8. Listing by Irrigation Area / Soil Group / Soil Property

Table 29.1 MV irrigation area - Soil Group 1 Sandy soils

Soil Group 1S **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	8	1.5	0.6	0.3	2.2	1.2	1.6	2.0	8	4.2	2.6	1.2	7.3	1.5	4.5	6.4
Silt (% g/g)	8	14.5	7.5	5.8	23.7	6.4	16.4	20.5	8	14.3	8.0	2.8	23.0	6.1	18.1	20.1
Sand (% g/g)	8	84.0	8.0	74.4	93.9	77.5	81.9	92.4	8	81.6	10.2	71.4	96.0	74.4	75.7	92.5
Bulk density (g/cm^3)	8	1.65	0.09	1.55	1.79	1.58	1.67	1.70	8	1.74	0.12	1.54	1.88	1.66	1.74	1.85
Organic matter (% g/g)	8	1.8	0.4	1.3	2.5	1.4	1.7	2.0	8	1.1	0.4	0.6	1.7	0.8	1.0	1.4
Depth of horizon (mm)	0								0							
Chemical Properties																
EC (dS/m)	8	0.08	0.04	0.04	0.14	0.04	0.07	0.12	8	0.07	0.03	0.04	0.10	0.04	0.07	0.10
pH (H_2O)	8	7.4	1.3	5.8	9.0	6.4	7.2	8.6	8	7.1	1.8	5.2	8.8	5.4	7.2	8.8
pH ($CaCl_2$)	8	6.6	1.0	5.0	7.9	5.9	6.5	7.6	8	6.2	1.6	4.5	7.8	4.7	6.3	7.7
Ca (meq/100g)	8	2.9	1.4	1.0	4.7	1.9	3.0	4.1	8	1.9	1.1	0.7	3.8	0.9	2.0	2.5
Mg (meq/100g)	8	1.5	1.2	0.2	2.9	0.3	1.4	2.6	8	1.1	0.9	0.1	2.2	0.2	1.0	1.9
Na (meq/100g)	8	0.4	0.4	0.0	0.8	0.1	0.4	0.7	8	0.3	0.3	0.0	0.6	0.1	0.3	0.5
K (meq/100g)	8	0.5	0.2	0.2	0.7	0.3	0.5	0.7	8	0.5	0.3	0.1	0.8	0.2	0.5	0.7
ESP	8	5.8	3.4	1.8	10.3	2.2	6.7	8.4	8	6.8	2.9	2.3	10.4	4.7	7.0	9.2
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	8	140.5	152.6	17.8	366.9	24.8	48.3	296.4	8	36.48	31.46	6.13	83.16	12.85	21.61	66.84
Final infiltration rate (mm/hr)									8	128.68	169.13	8.52	420.00	13.86	28.59	258.00
Available water capacity (% cm^3/cm^3)	4	16.4	2.5	12.8	18.5	14.9	17.2	17.9	4	14.2	3.5	9.0	16.5	12.1	15.7	16.3
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	4	39.1	4.4	35.1	44.2	35.4	38.5	42.7	4	36.2	4.8	30.7	42.0	32.7	36.0	39.7
10	4	23.6	5.1	16.8	28.7	19.8	24.4	27.3	4	20.7	6.3	12.2	26.3	16.1	22.1	25.3
60	4	17.5	6.1	10.7	24.2	12.4	17.5	22.5	4	15.4	6.8	7.7	23.3	10.0	15.3	20.8
1500	4	7.2	3.7	4.0	11.7	4.2	6.5	10.2	4	6.5	3.1	3.2	10.1	4.0	6.3	9.0

Table 29.2 MV irrigation area - Soil Group 1 Duplex soils

Soil Group 1D **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	2	26.9		26.8	26.9				2	16.3		12.6	19.9			
Silt (% g/g)	2	28.2		28.0	28.3				2	31.4		24.7	38.0			
Sand (% g/g)	2	45.0		44.8	45.2				2	52.4		42.1	62.7			
Bulk density (g/cm^3)	2	1.63		1.58	1.69				2	1.71		1.67	1.74			
Organic matter (% g/g)	2	3.6		3.3	3.8				2	2.6		2.1	3.1			
Depth of horizon (mm)	2	260		200	320				0							
Chemical Properties																
EC (dS/m)	2	0.11		0.10	0.11				2	0.08		0.07	0.08			
pH (H_2O)	2	6.9		6.8	7.0				2	7.2		6.6	7.7			
pH ($CaCl_2$)	2	6.4		6.3	6.5				2	6.6		6.1	7.1			
Ca (meq/100g)	2	6.3		6.0	6.5				2	4.1		3.5	4.7			
Mg (meq/100g)	2	5.3		5.1	5.5				2	2.5		1.9	3.0			
Na (meq/100g)	2	0.3		0.3	0.3				2	0.2		0.2	0.2			
K (meq/100g)	2	1.2		1.1	1.3				2	0.7		0.6	0.8			
ESP	2	2.4		2.2	2.6				2	2.7		2.6	2.8			
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	2	28.8		24.3	33.4				2	19.85		9.81	29.90			
Final infiltration rate (mm/hr)									2	21.45		20.90	21.99			
Available water capacity (% cm^3/cm^3)	0								0							
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	0								0							
10	0								0							
60	0								0							
1500									0							

Table 29.3 MV irrigation area - Soil Group 2

Soil Group 2 **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	36	15.9	7.5	4.8	38.6	10.7	13.4	20.6	36	41.5	11.7	3.3	58.3	34.1	45.1	49.4
Silt (% g/g)	36	30.8	5.6	19.5	48.2	26.2	31.0	35.0	36	25.0	5.3	14.0	34.0	21.3	25.8	28.8
Sand (% g/g)	36	53.3	9.7	32.1	73.6	47.5	52.6	60.7	36	33.5	11.7	20.2	81.3	25.4	29.9	40.1
Bulk density (g/cm^3)	36	1.57	0.14	1.26	1.76	1.51	1.59	1.67	36	1.63	0.09	1.44	1.84	1.58	1.62	1.68
Organic matter (% g/g)	21	4.6	1.2	2.7	7.2	3.4	4.6	5.4	21	2.5	0.6	1.4	3.8	2.1	2.5	2.8
Depth of horizon (mm)	36	182	35	130	280	150	185	205	20	195	58	100	280	145	195	250
Chemical Properties																
EC (dS/m)	21	0.15	0.08	0.05	0.31	0.08	0.15	0.21	21	0.18	0.11	0.04	0.48	0.12	0.18	0.24
pH (H_2O)	21	6.6	0.8	5.3	8.4	5.9	6.6	7.2	21	7.3	0.9	6.0	8.8	6.5	7.1	7.9
pH ($CaCl_2$)	21	5.9	0.9	4.8	7.9	5.1	6.0	6.5	21	6.5	1.0	4.9	8.0	5.6	6.6	7.3
Ca (meq/100g)	21	6.4	1.9	4.1	12.0	5.2	6.0	7.1	21	7.0	3.9	2.0	17.0	3.9	7.1	8.7
Mg (meq/100g)	21	3.4	1.5	1.0	6.7	2.0	3.4	4.8	21	5.1	1.9	1.8	8.7	3.2	5.1	6.5
Na (meq/100g)	21	0.8	0.6	0.2	2.2	0.4	0.7	1.1	21	1.4	1.0	0.3	4.2	0.5	1.1	2.1
K (meq/100g)	21	0.8	0.7	0.2	2.2	0.2	0.7	1.2	21	0.9	0.8	0.2	2.8	0.3	0.5	1.3
ESP	21	7.1	4.1	2.5	20.7	3.4	7.1	8.7	21	10.2	7.7	1.5	28.8	4.8	7.6	14.3
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	36	20.9	12.0	4.4	49.9	11.2	16.6	29.9	29	3.16	3.24	0.10	11.00	0.85	2.18	3.68
Final infiltration rate (mm/hr)									18	0.89	2.44	0.01	10.56	0.02	0.15	0.78
Available water capacity (% cm^3/cm^3)	18	15.5	4.0	10.4	22.8	12.1	14.1	18.5	18	12.9	3.1	8.6	20.1	10.5	12.4	14.8
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	18	43.1	5.8	33.5	55.5	39.6	43.6	46.9	18	44.6	4.5	35.0	55.3	43.3	44.4	47.1
10	18	38.9	5.9	29.3	52.0	34.7	39.3	42.1	18	40.9	5.0	28.6	50.7	39.9	41.2	43.3
60	18	34.4	5.5	25.7	46.3	30.7	34.3	36.5	18	37.1	4.7	25.3	45.4	35.6	38.1	40.5
1500	18	23.4	4.9	17.8	36.4	19.7	23.3	24.4	18	28.0	4.3	19.4	35.4	25.7	28.4	31.0

