

Appendix

Table S1. In-situ soil moisture by TDR

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
2013.03.21	01	01-1	10.4	7.9	2.36	1.37	0.30
		01-2	7.6				
		01-3	5.7				
		01-4					
		01-5					
	02	02-1	7.9	6.1	1.32	0.66	0.22
		02-2	6.3				
		02-3	4.9				
		02-4	5.4				
		02-5					
	03	03-1	10.6	8.7	1.23	0.55	0.14
		03-2	9.1				
		03-3	8.2				
		03-4	7.3				
		03-5	8.4				
	04	04-1	7.6	6.8	0.69	0.31	0.10
		04-2	7.2				
		04-3	6.8				
		04-4	6.5				
		04-5	5.8				
	05	05-1	7	6.7	0.30	0.14	0.05
		05-2	6.9				
		05-3	6.7				
		05-4	6.4				
		05-5	6.3				
	06	06-1	6.5	6.0	0.40	0.18	0.07
		06-2	5.5				
		06-3	6.3				
		06-4	5.8				
		06-5	5.9				
	07	07-1	8.8	7.8	0.65	0.29	0.08
		07-2	8.1				
		07-3	7.5				
		07-4	7.1				
		07-5	7.6				
	08	08-1	4	3.4	0.38	0.17	0.11
		08-2	3.6				
		08-3	3.1				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	09	08-4	3.1	5.7	0.68	0.30	0.12
		08-5	3.3				
		09-1	4.5				
		09-2	5.7				
		09-3	6.2				
	10	09-4	5.8	4.5	0.47	0.21	0.10
		09-5	6.1				
		10-1	5.1				
		10-2	3.8				
		10-3	4.5				
	11	10-4	4.7	5.8	0.16	0.07	0.03
		10-5	4.6				
		11-1	5.9				
		11-2	5.5				
		11-3	5.8				
	12	11-4	5.8	4.4	0.36	0.16	0.08
		11-5	5.9				
		12-1	4.5				
		12-2	3.9				
		12-3	4.3				
	13	12-4	4.5	4.7	0.18	0.08	0.04
		12-5	4.9				
		13-1	4.8				
		13-2	4.6				
		13-3	4.5				
	14	13-4	4.5	8.0	0.48	0.22	0.06
		13-5	4.9				
		14-1	8.7				
		14-2	8.3				
		14-3	7.9				
	15	14-4	7.5	6.9	0.21	0.09	0.03
		14-5	7.7				
		15-1	7				
		15-2	6.6				
		15-3	6.9				
	16	15-4	6.7	6.3	0.45	0.20	0.07
		15-5	7.1				
		16-1	5.7				
		16-2	6.1				
		16-3	6.3				
		16-4	6.7				
		16-5	6.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	17	17-1	7.3	8.2	0.68	0.30	0.08
		17-2	7.6				
		17-3	8.8				
		17-4	8.6				
		17-5	8.6				
	18	18-1	6.2	6.1	0.33	0.15	0.05
		18-2	5.8				
		18-3	6.6				
		18-4	5.9				
		18-5	5.9				
	19	19-1	9	9.3	0.54	0.24	0.06
		19-2	8.8				
		19-3	8.9				
		19-4	9.5				
		19-5	10.1				
	20	20-1	8.2	7.9	0.18	0.08	0.02
		20-2	7.7				
		20-3	8				
		20-4	7.9				
		20-5	7.9				
	21	21-1	14.3	14.7	0.40	0.18	0.03
		21-2	14.4				
		21-3	14.8				
		21-4	15.3				
		21-5	14.9				
	22	22-1	7	8.1	1.04	0.46	0.13
		22-2	7				
		22-3	8.3				
		22-4	8.9				
		22-5	9.2				
	23	23-1	11.2	10.2	0.57	0.26	0.06
		23-2	10.1				
		23-3	10.1				
		23-4	9.7				
		23-5	10				
	24	24-1	7.6	7.0	0.36	0.16	0.05
		24-2	7.2				
		24-3	6.8				
		24-4	6.8				
		24-5	6.8				
	25	25-1	9	9.4	0.32	0.14	0.03
		25-2	9.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		25-3	9.6	6.9	0.75	0.34	0.11
		25-4	9.3				
		25-5	9.2				
		26-1	5.7				
		26-2	6.5				
	26	26-3	7.3	6.0	0.37	0.17	0.06
		26-4	7.3				
		26-5	7.5				
		27-1	5.7				
		27-2	6.1				
	27	27-3	5.5	4.6	0.23	0.10	0.05
