

Appendix iii Soil Characterisation

a Element concentration in soils

b Soil parameters

a: Element Concentration by Digestion ICP-MS

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
Derbyshire (P) 1	13	20	7.7	6.7	46	3.1	1.3	0.02	120	2.2
Derbyshire (P) 2	14	9.4	7.8	7	48	2.9	1.4	0.04	120	2.2
Derbyshire (P) 3	13	8.9	7.6	6.8	44	2.6	1.1	0.04	96	1.8
Derbyshire (P) 4	12	8.7	7.1	6.6	45	2.6	1.0		87	1.6
Derbyshire (P) 5	13	8.8	7	6.7	44	2.7	1.1	0.02	95	1.7
Mean	13	11	7.4	6.8	45	2.8	1.2	0.03	104	1.9
SD	0.7	4.9	0.4	0.2	1.7	0.2	0.2	0.01	15	0.3
Gloucester (P) 1	13	10	6.2	8.8	44	3.7	0.30	0.05	27	0.6
Gloucester (P) 2	14	10	7.6	9.5	48	4.1	0.37	0.04	33	0.8
Gloucester (P) 3	12	9.5	6.1	8.6	45	3.7	0.28	0.03	26	0.5
Gloucester (P) 4	13	9.9	6.2	8.8	52	3.7	0.28	0.05	27	0.6
Gloucester (P) 5	11	7.9	5.3	7.5	38	3.3	0.24	0.02	20	0.5
Mean	13	9.5	6.3	8.6	45	3.7	0.29	0.04	27	0.6
SD	1.1	0.9	0.8	0.7	5	0.3	0.05	0.01	4.6	0.1
Kent (Pear) 1	12	10	5.4	6.9	23	2.2	0.40	0.06	44	1.0
Kent (Pear) 2	12	9.2	4.9	6.3	23	2.1	0.44	0.07	47	1.1
Kent (Pear) 3	12	10	5.5	6.4	23	2.2	0.40	0.05	40	1.0
Mean	12	9.7	5.3	6.5	23	2.2	0.41	0.06	34	0.8
SD	0	0.5	0.3	0.3	0	0.1	0.02	0.01	20	0.4
Kent (Apple) 1	10	12	4.4	35	32	2.0	0.30	0.12	26	1.0
Kent (Apple) 2	11	13	4.8	36	33	2.1	0.38	0.16	34	1.2
Kent (Apple) 3	11	12	5.0	34	33	2.2	0.71	0.13	27	1.1
Mean	10.7	9.4	3.6	26	25	1.6	0.35	0.11	27	0.9
SD	5.4	6.0	2.2	17	16	1.0	0.28	0.07	6	0.3
Kent (P1)	15	9.8	4.9	4.2	19	4.7	0.18		12	0.73

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
Kent (P1)	19	12	8.1	4.1	20	4.6	0.2		14	0.88
Kent (P1)	16	10	4.9	3.7	17	4.3	0.18		13	0.75
Kent (P1)	16	10	5.0	4.0	19	4.5	0.99	0.012	14	0.95
Kent (P1)	17	11	4.8	3.9	18	4.9	0.21	0.014	14	0.78
Mean	17	11	5.5	4.0	19	4.6	0.4	0.013	13	0.8
SD	1.5	0.9	1.4	0.2	1.1	0.2	0.4	0.001	0.9	0.1
Kent (P2) 1	17	11	6.1	4.4	18	4.7	0.23		14	0.80
Kent (P2) 2	19	12	7.1	4.6	20	5.1	0.24	0.015	15	0.90
Kent (P2) 3	17	11	6.2	4.6	20	4.3	0.19	0.040	13	0.77
Kent (P2) 4	17	11	5.5	4.5	19	4.3	0.19		13	0.73
Kent (P2) 5	18	11	5.6	4.3	19	4.4	0.19	0.010	14	0.80
Mean	18	11	6.1	4.5	19	4.6	0.21	0.022	14	0.80
SD	0.9	0.4	0.6	0.1	0.8	0.3	0.02	0.016	0.8	0.06
Kinross (P) 1	5.8	3.0	4.3	3.6	9.5	1.8	0.094		16	0.35
Kinross (P) 2	5.6	3.1	2.6	3.7	9.4	1.6	0.110	0.016	16	0.33
Kinross (P) 3	5.6	2.8	2.6	3.8	21	1.5	0.110		15	0.33
Kinross (P) 4	5.5	2.9	2.6	3.5	11	1.6	0.087	0.022	14	0.31
Kinross (P) 5	5.2	2.8	2.3	3.6	9	1.5	0.092	0.049	15	0.33
Mean	5.5	2.9	2.9	3.6	12	1.6	0.099	0.029	15	0.33
SD	0.2	0.1	0.8	0.1	5.1	0.1	0.011	0.018	0.8	0.01
Lancashire (P) 1	13	12	8.2	9.8	37	7.9	0.27	0.18	62	0.75
Lancashire (P) 2	12	12	8.3	10	36	7.3	0.25	0.17	63	0.80
Lancashire (P) 3	12	12	8.1	10	35	7.3	0.27	0.16	63	0.83
Lancashire (P) 4	12	12	8.4	11	34	7.2	0.25	0.16	63	0.78
Lancashire (P) 5	13	13	8.5	10	38	7.9	0.27	0.19	65	0.78
Mean	12	12	8	10	36	7.5	0.26	0.17	63	0.79
SD	0.5	0.4	0.2	0.5	1.6	0.3	0.01	0.01	1.1	0.03
Leicestershire (P) 1	21	14	9.4	7.0	32	4.7	0.20	0.10	20	0.73