Table 29.4 MV irrigation area - Soil Group 3

Soil Group 3 **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	10	19.1	7.4	7.2	32.3	14.0	18.2	22.9	10	34.2	17.6	16.9	66.5	18.7	32.5	44.4
Silt (% g/g)	10	31.1	4.8	24.7	38.4	26.6	33.0	34.1	10	27.4	7.1	15.3	37.6	21.9	28.5	31.8
Sand (% g/g)	10	49.8	7.4	41.2	61.3	43.0	47.4	57.4	10	38.5	11.7	18.3	51.4	32.6	40.8	47.1
Bulk density (g/cm^3)	10	1.67	0.07	1.55	1.77	1.62	1.67	1.73	10	1.67	0.13	1.42	1.84	1.62	1.68	1.74
Organic matter (% g/g)	5	3.8	0.5	2.9	4.2	3.6	4.0	4.2	5	2.0	0.7	1.1	2.9	1.3	2.1	2.6
Depth of horizon (mm)	10	170	28	130	230	150	170	180	8	188	33	140	230	165	180	220
Chemical Properties																
EC (dS/m)	5	0.10	0.03	0.08	0.16	0.08	0.10	0.12	5	0.07	0.02	0.05	0.10	0.06	0.07	0.09
pH (H_2O)	5	5.9	0.6	5.0	6.6	5.6	5.8	6.4	5	7.3	0.8	6.3	8.3	6.8	7.1	8.1
pH ($CaCl_2$)	5	5.3	0.6	4.5	6.0	5.0	5.1	5.8	5	6.3	0.8	5.1	7.3	5.9	6.3	6.9
Ca (meq/100g)	5	4.6	0.6	3.8	5.5	4.2	4.6	4.8	5	5.1	2.4	2.5	7.1	2.6	6.4	7.1
Mg (meq/100g)	5	3.0	0.8	1.8	4.0	2.6	3.0	3.6	5	5.1	3.4	1.5	9.7	2.1	4.7	7.8
Na (meq/100g)	5	0.5	0.2	0.3	0.7	0.4	0.6	0.7	5	1.0	0.6	0.5	2.0	0.5	0.7	1.5
K (meq/100g)	5	0.5	0.3	0.2	0.9	0.2	0.4	0.7	5	0.6	0.4	0.1	1.1	0.1	0.6	0.9
ESP	5	6.0	1.7	3.7	7.9	4.6	6.5	7.2	5	9.2	3.6	4.2	12.3	6.1	11.0	12.0
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	10	19.8	11.0	6.6	39.4	12.8	17.3	23.1	10	1.71	1.26	0.22	4.48	0.76	1.30	2.39
Final infiltration rate (mm/hr)									4	0.87	1.40	0.01	2.95	0.01	0.27	1.74
Available water capacity (% cm^3/cm^3)	7	14.0	4.4	6.6	20.5	11.7	14.6	16.3	8	11.1	2.8	5.9	15.7	9.8	11.4	12.6
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	7	40.5	5.3	34.4	47.6	36.7	38.0	45.9	8	40.2	7.3	32.3	51.6	33.0	40.1	45.8
10	7	34.1	5.4	26.4	42.9	31.1	33.1	37.7	8	36.3	8.8	25.8	48.2	28.9	34.8	44.5
60	7	30.8	4.9	22.9	38.5	29.0	29.4	33.7	8	33.5	9.3	23.1	44.4	25.1	32.1	42.9
1500	7	20.2	5.1	14.1	28.2	15.8	19.9	23.9	8	25.2	7.4	17.1	35.7	19.1	23.3	31.8

Table 29.5 MV irrigation area - Soil Group 5

Soil Group 5 **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	2	43.8		33.7	53.8				2	49.1		26.8	71.3			
Silt (% g/g)	2	33.9		27.6	40.1				2	31.1		20.2	41.9			
Sand (% g/g)	2	22.4		18.5	26.2				2	19.9		8.5	31.3			
Bulk density (g/cm^3)	2	1.56		1.47	1.65				2	1.55		1.42	1.69			
Organic matter (% g/g)	1	4.0							1	1.7						
Depth of horizon (mm)	2	140		130	150				2	170		150	190			
Chemical Properties																
EC (dS/m)	1	0.10							1	0.09						
pH (H_2O)	1	6.0							1	6.3						
pH ($CaCl_2$)	1	5.1							1	5.3						
Ca (meq/100g)	1	7.2							1	3.4						
Mg (meq/100g)	1	6.8							1	3.7						
Na (meq/100g)	1	1.1							1	1.0						
K (meq/100g)	1	0.8							1	0.2						
ESP	1	6.9							1	12.0						
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	2	44.8		37.2	52.5				2	1.66		1.03	2.29			
Final infiltration rate (mm/hr)									1	1.14						
Available water capacity (% cm^3/cm^3)	2	9.4		8.5	10.2				2	11.8		10.1	13.5			
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	2	46.0		43.8	48.2				2	45.2		36.7	53.7			
10	2	44.3		41.9	46.7				2	42.4		32.5	52.3			
60	2	42.6		40.0	45.2				2	40.1		29.8	50.4			
1500	2	34.9		31.7	38.2				2	30.6		22.4	38.8			

