

Table 9. Treatment effects on soil moisture contents in 2013 (15 May - 17 October 2013)

Moisture content	Effect	P-value	Horizon	Treatment ^y					
				Control	Peat	Sediment	Straw	LFH	Demo
Volumetric moisture content (VMC _{ave}) ^z	Horizon (H)	<0.001	TS	0.089d(b)	0.12c(a)	0.26b(a)	0.054d(b)	0.10c(b)	0.37a(a)
	Treatment (T)	<0.001	US	0.13a(a)	0.12a(a)	0.069b(b)	0.073b(ab)	0.12a(b)	0.12a(c)
	H × T	<0.001	LS	0.13b(a)	0.067c(b)	0.079c(b)	0.094c(a)	0.18a(a)	0.16ab(b)
				Mean ^w	0.122c	0.093d	0.11c	0.079d	0.145b
Surplus water content (SWC) ^y	Horizon (H)	<0.001	TS	0.039b(b)	-0.011c(c)	-0.013c(b)	0.004c(b)	0.051b(b)	0.11a(a)
	Treatment (T)	<0.001	US	0.076a(a)	0.066a(a)	0.019b(a)	0.024b(ab)	0.072a(b)	0.071a(b)
	H × T	<0.001	LS	0.084b(a)	0.018c(b)	0.029c(a)	0.045c(a)	0.13a(a)	0.11ab(a)
				Mean ^w	0.073b	0.026c	0.018c	0.030c	0.096a
Available water content (AWC) ^x	Horizon (H)	<0.001	TS	0.039b	0.073ab	0.12a(a)	0.039b	0.026b	0.12a(a)
	Treatment (T)	0.029	US	0.039	0.039	0.039(b)	0.039	0.039	0.039(b)
	H × T	0.010	LS	0.039	0.039	0.039(b)	0.039	0.039	0.039(b)
				Mean ^w	0.039	0.046	0.055	0.039	0.036
Field capacity (FC)	Treatment (T)	0.013	TS	0.05b	0.13ab	0.27a	—	0.05b	0.26a
Permanent wilting point (PWP)	Treatment (T)	0.019	TS	0.01b	0.06b	0.15a	—	0.02b	0.14a

2

3 ^zVMC_{ave} = average volumetric water contents of individual two-week sampling intervals.4 ^ySWC = VMC_{ave} – Field capacity (FC) at –0.33 bar5 ^xAWC = FC – Permanent wilting point (PWP) at –15 bar6 ^wWeighted mean for the entire profile (0-100 cm depth), where TS = Topsoil (0-20 cm), US = Upper Subsoil (20-50 cm), and LS = Lower Subsoil (50-100 cm). The TS depth for Peat and Sediment plots was 0-10 cm and Demo plot was 0-30 cm.7 ^yTreatment means with the same letter(s) across the row are not statistically different at $P < 0.05$. Significant differences among horizon depths are indicated by letters in parentheses.

8

9