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
Leicestershire (P) 2	18	12	8.7	6.2	30	4.8	0.23	0.09	19	0.65
Leicestershire (P) 3	18	12	8.3	5.9	28	4.3	0.19	0.08	20	0.67
Leicestershire (P) 4	19	13	9.4	6.2	30	4.5	0.21	0.10	24	0.85
Leicestershire (P) 5	20	13	8.5	6.6	29	4.5	0.23	0.10	20	0.75
Mean	19	13	8.9	6.4	30	4.6	0.2	0.09	21	0.73
SD	1.3	0.8	0.5	0.4	1.5	0.2	0.0	0.01	1.9	0.08
Lincolnshire (B) 1	9.9	5.6	5.2	3.1	15	3.0	0.44	0.028	28	0.94
Lincolnshire (B) 2	8.4	5.5	6.7	3.0	14	2.4	0.56	0.026	32	0.97
Lincolnshire (B) 3	10	6.1	5.9	3.5	18	2.9	0.64	0.11	41	1.1
Lincolnshire (B) 4	8.9	5.6	5.9	3.4	15	2.6	0.69	0.046	39	1.2
Lincolnshire (B) 5	8.6	5.4	6.0	3.1	14	2.5	0.60	0.031	36	1.1
Mean	9.2	5.6	5.9	3.2	15	2.7	0.59	0.05	35	1.1
SD	0.7	0.3	0.5	0.2	1.6	0.3	0.09	0.04	5.3	0.1
Lincolnshire (P) 1	19	13	9.8	5.9	28	4.5	0.24	0.12	26	1.0
Lincolnshire (P) 2	19	13	10	6.5	29	4.7	0.24	0.14	23	0.87
Lincolnshire (P) 3	19	12	10	6.3	30	5.0	0.22	0.11	23	0.87
Lincolnshire (P) 4	19	13	10	6.4	30	4.5	0.23	0.12	24	0.92
Lincolnshire (P) 5	19	13	10	6.1	29	4.4	0.21	0.11	25	0.97
Mean	19	13	10	6.2	29	4.6	0.23	0.12	24	0.9
SD	0.0	0.4	0.1	0.2	0.8	0.2	0.01	0.01	1	0.1
Northern Ireland (P) 1	22	24	19	12	39	3.1	0.27	0.13	31	0.71
Northern Ireland (P) 2	20	20	17	11	35	2.9	0.27	0.11	24	0.57
Northern Ireland (P) 3	22	24	19	12	40	3	0.24	0.12	29	0.68
Mean	21	23	18	12	38	3.0	0.3	0.1	28	1
SD	1.2	2.3	1.2	0.6	2.6	0.1	0.0	0.0	4	0
Northern Ireland (Ap, Pe) 1	8.6	16	6.7	30	60	1.1	0.19	0.13	10	0.32
Northern Ireland (Ap, Pe) 2	7.4	13	5.7	28	60	0.9	0.16	0.11	8.8	0.36
Northern Ireland (Ap, Pe) 3	8.7	15	6.6	29	61	1.0	0.16	0.18	9.6	0.31