Table 29.6 MV irrigation area - Soil Group 6

Soil Group 6 **Irrigation Area** MV

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	12	26.1	8.2	16.1	41.5	19.5	24.8	32.7	12	44.7	11.8	21.3	60.9	35.5	45.9	54.6
Silt (% g/g)	12	37.3	6.5	27.4	50.9	32.7	36.5	40.6	12	30.5	7.6	18.8	45.1	24.8	30.1	33.2
Sand (% g/g)	12	36.6	9.9	21.0	51.4	30.3	35.9	44.8	12	24.8	8.8	16.2	45.2	18.1	21.4	31.7
Bulk density (g/cm^3)	12	1.59	0.09	1.38	1.72	1.54	1.59	1.65	12	1.63	0.10	1.47	1.86	1.56	1.62	1.68
Organic matter (% g/g)	8	3.3	1.7	1.4	6.5	1.9	3.5	3.9	8	1.5	0.5	0.7	2.1	1.2	1.5	1.8
Depth of horizon (mm)	12	195	29	140	240	175	200	215	8	189	37	120	240	170	195	210
Chemical Properties																
EC (dS/m)	8	0.09	0.03	0.04	0.13	0.07	0.08	0.12	8	0.08	0.05	0.04	0.20	0.06	0.07	0.09
pH (H_2O)	8	6.2	0.8	5.4	7.6	5.6	6.1	6.8	8	7.0	0.6	6.1	8.0	6.6	7.1	7.2
pH ($CaCl_2$)	8	5.5	0.7	4.8	6.7	4.9	5.3	5.9	8	6.0	0.7	5.1	7.2	5.6	6.1	6.2
Ca (meq/100g)	8	5.6	1.2	4.5	8.4	4.8	5.4	6.0	8	6.3	1.9	3.2	9.7	5.5	6.1	7.0
Mg (meq/100g)	8	2.8	2.3	1.0	8.0	1.4	1.8	3.6	8	5.1	2.6	1.3	10.0	3.7	4.9	6.1
Na (meq/100g)	8	0.6	0.4	0.1	1.5	0.3	0.5	0.7	8	1.0	0.8	0.2	2.6	0.5	0.9	1.3
K (meq/100g)	8	0.6	0.6	0.2	1.9	0.2	0.4	0.7	8	0.7	0.4	0.2	1.2	0.5	0.6	1.1
ESP	8	5.6	2.0	1.8	7.6	4.6	6.3	6.8	8	6.9	2.8	2.1	11.1	5.4	7.3	8.3
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	12	14.2	9.9	4.8	42.7	8.4	11.8	15.5	8	0.54	0.32	0.03	1.17	0.39	0.45	0.72
Final infiltration rate (mm/hr)									8	0.19	0.19	0.00	0.46	0.02	0.12	0.38
Available water capacity (% cm^3/cm^3)	10	8.8	3.3	5.5	14.2	5.8	7.8	11.5	10	12.5	3.3	6.5	16.7	10.4	12.6	16.2
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	10	40.8	3.9	35.2	46.7	38.0	40.5	44.5	10	45.5	6.9	38.1	57.9	41.6	43.3	47.8
10	10	37.6	4.4	31.8	45.3	33.9	37.0	41.1	10	42.2	6.2	34.2	53.8	39.3	41.6	42.5
60	10	34.7	4.5	29.6	43.1	30.6	34.0	37.1	10	39.1	6.3	28.2	50.6	36.7	39.2	39.8
1500	10	28.8	4.1	23.9	36.0	25.6	27.5	33.0	10	29.7	5.2	17.6	37.6	28.9	30.0	31.0

Table 29.7 SCG irrigation area - Soil Group 1 Duplex soils

Soil Group 1D **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	14	21.2	13.3	3.5	44.1	10.6	17.2	33.1	14	28.5	7.9	15.8	46.4	25.3	28.1	33.0
Silt (% g/g)	14	37.4	8.6	23.6	49.9	26.4	39.9	44.1	14	39.4	7.6	27.3	49.8	33.3	37.4	48.1
Sand (% g/g)	14	41.4	13.2	21.3	73.0	32.4	39.8	48.8	14	32.1	7.7	21.5	47.4	26.1	30.8	37.3
Bulk density (g/cm^3)	14	1.62	0.12	1.36	1.80	1.53	1.61	1.72	14	1.70	0.09	1.53	1.84	1.65	1.72	1.76
Organic matter (% g/g)	11	2.7	0.7	1.6	4.0	2.2	2.7	3.3	11	2.0	0.8	0.9	3.8	1.6	1.9	2.1
Depth of horizon (mm)	14	196	36	150	250	170	185	240	6	175	80	110	300	120	135	250
Chemical Properties																
EC (dS/m)	11	0.11	0.04	0.06	0.18	0.07	0.10	0.13	11	0.08	0.02	0.05	0.14	0.07	0.08	0.09
pH (H_2O)	11	7.5	1.0	5.7	8.5	6.9	7.8	8.2	11	7.8	0.9	5.9	8.8	7.1	8.0	8.3
pH ($CaCl_2$)	11	6.6	0.7	5.1	7.3	6.3	6.8	7.1	11	6.7	0.5	5.5	7.5	6.4	6.9	7.0
Ca (meq/100g)	11	4.0	0.7	2.9	5.8	3.7	3.9	4.0	11	3.4	1.1	2.0	5.7	2.5	3.5	4.3
Mg (meq/100g)	11	2.5	1.3	0.4	4.1	1.2	3.2	3.4	11	1.9	1.0	0.5	3.7	1.2	1.6	2.6
Na (meq/100g)	11	1.2	1.0	0.1	3.4	0.3	1.0	1.7	11	1.1	0.8	0.1	2.3	0.3	1.1	1.5
K (meq/100g)	11	0.6	0.1	0.3	0.9	0.5	0.6	0.6	11	0.6	0.1	0.4	0.8	0.5	0.7	0.7
ESP	11	12.9	9.0	1.3	31.3	5.7	11.2	17.2	11	14.5	10.7	1.6	32.8	5.2	13.6	22.7
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	14	58.7	38.4	10.3	143.3	27.2	49.0	80.9	14	12.31	23.35	1.76	91.19	2.38	4.75	8.00
Final infiltration rate (mm/hr)									11	10.30	12.50	0.05	33.78	0.19	7.50	17.87
Available water capacity (% cm^3/cm^3)	6	13.3	3.4	8.7	18.5	12.2	12.5	15.8	6	9.4	4.3	4.1	15.0	5.8	9.1	13.2
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	6	38.5	3.6	35.7	43.1	35.9	36.6	43.1	6	34.3	3.7	30.6	38.8	30.7	34.0	37.9
10	6	28.8	2.6	26.1	33.6	27.3	28.4	29.2	6	28.0	4.7	23.8	36.8	25.6	26.0	29.7
60	6	24.9	3.3	22.5	31.2	23.3	23.5	25.8	6	25.3	5.1	20.1	34.6	23.3	23.5	27.0
1500	6	15.5	5.2	10.4	25.0	12.1	14.2	17.0	6	18.6	7.5	11.1	29.6	12.8	17.2	24.0

