

Dependent variable: log N<sub>2</sub>O flux

Covariates	(a) Full model		(b) Optimised model		(c) Simple model	
	Effect size ( $\pm$ SE)	<i>p</i> value	Effect size ( $\pm$ SE)	<i>p</i> value	Effect size ( $\pm$ SE)	<i>p</i> value
Parametric coefficients:						
Control after harvest (Ctr-H)	0.30 ( $\pm$ 0.24)	0.223	0.13 ( $\pm$ 0.22)	0.567	0.17 ( $\pm$ 0.07)	0.012*
Control after fertilisation (Ctr-F)	0.46 ( $\pm$ 0.19)	0.016*	0.40 ( $\pm$ 0.17)	0.025*	0.31 ( $\pm$ 0.06)	< 0.0001***
Clover no management (Clo-0)	0.14 ( $\pm$ 0.18)	0.432	0.11 ( $\pm$ 0.18)	0.529	-0.02 ( $\pm$ 0.03)	0.567
Clover after harvest (Clo-H)	0.24 ( $\pm$ 0.22)	0.269	0.20 ( $\pm$ 0.22)	0.359	0.10 ( $\pm$ 0.07)	0.129
TS ( $^{\circ}$ C)	0.03 ( $\pm$ 0.01)	0.023*	0.03 ( $\pm$ 0.01)	0.004**	0.03 ( $\pm$ 0.002)	< 0.0001***
CO <sub>2</sub> Flux ( $\mu$ mol m <sup>-2</sup> s <sup>-1</sup> )	0.02 ( $\pm$ 0.01)	0.018*	0.02 ( $\pm$ 0.01)	0.025*		
NH <sub>4</sub> -N ( $\mu$ g g <sup>-1</sup> )	0.02 ( $\pm$ 0.01)	0.167	0.02 ( $\pm$ 0.01)	0.074		
NO <sub>3</sub> -N ( $\mu$ g g <sup>-1</sup> )	-0.01 ( $\pm$ 0.01)	0.231				
DOC ( $\mu$ g g <sup>-1</sup> )	0.002 ( $\pm$ 0.001)	0.303				
Constant	-4.22 ( $\pm$ 0.25)	< 0.0001***	-4.17 ( $\pm$ 0.23)	< 0.0001***	-3.97 ( $\pm$ 0.04)	< 0.0001***
Approximate significance of smooth terms						
	edf	<i>p</i> value	edf	<i>p</i> value	edf	<i>p</i> value
SWC	2.33	0.119	1.87	0.048*	1.98	< 0.0001***
O <sub>2</sub> concentration	2.81	0.0001***	2.72	0.0003***		
Observations	90		93		891	
Adjusted <i>r</i> <sup>2</sup>	53.5 %		54.5 %		26.3 %	
Explained deviance	60.9 %		60.2 %		26.9 %	
GCV score	0.1183		0.1152		0.1761	