

Table S1. Results of ANOVA tests for plant and insect responses to Si supplementation comparing grass species (Two-way ANOVA) and examined for each grass species individually (One-way ANOVA). Results shown **in bold** where $P < 0.05$.

Plant / insect response	Corresponding Figure	Two-way ANOVA						One-way ANOVAs			
		Plant species		Si		Plant species × Si		<i>Lolium</i>		<i>Brachypodium</i>	
								Si		Si	
		$F_{1,64}$	P	$F_{1,64}$	P	$F_{1,64}$	P	$F_{1,32}$	P	$F_{1,32}$	P
Si%	2A	226.47	<0.001	794.42	<0.001	134.97	<0.001	215.80	<0.001	580.74	<0.001
C%	2B	253.98	<0.001	49.04	<0.001	36.00	<0.001	0.40	0.533	115.51	<0.001
N%	2C	144.25	<0.001	12.05	<0.001	0.23	0.631	6.34	0.017	5.82	0.022
P%	2D	368.34	<0.001	23.57	<0.001	1.15	0.287	11.59	0.002	14.78	<0.001
C:N	2E	172.72	<0.001	4.35	0.041	0.43	0.515	4.10	0.051	0.94	0.338
C:P	2F	406.62	<0.001	9.27	0.003	0.15	0.698	10.75	0.003	3.53	0.070
Si:C	2G	167.45	<0.001	708.33	<0.001	108.65	<0.001	202.53	<0.001	507.01	<0.001
Si:N	2H	242.19	<0.001	434.94	<0.001	146.83	<0.001	129.57	<0.001	318.75	<0.001
Si:P	2I	329.42	<0.001	501.80	<0.001	206.99	<0.001	218.13	<0.001	365.22	<0.001
RGR	3A	62.42	<0.001	29.84	<0.001	0.03	0.873	16.06	<0.001	13.84	<0.001
RC ^a	3B	3.68	0.06	7.41	0.008	2.20	0.143	7.20	0.012	0.98	0.329
ECI ^b	3C	66.26	<0.001	26.52	<0.001	0.10	0.748	12.12	0.002	15.25	<0.001

Following correction for water loss, one RC and two ECI estimates fell outside biologically feasible ranges and were therefore excluded from analyses. ^a $F_{1,63}$ (two-way ANOVA) and $F_{1,32}$ (one-way ANOVA; *Lolium*); ^b $F_{1,62}$ (two-way ANOVA) and $F_{1,32}$ (both one-way ANOVAs).