Table 29.8 SCG irrigation area - Soil Group 2

Soil Group 2 **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	58	12.8	4.4	4.4	25.6	9.6	11.7	15.5	58	36.4	11.9	11.5	57.7	28.3	38.4	44.8
Silt (% g/g)	58	37.3	7.5	21.0	63.4	33.2	35.2	41.3	58	35.8	7.1	10.1	48.6	31.8	35.5	41.5
Sand (% g/g)	58	49.9	10.3	23.2	74.7	45.4	51.5	57.3	58	27.8	11.0	10.3	58.4	20.2	25.5	33.6
Bulk density (g/cm^3)	58	1.53	0.12	1.01	1.76	1.49	1.53	1.59	58	1.65	0.08	1.51	1.95	1.59	1.64	1.68
Organic matter (% g/g)	52	5.3	1.2	2.3	7.6	4.5	5.4	6.3	52	2.7	0.7	1.1	4.2	2.2	2.9	3.3
Depth of horizon (mm)	18	186	30	140	250	160	185	210	10	211	62	120	310	180	215	240
Chemical Properties																
EC (dS/m)	52	0.12	0.09	0.04	0.71	0.09	0.11	0.13	52	0.10	0.11	0.04	0.84	0.07	0.09	0.10
pH (H_2O)	52	6.0	0.5	5.0	8.3	5.9	5.9	6.1	52	6.8	0.5	6.1	8.7	6.5	6.7	7.0
pH ($CaCl_2$)	52	5.3	0.5	4.5	7.9	5.2	5.3	5.4	52	6.0	0.6	5.2	8.2	5.6	5.8	6.1
Ca (meq/100g)	52	5.3	1.2	3.2	10.0	4.6	5.4	6.0	52	5.2	1.2	2.4	7.5	4.4	5.3	6.4
Mg (meq/100g)	52	3.3	0.9	0.9	6.3	3.2	3.5	3.8	52	3.6	1.3	1.1	8.5	2.8	3.4	4.4
Na (meq/100g)	52	0.9	0.5	0.1	3.9	0.7	0.8	1.0	52	1.1	0.8	0.2	5.6	0.8	1.0	1.2
K (meq/100g)	52	0.3	0.2	0.1	1.0	0.2	0.3	0.4	52	0.5	0.3	0.1	1.8	0.3	0.4	0.6
ESP	52	8.3	3.1	2.0	22.3	6.9	8.3	9.4	52	10.2	3.9	2.3	28.4	8.7	10.2	11.5
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	58	27.3	15.9	3.9	67.4	14.5	24.5	34.6	16	5.16	5.08	0.11	18.28	0.61	4.52	8.18
Final infiltration rate (mm/hr)									52	0.81	2.02	0.01	10.86	0.08	0.13	0.47
Available water capacity (% cm^3/cm^3)	12	12.8	4.7	5.3	19.6	7.9	13.9	16.6	12	12.5	2.5	7.0	16.6	11.6	12.5	14.0
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	12	41.2	5.7	34.4	57.5	38.7	40.1	41.6	12	44.8	5.1	37.9	52.3	39.3	45.6	49.1
10	12	36.5	5.8	29.5	53.3	34.5	35.9	36.9	12	42.3	5.5	31.9	49.8	38.6	43.2	47.2
60	12	33.2	6.2	25.8	51.2	30.3	32.4	34.1	12	39.5	5.8	28.1	47.3	35.8	39.2	45.4
1500	12	23.7	7.1	13.6	38.8	17.9	22.6	28.9	12	29.8	5.7	17.9	37.8	26.3	28.9	34.9

Table 29.9 SCG irrigation area - Soil Group 3

Soil Group 3 **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75
Physical Properties																
Particle size distribution																
Clay (% g/g)	54	17.6	7.8	7.4	41.7	11.9	16.2	21.2	53	44.3	12.6	14.5	70.4	38.7	44.9	52.6
Silt (% g/g)	54	36.5	8.3	23.6	65.0	30.5	35.3	40.9	53	28.9	7.2	15.4	44.7	24.2	27.9	34.3
Sand (% g/g)	54	46.0	11.8	16.7	65.1	42.1	46.9	55.1	53	26.9	10.3	4.2	63.5	19.8	26.0	31.8
Bulk density (g/cm^3)	54	1.56	0.18	1.00	1.81	1.53	1.59	1.69	53	1.65	0.10	1.48	1.94	1.58	1.63	1.73
Organic matter (% g/g)	36	4.1	1.4	2.1	8.2	3.1	3.8	4.9	36	2.0	0.6	1.1	3.8	1.6	1.8	2.2
Depth of horizon (mm)	54	173	37	100	290	150	170	190	21	151	46	60	250	128	140	170
Chemical Properties																
EC (dS/m)	36	0.16	0.13	0.04	0.67	0.08	0.13	0.19	36	0.12	0.08	0.04	0.30	0.06	0.09	0.15
pH (H_2O)	36	6.4	0.9	4.7	8.6	5.8	6.4	6.9	36	7.1	0.7	5.8	8.8	6.7	7.1	7.5
pH ($CaCl_2$)	36	5.8	0.9	4.4	8.6	5.0	5.9	6.3	36	6.3	0.8	5.0	8.3	5.8	6.2	6.5
Ca (meq/100g)	36	5.5	2.2	3.1	12.0	3.9	4.8	6.5	36	5.1	2.1	1.9	14.0	3.8	4.7	5.9
Mg (meq/100g)	36	2.9	1.5	0.9	7.1	1.9	2.8	3.6	36	4.6	1.9	1.6	9.4	3.1	4.3	5.8
Na (meq/100g)	36	0.8	0.9	0.1	4.6	0.3	0.5	1.0	36	1.2	1.0	0.2	4.8	0.5	0.8	1.6
K (meq/100g)	36	0.6	0.4	0.1	1.6	0.3	0.4	0.9	36	0.7	0.4	0.2	1.4	0.3	0.6	1.0
ESP	36	6.9	5.6	1.5	25.5	3.1	5.3	10.4	36	10.1	6.5	2.4	28.2	4.6	7.8	14.7
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	54	47.8	32.7	4.3	143.3	26.0	41.5	67.0	53	6.24	7.36	0.14	43.27	2.32	3.70	8.21
Final infiltration rate (mm/hr)									35	1.87	4.36	0.10	25.92	0.32	0.69	1.43
Available water capacity (% cm^3/cm^3)	23	13.6	4.5	3.7	22.1	12.2	13.4	16.7	26	12.1	3.5	4.3	18.2	9.3	12.0	14.1
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	23	44.5	6.4	36.0	61.5	39.7	43.7	49.5	26	43.9	5.0	33.7	52.4	40.8	43.1	48.6
10	23	37.2	6.7	28.7	50.5	31.7	34.2	42.8	26	39.0	5.6	26.4	47.0	35.0	38.9	45.0
60	23	33.3	6.5	23.8	46.0	27.6	31.4	39.6	26	35.2	5.9	24.0	44.9	31.9	34.0	40.6
1500	23	23.6	4.9	15.4	33.3	19.4	24.0	27.0	26	27.0	5.8	15.1	39.0	23.1	27.8	30.2