		27-4	6.2				
		27-5	6.4				
		28-1	4.5				
		28-2	4.4				
	28	28-3	4.6	9.3	2.02	0.90	0.22
		28-4	4.7				
		28-5	5				
		29-1	7.6				
		29-2	7.9				
	29	29-3	8.2	13.0	1.40	0.63	0.11
		29-4	10.4				
		29-5	12.3				
		30-1	14.8				
		30-2	10.9				
	30	30-3	13.2	7.6	1.55	0.69	0.20
		30-4	13.4				
		30-5	12.9				
		31-1	8.7				
		31-2	5.4				
	31	31-3	6.5	5.9	2.15	0.96	0.36
		31-4	8.2				
		31-5	9				
		32-1	7.6				
		32-2	6.2				
	32	32-3	2.9	8.9	0.78	0.35	0.09
		32-4	8.2				
		32-5	4.8				
		33-1	8.4				
		33-2	9				
	33	33-3	9.5				
		33-4	9.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
2013.04.14	34	33-5	7.9	4.9	0.64	0.28	0.13
		34-1	5.1				
		34-2	4				
		34-3	5.1				
		34-4	4.6				
	35	34-5	5.7	9.7	0.57	0.25	0.06
		35-1	9.5				
		35-2	9.5				
		35-3	9.5				
		35-4	9.3				
	36	35-5	10.7	8.6	1.55	0.69	0.18
		36-1	10.4				
		36-2	9				
		36-3	9.5				
		36-4	7.6				
	37	36-5	6.5	7.0	1.16	0.52	0.17
		37-1	5.1				
		37-2	7				
		37-3	8.2				
		37-4	7.6				
	38	37-5	7	5.6	0.58	0.26	0.10
		38-1	5.4				
		38-2	6.5				
		38-3	5.1				
		38-4	5.1				
	39	38-5	5.7	3.6	1.27	0.57	0.35
		39-1	3.4				
		39-2	2.6				
		39-3	4.3				
		39-4	5.4				
	40	39-5	2.3	9.4	1.83	0.82	0.20
		40-1	9				
		40-2	11.8				
		40-3	8.2				
		40-4	7.3				
	01	40-5	10.7	22.6	2.45	1.10	0.11
		01-1	20.9				
		01-2	22.3				
		01-3	19.8				
		01-4	24.5				
	02	01-5	25.7	7.1	1.29	0.58	0.18
		02-1	6.2				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		02-2	5.7	4.4	0.93	0.42	0.21
		02-3	6.8				
		02-4	8.7				
		02-5	8.2				
		03-1	3.4				
	03	03-2	4	5.2	0.55	0.25	0.11
		03-3	4				
		03-4	5.7				
		03-5	5.1				
		04-1	4.5				
	04	04-2	5.4	11.4	1.96	0.87	0.17
		04-3	5.9				
		04-4	5.4				
		04-5	4.8				
		05-1	9.5				
	05	05-2	11.8	3.9	0.99	0.44	0.25
		05-3	14.5				
		05-4	10.9				
		05-5	10.1				
		06-1	4.3				
	06	06-2	4.8	17.1	2.30	1.03	0.13
		06-3	4.8				
		06-4	2.6				
		06-5	3.2				
		07-1	14				
	07	07-2	18.7	2.3	0.87	0.39	0.37
		07-3	19.3				
		07-4	15.4				
		07-5	18.2				
		08-1	2				
	08	08-2	3.2	13.9	2.48	1.11	0.18
		08-3	3.2				
		08-4	1.2				
		08-5	2				
		09-1	12.3				
	09	09-2	12.3	16.9	3.73	1.67	0.22
		09-3	18.2				
		09-4	14				
		09-5	12.9				
		10-1	14.5				
	10	10-2	22.9				
		10-3	16.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	11	10-4	17.3	2.2	0.75	0.34	0.35
		10-5	13.2				
		11-1	1.8				
		11-2	1.5				
		11-3	2.3				
	12	11-4	3.4	17.2	1.37	0.61	0.08
		11-5	1.8				
		12-1	16.8				
		12-2	18.7				
		12-3	17.9				
	13	12-4	17.6	27.9	3.39	1.51	0.12
		12-5	15.1				
		13-1	29.3				
		13-2	32.3				
		13-3	28.7				
	14	13-4	25.4	15.8	4.52	2.02	0.29
		13-5	23.7				
		14-1	14.5				
		14-2	10.9				
		14-3	14.8				
	15	14-4	15.4	11.6	3.93	1.76	0.34
		14-5	23.2				
		15-1	7				
