Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed101** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By:	M.E. Heape	**Locality:**	Bruce Tout, Oakvale
Date Desc.:	08/04/86	**Elevation:**	297 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	**Rainfall:**	No Data
Northing/Long.:	6665100 AMG zone: 55	**Runoff:**	No Data
Easting/Lat.:	776000 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 plain	**Slope Category:**	Very gently sloped
Slope:	2 %	**Aspect:**	45 degrees

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: Ug5.16
Great Soil Group: Black earth

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.12 m	Very dark brown (10YR2/2-Moist); Dark brown (7.5YR3/2-Dry); ; Light medium clay; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Field pH 7 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
A12	0.12 - 0.25 m	Very dark brown (10YR2/2-Moist); ; Light medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Very dark brown (10YR2/2-Moist); ; Light medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Strong 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; Strong consistence; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 0.85 m	Very dark grey (10YR3/1-Moist); ; Light medium clay; Weak grade of structure, 50-100 mm, Prismatic; Moderate 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; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B2	0.85 - 2.1 m	Yellowish brown (10YR5/4-Moist); , 10YR41, 2-10% , 0-5mm, Distinct; , 5YR21, 0-2% , 5-15mm, Prominent; Medium heavy clay; Weak grade of structure, Subangular blocky; Smooth-ped fabric; Moderately moist; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 8.5 (pH meter); Abrupt, Smooth change to -
D	2.1 - 2.56 m	Light yellowish brown (10YR6/4-Moist); , 7.5YR44, 2-10% , 0-5mm, Distinct; , 10YR32, 0-2% , 5-15mm, Prominent; Light clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Field pH 5.5 (pH meter);

Morphological Notes

A11p	There are very few flecks of lime in 30-40 and 70-80cm. Increase in carbonate at 85cm. In layer 5 there is carbonate 5YR8/2. At 210 a worm-mixed contact with siltstone in situ. Above the contact is weathered clayey rubble, possibly soil mat
A12	erial that has fallen into pedisediment channel (or else mudflow on to the pediment). Soil on pedisediment over soft tertiary siltstone. Layer 6 is rock, so segregations onward do not apply.

Observation Notes

Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed101** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Parent Rock: colluvial sediment, from sandstone and basalt, with lime, mixed texture, with lime Tertiary beds

Site Notes

The site has been prepared for wheat, and has a very fine seed bed (8cm deep). No surface cracks were seen. The site is located on a little hill top, the land falls away gently on most sides. Brown soil at the surface around this site may u

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed101 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

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 - 0.02	8.07A	0.166A	41.26B	4.52	1.85	0.07				
0 - 0.1	7.93A	0.213A	36.45B	5	1.68	0.2				
0.1 - 0.2	7.95A	0.13A	35.78B	4.75	1.02	0.2				
0.3 - 0.4	8.21A	0.098A	39.68B	5.35	0.36	0.26				
0.7 - 0.8	8.66A	0.163A	38.78B	9.29	0.26	1.68				
1.2 - 1.3	8.76A	0.339A	34.01B	11.08	0.31	3.8				
2.44 - 2.54	5.49A	0.265A	21.92B	8.14	0.12	2.22				

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	0.6B	2.32C									9.4	43.6
0 - 0.1	0.6B	2.74C	5.8J								8.9	44.3
0.1 - 0.2	0.1B	2.96C	2.5J								9	41.8
0.3 - 0.4	0.1B	1.59C	<1J								9.5	44.8
0.7 - 0.8	0.9B	1.36C	<1J								10.3	46.9
1.2 - 1.3	1.9B	0.9C	<1J								11.1	47.7
2.44 - 2.54	<0.1B	0.1C	<1J								22.8	38.6

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 - 0.1										
0.1 - 0.2										
0.3 - 0.4										
0.7 - 0.8										
1.2 - 1.3										
2.44 - 2.54										

Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed101** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

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