Table 29.10 SCG irrigation area - Soil Group 4

Soil Group 4 **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	24	17.0	8.9	4.2	36.6	10.9	15.6	23.4	24	32.6	12.0	6.6	50.5	27.5	34.5	40.4
Silt (% g/g)	24	38.9	5.3	29.0	49.2	35.9	39.9	42.0	24	37.3	5.7	29.1	53.4	33.9	36.3	39.5
Sand (% g/g)	24	44.1	7.6	31.3	57.7	38.0	46.0	49.2	24	30.1	10.2	17.0	57.7	22.8	27.8	36.4
Bulk density (g/cm^3)	24	1.53	0.12	1.33	1.78	1.42	1.52	1.64	24	1.65	0.12	1.42	1.91	1.59	1.64	1.74
Organic matter (% g/g)	21	4.4	0.9	2.5	6.7	3.8	4.4	4.9	21	2.0	0.9	1.0	5.0	1.5	1.9	2.2
Depth of horizon (mm)	24	203	69	130	340	150	160	275	6	152	27	120	200	140	145	160
Chemical Properties																
EC (dS/m)	21	0.14	0.17	0.04	0.73	0.06	0.07	0.13	21	0.12	0.13	0.04	0.52	0.06	0.07	0.11
pH (H_2O)	21	6.3	0.8	5.5	8.4	5.8	6.1	6.5	21	7.0	0.5	6.2	7.8	6.7	6.9	7.5
pH ($CaCl_2$)	21	5.7	1.0	4.9	8.3	5.2	5.4	5.8	21	6.2	0.5	5.5	7.4	5.8	6.3	6.5
Ca (meq/100g)	21	5.6	1.3	3.5	9.4	4.6	5.5	6.1	21	5.8	1.9	2.6	9.6	4.0	6.0	7.2
Mg (meq/100g)	21	2.7	1.4	0.6	6.5	1.9	2.3	3.4	21	4.0	1.4	1.4	6.4	3.1	4.3	5.0
Na (meq/100g)	21	0.7	1.1	0.1	4.2	0.2	0.3	0.5	21	0.9	1.0	0.2	3.8	0.4	0.6	1.0
K (meq/100g)	21	0.7	0.4	0.2	1.4	0.4	0.7	1.1	21	0.6	0.3	0.2	1.4	0.4	0.6	0.8
ESP	21	5.5	5.5	1.5	23.0	2.0	3.9	5.7	21	7.6	5.9	2.0	26.0	4.8	6.3	7.6
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	24	25.9	15.3	5.0	64.4	14.2	24.5	32.5	22	3.30	5.74	0.44	27.42	1.14	1.31	2.69
Final infiltration rate (mm/hr)									20	0.37	0.53	0.01	1.92	0.09	0.16	0.36
Available water capacity (% cm^3/cm^3)	6	13.6	6.7	4.2	22.1	8.3	14.4	18.3	6	14.9	4.0	8.2	19.2	13.6	14.8	18.7
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	6	41.8	5.8	37.1	50.1	37.5	38.9	48.1	6	43.0	4.9	38.9	52.0	39.5	41.3	44.8
10	6	38.6	6.0	32.6	46.5	34.7	35.8	45.9	6	39.7	6.1	33.0	50.3	36.0	38.1	42.5
60	6	35.5	5.9	28.8	43.4	32.2	33.3	42.0	6	36.2	7.7	25.7	48.8	32.8	35.0	40.0
1500	6	25.0	5.2	17.9	32.1	20.6	25.4	28.3	6	24.8	8.0	13.8	34.6	17.3	26.4	30.2

Table 29.11 SCG irrigation area - Soil Group 5

Soil Group 5 **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75
Physical Properties																
Particle size distribution																
Clay (% g/g)	6	23.0	6.7	16.2	33.0	16.9	21.5	29.1	6	47.0	7.8	39.3	58.8	41.4	44.5	53.6
Silt (% g/g)	6	32.9	4.3	27.2	40.3	31.7	31.9	34.4	6	30.5	4.3	23.1	36.2	29.6	31.0	31.8
Sand (% g/g)	6	44.1	10.2	26.8	56.6	39.0	46.7	48.7	6	22.6	7.8	11.6	30.3	14.8	24.6	29.5
Bulk density (g/cm^3)	6	1.40	0.07	1.32	1.51	1.36	1.38	1.45	6	1.58	0.08	1.47	1.67	1.53	1.59	1.65
Organic matter (% g/g)	5	5.0	1.7	2.5	6.7	3.8	5.5	6.4	5	1.6	0.2	1.3	1.8	1.5	1.7	1.7
Depth of horizon (mm)	6	207	12	200	230	200	200	210	2	180		150	210			
Chemical Properties																
EC (dS/m)	5	0.20	0.02	0.18	0.22	0.19	0.21	0.21	5	0.18	0.06	0.13	0.27	0.13	0.14	0.23
pH (H_2O)	5	7.2	0.4	6.9	7.8	7.0	7.1	7.3	5	7.7	0.1	7.6	7.9	7.7	7.7	7.8
pH ($CaCl_2$)	5	6.7	0.2	6.5	7.1	6.6	6.6	6.7	5	7.0	0.2	6.9	7.3	6.9	6.9	7.1
Ca (meq/100g)	5	11.9	2.0	9.5	15.0	10.6	12.0	12.8	5	10.1	2.7	6.8	14.0	8.6	9.4	11.8
Mg (meq/100g)	5	6.7	2.0	5.0	10.0	5.3	6.3	7.5	5	7.9	2.8	5.4	12.0	5.9	6.6	10.1
Na (meq/100g)	5	0.8	0.3	0.5	1.3	0.6	0.8	0.9	5	1.1	0.4	0.7	1.6	0.7	1.1	1.5
K (meq/100g)	5	1.1	0.2	1.0	1.4	1.0	1.1	1.3	5	1.2	0.2	0.9	1.4	0.9	1.2	1.3
ESP	5	3.9	0.9	2.9	4.8	2.9	3.9	4.8	5	5.4	1.0	3.9	6.4	4.9	5.5	6.2
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	5	37.1	20.6	23.6	72.6	24.1	28.0	45.9	4	2.35	2.43	0.42	5.65	0.52	1.67	4.19
Final infiltration rate (mm/hr)									5	0.12	0.17	0.02	0.42	0.03	0.05	0.15
Available water capacity (% cm^3/cm^3)	2	6.7		6.0	7.4				2	13.7		13.6	13.7			
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	2	48.6		44.2	53.0				2	48.7		48.1	49.2			
10	2	43.0		41.5	44.5				2	45.2		44.9	45.6			
60	2	41.1		40.0	42.3				2	43.3		42.6	44.0			
1500	2	36.3		35.5	37.1				2	31.6		31.2	31.9			

Table 29.12 SCG irrigation area - Soil Group 6

Soil Group 6 **Irrigation Area** SCG

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	4	25.7	9.0	17.4	38.0	19.2	23.7	32.2	4	35.0	3.6	32.0	40.2	32.9	33.9	37.1
Silt (% g/g)	4	36.7	3.4	32.2	39.4	34.2	37.7	39.2	4	36.2	2.4	32.7	38.3	34.8	37.0	37.6
Sand (% g/g)	4	37.6	7.2	29.9	46.4	32.0	37.1	43.2	4	28.8	4.4	22.8	33.6	25.9	29.4	31.6
Bulk density (g/cm^3)	4	1.52	0.02	1.48	1.53	1.50	1.53	1.53	4	1.69	0.07	1.63	1.79	1.64	1.66	1.73
Organic matter (% g/g)	4	3.6	0.5	2.9	4.2	3.3	3.7	4.0	4	1.4	0.2	1.2	1.6	1.3	1.3	1.5
Depth of horizon (mm)	4	195	13	180	210	185	195	205	0							
Chemical Properties																
EC (dS/m)	4	0.08	0.01	0.07	0.09	0.08	0.08	0.09	4	0.06	0.00	0.06	0.06	0.06	0.06	0.06
pH (H_2O)	4	5.7	0.2	5.5	6.0	5.6	5.7	5.9	4	6.5	0.5	6.1	7.1	6.2	6.3	6.8
pH ($CaCl_2$)	4	5.1	0.2	4.9	5.3	5.0	5.1	5.3	4	5.7	0.5	5.3	6.3	5.4	5.5	6.0
Ca (meq/100g)	4	4.6	1.1	3.8	6.2	4.0	4.2	5.3	4	3.0	0.2	2.8	3.2	2.9	3.1	3.2
Mg (meq/100g)	4	2.4	0.9	1.8	3.8	1.8	2.1	3.1	4	3.3	0.6	2.7	4.0	2.9	3.2	3.7
Na (meq/100g)	4	0.4	0.1	0.3	0.4	0.3	0.3	0.4	4	0.5	0.1	0.4	0.6	0.4	0.5	0.5
K (meq/100g)	4	0.4	0.4	0.2	0.9	0.2	0.3	0.6	4	0.4	0.2	0.2	0.5	0.2	0.3	0.5
ESP	4	4.8	1.6	3.4	7.1	3.7	4.3	5.9	4	6.7	0.7	6.1	7.6	6.1	6.6	7.3
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	4	41.1	11.6	30.5	55.9	31.9	38.9	50.2	4	2.88	0.63	2.37	3.82	2.42	2.67	3.35
Final infiltration rate (mm/hr)									4	0.37	0.36	0.05	0.73	0.07	0.36	0.68
Available water capacity (% cm^3/cm^3)	2	13.6		13.0	14.2				2	12.1		10.7	13.6			
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	2	48.0		47.3	48.6				2	45.6		43.9	47.2			
10	2	41.5		41.4	41.7				2	39.0		36.9	41.0			
60	2	37.2		36.6	37.8				2	35.1		31.7	38.4			
1500	2	27.9		27.2	28.7				2	26.9		23.3	30.4			

