Introduction to Section 7 (7b - Soil Water Characteristics values used in IWM.) Ref. SPAW Model, version 6.02.75

Parameter note: soil moisture tension is in bar units	Clay	Silty Clay	Sandy Clay	Clay Loam	Silty Clay Loam	Sandy Clay Loam	Loam	Silty Loam	Silt	Sandy Loam	Loamy Sand	Sand
Matric Bulk Density (million lb/ac-ft)	3.58	3.34	3.95	3.83	3.60	4.12	4.0	3.88	3.9	4.06	4.02	3.91
Saturation (% vol.)	50.3	53.6	45.2	46.9	50.1	43.0	44.6	46.1	45.9	43.7	44.2	45.8
Field Capacity (% vol.)	44.2	42.6	39.0	35.5	38.0	29.7	27.4	29.9	31.3	17.2	12.8	8.3
Wilting Point (% vol.)	32.6	29.7	27.7	22.1	22.0	19.2	14.1	11.7	6.0	8.4	6.6	4.5
Available Water (in/ft)	1.4	1.54	1.38	1.61	1.97	1.26	1.6	2.27	3.03	1.05	0.74	0.45
Matric Potential at Field Capacity (bar)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Matric + Osmotic at Field Capacity (bar)	0.75	0.79	0.75	0.81	0.81	0.86	0.92	0.89	0.86	1.25	1.58	2.32
	1.57	1.69	1.58	1.76	1.76	1.90	2.09	2.00	1.92	3.07	4.06	6.29
Matric Potential at 25% AW depleted (bar)	0.75	0.73	0.74	0.71	0.71	0.71	0.66	0.61	0.54	0.65	0.65	0.62
Matric + Osmotic at 25% AW depleted (bar)	1.19	1.22	1.19	1.23	1.24	1.28	1.33	1.27	1.20	1.71	2.08	2.93
	2.06	2.2	2.09	2.28	2.31	2.42	2.66	2.57	2.53	3.82	4.95	7.56
Matric Potential at 50% AW depleted (bar)	1.84	1.74	1.77	1.67	1.60	1.75	1.56	1.28	1.02	1.33	1.24	0.96
Matric + Osmotic at 50% AW depleted (bar)	2.31	2.27	2.26	2.26	2.20	2.38	2.35	2.08	1.91	2.56	2.88	3.54
	3.25	3.34	3.23	3.43	3.40	3.65	3.91	3.68	3.68	5.01	6.16	8.69

Percentages used in Model: Clay (55% clay & 20% silt), Silty Clay (50% clay & 45% silt), Sandy Clay (45% clay & 10% silt), Clay Loam (35% clay & 35% silt),Silty Clay Loam (35% clay & 55% silt), Sandy Clay Loam (30% clay & 15% silt), Loam (20% clay & 40% silt), Silty Loam (15% clay & 65% silt), Silt (5% clay & 90% silt), Sandy Loam (10% clay & 25% silt), Loamy Sand (7% clay & 15% silt), and Sand (3% clay & 8% silt). Underlined bar values are for soils with EC of 1 dS/m and yellow highlighted values are for soils with EC of 3 dS/m. rudy.garcia.2010

AW = Available Water. EC = Electrical Conductivity (dS/m) of a saturated soil water solution. Organic Matter was set at 2%, with normal compaction and zero % gravel.