		15-2	9.5				
		15-3	17.3				
	16	15-4	13.4	3.6	0.50	0.22	0.14
		15-5	10.9				
		16-1	4				
		16-2	3.2				
		16-3	3.4				
	17	16-4	3.2	4.1	1.67	0.75	0.40
		16-5	4.3				
		17-1	6.5				
		17-2	4.8				
		17-3	2				
	18	17-4	3.4	3.7	0.54	0.24	0.15
		17-5	4				
		18-1	4.5				
		18-2	3.4				
		18-3	4				
		18-4	3.4				
		18-5	3.2				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	19	19-1	3.7	3.5	0.54	0.24	0.15
		19-2	3.7				
		19-3	4				
		19-4	3.4				
		19-5	2.6				
	20	20-1	17.3	18.6	2.68	1.20	0.14
		20-2	21.8				
		20-3	14.8				
		20-4	20				
		20-5	19.3				
	21	21-1	2	3.2	0.84	0.37	0.26
		21-2	4				
		21-3	4				
		21-4	3.2				
		21-5	2.9				
	22	22-1	2.6	2.9	0.76	0.34	0.26
		22-2	4				
		22-3	2				
		22-4	3.2				
		22-5	2.6				
	23	23-1	30.1	30.7	2.27	1.02	0.07
		23-2	31.8				
		23-3	34				
		23-4	29				
		23-5	28.4				
	24	24-1	3.7	5.5	2.40	1.07	0.44
		24-2	9				
		24-3	4.8				
		24-4	6.8				
		24-5	3.2				
	25	25-1	2	2.7	0.99	0.44	0.36
		25-2	2.6				
		25-3	1.8				
		25-4	2.9				
		25-5	4.3				
	26	26-1	3.7	3.3	1.59	0.71	0.48
		26-2	5.9				
		26-3	2.3				
		26-4	2				
		26-5	2.6				
	27	27-1	4.5	4.0	0.83	0.37	0.21
		27-2	2.9				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		27-3	4	10.5	2.17	0.97	0.21
		27-4	3.7				
		27-5	5.1				
		28-1	12.9				
		28-2	12.3				
		28-3	8.2				
		28-4	8.4				
		28-5	10.9				
		29-1	3.4				
		29-2	6.8				
	29	29-3	8.7	5.9	1.97	0.88	0.33
		29-4	5.7				
		29-5	5.1				
		30-1	28.7				
		30-2	17.3				
	30	30-3	17.3	21.8	5.31	2.37	0.24
		30-4	19.5				
		30-5	26.2				
		31-1	19.5				
		31-2	21.2				
	31	31-3	19.8	25.6	7.66	3.43	0.30
		31-4	35.9				
		31-5	31.8				
		32-1	15.9				
		32-2	15.7				
	32	32-3	22	17.5	2.70	1.21	0.15
		32-4	18.2				
		32-5	15.9				
		33-1	13.4				
		33-2	23.2				
	33	33-3	21.2	19.8	5.64	2.52	0.29
		33-4	26.5				
		33-5	14.5				
		34-1	8.4				
		34-2	6.2				
	34	34-3	6.2	7.1	0.99	0.44	0.14
		34-4	7				
		34-5	7.9				
		35-1	15.4				
		35-2	10.7				
	35	35-3	16.2	16.1	5.83	2.61	0.36
		35-4	25.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
2019-05-10	36	35-5	12.6	11.6	2.51	1.12	0.22
		36-1	11.8				
		36-2	15.4				
		36-3	11.8				
		36-4	10.1				
	37	36-5	8.7	17.1	4.45	1.99	0.26
		37-1	17				
		37-2	12.9				
		37-3	24.5				
		37-4	14.5				
	38	37-5	16.8				
		38-1	2.6	1.9	0.54	0.24	0.28
		38-2	1.2				
		38-3	2.3				
		38-4	1.8				
		38-5	1.8				
	39	39-1	24.5	25.3	0.71	0.35	0.03
		39-2	25.4				
		39-3	26.2				
		39-4	25.1				
		39-5					
	40	40-1	15.4	14.6	5.33	2.38	0.36
		40-2	23.4				
		40-3	10.3				
		40-4	13.3				
		40-5	10.7				
	41	41-1	6.7	7.7	1.83	0.82	0.24
		41-2	10.7				
		41-3	5.9				
		41-4	7.6				
		41-5	7.4				
	42	42-1	1	2.3	0.96	0.43	0.43
		42-2	1.8				
		42-3	2.6				
		42-4	3.6				
