Project Name:	Soil Changes u	nder Agricu	llture
Project Code:	Paired	Site ID:	M10
Agency Name:	CSIRO Division	of Soils (S	A)

Observation ID: 1

Site In	formatior	n						
Desc. E Date De Map Re	By: esc.: ef.: ng/Long.:	N.J. McKer 18/04/89 Sheet No. : 6176700 A		Locality: Elevation: Rainfall: Runoff: Drainage:	Keyneton No Data No Data No Data No Data			
Geolo	- <u>qv</u> ureType:	Soil pit No Data		Conf. Sub. is Par Substrate Materia	ent. Mat.:	No Data No Data		
Land I	Form ope Class: . Type: Гуре:			Pattern Type: Relief: Slope Category: Aspect:	No Data No Data No Data No Data No Data			
Surfac Erosic	<u>ce Soil Co</u> on:	ondition (d	<u>ry):</u>					
Austral N/A ASC C Confide	confidence ence level r	lassification : not specified	1	Princ Great	ing Unit: ipal Profile Soil Group		N/A N/A N/A	
Vegeta Surfac	<u>ation:</u> ce Coarse	Fragmen	clearing, for example se t<u>s:</u> 0-2%, coarse grave		ngular tabul	ar, Detrita	al sedimentar	y rock (unidentified)
<u>Profile</u> A11	<u>e Morphol</u> 0 - 0.03 n	n Darl mm,	< brown (7.5YR3/2-Mois , Subangular blocky; Ea (1-2mm) roots; Abrupt, [;]	rthy fabric; Dry; We	ak consister			
A21	0.03 - 0.1	Poly sand	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 -					Quartz
A22	0.1 - 0.13	strue Qua	wn (7.5YR5/4-Moist); Lig cture, 10-20mm; Earthy rtz sandstone, coarse fr ments; Field pH 7 (Raup	fabric; Dry; Very fir agments; 50-90%,	m consisten angular, disp	ce; 50-90 bersed, C	0%, subangul luartz sandsto	ar, dispersed, one, coarse
B21	0.13 - 0.2	bloc sand	dish brown (5YR4/4-Mo ky; Rough-ped fabric; D dstone, coarse fragment d pH 7 (Raupach); Few,	ry; Very strong consis; Common cutans	sistence; 10 , 10-50% of	20%, su	bangular, dis	persed, Quartz
B21	0.2 - 0.3 ı	bloc sand	dish brown (5YR4/4-Mo ky; Rough-ped fabric; D dstone, coarse fragment d pH 7 (Raupach); Few,	ry; Very strong con s; Common cutans	sistence; 10 , 10-50% of	-20%, an ped faces	gular, dispers s or walls coa	sed, Quartz
B22	0.3 - 0.4 ı	Ang disp coa	owish red (5YR4/6-Mois ular blocky; Rough-ped ersed, Quartz sandston arse fragments; Commo upach); Few, coarse (>5	fabric; Dry; Very str e, coarse fragments n cutans, 10-50% o	ong consiste s; 10-20%, a	ence; 10- ngular, d	20%, subang ispersed, Qua	ular, artz sandstone,
B22	0.4 - 0.5 ı	Ang disp coa	owish red (5YR4/6-Mois ular blocky; Rough-ped ersed, Quartz sandston arse fragments; Commo aupach); Few, coarse (>	fabric; Dry; Very str e, coarse fragments n cutans, 10-50% o	ong consiste s; 10-20%, a f ped faces o	ence; 10- ngular, d or walls c	20%, subang ispersed, Qua	ular, artz sandstone,

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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 Site Notes

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Project Code:	Paired	Site ID:	M10
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Observation ID: 1

Laboratory Test Results:

Depth	рН	1:5 EC	Exo Ca	changeabl Mg	e Cations K	Exchangeable Na Acidity	CEC	ECEC	ESP
m		dS/m	ou	ing	N	Cmol (+)/kg			%
0 - 0.03	6.1C 6.3A	0.26A	26.5D	10.5	0.93	0.57	37.4L	38.6D	1.52
0.03 - 0.1	5.6C 6.2A	0.13A	10.2D	5	0.71	0.42	16.7L	16.4D	2.51
0.1 - 0.13	5.7C 6.3A	0.09A	4.6D	2.9	0.45	0.3	7.4L	8.3D	4.05
0.13 - 0.2	5.7C 6.4A	0.23A	4.6D	10.7	0.98	2.7	19.6L	19D	13.78
0.2 - 0.3	6C 6.7A	0.41A	3.9D	10	0.83	3.1	18.4L	17.9D	16.85
0.3 - 0.4	6.6C 7.3A	0.64A	3.6D	10	0.68	3.8	21.7L	18.1D	17.51
0.4 - 0.5	7.4C 8A	0.75A	3.5E	10	0.56	4.6	20.1B	18.6D	22.89
0.5 - 0.7	8.3C 8.9A	1.03A	3.6E	10.4	0.47	6.8	22B	21.2D	30.91
0.7 - 1	7.7C 8.5A	0.31A	0.75E	2	0.07	1.3	3.9B	4.1D	33.33

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle	Size	Analysi	s
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	GV CS	FS %	Silt	Clay
0 - 0.03	<0.1B	16.3A					1.18	5A	47	16	10
0.03 - 0.1	<0.1B	4.7A					1.31	6A	55	19	14
0.1 - 0.13	<0.1B	1.8A						20 <i>A</i>	56	10	11
0.13 - 0.2	<0.1B	0.7A					1.61	6A	28	5	62
0.2 - 0.3	<0.1B	0.5A						7A	32	5	57
0.3 - 0.4	<0.1B	0.5A					1.56	5A	30	4	61
0.4 - 0.5	<0.1B	0.3A					1.59	9A	30	5	57
0.5 - 0.7	0.1B	0.1A						15A	<u>کا</u>	7	52
0.7 - 1	<0.1B	<0.1A						1A	73	18	7

Depth	COLE	Grav	vimetric/Volumetric Wa	ter Conte	ents		K sat	K unsat
m		Sat. 0.05 Bar	0.1 Bar 0.5 Bar g/g - m3/m3	1 Bar	5 Bar	15 Bar	mm/h	mm/h
0 - 0.03 0.03 - 0.1 0.1 - 0.13	0.01A	0.11G				0.08F 0.12F		
0.13 - 0.2 0.2 - 0.3	0.04A	0.32G				0.3F		
0.3 - 0.4 0.4 - 0.5 0.5 - 0.7 0.7 - 1	0.05A 0.04A	0.34G 0.35G				0.3F 0.29F		

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Laboratory Analyses Completed for this profile

15B2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_CEC 15B2_K	CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 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 15C1_CA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,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 P10_CF_FS	Coarse sand (%) - Coventry and Fett pipette method Fine sand (%) - Coventry and Fett pipette method
P10_CF_F3	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm3
P3B2VL_15	15 BAR Moisture m3/m3 - Volumetric using disturbed sample on pressure plate
P3B4VL 005	0.05 BAR Moisture m3/m3 - Volumetric of soil clods (Soil Survey Staff, 1967)
P5_COLE	Coefficient of Linear Extensibility (Grossman et al. 1968)
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