

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed031 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: W.T. Ward	Locality: Gerry Allen, Deni
Date Desc.: 10/07/86	Elevation: 267 metres
Map Ref.: Sheet No. : 8837_N 1:50000	Rainfall: No Data
Northing/Long.: 6674600 AMG zone: 55	Runoff: No Data
Easting/Lat.: 776300 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: Fan	Slope Category: Level
Slope: 0 %	Aspect: No Data

Surface Soil Condition (dry): Self-mulching

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: Prairie soil

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

AC1	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Light medium clay; Moderate grade of structure, 2-5 mm, Granular; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
AC2	0.1 - 0.25 m	Dark brown (7.5YR3/2-Moist); , 7.5YR63, 0-2% , 0-5mm, Distinct; Light medium clay; Massive grade of structure; Smooth-ped fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Rigid consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots;
AC3	0.25 - 0.55 m	Dark brown (7.5YR3/2-Moist); , 7.5YR54, 0-2% , 0-5mm, Distinct; Medium clay; Massive grade of structure; Weak grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Rigid consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm)
AC4	0.55 - 0.8 m	Dark brown (7.5YR3/2-Moist); ; Medium clay; Weak grade of structure, 50-100 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 9.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
2B2	0.8 - 2.2 m	Dark reddish brown (5YR3/3-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change
2C	2.2 - 2.88 m	Brown (7.5YR5/4-Moist); , 5YR32, 10-20% , 0-5mm, Distinct; Silty clay; Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Consolidated rock (unidentified), coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9.5 (pH meter);

Morphological Notes

AC1 The segregations in the topsoil are ?derived by inwashing. Fine earth at 10-20

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AC2 n depositional sand lamellae in 50-60 - alluvial. Soft lime just slightly lighter in colour than the soil 120-130 plus few hard central nodules. Slight tendency to prismatic below 2m. Is this query a recent burial to about 80cm, over truncat

AC3 ed prior soil like Aloomba? 70-80 might be part of original profile. Alternatively, it resembles site 181. Q.

Observation Notes

Parent Rock: alluvial sediment, clay, mixed texture, with lime second (brown parna) terraced

Site Notes

Slight slope SSW. Q. Surface condition 2 close to natural state. Core from cultivated area. Site described at fence line. Creek sections nearby show scouring and shallow burial probably since clearing but site is 75m distant and undisturbed

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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