

Project Name: Soil Changes under Agriculture
Project Code: Paired **Site ID:** M10 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By:	N.J. McKenzie	Locality:	Keyneton
Date Desc.:	18/04/89	Elevation:	No Data
Map Ref.:	Sheet No. : 6629 1:100000	Rainfall:	No Data
Northing/Long.:	6176700 AMG zone: 54	Runoff:	No Data
Easting/Lat.:	329300 Datum: AGD66	Drainage:	No Data

Geology

ExposureType:	Soil pit	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:	Crest	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	3 %	Aspect:	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	N/A
		Great Soil Group:	N/A

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Surface Coarse Fragments: 0-2%, coarse gravelly, 20-60mm, subangular tabular, Detrital sedimentary rock (unidentified)

Profile Morphology

A11	0 - 0.03 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR5/4-Dry); ; Loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Dry; Weak consistence; Field pH 7 (Raupach); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
A21	0.03 - 0.1 m	Brown (7.5YR4/4-Moist); Brown (7.5YR5/4-Dry); ; Loam; Moderate grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Dry; Weak consistence; 2-10%, subangular, dispersed, Quartz sandstone, coarse fragments; 2-10%, angular, dispersed, Quartz sandstone, coarse fragments; Field pH 7 (Raupach); Many, fine (1-2mm) roots; Abrupt, Smooth change to -
A22	0.1 - 0.13 m	Brown (7.5YR5/4-Moist); Light brown (7.5YR6/4-Dry); ; Sandy clay loam; Massive grade of structure, 10-20 mm; Earthy fabric; Dry; Very firm consistence; 50-90%, subangular, dispersed, Quartz sandstone, coarse fragments; 50-90%, angular, dispersed, Quartz sandstone, coarse fragments; Field pH 7 (Raupach); Common, fine (1-2mm) roots; Sharp, Wavy change to -
B21	0.13 - 0.2 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; 10-20%, subangular, dispersed, Quartz sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7 (Raupach); Few, coarse (>5mm) roots;
B21	0.2 - 0.3 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; 10-20%, angular, dispersed, Quartz sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7 (Raupach); Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.3 - 0.4 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; 10-20%, subangular, dispersed, Quartz sandstone, coarse fragments; 10-20%, angular, dispersed, Quartz sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7 (Raupach); Few, coarse (>5mm) roots;
B22	0.4 - 0.5 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; 10-20%, subangular, dispersed, Quartz sandstone, coarse fragments; 10-20%, angular, dispersed, Quartz sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7.5 (Raupach); Few, coarse (>5mm) roots; Gradual, Wavy change to -

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B23	0.5 - 0.7 m	Red (2.5YR4/6-Moist); Mottles, 5YR54, 20-50% , 15-30mm, Prominent; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very strong consistence; 20-50%, subangular, dispersed, Quartz sandstone, coarse fragments; 50-90%, angular, dispersed, Quartz sandstone, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (Raupach); Few, fine (1-2mm) roots; Clear, Irregular change to -
BC	0.7 - 1 m	; Medium heavy clay; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 9 (Raupach); Few, fine (1-2mm) roots;
R	1 - 1.2 m	Rock

Morphological Notes

Observation Notes

Uncultivated site - paired with M9

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[illegible]

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Laboratory Analyses Completed for this profile

15B2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_CEC	CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_K	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_MG	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_NA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15J_BASES	Sum of Bases
15N1	Exchangeable sodium percentage (ESP)
19B1	Carbonates - manometric
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1	Organic carbon - Walkley and Black
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm ³
P3B2VL_15	15 BAR Moisture m ³ /m ³ - Volumetric using disturbed sample on pressure plate
P3B4VL_005	0.05 BAR Moisture m ³ /m ³ - Volumetric of soil clods (Soil Survey Staff,1967)
P5_COLE	Coefficient of Linear Extensibility (Grossman et al. 1968)