Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed226** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: M. Korevaar
Locality: Department of Agriculture, Myall Vale Research Station
Date Desc.: 27/04/85
Elevation: 200 metres
Map Ref.: Sheet No. : 8837_N 1:50000
Rainfall: No Data
Northing/Long.: 6656830 AMG zone: 55
Runoff: No Data
Easting/Lat.: 751700 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: Level
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry): Self-mulching, Recently cultivated

Erosion:

Soil Classification

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

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.06 m	Very dark grey (10YR3/1-Moist); ; Light medium clay; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to
A12p	0.06 - 0.23 m	Very dark grey (10YR3/1-Moist); ; Light medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
A13	0.23 - 0.55 m	Very dark grey (10YR3/1-Moist); , N20, 0-2% , 0-5mm, Faint; Light medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 1 m	Very dark grey (10YR3/1-Moist); , 10YR63, 0-2% , 5-15mm, Faint; Medium clay; Moderate grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Few, very fine (0-1mm) roots;
A15	1 - 2.1 m	Very dark grey (10YR3/1-Moist); , 10YR63, 0-2% , 5-15mm, Faint; Medium clay; Weak grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B2	2.1 - 2.93 m	Dark brown (10YR3/3-Moist); , 5YR56, 2-10% , 5-15mm, Distinct; , 7.5YR82, 0-2% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter);

Morphological Notes

Observation Notes

Parent Rock: alluvial sediment, clay, parna on fourth fan, Namoi

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Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.02	8.58A	0.123A	24.15B	14.5	2.25	1.53				
0 - 0.06	7.64A	0.272A	25.32B	16.07	2.16	1.64				
0.1 - 0.2	8.14A	0.153A	25.57B	15.53	1.94	1.36				
0.3 - 0.4	8.64A	0.158A	25.33B	17.47	1.75	2.57				
0.7 - 0.8	8.86A	0.31A	20.52B	20.76	1.59	6.63				
1.2 - 1.3	9.07A	0.292A	17.06B	19	1.7	9.79				
2.5 - 2.6	9.34A	0.612A	13.72B	14.53	0.95	9.67				

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 - 0.02	<0.1B	0.96C									19.2	70.5
0 - 0.06	0.1B	1.11C	57.5J								18.2	66.8
0.1 - 0.2	0.1B	0.84C	51.6J								19.8	68.7
0.3 - 0.4	0.3B	0.63C	39.4J								17.9	72.7
0.7 - 0.8	0.6B	0.5C	45.1J								18.7	76
1.2 - 1.3	0.7B	0.46C	57.3J								19	77.3
2.5 - 2.6	2B	0.22C	37.5J								21.8	66

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 - 0.02									
0 - 0.06									
0.1 - 0.2									
0.3 - 0.4									
0.7 - 0.8									
1.2 - 1.3									
2.5 - 2.6									

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Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca2+,Mg2+,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