		42-5	2.3				
2019-05-11	43	43-1	2.6	2.7	0.28	0.12	0.10
		43-2	2.9				
		43-3	3				
		43-4	2.6				
		43-5	2.3				
2019-05-12	44	44-1	8.6	8.3	0.76	0.34	0.09

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
2013.05.15	01	44-2	7	4.2	0.31	0.14	0.07
		44-3	9				
		44-4	8.5				
		44-5	8.3				
		01-1	4.3				
		01-2	3.8				
		01-3	4.6				
		01-4	4.3				
		01-5	4				
		02-1	4				
	02	02-2	4.1	3.9	0.49	0.22	0.13
		02-3	4.1				
		02-4	3.1				
		02-5	4.4				
		03-1	4.4				
	03	03-2	4.2	3.8	1.06	0.47	0.28
		03-3	2.3				
		03-4	3.1				
		03-5	4.9				
		04-1	4.1				
	04	04-2	4.1	4.3	0.81	0.36	0.19
		04-3	5.3				
		04-4	4.9				
		04-5	3.2				
		05-1	4				
	05	05-2	3.5	3.9	0.85	0.38	0.22
		05-3	3.8				
		05-4	2.9				
		05-5	5.2				
		06-1	3.5				
	06	06-2	2.9	3.2	0.48	0.22	0.15
		06-3	2.6				
		06-4	3.8				
		06-5	3.4				
		07-1	4.8				
	07	07-2	5.5	5.8	0.98	0.44	0.17
		07-3	5.4				
		07-4	5.9				
		07-5	7.4				
		08-1	5.2				
	08	08-2	4.2	5.6	1.44	0.64	0.25
		08-3	5.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	09	08-4	5	7.1	0.91	0.41	0.13
		08-5	8				
		09-1	6.2				
		09-2	6.6				
		09-3	7.9				
	10	09-4	6.7	3.9	0.18	0.08	0.05
		09-5	8.3				
		10-1	3.8				
		10-2	4				
		10-3	3.8				
	11	10-4	3.8	8.1	0.76	0.34	0.09
		10-5	4.2				
		11-1	7.9				
		11-2	8.6				
		11-3	7.7				
	12	11-4	7.3	2.7	0.33	0.15	0.12
		11-5	9.2				
		12-1	2.8				
		12-2	2.4				
		12-3	3.2				
	13	12-4	2.5	5.9	0.44	0.20	0.07
		12-5	2.5				
		13-1	5.2				
		13-2	6				
		13-3	6.1				
	14	13-4	6.4	10.0	2.02	0.90	0.20
		13-5	6				
		14-1	7.4				
		14-2	8.2				
		14-3	11.5				
	15	14-4	10.9	3.8	1.57	0.70	0.42
		14-5	11.8				
		15-1	2.3				
		15-2	4.5				
		15-3	2				
	16	15-4	4.3	5.2	1.63	0.73	0.32
		15-5	5.7				
		16-1	7				
		16-2	3.4				
		16-3	4.3				
			16-4				
			16-5				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	17	17-1	5.7	5.5	1.39	0.62	0.25
		17-2	4.5				
		17-3	4				
		17-4	7.6				
		17-5	5.7				
	18	18-1	17	18.4	1.28	0.57	0.07
		18-2	17.3				
		18-3	18.7				
		18-4	19				
		18-5	20.1				
	19	19-1	2.9	3.9	1.60	0.71	0.41
		19-2	4.3				
		19-3	4.3				
		19-4	2				
		19-5	6.2				
	20	20-1	6.2	8.5	2.53	1.13	0.30
		20-2	11.8				
		20-3	5.9				
		20-4	8.4				
		20-5	10.1				
	21	21-1	5.7	4.3	1.88	0.84	0.44
		21-2	4.5				
		21-3	2.3				
		21-4	6.5				
		21-5	2.5				
	22	22-1	5.4	4.9	0.74	0.33	0.15
		22-2	5.4				
		22-3	4.8				
		22-4	3.7				
		22-5	5.4				
	23	23-1	16.2	16.1	2.38	1.06	0.15
		23-2	20.1				
		23-3	15.4				
		23-4	14.8				
		23-5	14				
	24	24-1	15.1	17.7	3.23	1.44	0.18
		24-2	15.4				
		24-3	15.7				
		24-4	22.3				
		24-5	19.8				
	25	25-1	17.6	18.4	1.65	0.74	0.09
		25-2	17.6				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		25-3	16.5	2.1	0.80	0.36	0.39
