

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed233 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	E. Veldhuis	Locality:	Department of Agriculture, Myall Vale Research Station
Date Desc.:	13/05/85	Elevation:	200 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6654700 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	749900 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): Surface crust, Recently cultivated

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:	Grey clay

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.1 m	Very dark brown (10YR2/2-Moist); Very dark greyish brown (10YR3/2-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Common, very fine (0-1mm) roots;
A12p	0.1 - 0.21 m	Very dark brown (10YR2/2-Moist); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, 5-10 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; Field pH 7 (pH meter); Common, very fine (0-1mm) roots; Clear, Smooth change to -
A13	0.21 - 0.55 m	Very dark brown (10YR2/2-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Lenticular; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A14k	0.55 - 1.16 m	Very dark brown (10YR2/2-Moist); , 10YR72, 2-10% , 5-15mm, Distinct; Medium clay; Massive grade of structure; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.2 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B2	1.16 - 2.4 m	Dark brown (10YR3/3-Moist); , N30, 2-10% , 0-5mm, Faint; , 10YR82, 2-10% , 0-5mm, Distinct; Light medium clay; Massive grade of structure; Smooth-ped fabric; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 8.7 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
2B2	2.4 - 2.79 m	Yellowish brown (10YR5/4-Moist); , 7.5YR44, 10-20% , 5-15mm, Faint; , 10YR41, 0-2% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Cast; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8.3 (pH meter);

Morphological Notes

Observation Notes

Parent Rock: alluvial sediment, clay, second terraced fan, Namoi

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Site Notes

Cracks run perpendicular to furrows. Crack measurements done on cotton hill. Height of cotton hill is 20cm. Hole drilled on cotton hill.

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Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol	(+)/kg		
0 - 0.02	8.03A	0.122A	19.4B	9.809999	2.13	0.34			
0 - 0.1	8A	0.138A	16.65B	13	1.38	0.46			
0.1 - 0.2	7.87A	0.095A	16.69B	13.01	1.3	0.51			
0.3 - 0.4	8.53A	0.068A	21.51B	16.53	0.68	0.77			
0.7 - 0.8	8.85A	0.16A	17.75B	20.65	0.68	1.47			
1.2 - 1.3	9.05A	0.238A	14.75B	22.21	0.66	2.43			
2.5 - 2.6	8.8A	0.132A	17.15B	20.74	0.45	3			

[illegible]

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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