

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed139 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.M. Roberts	Locality: J.Amos/R.Simpson, Woodville
Date Desc.: 24/07/85	Elevation: 316 metres
Map Ref.: Sheet No. : 8837_N 1:50000	Rainfall: No Data
Northing/Long.: 6660100 AMG zone: 55	Runoff: No Data
Easting/Lat.: 784100 Datum: AGD66	Drainage: No Data

Geology

ExposureType: Undisturbed soil core	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data	Substrate Material: No Data

Land Form

Rel/Slope Class: No Data	Pattern Type: No Data
Morph. Type: No Data	Relief: No Data
Elem. Type: Terrace flat	Slope Category: Very gently sloped
Slope: 0 %	Aspect: 310 degrees

Surface Soil Condition (dry): Firm, Poached

Erosion:

Soil Classification

Australian Soil Classification: N/A	Mapping Unit: N/A
ASC Confidence: Confidence level not specified	Principal Profile Form: Ug5.15
	Great Soil Group: Brown clay

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage, Cultivation. Rainfed,

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.07 m	Very dark greyish brown (10YR3/2-Moist); Dark greyish brown (10YR4/2-Dry); ; Light medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Single grain grade of structure; Earthy fabric; Sandy (grains prominent) fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 6.8 (pH meter); Few, fine (1-2mm) roots; Abrupt, Smooth change to -
A12	0.07 - 0.25 m	Brown (7.5YR4/2-Moist); , 10YR84, 0-2% , 5-15mm, Distinct; , 10YR32, 10-20% , 15-30mm, Distinct; Medium heavy clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Common (10 - 20 %), Organic (humified), Coarse (6 - 20 mm), Veins; Field pH 8.8 (pH meter); Few, fine (1-2mm) roots;
B21k	0.25 - 0.7 m	Brown (7.5YR4/2-Moist); , 7.5YR74, 2-10% , 15-30mm, Prominent; , 7.5YR84, 2-10% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Lenticular; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Few (2 - 10 %), Organic (humified), Coarse (6 - 20 mm), Veins; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B22k	0.7 - 1 m	Brown (7.5YR4/2-Moist); , 7.5YR84, 2-10% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots;
B23k	1 - 1.35 m	Brown (7.5YR5/4-Moist); , 7.5YR74, 2-10% , 30-mm, Prominent; , 10YR31, 2-10% , 0-5mm, Distinct; Medium clay; Strong grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Veins; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -

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2B21 1.35 - 2.95 m Brown (7.5YR4/4-Moist); , 7.5YR6/6, 2-10% , 15-30mm, Distinct; , 5YR5/4, 10-20% , 15-30mm, Distinct; Clayey sand; Weak grade of structure, 50-100 mm, Platy; Weak grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Few (2 - 10 %), Ferruginous, Medium (2 - 6 mm), Veins; Field pH 8.5 (pH meter);

Morphological Notes

A11p Well structured B2 horizon with faint ferruginous veins, calcium carbonate, manganese segregations. At 220-230 large calcium carbonate cemented nodules up to 50mm diameter. Worm casts at 230cm. Note conflict gendepth/hordesig.

Observation Notes

Parent Rock: , , parna on third fan

Site Notes

Possibly some run-on here, as we are in very slight depression. Scattered floaters of stone (basalt). Firm to hardset. Rex Simpson, manager, mentions unusual hummocky relief on hillside footslope to north of this site. The poached surface r

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.02	7.1A	0.095A	13.9B	9.19	0.001	2.07	<0.01			
0 - 0.07	7.74A	0.08A	11.43B	12.25	1.14	0.35				
0.1 - 0.2	8.75A	0.155A	18.41B	16.96	0.38	1.37				
0.3 - 0.4	9.2A	0.212A	12.48B	18.65	0.21	3				
0.7 - 0.8	9.2A	0.459A	8.559999B	21.48	0.47	5.33				
1.2 - 1.3	8.99A	0.585A	7.39B	20.61	0.8100001	3.94				
2.5 - 2.6	9.11A	0.431A	5.2B	17.24	0.45	5.19				

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Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
19B1	Carbonates - manometric
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
6B3	Total organic carbon - high frequency induction furnace, infrared
7B1	Water soluble nitrate - automated colour
9B1	Bicarbonate-extractable phosphorus - manual colour
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method