

Table S2: Descriptive statistical parameters of soil P content (mg kg<sup>-1</sup>) as the total sum of Hedley P fractions, single P fractions and in pools of different plant availability, grouped by data sets used for NIRS modelling.

All **used** samples (**BEF+BZE**)

<b>P-Pool</b>	<b>n</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Max</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
total P		26.0	2796.0	323.7	2796.0	371.8	2.4	8.6
Pi Resin	576	0.1	237.3	20.7	237.3	28.7	3.1	12.6
Pi NaHCO <sub>3</sub>		0.0	359.6	14.9	359.6	30.5	5.4	43.1
Po NaHCO <sub>3</sub>		0.0	287.0	33.6	287.0	45.3	2.5	7.1
Pi NaOH		1.3	689.2	48.3	689.2	81.3	3.7	18.7
Po NaOH		3.6	667.8	94.7	667.8	106.7	2.2	5.3
Pi 1M HCl		0.0	1506.0	25.1	1506.0	87.0	12.0	181.7
P HCl conc.		2.6	650.3	58.9	650.3	84.6	2.9	10.7
P Residual		0.6	228.0	27.6	228.0	26.9	2.9	11.7
P labile		1.2	850.0	69.2	850.0	94.4	3.0	13.3
P moderately labile		8.1	2307.7	168.1	2307.7	225.6	3.8	24.7
P stable		6.7	805.2	86.5	805.2	105.3	2.7	9.0

All **BEF** samples

<b>P-Pool</b>	<b>n</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Max</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
total P		26.0	332.0	95.8	48.4	1.7	4.5	26.0
Pi Resin	294	0.1	32.6	6.1	4.1	2.5	10.6	0.1
Pi NaHCO <sub>3</sub>		0.0	7.8	2.0	1.3	1.1	2.0	0.0
Po NaHCO <sub>3</sub>		0.2	38.8	8.8	6.0	1.3	3.5	0.2
Pi NaOH		2.2	23.4	7.9	4.2	1.6	2.9	2.2
Po NaOH		7.4	141.8	36.4	19.1	1.7	6.1	7.4
Pi 1M HCl		0.0	2.3	0.5	0.6	1.1	0.2	0.0
P HCl conc.		2.6	153.2	20.2	20.4	3.6	16.0	2.6
P Residual		3.7	34.7	14.0	5.5	0.5	0.4	3.7
P labile		1.2	78.9	17.0	10.6	1.8	6.4	1.2
P moderately labile		11.0	164.5	44.7	22.3	1.7	5.6	11.0
P stable		10.8	174.8	34.1	23.1	3.0	11.8	10.8

All **BZE** samples

<b>P-Pool</b>	<b>n</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Max</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
total P		58.0	2796.0	561.4	411.5	1.9	6.2	58.0
Pi Resin	282	0.5	237.3	35.8	34.8	2.2	6.7	0.5
Pi NaHCO <sub>3</sub>		0.3	359.6	28.3	39.4	4.1	25.0	0.3
Po NaHCO <sub>3</sub>		0.0	287.0	59.5	53.3	1.7	3.0	0.0
Pi NaOH		1.3	689.2	90.5	100.1	2.8	10.6	1.3
Po NaOH		3.6	667.8	155.4	125.1	1.4	1.7	3.6
Pi 1M HCl		0.3	1506.0	50.8	119.1	9.0	97.5	0.3
P HCl conc.		3.7	650.3	99.4	104.8	2.0	4.8	3.7
P Residual		0.6	228.0	41.9	32.4	2.1	6.4	0.6
P labile		6.0	850.0	123.6	110.9	2.3	8.5	6.0
P moderately labile		8.1	2307.7	296.7	266.7	3.2	18.5	8.1
P stable		6.7	805.2	141.1	127.6	1.9	4.1	6.7

**BZE Brow Earth** samples

<b>P-Pool</b>	<b>n</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Max</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
total P		128.0	2178.0	647.6	433.6	1.3	2.1	128.0
Pi Resin	84	3.3	237.3	43.1	44.3	2.3	6.0	3.3
Pi NaHCO <sub>3</sub>		2.3	359.6	41.9	52.5	3.5	16.7	2.3
Po NaHCO <sub>3</sub>		5.4	287.0	80.0	68.6	1.1	0.5	5.4
Pi NaOH		5.2	689.2	111.7	118.1	2.6	8.5	5.2
Po NaOH		14.2	536.3	196.6	141.0	0.7	-0.5	14.2
Pi 1M HCl		2.5	253.1	42.0	42.7	2.5	8.7	2.5
P HCl conc.		5.2	468.0	98.3	100.6	1.6	2.6	5.2
P Residual		2.4	106.8	34.3	22.5	0.6	0.2	2.4
P labile		10.9	850.0	165.0	147.3	2.1	5.6	10.9
P moderately labile		46.9	1227.0	350.3	250.7	1.2	1.8	46.9
P stable		6.7	534.3	132.2	117.5	1.5	2.1	6.7