		25-4	20.4				
		25-5	19.8				
		26-1	1.5				
		26-2	2.9				
	26	26-3	1.2	15.7	2.68	1.20	0.17
		26-4	1.8				
		26-5	2.9				
		27-1	11.2				
		27-2	15.7				
	27	27-3	17.9	12.1	2.36	1.06	0.20
		27-4	17.6				
		27-5	15.9				
		28-1	15.7				
		28-2	9.8				
	28	28-3	13.2	7.1	1.23	0.55	0.17
		28-4	10.9				
		28-5	10.9				
		29-1	8.5				
		29-2	8.2				
	29	29-3	6.2	15.9	1.86	0.83	0.12
		29-4	6.8				
		29-5	5.7				
		30-1	13.4				
		30-2	14.8				
	30	30-3	16.5	9.9	2.38	1.07	0.24
		30-4	18.2				
		30-5	16.8				
		31-1	6.5				
		31-2	9.8				
	31	31-3	10.4	19.4	2.70	1.21	0.14
		31-4	9.8				
		31-5	13.2				
		32-1	16.2				
		32-2	16.8				
	32	32-3	20.4	6.5	1.25	0.56	0.19
		32-4	22				
		32-5	21.5				
		33-1	7.3				
		33-2	8.2				
	33	33-3	5.1				
		33-4	5.7				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
2013.06.01	34	33-5	6.2	10.2	1.13	0.50	0.11
		34-1	11.8				
		34-2	9				
		34-3	10.7				
		34-4	9.3				
	35	34-5	10.1	4.1	0.66	0.30	0.16
		35-1	3.2				
		35-2	3.8				
		35-3	4.7				
		35-4	4.1				
	36	35-5	4.8	3.5	0.66	0.30	0.19
		36-1	4.2				
		36-2	3.4				
		36-3	3.6				
		36-4	2.5				
	37	36-5	4	4.9	0.36	0.16	0.07
		37-1	5.4				
		37-2	4.6				
		37-3	4.7				
		37-4	4.7				
	01	37-5	5.2	11.1	2.24	1.00	0.20
		01-1	14.8				
		01-2	8.7				
		01-3	10.4				
		01-4	10.9				
	02	01-5	10.9	6.1	1.64	0.74	0.27
		02-1	5.9				
		02-2	4.3				
		02-3	7.3				
		02-4	4.8				
	03	02-5	8.2	6.5	0.68	0.30	0.10
		03-1	6				
		03-2	6.1				
		03-3	6.4				
		03-4	7.7				
	04	03-5	6.5	6.8	0.16	0.07	0.02
		04-1	7				
		04-2	6.6				
		04-3	6.6				
		04-4	6.8				
	05	04-5	6.8	5.7	0.31	0.14	0.05
		05-1	5.8				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
06	06	05-2	5.4	17.7	1.69	0.76	0.10
		05-3	6				
		05-4	5.3				
		05-5	5.9				
		06-1	17.3				
		06-2	18.2				
		06-3	15.4				
		06-4	20.1				
		06-5	17.6				
		07-1	5.6				
		07-2	6.4				
		07-3	5.2				
07	07	07-4	7	6.0	0.70	0.31	0.12
		07-5	6				
		08-1	5.9				
		08-2	4.8				
		08-3	5.8				
		08-4	7				
		08-5	4.9				
		09-1	3.2				
		09-2	6.7				
		09-3	6.5				
		09-4	5.4				
		09-5	5.6				
09	09	10-1	5.9	5.5	1.39	0.62	0.25
		10-2	4.8				
		10-3	8				
		10-4	7.6				
		10-5	5.6				
		11-1	6.6				
		11-2	7.8				
		11-3	6.4				
		11-4	8.9				
		11-5	7.1				
		12-1	10.1				
		12-2	11.4				
12	12	12-3	10.3	10.5	1.57	0.70	0.15
		12-4	12.4				
		12-5	8.2				
		13-1	6.2				
		13-2	6				
		13-3	6.4				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	14	13-4	7.2	6.3	0.64	0.29	0.10
		13-5	7				
		14-1	6.7				
		14-2	7				
		14-3	5.4				
	15	14-4	5.9	5.2	0.60	0.27	0.11
		14-5	6.5				
		15-1	4.3				
		15-2	5				
		15-3	5.9				
	16	15-4	5.4	5.9	0.70	0.31	0.12
		15-5	5.4				
		16-1	5.4				
		16-2	6.4				
		16-3	5				
	17	16-4	6.7	7.6	1.60	0.72	0.21
