

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM25 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	B. Murphy	Locality:	
Date Desc.:	12/03/91	Elevation:	238 metres
Map Ref.:	Sheet No. : 8229 1:100000	Rainfall:	No Data
Northing/Long.:	6211000 AMG zone: 55	Runoff:	Slow
Easting/Lat.:	495800 Datum: AGD66	Drainage:	Moderately well drained

Geology

ExposureType:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Ou	Substrate Material:	No Data

Land Form

Rel/Slope Class:	No Data	Pattern Type:	Rises
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	3 %	Aspect:	45 degrees

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Eutrophic Red Dermosol	Principal Profile Form:	Gn2.13
ASC Confidence:	Great Soil Group:	Red earth
Confidence level not specified		

Site Disturbance: Extensive clearing, for example poisoning, ringbarking, Cultivation. Rainfed,

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.08 m	Dark reddish brown (5YR3/4-Moist); ; Fine sandy loam; Weak grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Coarse (>5mm) macropores, Dry; Loose consistence; Slightly plastic; Normal plasticity; Non-sticky; 2-10%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Many, very fine (0-1mm) roots; Clear change to -
A12	0.08 - 0.15 m	Dark reddish brown (2.5YR3/4-Moist); Yellowish red (5YR4/6-Dry); ; Clay loam; Weak grade of structure, 5-10 mm, Platy; 50-100 mm, Prismatic; Earthy fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Common (1-5 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Coarse (>5mm) macropores, Dry; Very firm consistence; Slightly plastic; Normal plasticity; Slightly sticky; 10-20%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Cultivation pan; Many, very fine (0-1mm) roots; Clear change to -
B21	0.15 - 0.3 m	Red (2.5YR4/6-Moist); ; Clay loam; Weak grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Dry; Very firm consistence; Moderately plastic; Normal plasticity; Moderately sticky; 50-90%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Common, very fine (0-1mm) roots; Clear change to -
B22	0.3 - 0.4 m	Dark red (2.5YR3/6-Moist); ; Light clay; Strong grade of structure, 20-50 mm, Subangular blocky; 100-200 mm, Columnar; Smooth-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Loose consistence; Very plastic; Normal plasticity; Moderately sticky; 0-2%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; Common, very fine (0-1mm) roots; Gradual change

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM25 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

B23	0.4 - 0.7 m	Reddish brown (2.5YR4/4-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; 100-200 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Common (1-5 per 100mm ²) Very fine (0.075-1mm) macropores, Few (<1 per 100mm ²) Fine (1-2mm) macropores, Dry; Weak consistence; Very plastic; Normal plasticity; Moderately sticky; 0-2%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; Common, very fine (0-1mm) roots; Gradual change to -
B23	0.7 - 0.9 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; 100-200 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Few (<1 per 100mm ²) Fine (1-2mm) macropores, Dry; Weak consistence; Very plastic; Normal plasticity; Moderately sticky; 0-2%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules, weak, segregations; Few, very fine (0-1mm) roots;

Morphological Notes

B23 Patch of Mn coatings present.

Observation Notes

David Allworth took photo. Surface lightly tilled.

Site Notes

OHARE AG TRIAL Paddock

Observation ID: 1

[illegible]

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM25 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Analyses Completed for this profile

13A1_AL	Oxalate-extractable aluminium
13A1_FE	Oxalate-extractable iron
13A1_MN	Oxalate-extractable manganese
13A1_SI	Oxalate-extractable silicon
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_MN	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_SI	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
14H1_CA	Soluble bases/SE (Ca,Mg,K,Na)
14H1_K	Soluble bases/SE (Ca,Mg,K,Na)
14H1_MG	Soluble bases/SE (Ca,Mg,K,Na)
14H1_NA	Soluble bases/SE (Ca,Mg,K,Na)
15F1_CA	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts
15F1_K	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_MG	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F3	CEC by 0.01M silver-thiourea (AgTU)+
15N1	Exchangeable sodium percentage (ESP)
3A1	EC of 1:5 soil/water extract
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6B3	Total organic carbon - high frequency induction furnace, infrared
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm3
P3B3VLc001	0.01 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc003	0.03 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc005	0.05 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc01	0.1 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc03	0.3 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLcSAT	Saturated Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLd06	0.6 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd1	1 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd15	15 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd3	3 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd5	5 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P6_LP	Dispersion Index (Loveday and Pyle, 1973)
PWS1-2mm	1000-2000 micron fraction (%) - Wet Sieving after chemical dispersion
PWS20-63	20-63 micron fraction (%) - Wet Sieving after chemical dispersion
PWS212-425	212-425 micron fraction (%) - Wet Sieving after chemical dispersion
PWS425-1mm	425-1000 micron fraction (%) - Wet Sieving after chemical dispersion
PWS63-212	63-212 micron fraction (%) - Wet Sieving after chemical dispersion