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
Mean	8.2	15	6.3	29	60	1.0	0.2	0.1	9.5	0.33
SD	0.7	1.5	0.6	1.0	0.6	0.1	0.0	0.0	0.6	0.03
Perthshire 1	29	22	16	9.7	29	3.4	0.27	0.082	35	2.5
Perthshire 2	27	22	14	9.2	28	3.1	0.26	0.095	37	2.6
Perthshire 3	27	20	14	9.3	32	3.1	0.57	0.056	28	1.9
Perthshire 4	29	23	16	10	30	3.5	0.32	0.065	35	2.5
Perthshire 5	31	24	16	11	32	3.7	0.29	0.039	37	2.6
Mean	29	22	15	10	30	3.4	0.34	0.07	34	2.4
SD	1.7	1.5	1.1	0.7	1.8	0.3	0.13	0.02	3.7	0.3
Suffolk (Pa) 1	7.6	5.0	3.8	5.8	20	2.7	0.22	0.003	9.1	0.40
Suffolk (Pa) 2	8.4	4.5	4.0	4.8	20	3.0	0.14	0.050	9.1	0.45
Suffolk (Pa) 3	7.0	3.6	2.9	4.4	16	2.3	0.13	0.008	8.1	0.32
Suffolk (Pa) 4	7.9	4.6	3.5	4.4	19	2.5	0.14		10	0.43
Suffolk (Pa) 5	7.0	4.0	4.1	4.7	17	2.5	0.14		8.7	0.31
Mean	7.6	4.3	3.7	4.8	18	2.6	0.15	0.020	9.0	0.38
SD	0.6	0.5	0.5	0.6	1.8	0.3	0.04	0.026	0.7	0.06
Suffolk (T) 1	14	8	6.7	6.9	28	3.9	0.31	0.000	28	0.66
Suffolk (T) 2	12	7.5	5.8	6.3	25	3.4	0.27	0.037	25	0.61
Suffolk (T) 3	12	7.3	5.8	7.2	23	3.9	0.25	0.045	23	0.83
Suffolk (T) 4	8.9	5.8	4.5	6.2	21	2.8	0.21	0.029	17	0.48
Suffolk (T) 5	8.6	5	4.4	5.3	19	2.6	0.17	0.058	12	0.47
Mean	11	6.7	5.4	6.4	23	3.3	0.24	0.034	21	0.6
SD	2.3	1.3	1.0	0.7	3.5	0.6	0.05	0.022	6.4	0.1
Suffolk (Ap, Pe) 1	11	8.5	5.4	7.3	19	4.2	0.24	0.11	35	0.55
Suffolk (Ap, Pe) 2	13	10	6.2	7.7	21	4.3	0.32	0.21	51	0.81
Suffolk (Ap, Pe) 3	13	9.1	6	7.4	19	4.2	0.26	0.11	42	0.63
Mean	12	9.2	5.9	7.5	20	4.2	0.27	0.14	43	0.66

