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	pH	SOC / %	Total Nitrogen / %	C/N ratio	Olsen-P / mg kg ⁻¹	P-balance / kg ha ⁻¹	K _{ex} / mg kg ⁻¹	Ca _{ex} / g kg ⁻¹
	<i>H</i> =6.3, <i>p</i> =0.096	<i>F</i> _{3,8} =528, <i>p</i> <0.001	<i>F</i> _{3,8} =308, <i>p</i> <0.001	<i>F</i> _{3,8} =3.19, <i>p</i> =0.084	<i>F</i> _{3,8} =32.7, <i>p</i> <0.001	<i>F</i> _{3,8} =37.2, <i>p</i> <0.001	<i>F</i> _{3,8} =82.1, <i>p</i> <0.001	<i>F</i> _{3,8} =75.1, <i>p</i> <0.001
Manured	7.83±0.046	2.89±0.070 ^a	0.279±0.008 ^a	10.36±0.147	105.7±9.3 ^a	27.54±5.44 ^a	610±24.7 ^a	6.14±0.247 ^a
Fertilized	7.43±0.353	1.08±0.026 ^b	0.113±0.003 ^b	9.57±0.294	68.3±5.2 ^b	-14.25±2.14 ^b	312±4.93 ^{c,d}	2.75±0.038 ^c
Fertilized _N	8.09±0.055	0.89±0.006 ^c	0.095±0.003 ^b	9.38±0.242	80.0±10.8 ^a	-4.56±0.67 ^b	423±10.7 ^{b,c}	5.12±0.138 ^b
Fertilized _P	8.15±0.036	1.08±0.032 ^b	0.114±0.004 ^b	9.51±0.286	3.3±0.8 ^c	-1.01±0.43 ^b	374±7.51 ^c	6.60±0.275 ^a

	Mg _{ex} / mg kg ⁻¹	Na _{ex} / mg kg ⁻¹	Grain yield / t ha ⁻¹
	<i>F</i> _{3,8} =528, <i>p</i> <0.001	<i>F</i> _{3,8} =0.67, <i>p</i> =0.592	<i>F</i> _{3,8} =34.7, <i>p</i> <0.001
Manured	117±2.73 ^a	15.3±5.04	5.27±0.32 ^a
Fertilized	93±1.53 ^b	10.7±1.67	5.48±0.69 ^a
Fertilized _N	79±0.88 ^c	10.0±2.31	1.65±0.23 ^b
Fertilized _P	80±2.19 ^c	11.0±1.15	0.66±0.27 ^b

TABLE I. Edaphic and plant parameters for plots of the Broadbalk winter wheat long-term experiment used in this study. The mean and standard error of estimates measured in 2000, 2005 and 2010 are shown for each treatment. Exchangeable cations (K_{ex}, Ca_{ex}, Mg_{ex} and Na_{ex}) were estimated following extraction in ammonium acetate, total nitrogen by combustion, SOC by ultra-violet oxidation, pH was measured in water (1:2.5 soil: solution) and grain yield was measured at 85% dry matter. P-balance was calculated based upon the difference between P-inputs in manure or fertilizer and P removed at harvest in grain and straw. Treatment effects upon the different parameters were tested using either parametric analysis of variance (where an *F* statistic is provided) or non-parametric Kruskal-Wallis test (where an *H* statistic is provided) where data distributions did not meet the assumptions of ANOVA following transformation. Where significant treatment effects are detected, superscripted letters indicate significant differences between treatment means, established by Tukey-Kramer pairwise comparisons ($\alpha=0.05$).