		16-5	5.9				
		17-1	9.8				
		17-2	7.8				
		17-3	6.6				
	18	17-4	5.6	5.6	0.58	0.26	0.10
		17-5	8.2				
		18-1	5.4				
		18-2	4.9				
		18-3	5.4				
	19	18-4	6	3.5	0.32	0.14	0.09
		18-5	6.4				
		19-1	3.4				
		19-2	3				
		19-3	3.8				
	20	19-4	3.6	6.4	0.76	0.34	0.12
		19-5	3.7				
		20-1	6.7				
		20-2	7				
		20-3	5.4				
	21	20-4	5.9	10.6	0.94	0.42	0.09
		20-5	7.2				
		21-1	11.8				
		21-2	10.4				
		21-3	10.4				
		21-4	9.3				
		21-5	11.2				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
	22	22-1	12	11.2	0.75	0.34	0.07
		22-2	11.5				
		22-3	10.1				
		22-4	11.5				
		22-5	10.7				
	23	23-1	14.8	16.7	1.46	0.65	0.09
		23-2	17.9				
		23-3	17.3				
		23-4	17.9				
		23-5	15.4				
	24	24-1	29	29.9	4.08	1.82	0.14
		24-2	30.7				
		24-3	28.4				
		24-4	25.1				
		24-5	36.2				
	25	25-1	6.5	6.6	0.33	0.15	0.05
		25-2	6.2				
		25-3	6.5				
		25-4	7.1				
		25-5	6.6				
	26	26-1	6.8	8.0	0.84	0.38	0.11
		26-2	8.3				
		26-3	9.1				
		26-4	7.9				
		26-5	7.7				
	27	27-1	5.2	5.3	0.18	0.08	0.03
		27-2	5.4				
		27-3	5				
		27-4	5.4				
		27-5	5.4				
	28	28-1	6	7.1	0.89	0.40	0.13
		28-2	7				
		28-3	7				
		28-4	8.5				
		28-5	7				
	29	29-1	6.1	5.9	0.34	0.15	0.06
		29-2	5.8				
		29-3	6.4				
		29-4	5.9				
		29-5	5.5				
	30	30-1	9.8	8.5	1.04	0.46	0.12
		30-2	9				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		30-3	8.7	5.9	1.79	0.80	0.30
		30-4	8.2				
		30-5	7				
		31-1	4.8				
		31-2	7				
	31	31-3	6.2	14.2	2.85	1.28	0.20
		31-4	3.4				
		31-5	7.9				
		32-1	18.7				
		32-2	12.3				
	32	32-3	11.5	5.9	1.01	0.45	0.17
		32-4	15.1				
		32-5	13.4				
		33-1	4.5				
		33-2	5.9				
	33	33-3	6.2	8.1	1.43	0.64	0.18
		33-4	7.3				
		33-5	5.7				
		34-1	8.2				
		34-2	10.4				
	34	34-3	7.9	6.2	0.63	0.28	0.10
		34-4	7.6				
		34-5	6.5				
		35-1	6.8				
		35-2	5.4				
	35	35-3	6.2	8.7	1.63	0.73	0.19
		35-4	5.7				
		35-5	6.8				
		36-1	11.5				
		36-2	7.3				
	36	36-3	8.7	12.6	0.75	0.34	0.06
		36-4	7.9				
		36-5	8.2				
		37-1	11.5				
		37-2	12.3				
	37	37-3	13.5	10.5	1.58	0.71	0.15
		37-4	12.5				
		37-5	13				
		38-1	11				
		38-2	8.2				
	38	38-3	10.4				
		38-4	10.4				

Date	Sampling points	Measurement points	TDR (%)	Mean (%)	Standard deviation (%)	Standard error (%)	Coefficient-of -variance (%)
		38-5	12.6				
		39-1	7				
		39-2	5.1				
	39	39-3	4	5.6	1.14	0.51	0.20
		39-4	6.2				
		39-5	5.9				
		40-1	9.3				
		40-2	7.6				
	40	40-3	10.7	8.3	1.62	0.72	0.19
		40-4	7.3				
		40-5	6.8				

¹ The actual TDR measurements were given to describe the spatial heterogeneity of soil according to the statistical characteristics of multiple measurements at the same sampling point. In practical application, the TDR measurements were corrected by oven drying method.