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
SD	1.2	0.8	0.4	0.2	1.2	0.1	0.04	0.06	8.0	0.13
Wales (C, P) 1	24	15	6.9	9.4	36	5.4	0.22	0.021	25	1.2
Wales (C, P) 2	24	15	6.5	10	37	5.7	0.26	0.009	28	1.4
Wales (C, P) 3	22	14	6.3	8.2	36	5.4	0.21	0.013	23	1.1
Wales (C, P) 4	23	15	6.2	8.8	36	4.8	0.24	0.030	23	1.1
Wales (C, P) 5	24	15	6.9	9.7	36	5.8	0.24	0.020	28	1.5
Mean	23	15	6.5	8.9	36	5.3	0.23	0.021	25	1.2
SD	1.0	0.6	0.4	0.8	0.0	0.5	0.02	0.009	2.9	0.2
Lincolnshire Wheat 1	14	9.7	7.2	5.5	19	3.6	0.18	0.04	27	1.1
Lincolnshire Wheat 2	14	9.5	7.2	5.7	19	3.9	0.22	0.046	27	1.2
Lincolnshire Wheat 3	12	8.1	6.0	5.2	18	3.3	0.17	0.029	17	0.81
Mean	13	9.1	6.8	5	19	3.6	0.19	0.04	24	1.0
SD	1.2	0.9	0.7	0.3	0.6	0.3	0.03	0.01	5.8	0.2
Norfolk (Ap, Pe) 1	12	8.3	5.2	5.4	21	2	0.37	0.28	37	0.66
Norfolk (Ap, Pe) 2	13	9.1	6	5.9	23	2.2	0.39	0.32	43	0.72
Norfolk (Ap, Pe) 3	11	7.5	5.1	5.4	20	1.9	0.28	0.24	33	0.6
Mean	12	8.3	5.4	6	21	2.0	0.35	0.28	38	0.7
SD	1.0	0.8	0.5	0.3	1.5	0.2	0.06	0.04	5.0	0.1
Northern Ireland Wheat 1	36	16	15	15	39	3.2	0.33	0.31	38	0.8
Northern Ireland Wheat 2	29	14	14	14	35	3	0.28	0.27	30	0.64
Northern Ireland Wheat 3	31	15	14	14	36	3	0.33	0.32	38	0.77
Mean	32	15.0	14.3	14	37	3.1	0.31	0.30	35	0.7
SD	3.6	1.0	0.6	0.6	2.1	0.1	0.03	0.03	4.6	0.1
Nottinghamshire Wheat 1	14	9.1	6.1	6.5	25	2.2	0.33	0.016	36	1.2
Nottinghamshire Wheat 2	15	9.8	6.6	6.9	28	2.2	0.36	0.017	39	1.3
Nottinghamshire Wheat 3	13	8.8	6.2	6.5	26	2.1	0.35	0.027	37	1.3

Soil mg/kg	V	Cr	Ni	Cu	Zn	As	Cd	Hg	Pb	U
Mean	14	9.2	6.3	7	26	2.2	0.35	0.02	37	1.3
SD	1.0	0.5	0.3	0.2	1.5	0.1	0.02	0.01	1.5	0.1
Perthshire Wheat 1	26	26	18	9	30	2.8	0.2	0.023	22	1.8
Perthshire Wheat 2	26	25	17	6.1	28	2.9	0.23	0.013	22	1.7
Perthshire Wheat 3	23	23	16	6	26	2.4	0.19	0.018	18	1.5
Mean	25	24.7	17.0	7	28	2.7	0.21	0.02	21	1.7
SD	1.7	1.5	1.0	1.7	2.0	0.3	0.02	0.01	2.3	0.2
Perthshire Wheat 4	26	20	15	11	32	3.6	0.31	0.16	26	1.8
Perthshire Wheat 5	23	17	14	10	28	3.7	0.25	0.14	22	1.4
Perthshire Wheat 6	22	17	13	10	30	3.3	0.27	0.15	23	1.5
Mean	24	18.0	14.0	10	30	3.5	0.28	0.15	24	1.6
SD	2.1	1.7	1.0	0.6	2.0	0.2	0.03	0.01	2.1	0.2
Yorkshire Wheat 1	8.2	7.6	6.3	5.3	26	2.0	0.40	0.025	34	1.2
Yorkshire Wheat 2	0.11	0.12	0.16	2.3	1.8	0.11	0.07		0.082	0.14
Yorkshire Wheat 3	9.0	8.3	6.8	5.8	27	2.2	0.44	0.029	41	1.3
Mean	5.8	5.3	4.4	4.5	18	1.4	0.30	0.03	25	0.9
SD	4.9	4.5	3.7	1.9	14	1.2	0.20	0.00	22	0.6
Yorkshire Barley 1	12	11	8.7	8.2	24	2.0	0.29	0.060	31	1.6
Yorkshire Barley 2	11	9.8	7.8	7.5	20	1.9	0.22	0.025	24	1.4
Yorkshire Barley 3	12	11	8.7	8.3	22	1.9	0.29	0.050	35	1.9
Mean	12	11	8.4	8.0	22	1.9	0.27	0.045	30	1.6
SD	0.6	0.7	0.5	0.4	2.0	0.1	0.04	0.018	6	0.3