Table 29.13 RC irrigation area - Soil Group 1 Duplex soils

Soil Group 1D **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	54	9.5	3.7	3.1	22.1	6.9	8.9	11.2	54	30.5	9.0	11.5	52.3	24.6	31.0	35.9
Silt (% g/g)	54	38.2	7.7	19.5	54.0	32.7	38.5	43.4	54	42.5	10.5	18.0	57.2	38.9	44.9	49.3
Sand (% g/g)	54	52.3	9.2	35.0	76.6	46.2	51.6	60.5	54	27.1	11.5	9.4	59.8	19.4	24.6	32.3
Bulk density (g/cm^3)	54	1.43	0.16	0.96	1.80	1.37	1.44	1.50	54	1.68	0.08	1.46	1.93	1.63	1.68	1.72
Organic matter (% g/g)	44	7.7	2.1	1.9	12.0	6.8	7.8	8.9	44	2.6	0.6	1.0	3.8	2.3	2.5	2.9
Depth of horizon (mm)	14	186	37	140	260	150	175	220	14	193	49	110	320	170	180	220
Chemical Properties																
EC (dS/m)	44	0.16	0.08	0.06	0.45	0.11	0.14	0.17	44	0.09	0.04	0.04	0.30	0.07	0.08	0.10
pH (H_2O)	44	5.7	0.3	5.2	6.7	5.6	5.6	5.8	44	6.8	0.5	5.9	8.3	6.6	6.8	7.1
pH ($CaCl_2$)	44	5.1	0.3	4.6	6.3	4.9	5.0	5.2	44	6.0	0.5	5.1	7.7	5.7	5.9	6.1
Ca (meq/100g)	44	6.9	1.6	2.0	11.0	6.2	7.1	8.0	44	6.5	1.6	2.0	10.0	5.8	6.6	7.4
Mg (meq/100g)	44	4.0	0.7	2.3	5.6	3.6	4.0	4.5	44	4.4	1.0	1.9	6.5	3.8	4.3	4.9
Na (meq/100g)	44	0.5	0.2	0.2	1.2	0.4	0.5	0.6	44	0.7	0.3	0.3	1.7	0.5	0.6	0.8
K (meq/100g)	44	0.7	0.5	0.1	2.1	0.3	0.5	1.1	44	0.4	0.3	0.1	1.5	0.2	0.4	0.5
ESP	44	4.8	2.6	1.5	19.4	3.6	4.3	5.5	44	5.7	1.8	3.1	12.8	4.5	5.3	6.6
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	49	46.4	27.5	10.3	130.5	28.1	38.2	61.0	12	9.59	6.64	0.65	20.38	3.47	10.14	13.87
Final infiltration rate (mm/hr)									43	3.98	7.17	0.01	36.18	0.20	1.23	3.28
Available water capacity (% cm^3/cm^3)	8	20.4	6.7	12.9	31.2	15.3	18.1	26.3	8	15.4	6.6	10.1	30.8	11.7	13.9	15.5
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	8	41.5	4.7	34.8	49.7	38.9	40.6	44.4	8	39.8	3.9	32.3	45.4	38.2	40.3	41.8
10	8	36.3	6.1	29.2	46.2	32.7	34.4	40.4	8	35.7	4.2	26.3	39.7	34.5	37.2	38.2
60	8	30.2	7.8	23.7	43.1	25.5	26.0	35.7	8	29.9	5.6	20.6	36.0	25.6	31.8	34.1
1500	8	15.9	4.1	7.6	21.9	14.9	16.4	17.5	8	20.3	6.7	7.8	26.8	16.0	22.5	25.4

Table 29.14 RC irrigation area - Soil Group 2

Soil Group 2 **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	18	12.3	5.9	4.4	28.5	8.5	11.3	13.5	18	40.6	14.6	8.2	61.5	34.3	43.4	50.5
Silt (% g/g)	18	36.0	7.0	26.8	51.6	29.3	35.3	38.0	18	31.6	6.9	17.0	43.4	26.7	34.2	36.3
Sand (% g/g)	18	51.8	10.6	25.6	66.9	45.5	53.7	59.1	18	27.8	15.8	7.1	61.2	15.9	21.5	38.3
Bulk density (g/cm^3)	18	1.43	0.18	1.09	1.77	1.28	1.44	1.58	18	1.62	0.10	1.48	1.81	1.55	1.59	1.68
Organic matter (% g/g)	11	5.0	1.8	1.9	8.4	4.0	5.3	6.1	11	2.3	0.3	1.8	2.9	2.1	2.3	2.5
Depth of horizon (mm)	18	191	42	130	290	160	185	210	10	166	30	120	230	160	170	170
Chemical Properties																
EC (dS/m)	11	0.25	0.27	0.07	0.98	0.09	0.12	0.29	11	0.21	0.21	0.08	0.81	0.10	0.13	0.27
pH (H_2O)	11	6.3	0.7	5.3	7.6	6.0	6.2	6.7	11	7.6	0.5	6.8	8.4	7.4	7.7	7.9
pH ($CaCl_2$)	11	5.7	0.8	4.9	7.2	5.2	5.4	6.0	11	6.7	0.5	5.8	7.8	6.5	6.6	7.0
Ca (meq/100g)	11	6.7	2.2	3.4	10.0	5.4	6.8	8.3	11	6.5	1.4	3.9	9.1	5.8	6.7	7.2
Mg (meq/100g)	11	4.2	2.0	2.3	9.1	2.8	3.4	5.3	11	6.2	1.3	4.9	8.1	5.3	5.5	7.7
Na (meq/100g)	11	1.0	1.1	0.4	4.4	0.5	0.6	0.8	11	2.0	1.1	1.0	5.0	1.6	1.8	2.1
K (meq/100g)	11	0.5	0.4	0.1	1.4	0.2	0.4	0.6	11	0.6	0.5	0.2	1.9	0.3	0.4	0.7
ESP	11	7.5	4.4	3.0	19.0	4.6	6.4	9.2	11	12.9	4.2	7.4	22.8	10.3	11.7	15.1
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	18	40.1	30.3	9.4	109.1	19.2	29.5	45.0	18	2.96	3.48	0.16	13.75	0.81	1.27	4.12
Final infiltration rate (mm/hr)									8	1.29	1.50	0.08	3.92	0.18	0.41	2.57
Available water capacity (% cm^3/cm^3)	6	15.9	3.6	11.4	20.1	13.4	15.6	19.3	6	11.6	3.0	8.4	16.4	9.4	10.7	14.0
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	6	48.0	9.9	36.7	66.0	43.0	46.5	49.4	6	47.1	5.6	35.8	51.2	48.6	48.7	49.7
10	6	40.5	7.4	30.5	52.8	37.7	39.3	43.7	6	43.7	6.8	30.6	50.0	44.1	45.4	46.9
60	6	35.2	7.0	25.7	46.2	30.4	35.2	38.8	6	40.0	6.9	26.1	44.3	41.1	42.6	43.5
1500	6	24.6	6.5	17.1	33.5	18.4	24.2	30.3	6	32.1	6.2	19.6	36.1	32.9	34.2	35.7

