

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na024 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: W.T. Ward	Locality: University of Sydney, I.A.Watson Research Farm
Date Desc.: 25/02/88	Elevation: 229 metres
Map Ref.: Sheet No. : 8837_S 1:50000	Rainfall: No Data
Northing/Long.: 6648120 AMG zone: 55	Runoff: No Data
Easting/Lat.: 770400 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: 1 %	Aspect: 90 degrees

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: Dy4.63
	Great Soil Group: No suitable

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1p	0 - 0.12 m	Very dark greyish brown (10YR3/2-Moist); Dark grey (10YR4/1-Dry); ; Sandy clay loam; Massive grade of structure; Weak grade of structure, 2-5 mm, Granular; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots; Sharp, Smooth change to -
A21	0.12 - 0.22 m	Brown (10YR5/3-Moist); , 10YR41, 20-50% , 15-30mm, Prominent; Clay loam; Weak grade of structure, 50-100 mm, Platy; Moderate grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Earthy fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots;
A22	0.22 - 0.35 m	Brown (10YR5/3-Moist); , 10YR41, 2-10% , 5-15mm, Prominent; Light clay; Moderate grade of structure, 50-100 mm, Platy; Moderate grade of structure, 20-50 mm, Prismatic; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B21k	0.35 - 0.67 m	Light brownish grey (10YR6/2-Moist); , 7.5YR32, 0-2% , 5-15mm, Distinct; Light clay; Single grain grade of structure; Earthy fabric; Medium, (5 - 10) mm crack; Moderately moist; Firm consistence; 50-90%, medium gravelly, 6-20mm, subrounded, Calcarenite, coarse fragments; Very many (50 - 100 %), Calcareous, Very coarse (20 - 60 mm), Nodules; Field pH 8.5 (pH meter); Few, fine (1-2mm) roots;
B22k	0.67 - 1 m	Light brownish grey (10YR6/2-Moist); , 7.5YR32, 0-2% , 5-15mm, Distinct; Light clay; Single grain grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; 20-50%, medium gravelly, 6-20mm, subrounded, Calcarenite, coarse fragments; Very many (50 - 100 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B23k	1 - 2 m	Light grey (10YR7/2-Moist); , 7.5YR32, 0-2% , 5-15mm, Prominent; Light clay; Single grain grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; 20-50%, medium gravelly, 6-20mm, subrounded, Calcarenite, coarse fragments; Very many (50 - 100 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Diffuse, Smooth change

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na024 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

C 2 - 2.8 m Pale brown (10YR6/3-Moist); , 10YR83, 20-50% , 30-mm, Distinct; Light clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter);

Morphological Notes

A1p The A2 has yellowish colours suggesting slow drainage but mottles are lacking. The carbonate concretions at the top of the B2 show brownish yellow (10YR6/6) colours on the outside, possibly a water-mottling effect. At 160cm there is a band
A21 of stony carbonate-cemented material, coloured light brownish grey (10YR6/2). Resembles Wiesenboden. A soil formed on Rolling Downs marl, with some sandy surface wash.

Observation Notes

Parent Rock: residual, marl, Rolling Downs Group

Site Notes

A lot of calcrete lies on the surface 50m from here. Deep powdery topsoil once crust is penetrated. Small pieces of calcrete and siliceous gravel occur on the surface here.

Agency Name: CSIRO Division of Soils (QLD)

[illegible]

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na024 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

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