b: Soil parameters

Site Name	Soil Association	Soil Series	Texture	Sand%	Silt%	Clay%	C%	N%	pH. Water	pH 0.01 M CaCl2	mean OM (%)	SE OM (%)	WHC g of water	mean CEC (cmol/kg)	SE CEC	mean BS (%)	SE BS
Derbyshire (P) 1	Malham	Malham	silty clay loam	15	65	20	4.622 ± 0.071	0.448 ± 0.010	6.19 ± 0.02	5.88 ± 0.07	10.0	0.18	45	266	3.7	39	0.5
Derbyshire (P) 2	Malham	Malham	silty clay loam	15	65	20											
Derbyshire (P) 3	Malham	Malham	silty clay loam	15	65	20											
Derbyshire (P) 4	Malham	Malham	silty clay loam	15	65	20											
Derbyshire (P) 5	Malham	Malham	silty clay loam	15	65	20											
Gloucester (P) 1	Badsey	Badsey	clay loam	45	20	35	2.639 ± 0.068	0.197 ± 0.002	7.27 ± 0.05	6.86 ± 0.04	4.4	0.03	36	154	5.7	70	1.5
Gloucester (P) 2	Badsey	Badsey	clay loam	45	20	35											
Gloucester (P) 3	Badsey	Badsey	clay loam	45	20	35											
Gloucester (P) 4	Badsey	Badsey	clay loam	45	20	35											
Gloucester (P) 5	Badsey	Badsey	clay loam	45	20	35											
Kent (Pear) 1	Wickham	Wickham	silty clay loam	15	65	20	2.974	0.285	6.56	6.42	5.3	0.06	40	177	5.9	5.8	0.1
Kent (Apple) 1	Wickham	Dale	clay loam	45	20	35	2.231	0.179	7.08	6.30	5.2	0.07	40	245	44	4.1	0.7
Kent (P) 1	Curtisden	Curtisden	silty clay loam	15	65	20	2.960	0.243	7.90	7.17	5.0	0.23	38	183	4.3	68	1.6
Kent (P) 2	Curtisden	Curtisden	silty clay loam	15	65	20	2.429	0.200	7.97	7.29	4.9	0.00	38	235	39	57	9.4
Kent (P) 3	Curtisden	Atrim	clay loam	45	20	35	2.519	0.182	8.17	7.36	4.3	0.03	38	230	22	56	5.3

Site Name	Soil Association	Soil Series	Texture	Sand%	Silt%	Clay%	C%	N%	pH. Water	pH 0.01 M CaCl2	mean OM (%)	SE OM (%)	WHC g of water	mean CEC (cmol/kg)	SE CEC	mean BS (%)	SE BS
Kent (P) 4	Curtisden	Atrim	clay loam	45	20	35	2.509	0.195	7.99	7.29	3.9	0.10	38	211	9.4	57	2.8
Kent (P) 5	Curtisden	Curtiseden	silty clay loam	15	65	20	2.180	0.174	8.16	7.36	3.9	0.26	38	201	38	57	10.6
Mean							2.5	0.20	8.0	7.3	4.4		38	212		59	
SD							0.28	0.03	0.12	0.08	0.5			21		5	
Kent (P2) 1	Curtisden	Atrim	clay loam	45	20	35	2.742	0.210	8.24	7.40	4.1	0.92	38	238	24.3	56	5.4
Kent (P2) 2	Curtisden	Atrim	clay loam	45	20	35	2.974	0.200	8.26	7.44	4.8	0.04	38	266	22.0	50	4.0
Kent (P2) 3	Curtisden	Atrim	clay loam	45	20	35	2.837	0.228	8.17	7.39	29.3	23.88	38	275	24.6	49	4.0
Kent (P2) 4	Curtisden	Atrim	clay loam	45	20	35	2.840	0.237	8.18	7.39	6.0	0.11	38	279	30.0	52	7.0
Kent (P2) 5	Curtisden	Atrim	clay loam	45	20	35	2.764	0.219	8.14	7.52	5.1	0.09	38	221	23.7	61	6.7
Mean							2.8	0.22	8.2	7.4	9.9		38	256		54	
SD							0.09	0.01	0.05	0.06	10.9			25		5	
Kinross (P) 1	Sourhope	Sourhope	loam	50	25	25	0.862 ± 0.027	0.055 ± 0.002	6.14 ± 0.09	5.20 ± 0.08	1.6	0.05	31	62	3.3	27	2.2
Kinross (P) 2	Sourhope	Sourhope	loam	50	25	25											
Kinross (P) 3	Sourhope	Sourhope	loam	50	25	25											
Kinross (P) 4	Sourhope	Sourhope	loam	50	25	25											
Kinross (P) 5	Sourhope	Sourhope	loam	50	25	25											
Lancashire (P) 1	Blackwood	Blackwood	loamy sand	80	10	10	2.669 ± 0.031	0.151 ± 0.002	7.96 ± 0.01	7.20 ± 0.02	3.2	0.16	34	135	16.5	78	4.8
Lancashire (P) 2	Blackwood	Blackwood	loamy sand	80	10	10											
Lancashire (P) 3	Blackwood	Blackwood	loamy sand	80	10	10											
Lancashire (P) 4	Blackwood	Blackwood	loamy sand	80	10	10											
Lancashire (P) 5	Blackwood	Blackwood	loamy sand	80	10	10											
Leicestershire (P) 1			silty loam	20	70	10	2.772	0.277	6.88	6.48	15.6	1.33	38	270	7.3	4.1	0.1

