Table S2: Ranking of single regression models for soil moisture using AICc scores. Location was included as fixed effect to account for spatial autocorrelation in all models.

	df	logLik	AICc	Δ AICc	AICc weight
Radiation load					
SSRtot	4	-42.86	94.51	0.00	0.28
SSRdif	4	-42.97	94.72	0.21	0.26
HLIdif	4	-43.08	94.95	0.43	0.23
SSRdir	4	-43.19	95.16	0.65	0.21
GAPdif	4	-45.94	100.66	6.15	0.01
GAPtot	4	-46.26	101.31	6.80	0.01
GAPdir	4	-47.93	104.65	10.14	0.00
CC20m^2	5	-47.37	105.93	11.42	0.00
CC30m^2	5	-47.84	106.87	12.36	0.00
CC10m^2	5	-48.13	107.46	12.94	0.00
HLItot	4	-54.08	116.95	22.44	0.00
HLIdir	4	-57.84	124.47	29.96	0.00
Topographic wetness					
SWI 1m	5	-43.88	98.97	0.00	0.31
DTW 1ha	5	-44.29	99.78	0.81	0.21
DTW 2h	5	-44.33	99.86	0.90	0.12
DTW 8h	5	-45.34	101.89	2.92	0.07
SWI 5m	5	-45.48	102.17	3.20	0.06
DTW 10ha	5	-45.48	102.17	3.20	0.06
DTW 4ha	5	-45.88	102.95	3.99	0.04
SWI 10m	5	-46.23	103.66	4.69	0.03
SWI 30m	5	-46.70	104.60	5.63	0.02
Topographic position					
DEV30m	5	-38.54	88.29	0.00	0.71
TPI30m	5	-39.44	90.09	1.80	0.29
DEV10m	5	-43.93	99.06	10.78	0.00
TPI10m	5	-44.23	99.67	11.38	0.00