Table 29.15 RC irrigation area - Soil Group 3

Soil Group 3 **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	22	25.5	9.9	9.1	46.2	17.4	22.6	33.7	22	41.1	15.5	17.7	60.1	22.6	47.9	53.7
Silt (% g/g)	22	35.6	9.3	17.2	53.4	27.9	36.4	42.6	22	35.7	15.2	12.0	73.3	23.7	32.8	47.3
Sand (% g/g)	22	38.9	11.1	18.5	57.4	30.9	38.0	46.5	22	23.2	10.2	7.9	46.6	15.2	22.7	30.8
Bulk density (g/cm^3)	22	1.50	0.15	1.19	1.73	1.38	1.54	1.61	22	1.53	0.11	1.29	1.71	1.47	1.52	1.59
Organic matter (% g/g)	16	5.0	1.7	2.5	7.4	3.6	4.8	6.4	16	2.2	0.2	1.7	2.5	2.1	2.2	2.4
Depth of horizon (mm)	22	162	38	100	262	140	160	180	10	160	39	80	210	140	155	200
Chemical Properties																
EC (dS/m)	16	0.25	0.21	0.07	0.72	0.11	0.16	0.36	16	0.30	0.28	0.07	1.10	0.11	0.22	0.37
pH (H_2O)	16	6.4	0.7	5.5	8.4	5.8	6.5	6.7	16	7.3	0.8	5.8	9.1	6.8	7.3	7.7
pH ($CaCl_2$)	16	5.8	0.8	4.9	7.9	5.1	6.0	6.3	16	6.6	0.9	5.4	8.5	6.0	6.6	7.2
Ca (meq/100g)	16	7.7	3.2	4.8	18.0	5.6	7.2	9.0	16	7.8	3.2	4.2	18.0	6.0	6.9	8.6
Mg (meq/100g)	16	6.1	2.0	3.0	8.7	4.1	6.3	7.7	16	7.9	1.9	4.0	10.0	6.9	8.4	9.6
Na (meq/100g)	16	1.1	0.7	0.3	2.9	0.6	1.0	1.5	16	1.8	1.0	0.3	3.7	1.1	1.5	2.9
K (meq/100g)	16	0.6	0.4	0.2	1.4	0.3	0.4	1.0	16	0.7	0.3	0.2	1.2	0.4	0.7	1.0
ESP	16	7.0	3.0	2.8	14.7	4.9	7.5	8.7	16	9.7	4.8	2.8	17.2	4.8	9.4	14.0
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	18	46.8	29.1	12.0	120.7	26.3	36.4	72.6	17	6.30	4.38	0.19	14.85	2.86	6.03	9.59
Final infiltration rate (mm/hr)									16	2.48	3.66	0.01	10.26	0.25	0.74	3.06
Available water capacity (% cm^3/cm^3)	7	11.8	2.1	9.6	15.1	9.9	11.7	13.5	8	12.5	2.5	9.1	16.2	10.5	12.7	14.2
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	7	45.1	4.5	38.1	53.2	43.5	44.7	46.2	8	47.4	9.8	32.9	60.5	40.1	46.3	56.5
10	7	40.5	3.4	34.3	43.5	38.8	41.0	43.3	8	40.7	8.3	27.1	51.2	34.9	40.7	48.1
60	7	35.4	4.4	30.0	40.3	30.9	36.9	39.4	8	36.5	8.7	22.2	47.4	30.7	36.6	43.8
1500	7	28.8	3.2	24.4	33.0	26.1	29.8	31.0	8	28.2	7.4	13.8	36.0	23.6	30.5	33.7

Table 29.16 RC irrigation area - Soil Group 4

Soil Group 4 **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	10	29.2	12.1	13.4	47.9	21.7	24.9	42.4	10	48.5	11.2	23.1	60.1	43.1	51.5	57.3
Silt (% g/g)	10	39.2	7.5	28.5	54.5	34.2	37.0	44.8	10	33.4	8.7	24.2	54.5	27.0	31.9	37.3
Sand (% g/g)	10	31.6	12.7	8.3	44.7	21.5	37.3	41.3	10	18.1	5.9	8.5	28.0	13.5	19.1	22.2
Bulk density (g/cm^3)	10	1.55	0.13	1.34	1.74	1.45	1.53	1.63	10	1.52	0.05	1.43	1.57	1.49	1.53	1.56
Organic matter (% g/g)	5	4.0	0.9	3.4	5.3	3.4	3.4	4.8	5	2.0	0.4	1.5	2.5	1.7	1.9	2.2
Depth of horizon (mm)	10	147	28	120	200	120	140	170	10	214	48	160	320	180	205	230
Chemical Properties																
EC (dS/m)	5	0.21	0.05	0.13	0.27	0.19	0.23	0.24	5	0.31	0.11	0.17	0.45	0.25	0.30	0.39
pH (H_2O)	5	6.1	0.5	5.4	6.7	5.8	6.0	6.4	5	7.3	0.6	6.6	8.0	6.7	7.5	7.7
pH ($CaCl_2$)	5	5.6	0.5	5.0	6.1	5.2	5.4	6.0	5	6.7	0.7	5.9	7.7	6.1	6.7	7.0
Ca (meq/100g)	5	7.1	3.9	3.1	13.0	3.8	7.5	9.3	5	9.1	4.7	4.4	17.0	6.7	7.9	10.8
Mg (meq/100g)	5	4.4	0.8	3.5	5.5	3.8	4.2	5.2	5	9.5	2.1	7.5	13.0	8.0	9.3	10.5
Na (meq/100g)	5	0.9	0.6	0.1	1.5	0.6	1.0	1.4	5	2.2	1.1	0.9	4.0	1.5	2.1	2.7
K (meq/100g)	5	0.5	0.2	0.2	0.7	0.4	0.6	0.6	5	0.6	0.3	0.4	1.0	0.4	0.5	0.8
ESP	5	8.5	5.6	0.5	15.6	4.6	9.7	11.8	5	11.0	5.3	2.8	17.9	8.9	11.5	13.2
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	9	26.7	20.4	9.8	74.8	14.7	17.4	35.5	7	2.78	1.61	0.82	4.80	1.27	2.63	4.29
Final infiltration rate (mm/hr)									5	1.18	0.51	0.70	1.98	0.77	1.16	1.44
Available water capacity (% cm^3/cm^3)	10	11.2	2.0	8.2	14.1	9.7	10.8	12.8	10	13.1	3.9	5.9	18.5	11.4	13.3	16.2
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	10	43.1	5.9	35.2	52.2	40.1	42.3	47.8	10	50.3	4.9	43.7	58.6	46.5	49.2	54.7
10	10	38.5	5.4	29.0	46.7	36.8	38.0	41.1	10	45.6	4.4	37.6	52.1	43.8	44.7	48.4
60	10	34.2	5.6	24.7	42.8	31.2	34.5	35.6	10	41.8	4.4	33.3	47.7	39.3	42.4	45.3
1500	10	27.4	5.8	19.7	35.9	22.7	28.9	29.7	10	32.5	4.1	24.5	38.5	30.1	33.3	35.0