Site Name	Soil Association	Soil Series	Texture	Sand%	Silt%	Clay%	C%	N%	pH. Water	pH 0.01 M CaCl2	mean OM (%)	SE OM (%)	WHC g of water	mean CEC (cmol/kg)	SE CEC	mean BS (%)	SE BS
Leicestershire (P) 2			silty loam	20	70	10	2.830	0.273	7.25	6.70	22.4	13.89	38	275	5.8	3.7	0.1
Mean							2.801	0.275	7.1	6.6	19.0		38	273		3.9	
SD							0.041	0.003	0.26	0.16	4.8			4		0.2	
Lincolnshire (B) 1	Andover	Andover	silty clay loam	15	65	20	2.941	0.205	7.71	7.24	4.7	0.20	36	223	3.7	74	1.5
Lincolnshire (P) 1			silty loam	15	70	15	2.593	0.261	6.84	6.56	14.0	1.56	38	258	1.8	39	1.3
Lincolnshire (P) 2			silty loam	15	70	15	2.436	0.235	7.18	6.40	24.1	14.41	38	258	5.7	45	0.1
Mean							2.5	0.25	7.0	6.5	19.1		38	258		42	
SD							0.11	0.02	0.24	0.11	7.1			0		3.9	
Northern Ireland (P) 1			silty clay loam	15	65	20	4.035	0.362	5.09	4.43	11.0	0.00	39	292	8.3	1.4	0.1
Northern Ireland (Ap, Pe) 1			sandy clay loam	60	15	25	8.953	0.623	6.06	5.28	12.3	5.16	54	340	33.1	33	1.5
Perthshire 1	Balrownie	Balrownie	silty clay loam	15	65	20	2.366	0.190	6.32	5.56	5.5	0.04	36	193	3.8	42	0.2
Perthshire 2	Balrownie	Balrownie	silty clay loam	15	65	20	2.289	0.192	6.30	5.54	12.3	7.19	37	198	4.5	41	0.9
Mean							2.3	0.19	6.3	5.6	8.9		36	195		42	
SD							0.05	0.00	0.01	0.01	4.8			3		1	
Suffolk (Pa) 1	Melford	Melford	clay loam	45	20	35	0.685	0.069	7.10	6.36	1.3	0.21	27	50	1.0	63	1.6
Suffolk (Pa) 2	Melford	Melford	clay loam	45	20	35	0.634	0.055	7.08	6.37	2.7	1.18	27	62	0.2	58	0.3
Suffolk (Pa) 3	Melford	Melford	clay loam	45	20	35	0.739	0.074	7.14	6.46	1.5	0.05	27	64	0.6	57	0.1
Suffolk (Pa) 4	Melford	Melford	clay	45	20	35	0.686	0.060	6.71	6.10	1.4	0.13	27	64	3.9	55	3.1

