acidity	CEC	EC	EC	E	SP
m		dS/m		5		Cmol (+)					Ç	%
0 - 0.1 0.1 - 0.2	8A 8A	0.09A 0.09A	24.5K 24.3K	12.4 12.4	1.8 1.7	1.2 1.3	9B 6.7B	48.9J 46.4J				45 80
0.2 - 0.3 0.3 - 0.4	8.5A 8.7A	0.12A 0.16A	24.8K 24K	14 14.7	0.87 0.8	2.1 3.2	9.2B 8B	51J 50.7J				.12 .31
0.4 - 0.5	8.8A	0.18A										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Parti GV (ze A	Analysis Silt	
m	%	%	mg/kg	%	%	%	Mg/m3		(%		-
0 - 0.1 0.1 - 0.2 0.2 - 0.3	0.13A	0.85A 0.73A 0.5A	61.3A		0.06				3D	15	19	62
0.3 - 0.4 0.4 - 0.5	0.77A								2D	12	17	65
Depth									K unsat			
m		Sat.	0.05 Bar 0.1 Bar 0.5 Bar g/g - m3/m3			1 Bar 3	5 Bar 15	Bar	mm/h		mm/h	
0 - 0.1 0.1 - 0.2												
0.1 0.2												

0.2 - 0.3 0.3 - 0.4 0.4 - 0.5

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Laboratory Analyses Completed for this profile

Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded 15_NR_CA

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 Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded Exch. basic cations (Na++) - meq per 100g of soil - Not recorded 15_NR_MG 15_NR_NA

15G_C_AL1 Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B

19A1 Carbonates - rapid titration Air-dry moisture content 2A1 EC of 1:5 soil/water extract 3A1 4A1 pH of 1:5 soil/water suspension

5A2

Chloride - 1:5 soil/water extract, automated colour Organic carbon - Walkley and Black 6A1 7_NR Total nitrogen (%) - Not recorded

Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable Clay (%) - Plummet balance 9B_9C

P10_PB_C P10_PB_CS Coarse sand (%) - Plummet balance P10_PB_FS Fine sand (%) - Plummet balance P10_PB_Z Silt (%) - Plummet balance