Table 29.17 RC irrigation area - Soil Group 5

Soil Group 5 **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75	Sampling Points	Mean	Std	Min	Max	Percentile 25	Percentile 50	Percentile 75
Physical Properties																
Particle size distribution																
Clay (% g/g)	8	36.8	13.6	23.6	62.7	27.8	30.6	45.8	8	62.7	3.5	56.8	67.3	60.6	62.7	65.6
Silt (% g/g)	8	28.1	3.5	22.9	34.1	25.7	28.1	30.2	8	19.5	4.3	13.9	24.9	16.7	17.6	24.2
Sand (% g/g)	8	35.1	11.7	10.9	46.5	29.6	39.6	42.4	8	17.8	5.2	11.0	26.9	13.7	17.9	20.7
Bulk density (g/cm^3)	8	1.42	0.09	1.29	1.53	1.34	1.41	1.51	8	1.45	0.03	1.41	1.51	1.43	1.45	1.47
Organic matter (% g/g)	6	5.4	1.7	2.9	8.0	4.8	5.3	5.9	6	2.1	0.3	1.8	2.5	1.8	2.2	2.3
Depth of horizon (mm)	8	161	15	130	170	155	170	170	4	155	39	110	200	125	155	185
Chemical Properties																
EC (dS/m)	6	0.40	0.17	0.13	0.64	0.31	0.42	0.47	6	0.39	0.16	0.24	0.64	0.24	0.35	0.52
pH (H_2O)	6	6.7	0.2	6.5	6.9	6.5	6.7	6.8	6	7.5	0.2	7.3	7.7	7.4	7.5	7.7
pH ($CaCl_2$)	6	6.1	0.2	5.7	6.4	6.1	6.2	6.3	6	6.9	0.1	6.8	7.0	6.8	6.9	6.9
Ca (meq/100g)	6	8.3	1.5	5.9	9.8	7.8	8.5	9.5	6	8.6	1.1	6.7	9.9	8.1	8.9	9.2
Mg (meq/100g)	6	7.3	0.6	6.5	8.2	6.9	7.2	7.9	6	10.7	1.8	7.9	13.0	10.0	10.5	12.0
Na (meq/100g)	6	1.8	0.3	1.4	2.4	1.7	1.8	1.8	6	3.7	0.5	2.9	4.3	3.3	3.7	4.1
K (meq/100g)	6	0.9	0.4	0.4	1.4	0.8	0.9	1.3	6	1.8	0.7	0.5	2.6	1.8	1.9	2.0
ESP	6	9.9	2.2	7.6	13.6	8.5	9.2	11.2	6	14.9	2.4	10.9	17.2	13.6	15.7	16.6
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	7	33.2	23.6	14.4	82.5	17.4	24.6	38.4	6	1.82	1.05	0.54	3.67	1.35	1.73	1.89
Final infiltration rate (mm/hr)									6	0.42	0.43	0.06	1.20	0.08	0.34	0.51
Available water capacity (% cm^3/cm^3)	4	12.3	4.9	7.2	18.9	8.9	11.6	15.8	4	11.9	1.3	10.9	13.8	11.0	11.4	12.8
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	4	49.5	4.6	45.2	53.8	45.6	49.5	53.5	4	55.4	6.9	49.0	61.5	49.4	55.6	61.4
10	4	45.5	2.9	43.0	48.7	43.0	45.2	48.0	4	48.2	2.9	45.1	52.1	46.3	47.7	50.0
60	4	42.8	3.4	39.5	47.0	40.1	42.3	45.5	4	46.3	2.6	43.6	49.9	44.7	45.9	47.9
1500	4	33.2	4.5	28.4	38.1	29.4	33.2	36.9	4	36.3	1.6	34.3	38.3	35.2	36.2	37.3

Table 29.18 RC irrigation area - Soil Group 6

Soil Group 6 **Irrigation Area** RC

Soil Properties	Horizon A								Horizon B1							
	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75	Sampling Points	Mean	Std	Min	Max	Percentile 25	50	75
Physical Properties																
Particle size distribution																
Clay (% g/g)	6	37.4	21.9	19.6	70.8	21.7	26.6	59.1	6	59.3	3.6	54.2	63.7	56.5	59.6	62.2
Silt (% g/g)	6	27.9	4.9	21.5	32.9	23.9	28.0	32.8	6	22.4	7.5	15.2	34.4	18.3	18.8	28.8
Sand (% g/g)	6	34.7	20.5	7.6	56.5	10.3	44.2	45.5	6	18.3	9.2	7.3	28.3	7.5	19.9	27.0
Bulk density (g/cm^3)	6	1.52	0.19	1.23	1.72	1.36	1.58	1.68	6	1.48	0.07	1.41	1.57	1.41	1.45	1.56
Organic matter (% g/g)	5	4.4	1.3	2.5	5.7	3.6	4.6	5.4	5	2.5	0.8	1.3	3.3	2.1	2.7	3.2
Depth of horizon (mm)	6	177	50	100	240	140	190	200	2	235		200	270			
Chemical Properties																
EC (dS/m)	5	0.12	0.05	0.08	0.21	0.09	0.10	0.14	5	0.13	0.05	0.07	0.21	0.09	0.12	0.16
pH (H_2O)	5	6.1	0.7	5.5	7.1	5.6	5.7	6.6	5	7.4	0.4	7.0	7.8	7.1	7.3	7.8
pH ($CaCl_2$)	5	5.5	0.7	4.9	6.6	5.0	5.1	5.9	5	6.6	0.5	6.1	7.3	6.2	6.4	6.9
Ca (meq/100g)	5	7.5	4.9	4.1	16.0	4.2	6.3	9.3	5	9.1	3.3	7.0	15.0	7.4	7.6	9.9
Mg (meq/100g)	5	5.0	2.2	3.2	8.6	3.3	4.4	6.4	5	9.8	0.9	8.4	11.0	9.5	9.9	10.2
Na (meq/100g)	5	0.6	0.2	0.4	0.8	0.5	0.6	0.6	5	1.5	0.6	1.0	2.2	1.1	1.2	2.1
K (meq/100g)	5	0.9	1.1	0.3	2.9	0.3	0.6	1.3	5	1.1	0.7	0.4	2.2	0.6	0.9	1.5
ESP	5	4.6	1.8	2.1	6.7	3.7	4.4	6.0	5	7.3	2.8	4.2	10.4	5.1	6.3	10.1
Hydraulic Properties																
Sat. hydraulic conductivity (mm/hr)	6	23.0	16.5	4.0	49.6	12.8	20.7	30.1	5	1.39	1.00	0.44	3.12	0.92	1.14	1.64
Final infiltration rate (mm/hr)									4	0.03	0.02	0.01	0.05	0.01	0.03	0.05
Available water capacity (% cm^3/cm^3)	4	12.4	3.9	8.5	16.3	9.1	12.3	15.7	4	13.2	2.8	10.2	15.7	10.8	13.5	15.6
Water retention characteristic																
Volumetric water content (% cm^3/cm^3) at																
Matric suction (kPa)																
0	4	56.3	8.5	48.0	67.8	50.2	54.7	62.4	4	61.2	3.0	59.3	65.7	59.6	60.0	62.9
10	4	45.8	4.5	41.3	51.6	42.3	45.1	49.2	4	52.3	1.6	50.2	53.6	51.0	52.7	53.6
60	4	42.4	5.2	36.9	49.0	38.6	41.9	46.3	4	48.7	1.3	47.5	50.6	47.8	48.3	49.5
1500	4	33.4	7.5	24.9	43.0	28.4	32.7	38.4	4	39.1	1.7	37.9	41.6	38.0	38.4	40.2