Site Name	Soil Association	Soil Series	Texture	Sand%	Silt%	Clay%	C%	N%	pH. Water	pH 0.01 M CaCl2	mean OM (%)	SE OM (%)	WHC g of water	mean CEC (cmol/kg)	SE CEC	mean BS (%)	SE BS
Suffolk (Pa) 5	Melford	Melford	clay loam	45	20	35	0.565	0.050	6.80	6.21	17.1	15.69	27	65	2.5	56	1.7
Mean							0.7	0.06	7.0	6.3	4.8		27	61		58	
SD							0.07	0.01	0.20	0.14	6.9			6		3	
Suffolk (T) 1	Newport	Newport	sandy loam	65	15	20	0.984	0.095	7.36	6.99	2.0	0.14	28	85	1.4	79	1.6
Suffolk (T) 2	Newport	Newport	sandy loam	65	15	20	0.833	0.084	7.48	6.92	1.7	0.10	28	79	0.9	73	0.7
Suffolk (T) 3	Newport	Newport	sandy loam	65	15	20	0.684	0.060	7.65	7.00	1.1	0.30	28	73	0.2	86	0.8
Suffolk (T) 4	Newport	Newport	sandy loam	65	15	20	0.665	0.064	7.64	6.97	1.5	0.14	28	77	1.5	73	1.3
Suffolk (T) 5	Newport	Newport	sandy loam	65	15	20	0.619	0.064	7.42	6.78	1.2	0.11	28	73	2.8	72	3.1
Mean							0.8	0.07	7.5	6.9	1.5		28	78		77	
SD							0.15	0.02	0.13	0.09	0.4			5		6	
Suffolk (Ap, Pe) 1	Hornbeam	Hornbeam	clay loam	45	20	35	3.808	0.296	6.81	5.88	8.9	0.39	38	244	13.0	32	1.8
Wales (C, P) 1			silty clay loam	15	65	20	4.501	0.438	5.25	4.19	21.4	4.04	42	370	19.1	11	0.7
Wales (C, P) 2			silty clay loam	15	65	20	5.202	0.497	5.60	4.46	12.8	0.09	42	383	10.2	13	0.5
Wales (C, P) 3			silty clay loam	15	65	20	4.329	0.421	5.07	4.29	11.0	0.06	42	349	36.9	13	1.3
Wales (C, P) 4			silty clay loam	15	65	20	3.956	0.406	5.18	4.46	10.5	0.02	42	246	15.7	20	1.3
Wales (C, P) 5			silty clay	15	50	35	4.339	0.431	4.86	4.00	11.4	0.06	42	292	10.7	14	0.4
Mean							4.5	0.44	5.2	4.3	13.4		42	328		14	
SD							0.46	0.03	0.27	0.19	4.6			57		3	
Lincolnshire	Normoor	Normoor/	clay	5	20	75	2.701	0.167	7.92	7.26	4.8	0.38	35	163	16.3	50	5.2

Wheat 1		Wallasea															
Site Name	Soil Association	Soil Series	Texture	Sand%	Silt%	Clay%	C%	N%	pH. Water	pH 0.01 M CaCl2	mean OM (%)	SE OM (%)	WHC g of water	mean CEC (cmol/kg)	SE CEC	mean BS (%)	SE BS
Norfolk (Ap, Pe) 1	Burlingham	Burlingham/Barrow	sandy loam	65	15	20	3.596	0.316	7.08	6.25	9.1	0.07	38	257	1.4	49	0.5
Northern Ireland Wheat 1			silty clay loam	15	65	20	2.537	0.211	6.87	4.97	5.2	0.37	37	193	4.3	32	1.2
Nottinghamshire Wheat 1	Whimble	Whimble	clay loam	45	20	35	2.562	0.194	7.09	6.22	4.6	0.14	35	178	5.0	4	0.1
Perthshire Wheat 1	Balrownie	Balrownie	clay loam	45	20	35	1.723	0.151	6.45	5.36	4.8	0.03	33	258	69.5	60	16.1
Perthshire Wheat 4	Balrownie	Balrownie	silty clay loam	15	65	20	2.366	0.190	6.32	5.56	5.5	0.04	36	193	3.8	42	0.2
Perthshire Wheat 5	Balrownie	Balrownie	silty clay loam	15	65	20	2.289	0.192	6.30	5.54	12.3	7.19	37	198	4.5	41	0.9
Mean							2.3	0.2	6.3	5.6	8.9		36	195		42	
SD							0.05	0.00	0.01	0.01	4.8		1	3		1	
Yorkshire Wheat 1	Worcester	Clayworth	clay	10	25	65	1.728	0.167	7.58	6.89	4.5	0.27	36	179	0.8	55	0.4
Yorkshire Barley 1	Dunkeswick	Brickfield	clay	10	25	65	1.555	0.108	7.92	7.12	3.4	0.05	32	266	6.8	38	