

Table S5 Change of nitrogen concentration in soil vertical profile

Nitrogen form	Deep	FW	FA	FA-80	IW	IA	IA-80
TN	-18	0.637 ± 0.125c ¹	0.799 ± 0.126b	0.790 ± 0.118b	0.633 ± 0.142c	0.835 ± 0.092a	0.807 ± 0.188b
		0.618 ± 0.085c	0.688 ± 0.102b	0.678 ± 0.055b	0.623 ± 0.125c	0.718 ± 0.118a	0.701 ± 0.132ab
	-36	0.629 ± 0.098a	0.526 ± 0.082c	0.533 ± 0.062bc	0.613 ± 0.075a	0.549 ± 0.062b	0.559 ± 0.080b
		0.395 ± 0.083c	0.444 ± 0.103b	0.467 ± 0.112a	0.388 ± 0.088c	0.471 ± 0.088a	0.458 ± 0.068ab
	-56	0.384 ± 0.026a	0.392 ± 0.070a	0.407 ± 0.088a	0.387 ± 0.036a	0.400 ± 0.076a	0.389 ± 0.085a
		0.402 ± 0.045a	0.346 ± 0.026b	0.353 ± 0.050b	0.393 ± 0.045a	0.330 ± 0.042c	0.322 ± 0.040c
NH ₄ ⁺ -N	-18	0.171 ± 0.021d	0.351 ± 0.030b	0.367 ± 0.056b	0.206 ± 0.069c	0.403 ± 0.062a	0.380 ± 0.099a
		0.169 ± 0.056d	0.262 ± 0.041a	0.254 ± 0.026a	0.203 ± 0.036c	0.268 ± 0.026a	0.244 ± 0.026b
	-36	0.164 ± 0.042c	0.151 ± 0.026c	0.163 ± 0.035c	0.199 ± 0.012b	0.218 ± 0.035a	0.210 ± 0.048a
	-56						
NO ₃ ⁻ -N	-18	0.171 ± 0.021d	0.351 ± 0.030b	0.367 ± 0.056b	0.206 ± 0.069c	0.403 ± 0.062a	0.380 ± 0.099a
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	-56						

¹ The letters in the table indicate the significant difference in different nitrogen form between the treatments (P < 0.05).