Project Name: CAN
Project Code: CAN **Site ID:** CP99 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By:	J. Loveday	**Locality:**	Yanco Agricultural Exp. Farm S. of Orange Orchard & gum trees left sideof road
Date Desc.:	09/10/78	**Elevation:**	No Data
Map Ref.:	Sheet No. : 8128 1:100000	**Rainfall:**	430
Northing/Long.:	146.416666666667	**Runoff:**	Slow
Easting/Lat.:	-34.6166666666667	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	**Pattern Type:**	Alluvial plain
Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Valley flat	**Slope Category:**	Very gently sloped
Slope:	1 %	**Aspect:**	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Calcic Subnatric Red Sodosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Dr2.13
Great Soil Group: Red-brown earth

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation: Low Strata - Forb, <0.25m, Mid-dense. *Species includes - None recorded

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.1 m	Brown (7.5YR4/4-Moist); ; Clay loam; Weak grade of structure, 200-500 mm, Angular blocky; Dry; Firm consistence; Field pH 6.6 (pH meter);
	0.1 - 0.2 m	Brown (7.5YR4/4-Moist); ; Clay loam; Weak grade of structure, 200-500 mm, Angular blocky; Firm consistence; Field pH 6.9 (pH meter); Sharp change to -
B2	0.2 - 0.3 m	Dark red (2.5YR3/6-Moist); ; Heavy clay; Weak grade of structure, 200-500 mm, Angular blocky; Wet; Loose consistence; Field pH 7.9 (pH meter);
	0.3 - 0.4 m	Dark red (2.5YR3/6-Moist); ; Heavy clay; Weak grade of structure, 200-500 mm, Angular blocky; Loose consistence; Field pH 8.4 (pH meter);
	0.4 - 0.5 m	Dark red (2.5YR3/6-Moist); ; Heavy clay; Weak grade of structure, 200-500 mm, Angular blocky; Loose consistence; Field pH 8.7 (pH meter); Gradual change to -
	0.5 - 0.6 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Loose consistence; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
	0.6 - 0.7 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Loose consistence; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 9.1 (pH meter);
	0.7 - 0.8 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Loose consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9.2 (pH meter);
	0.8 - 0.9 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Loose consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9.4 (pH meter);
	0.9 - 1 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Loose consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.3 (pH meter);
	1 - 1.1 m	Yellowish red (5YR4/6-Moist); ; Light clay; Weak consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.4 (pH meter);
	1.1 - 1.2 m	Yellowish red (5YR5/8-Moist); ; Light clay; Weak consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.5 (pH meter);

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1.2 - 1.3 m	Yellowish red (5YR5/8-Moist); ; Light clay; Weak consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.5 (pH meter);
1.3 - 1.4 m	Yellowish red (5YR5/8-Moist); ; Light clay; Weak consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.5 (pH meter);
1.4 - 1.5 m	Yellowish red (5YR5/8-Moist); , 2-10% ; , 2-10% ; Light clay; Weak consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 9.4 (pH meter);
1.5 - 1.6 m	Yellowish red (5YR5/8-Moist); , 10-20% ; , 10-20% ; Light clay; Weak consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 9.3 (pH meter);
1.6 - 1.7 m	Light olive brown (2.5Y5/4-Moist); , 5YR58, 20-50% ; , 20-50% ; Light clay; Weak consistence; Field pH 9.1 (pH meter);
1.7 - 1.8 m	Light olive brown (2.5Y5/4-Moist); , 5YR58, 20-50% ; , 20-50% ; Light clay; Weak consistence; Field pH 9 (pH meter);
1.8 - 1.9 m	Light olive brown (2.5Y5/4-Moist); , 5YR58, 20-50% ; , 20-50% ; Light clay; Weak consistence; Field pH 9.1 (pH meter);
1.9 - 2 m	Light olive brown (2.5Y5/4-Moist); , 5YR58, 20-50% ; , 20-50% ; Light clay; Weak consistence; Field pH 9 (pH meter);

Morphological Notes

Observation Notes

ALLUVIUM

Site Notes

YANCO

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	6.6A	0.04A	4.3K	2.8	0.55	0.3	8B	16J		1.88
0.1 - 0.2	6.9A	0.05A	4K	3	0.55	0.56	6.9B	15J		3.73
0.2 - 0.3	7.9A	0.06A	8.4K	8.6	0.64	1.5	7.9B	27J		5.56
0.3 - 0.4	8.4A	0.7A	9.2K	10.9	0.59	2.1	7.7B	30.5J		6.89
0.4 - 0.5	8.7A	0.8A	8.8K	12.2	0.62	2.6	6B	30.2J		8.61
0.5 - 0.6	9A	0.16A	7.8K	13	0.63	3	5.3B	29.7J		10.10
0.6 - 0.7	9.1A	0.29A	7.3K	13.3	0.63	3.2	4B	28.4J		11.27
0.7 - 0.8	9.2A	0.31A	6.5K	12.3	0.64	3.3	4.4B	27.1J		12.18
0.8 - 0.9	9.4A	0.33A	5.9K	13.2	0.7	4.1	3B	26.9J		15.24
0.9 - 1	9.3A	0.33A	5.7K	12.7	0.66	3.9	2.6B	25.6J		15.23
1 - 1.1	9.4A	0.33A								
1.1 - 1.2	9.5A	0.33A	5.2K	11.5	0.67	4.3	2.2B	23.9J		17.99
1.2 - 1.3	9.5A	0.32A								
1.3 - 1.4	9.5A	0.32A								
1.4 - 1.5	9.4A	0.27A	5K	11.7	0.67	4.8	2.3B	24.5J		19.59
1.5 - 1.6	9.3A	0.16A								
1.6 - 1.7	9.1A	0.15A	4.4K	10	0.63	4.7	2.6B	22.3J		21.08
1.7 - 1.8	9A	0.15A								
1.8 - 1.9	9.1A	0.14A								
1.9 - 2	9A	0.14A	4K	8.8	0.53	4.2	2.2B	19.7J		21.32

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.2D						0	14D	42	16	26
0.1 - 0.2		0.82D						0	14D	42	15	28
0.2 - 0.3	0.05A	0.64D						0	6D	23	10	59
0.3 - 0.4	0.07A	0.61D						0	5D	18	9	66
0.4 - 0.5	0.06A	0.43D						0	5D	19	10	66
0.5 - 0.6	0.26A	0.3D						0	5D	20	10	64
0.6 - 0.7	2.41A	0.21D						2	5D	20	13	60
0.7 - 0.8	6.32A	0.18D						2	4D	21	15	56
0.8 - 0.9	3.54A	0.12D						2	4D	21	17	55
0.9 - 1	4.97A	0.11D						7	4D	23	18	50
1 - 1.1												
1.1 - 1.2	3.62A							5	5D	27	19	45
1.2 - 1.3												
1.3 - 1.4												
1.4 - 1.5	0.52A							0	3D	25	27	43
1.5 - 1.6												
1.6 - 1.7	0.12A							0	2D	24	32	42
1.7 - 1.8												
1.8 - 1.9												
1.9 - 2	0.06A							0	2D	28	31	39

Depth	COLE	Gravimetric/Volumetric Water Contents Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	K sat	K unsat
m		g/g - m3/m3							mm/h	mm/h
0 - 0.1										

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0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 1
1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4
1.4 - 1.5
1.5 - 1.6
1.6 - 1.7
1.7 - 1.8
1.8 - 1.9
1.9 - 2

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15G_C_AL1	Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B
19A1	Carbonates - rapid titration
2A1	Air-dry moisture content
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
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance