Australasian Soil and Plant Analysis Council Inc.

ASPAC Plant Proficiency Testing Program Report

2006-07

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Foreword

This annual report is the third in the upgraded inter-laboratory proficiency program (ILPP) for plant chemical tests, the first being the 2004-2005 report. It covers three "rounds" each of four specially prepared samples sent to 38 participants in October 2006, in January 2007 and in April 2007. A similar annual program for soils (reported separately) operated from December 2006 to May 2007.

Members of ASPAC's Laboratory Proficiency Committee, the membership of which is listed on page iv of this report, oversaw the program. The ASPAC Executive is grateful to all of those who contributed to the report, inclusive of staff of Proficiency Services Limited (now called Global Proficiency Ltd), our service provider in New Zealand.

The ASPAC Executive also appreciates the effort and commitment made by participating laboratories. By participating they share a commitment to and responsibility for measurement quality.

Ms Teresa Fowles
ASPAC Chairperson

Acknowledgements

LandCare Research (New Zealand) is thanked for the sample homogeneity testing they undertook for who are now Global Proficiency Ltd (GPL). Operational staff of GPL are thanked for their inputs.

Membership of ASPAC Laboratory Proficiency Committee (LPC) 2006-07

Name	*Location*	*Email*
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Your Notes

1. Introduction

The Australasian Soil and Plant Analysis Council Inc (ASPAC) commenced its not-for-profit ILPPs and issued its first soil program report in 1993. Its ILPPs specifically target soil and plant chemical laboratories in the Australasian region, although there are no restrictions on who can participate. A service provider operates the programs for ASPAC under contract.

ILPPs support ASPAC's overall goals to:

- promote excellence in all aspects of soil and plant analysis
- encourage and promote the adoption of preferred methods and protocols used in soil and plant analysis within Australasia.

More details on ASPAC can be obtained from its public web site at www.aspac-australasia.com. The site includes ASPAC's Strategic Plan and the names of its elected and appointed office holders.

Published ASPAC plant ILPP reports are dated 1994, 1996, 1998, 1999, 2000, 2001, 2002, 2004-05 and 2005-06. All to and including 2002 were conducted and reported through an Australian provider as discrete entities, based on six homogeneous samples of dried and ground plant materials and subsequent laboratory analysis for a comprehensive range of plant chemical tests, mostly for total elements.

This is the third annual report from ASPAC's new, upgraded plant ILPP that commenced in 2004 and now operates out of New Zealand through PSL. The program is a composite of three "rounds", each of four homogeneous samples of dried and ground plant materials. Laboratory participants (Appendix 1) receive individual electronic progress reports of their results (relative to other participating laboratories) for each of these "rounds". They also receive from the service provider a consolidated, individual annual summary report on their measurement performance relative to others.

This annual program report consolidates (for ASPAC members and the public record) the three "rounds" that occurred in October 2006, in January 2007 and in April 2007. It also records program methodology, summary statistics, and a listing of "raw" data by test and laboratory for the three "rounds". In addition, the report includes an outline of how ASPAC periodically confers performance-based, method-specific certification to laboratories that regularly participate. To respect confidentiality, the cross-reference between laboratory name and laboratory identification number is not included. However, ASPAC's public web site now lists the laboratories certified as proficient for specific tests for the most recently completed program year. ASPAC's plan is to update information on certified tests and certifications for participating laboratories soon after completion of each annual program for both plants and soils.

2. Program Details

2.1 Responsibilities

PSL was contracted by ASPAC as the plant ILPP provider for 2006-07. Accordingly, PSL had responsibility on a "round-by round" basis for sourcing and preparing samples and for the timely supply of samples to participating laboratories. They also undertook data collation and statistical analysis and "round-by-round" reporting for ASPAC and assembled the summary and "raw" data provided in Section 3 and Appendix 4, respectively. PSL is a proficiency service provider accredited to *ISO Guide 43-1 Part 1: "Development and operation of proficiency testing schemes*".

ASPAC's Laboratory Proficiency Committee (LPC; see Page iv) had responsibility to implement and resolve matters of policy and to provide guidance on technical matters specific to soil and plant chemical testing both

to PSL and to laboratory participants. The LPC also undertook statistical checks and audits for quality control purposes, participated in a Technical Advisory Group operated by PSL, and contributed to training workshops. ASPAC, through members of its LPC or via its state representatives, may contact managers of laboratories with poor analytical performance to ensure a measurement improvement program is commenced. Laboratories are encouraged to seek help from ASPAC if they are shown to be operating at levels of measurement performance below their peers.

Participants receive a unique, confidential laboratory number, subsequently used to identify the origin of each result presented in program reports and lists of results. Typically, this identification number carries forward from one annual program to the next.

2.2 Plant program participation

Thirty-eight laboratories arranged to participate in the ASPAC plant ILPP in 2006-07, but the numbers that reported results varied by "round" and plant test (see Table 1). The most commonly reported test with an average of 34 laboratories across the three "rounds" were calcium (Ca), magnesium (Mg and potassium (K)), with sodium (Na) and phosphorus (P) on 33, and copper (Cu), iron (Fe), manganese (Mn) and zinc (Zn) on 32. The least frequently reported tests were silicon (Si), lead (Pb), selenium (Se), and cadmium (Cd), with averages of 6, 9, 11 and 11 laboratories, respectively. The counts for each test and sample are given in Table 1 and in Section 3.

Contact details for laboratories that submitted results for any test in one or more of the three rounds are provided in Appendix 1.

2.3 Tests and methods

Three proficiency "rounds" for plant materials – each comprising four samples – were offered for the 2006-07 program. Participants were invited to analyse each sample using methods normally employed in their laboratory. The number of tests was limited to 21 as in 2005-06, and as listed in Table 1, noting that participants were not obliged or required to submit results for all tests. In order to permit a meaningful statistical analysis, a minimum of six participating laboratories was required for any one test.

Table 1. Plant tests (total elements), elemental symbols, units and the arithmetic average number of results per round submitted by participating laboratories in the ASPAC 2006-07 Plant ILPP

2006-07 Plant tests	Symbol	Units	Number of participants		
			Oct 06	Jan 07	Apr 07
Aluminum	Al	mg/kg	22	21	21
Boron	B	mg/kg	26	27	27
Cadmium	Cd	mg/kg	13	11	10
Calcium	Ca	%	34	33	34
Carbon	C	%	15	12	11
Chloride	Cl	%[A]	21	20	21
Cobalt	Co	mg/kg	19	17	16
Copper	Cu	mg/kg	33	32	32
Iron	Fe	mg/kg	32	32	32

2006-07 Plant tests	Symbol	Units	Number of participants		
			Oct 06	Jan 07	Apr 07
Lead	Pb	mg/kg	10	9	9
Magnesium	Mg	%	34	34	34
Manganese	Mn	mg/kg	32	32	33
Molybdenum	Mo	mg/kg	19	17	17
Nitrogen	N	%	30	28	29
Phosphorus	P	%	33	32	33
Potassium	K	%	34	33	34
Selenium	Se	mg/kg	11	11	10
Silicon	Si	%	7	6	6
Sodium	Na	%	33	33	33
Sulfur	S	%	26	26	26
Zinc	Zn	mg/kg	32	32	33

[A] Units of mg/kg are preferred for concentrations < 0.01%

All of the listed tests were understood to be total concentrations in the plant material and reported on a 65°C oven dry basis, not on an "as received" basis. Details of analytical methods used are not included but included Kjeldahl digestion, other forms of acid digestion, XRF, and near-infrared spectroscopy, with measurement by continuous flow, ICP-AES, ICP-MS, atomic absorption and the like. It follows that some results reported as "totals", such as Al and Si, may only reflect acid digestible concentrations.

2.4 Sample preparation and identification

Before distribution to participants, potential samples were assessed for homogeneity. Specifically, 10 containers of each sample were selected at random from the sub-sampled batch according to the principles described by Thompson and Wood (1993)[1]. These sub-samples were then tested in duplicate for plant total N, using Dumas combustion. The tests were conducted in an ISO 17025 accredited laboratory.

Results from the homogeneity testing were subsequently statistically assessed according to ISO REMCO Protocol N231 "*Harmonised Proficiency Testing Protocol*" of January 1992. Variations between samples were such that all sample batches were considered to meet homogeneity criteria suited to proficiency testing. Examples of the homogeneity data and statistical assessments are summarised in Appendix 2.

In addition to testing for homogeneity, the plant samples were irradiated or otherwise rendered biologically benign to comply with international and/or national biosecurity regulations or requirements[2].

Ultimately, the samples used in the three "rounds" of the 2006-07 program were distributed and coded as follows: round 106 of October 2006 – ASP 101-104; round 306 of January 2007 – ASP 11-14; and round 506 of April 2007 – ASP 41-44. The association between sample code and sample type is provided in Table 2.

[1] Thompson, M and Wood, R. (1993). International harmonized protocol for proficiency testing of (chemical) analytical laboratories. *Journal of AOAC International* ***76*** (4), 926 – 940.

[2] Rayment, G.E (2006). Australian efforts to prevent the accidental movement of pests and diseases in soil and plant samples. *Commun. Soil Sci. Plant Anal.,* **37**, 2107-2117.

Table 2. Sample identification numbers and sample types included in the ASPAC 2006-07 plant ILPP

Sample ID	*Sample Type*
ASP 101	Citrus (North America)
ASP 102	Grape Petiole (North America)
ASP 103	Lucerne Hay
ASP 104	Whole Oats
ASP 1 1	Pine Branches
ASP 1 2	Potato (Instant)
ASP 1 3	Mixed Pasture
ASP 1 4	Wheat
ASP 4 1	Citrus
ASP 4 2	General Mix
ASP 4 3	Grape Petiole
ASP 4 4	Corn

2.5 Data analysis and periodic reporting

Laboratory results, after submission to PSL, were entered into a database and independently checked for data transfer accuracy prior to data processing. The non-parametric assessment of laboratory performance for each sample and method was performed by an iterative statistical procedure similar to that used in WEPAL inter-laboratory proficiency programs of Wageningen University. This procedure[3,4] is suited to datasets of as few as six to eight laboratories, although larger laboratory populations are best. An outline of the "median / MAD" statistical procedure is provided in Appendix 3, with terms described in Table 3.

[3] Rayment, G.E., Miller, R.O. and Sulaeman, E. (2000). Proficiency testing and other interactive measures to enhance analytical quality in soil and plant laboratories. *Commun. Soil Sci. Plant Anal.* ***31***, 1513-1530.

[4] Whitehouse, M.W. (1987). Medians and MADs - Statistical methodology used at Wageningen, The Netherlands, for interlaboratory comparisons in the plant exchange program. Ag. Chem. Br. Report, ACU87/36. 10 pp. (Qld Dept. Primary Ind., Brisbane.)

Table 3. Statistical terms and their meanings in the context of this ASPAC annual report

Statistical term	*Meaning and/or derivation*
Count or number	Original population size.
Maximum i	The highest of a range of values, based on the initial data set.
Minimum i	The lowest of a range of values, based on the initial data set.
Median	The median is the score at the 50th percentile. It is the middle observation of a sequentially sorted array of numbers, except in the case of an even sample size. Here it is the arithmetic mean of the two observations in the middle of the sorted array of observations. The median of a reasonably sized array of numbers is insensitive to extreme scores.
Mean[A]	The arithmetic mean (or average) is the sum of the values of a variable divided by their number. It represents the point in a distribution of measurements about which the summed deviations equals zero. The arithmetic mean is sensitive to extreme measurements.
MAD	The Median of the Absolute Deviations, calculated as the median of the absolute values of the observations minus their median.
Interquartile range (IQR)	This is calculated by subtracting the score at the 25th percentile (referred to as the first quartile; Q_1) from the score at the 75th percentile (the third quartile; Q_3). This value is affected by the assumptions made in the calculation of the first and third quartiles, particularly for low population sizes. Moreover, these differences exist within and across statistical software packages. Prior to the 2004-05 rounds, ASPAC used the algorithm employed by EXCEL and some others. From the 2004-05 program, the algorithm employed has been that of SAS Method 4[5]. In summary, IQR = Q_3-Q_1.
Normalized IQR	This equates to IQR x 0.7413, where the latter is a normalizing factor.
Robust % CV[6]	The robust coefficient of variation (Robust % CV) = (100 x normalised IQR / median). For simplicity, the Robust %CV shown is for the initial results, and for "final" population of results for a test after the removal of "outliers" and perhaps "stragglers", usually following one or two iterations. Note that for Interim Reports, this term is estimated as = (100*MAD*1.483)/ Median, separately for "i" and "f" datasets.
Letter "i" and the letter "f" associated with medians, means, MADs, IQR and Robust %CVs.	The letter "i" relates to the initial data set. The letter "f" relates to the "final" data set, generated after one or two iterations typically after removal of laboratories with statistical "outliers" (if any), and statistical "stragglers" (if any).

A When the mean is greater than the median, the distribution is positively skewed. When the mean is lower than the median, the distribution is negatively skewed.

In addition to medians and MADs, other statistical parameters (also described in Table 3) were calculated before and following the omission of non-conforming results. The "raw" data submitted by participating

5 SAS Procedure Guide

6 "Guide to NATA Proficiency Testing". 27 pp. (National Association of Testing Authorities, Australia, December 1997).

laboratories on a test-by-test basis are documented in Appendix 4, sometimes after rounding only for table formatting purposes.

Results submitted by each laboratory were expected to have three significant figures, unless protocol or common sense dictated otherwise. For example, the program accepted data where it was common to report measured concentrations to the nearest second decimal point, such as 0.01 mg/kg or 0.01 %, rather than to three significant figures. However, the program (like others nationally and internationally) did not accept as a numeric value, a result reported as less than (<) or greater than (>) a specified number. In cases where the expected value was below the laboratory's lower limit of reporting, the expectation was that the laboratory would report a value half way between that value and zero. For high values, dilution was the expected option. In practice, this did not always occur in 2006-07, witnessed by the inclusion of a few zero values in the "raw" data compilations in Appendix 4.

Interim reports for each "round", summarizing measurement performance relative to the performance of all laboratories that undertook the same test/s, were routinely and quickly emailed to participants. The main purpose of these Interim Reports was to provide timely feedback and to enable laboratories to take prompt remedial action where appropriate. Interim reports also provided an opportunity to correct for any data-transfer and data-processing misinterpretations. In addition, a Newsletter from the service provider went to all participating laboratories. Its main purpose was to assist in the interpretation of interim reports. Also included in the Newsletter was information about upcoming events and operational administration of the program.

Laboratories that participated in the 2006-07 plant ILPP all received from PSL (on behalf of ASPAC) a laboratory specific, confidential, Annual Summary Report. Each laboratory's data for the 12 plant samples, the aggregate data from all participants, other relevant statistical data, and whether or not the test/s received ASPAC Certification (if applicable), were provided. The laboratory code number was included.

2.6 ASPAC upgraded criteria for certification of laboratories for plant tests

Subject to satisfactory measurement performance typically for 12 samples across three sequential "rounds", across a twelve-month period, ASPAC awards participating laboratories with a printed, signed and dated *Certificate of Proficiency.* The *Certificate of Proficiency* identifies performance for each test that met criteria set by ASPAC. Certification applies when a laboratory incurs no more than <u>four</u> demerit points for the 12 samples.

Demerit points (if any) were allocated through the identification of "outliers" and "stragglers" by the "median / MAD" statistical procedure mentioned earlier in this report. Appendix 3 provides details on how outliers and stragglers were identified. Two demerit points were allocated to each statistical "outlier", while a statistical "straggler" was allocated one demerit point. As no sample result could be both an "outlier" and a "straggler", a maximum of two demerit points is all that could accrue per sample for a specific test.

For any single "round" of four samples, three (3) was set as the maximum number of demerit points for a specific test. This was done so that unsatisfactory measurement for a test in one "round" did not in itself result in failure to be certified for that test across the three "rounds" in the designated 12-month period.

If a "round" was missed, the maximum number of three demerit points for every test in that "round" was allocated, unless very special circumstances applied and was known or advised expeditiously to ASPAC's LPC through its Convenor. When the explanation was accepted, performance from the three most recently completed "rounds" was used to assess eligibility for certification.

Finally, when less than six laboratories submitted results for a particular test and/or sample, proficiency assessments could not be made statistically with an acceptable level of confidence and hence certification for the specific tests could not be granted.

ASPAC's *Certificates of Proficiency* are only issued on completion of each annual program of three "rounds". Nowadays, ASPAC provides details of certified laboratories by test on its public web site. Certifications obtained in the 2006-07 Plants' program remain valid until superseded by findings from the corresponding 2007-08 ILPP.

3. Summary Statistics

This section (continued overleaf) provides summary information and data (sometimes rounded only for table formatting purposes) on a test-by-test basis (alphabetical) for each of the 12 samples used across three "rounds" in 2006-07. The tabulations include values relevant to the iterative "median / MAD" procedure plus other robust statistics. The only test unable to be fully assessed because of low numbers was total Si. For the meaning or derivation of the terms used in the tabulated summaries, see Table 3 and in Appendix 3. All data are expressed on a dry weight basis.

2006-07: Total Aluminum (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	22	22	22	22	21	21	21	21	21	21	21	21
Minimum i	96.4	43.8	16.8	6.75	73.5	0.95	105	0.001	132	373	47.8	217
Maximum i	214	98.7	59.2	47.7	169	116	223	254	248	708	106	538
Median i	167	71.25	25.6	12.4	144	4.6	185	5.49	174	527	70.9	343
Mean i	164	70.6	26.5	14.4	141	11.2	182	20.5	178	504	72.7	348
MAD i	20	9.25	3.37	1.8	7	2.8	17	2.47	13	40	6.4	47
IQR i	30.9	14.5	5.59	2.43	13.9	5.11	24.8	4.14	22.2	88.6	11	72.6
Robust CV% i	19	20	22	20	9.6	110	13	75	13	17	16	21
Median f	167	71.25	25.5	12.3	144.5	3.51	188.5	5.22	173	517	70	342.5
Mean f	164	70.6	24.9	12.4	144	4.08	186	6.13	171	494	71.1	339
MAD f	20	9.25	2.93	1.45	6.5	1.5	15.5	0.62	10	39	6.04	46.5
IQR f	30.9	14.5	5.13	2.24	12.1	2.66	23.4	2.58	15.6	87.5	10.4	72.6
Robust CV% f	19	20	20	18	8.4	76	12	49	9	17	15	21
Outliers	0	0	1	2	1	3	1	4	2	1	1	1
Stragglers	0	0	0	0	0	1	0	2	0	0	0	0

2006-07: Total Boron (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	26	26	26	25	27	27	27	27	27	27	27	27
Minimum i	83	35	13	0.15	4.29	1.3	0.34	0.268	8.78	8.33	8.6	7.74
Maximum i	138	59.6	31.9	29.8	58.2	37.23	52	250	116	78	55	31.5
Median i	96.98	40.65	16.1	2.45	6.4	2.62	8.49	2.71	97.3	64.5	42.6	21.1
Mean i	98.2	41.5	17.7	6.09	8.98	5.79	11.8	14.7	93.7	63.3	41.5	21.4
MAD i	5.78	2.35	1.28	0.65	0.76	0.55	0.84	0.71	4.7	3.8	1.9	1.2
IQR i	8.21	3.56	2.54	2.69	1.22	1.22	2.09	1.9	8.45	6.08	3.63	1.78
Robust CV% i	8.5	8.8	16	110	19	47	25	70	8.7	9.4	8.5	8.4
Median f	96.1	39.95	15.75	2.34	6.32	2.35	8.18	2.6	97.35	64.5	42.6	20.55
Mean f	96.6	40.1	15.6	2.24	6.14	2.44	8.09	2.48	97.3	65.4	42.3	20.7
MAD f	4.9	1.85	1.15	0.34	0.461	0.35	0.5	0.38	4.15	3.65	1.7	1.25
IQR f	7.3	2.91	1.65	0.586	0.78	0.615	0.719	0.732	7.39	4.36	3.19	1.65
Robust CV% f	7.6	7.3	10	25	12	26	8.8	28	7.6	6.8	7.5	8
Outliers	1	2	6	6	4	6	7	6	3	1	4	5
Stragglers	0	0	0	2	1	0	1	2	0	0	0	0

2006-07: Total Cadmium (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	13	13	13	13	11	11	11	11	9	10	10	10
Minimum i	0.005	0.2	0.043	0.001	0.005	0.001	0.0022	0.0040	0.0030	0.063	0.16	0.25
Maximum i	2.85	3.06	2.55	2.61	0.541	0.582	0.467	0.508	0.033	0.215	0.383	0.475
Median i	0.016	0.307	0.07	0.01	0.07	0.0757	0.0162	0.008	0.014	0.155	0.246	0.344
Mean i	0.324	0.512	0.306	0.239	0.104	0.112	0.072	0.0553	0.0169	0.15	0.245	0.348
MAD i	0.006	0.057	0.012	0.0067	0.008	0.0103	0.0080	0.003	0.0032	0.016	0.045	0.0195
IQR i	0.126	0.0923	0.129	0.0186	0.0141	0.021	0.074	0.0059	0.0098	0.0298	0.0643	0.0456
Robust CV% i	790	30	180	190	20	28	460	74	70	19	26	13
Median f	0.013	0.294	0.0685	0.0085	0.07	0.0757	0.014	0.0066	0.0137	0.155	0.246	0.34
Mean f	0.0142	0.3	0.0697	0.0105	0.0686	0.0731	0.0121	0.0075	0.0142	0.153	0.245	0.335
MAD f	0.003	0.0585	0.001	0.0036	0.005	0.0063	0.0045	0.0026	0.001	0.0085	0.045	0.011
IQR f	0.0052	0.0882	0.0028	0.0078	0.0062	0.0123	0.0087	0.0046	0.0027	0.0224	0.0643	0.017
Robust CV% f	40	30	4.1	92	8.9	16	62	69	19	14	26	5
Outliers	4	1	4	2	4	3	3	2	2	1	0	1
Stragglers	0	0	3	1	0	1	0	0	1	1	0	2

2006-07: Total Calcium (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	34	34	34	34	33	33	33	33	34	34	34	34
Minimum i	0.216	1.63	1.17	0.0108	0.239	0.0009	0.0039	0.001	2.34	3.87	1	0.73
Maximum i	6.247	2.75	1.58	0.121	0.45	0.222	1.144	0.084	7.31	9.27	2.25	1.717
Median i	4.68	1.794	1.36	0.0765	0.324	0.023	0.118	0.037	4.595	6.42	1.755	1.355
Mean i	4.64	1.85	1.37	0.0785	0.325	0.0309	0.146	0.0398	4.61	6.41	1.73	1.36
MAD i	0.19	0.0895	0.06	0.007	0.019	0.003	0.01	0.004	0.22	0.41	0.125	0.055
IQR i	0.308	0.152	0.114	0.0119	0.0289	0.0082	0.0145	0.0072	0.373	0.628	0.187	0.0819
Robust CV% i	6.6	8.5	8.4	16	8.9	35	12	19	8.1	9.8	11	6
Median f	4.66	1.79	1.36	0.075	0.324	0.022	0.118	0.037	4.595	6.465	1.755	1.355
Mean f	4.66	1.81	1.37	0.0759	0.324	0.0222	0.118	0.0371	4.56	6.51	1.74	1.36
MAD f	0.12	0.0845	0.06	0.005	0.018	0.001	0.007	0.003	0.2	0.245	0.125	0.046
IQR f	0.184	0.127	0.114	0.0082	0.0267	0.0022	0.0111	0.0049	0.306	0.398	0.183	0.0732
Robust CV% f	4	7.1	8.4	11	8.2	10	9.4	13	6.7	6.2	10	5.4
Outliers	5	2	0	6	2	8	5	7	6	7	2	6
Stragglers	4	0	0	1	0	4	1	1	0	1	0	0

2006-07: Total Carbon (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	15	15	15	15	12	12	12	12	11	11	11	11
Minimum i	41.2	38.2	41.9	42.1	45.7	38.2	38.6	39.9	40.8	32.7	38	38.5
Maximum i	85.97	89.08	91.19	96.77	53.8	50.9	49.3	52	46.4	39.5	46.5	46.2
Median i	43.4	40.5	44.8	45.2	49.65	42.52	43	43.7	43.1	34.9	40	41
Mean i	46.4	44.1	47.9	48.9	49.4	43	43.1	43.9	43.3	35.5	40.6	41.3
MAD i	0.6	0.5	0.9	0.9	1.1	1.9	1.62	1.4	1.2	0.8	1.4	1.2
IQR i	1.33	0.815	1.38	2.11	1.89	3.41	2.7	2.46	2.16	1.36	2.46	2
Robust CV% 1	3.1	2	3.1	4.7	3.8	8	6.3	5.6	5	3.9	6.2	4.9
Median f	43.1	40.2	44.7	45.1	49.65	42.52	43	43.35	43.1	34.9	40	41
Mean f	43.4	40.2	44.8	45.1	49.4	43	43.1	42.6	43.3	34.6	40.6	41.3
MAD f	0.3	0.4	0.75	0.8	1.1	1.9	1.62	0.945	1.2	0.8	1.4	1.2
IQR f	0.371	0.593	1.29	1.15	1.89	3.41	2.7	2.3	2.16	1.19	2.46	2
Robust CV% f	0.86	1.5	2.9	2.5	3.8	8	6.3	5.3	5	3.4	6.2	4.9
Outliers	1	4	1	2	0	0	0	1	0	2	0	0
Stragglers	3	0	0	0	0	0	0	1	0	0	0	0

2006-07: Total Chloride (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	21	21	21	21	20	20	20	20	21	21	21	21
Minimum i	0.063	0.29	0.495	0.047	0.007	0.026	0.237	0.054	0.031	1.38	0.090	1.034
Maximum i	1	1.8	2.3	0.34	0.071	0.417	0.33	0.17	0.994	2.82	0.63	2.63
Median i	0.079	0.41	0.578	0.058	0.02	0.05	0.3	0.0914	0.078	2.36	0.41	1.19
Mean i	0.169	0.492	0.676	0.0844	0.0275	0.0722	0.295	0.0919	0.143	2.31	0.408	1.27
MAD i	0.009	0.023	0.036	0.006	0.0075	0.0085	0.007	0.0083	0.008	0.09	0.024	0.03
IQR i	0.0789	0.0378	0.0567	0.0141	0.0168	0.0133	0.012	0.0148	0.0226	0.145	0.0382	0.0511
Robust CV% i	100	9.2	9.8	24	84	27	4	16	29	6.1	9.3	4.3
Median f	0.076	0.41	0.5715	0.055	0.0186	0.049	0.3	0.0914	0.0747	2.365	0.41	1.19
Mean f	0.0763	0.415	0.565	0.0567	0.0198	0.0475	0.3	0.0897	0.0758	2.35	0.412	1.19
MAD f	0.004	0.0165	0.0285	0.005	0.005	0.008	0.006	0.0060	0.0047	0.075	0.02	0.015
IQR f	0.0074	0.0293	0.0441	0.0082	0.0073	0.0119	0.0052	0.0109	0.0071	0.115	0.0319	0.0315
Robust CV% f	9.8	7.1	7.7	15	39	24	1.7	12	9.6	4.9	7.8	2.6
Outliers	6	3	3	4	3	3	5	2	5	2	4	4
Stragglers	0	0	0	0	1	0	0	0	2	1	0	1

2006-07: Total Cobalt (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	19	19	19	19	17	17	17	17	16	16	16	16
Minimum i	0.018	0.0005	0.0005	0.0005	0.001	0.001	0.038	0.001	0.036	0.0344	0.0662	0.0019
Maximum i	1.48	1.4	0.838	0.297	0.374	0.387	0.564	0.454	0.259	0.225	0.863	0.396
Median i	0.18	0.382	0.325	0.0482	0.0585	0.043	0.146	0.02	0.1645	0.1025	0.2	0.299
Mean i	0.278	0.484	0.35	0.0796	0.0848	0.0986	0.186	0.0669	0.153	0.104	0.269	0.261
MAD i	0.057	0.107	0.035	0.0152	0.0083	0.006	0.034	0.006	0.035	0.0405	0.0615	0.044
IQR i	0.139	0.259	0.089	0.0252	0.0215	0.0463	0.0623	0.0452	0.0619	0.0592	0.125	0.0917
Robust CV% i	77	68	27	52	37	110	43	230	38	58	63	31
Median f	0.172	0.3575	0.32	0.043	0.056	0.041	0.146	0.018	0.1645	0.1025	0.18	0.3055
Mean f	0.184	0.371	0.317	0.0431	0.0554	0.0415	0.148	0.0179	0.153	0.104	0.211	0.294
MAD f	0.048	0.0625	0.015	0.012	0.003	0.001	0.025	0.002	0.035	0.0405	0.058	0.0325
IQR f	0.0708	0.101	0.0245	0.0198	0.0052	0.0018	0.0504	0.0033	0.0619	0.0592	0.0936	0.0573
Robust CV% f	41	28	7.6	46	9.3	4.5	35	19	38	58	52	19
Outliers	2	2	4	3	4	5	2	4	0	0	2	2
Stragglers	0	3	4	0	2	3	0	3	0	0	0	0

2006-07: Total Copper (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	33	33	33	33	32	32	32	32	32	32	32	32
Minimum i	17.1	9.5	0.5	0.5	0.1	0.1	2	0.1	16.9	0.757	13.1	22.1
Maximum i	33	24	7.19	7.37	6.75	5.5	8.5	9.18	213.5	4.79	225.6	342.8
Median i	24.3	17.2	5.02	4.4	1.715	2.612	5.66	3.765	24.39	1.5	19	32.55
Mean i	24.1	17.3	4.76	4.09	2.14	2.76	5.57	4	30	1.83	25.3	42.2
MAD i	1.3	1.1	0.23	0.55	0.241	0.332	0.65	0.49	1.35	0.35	1.15	1.7
IQR i	1.89	1.49	0.404	0.908	0.523	0.526	0.973	0.815	2.21	0.714	1.98	2.72
Robust CV% i	7.8	8.7	8	21	30	20	17	22	9	48	10	8.4
Median f	24.3	17.2	5.085	4.44	1.69	2.555	5.752	3.765	24.39	1.26	19	32.5
Mean f	24.2	17.4	5.08	4.53	1.69	2.54	5.78	3.91	24.3	1.37	18.9	32.7
MAD f	0.85	0.6	0.135	0.325	0.12	0.245	0.505	0.445	1.16	0.24	1	1.6
IQR f	1.35	0.89	0.198	0.597	0.226	0.397	0.762	0.634	2.02	0.374	1.85	2.45
Robust CV% f	5.6	5.2	3.9	13	13	16	13	17	8.3	30	9.8	7.5
Outliers	3	3	7	6	5	4	3	4	2	5	3	2
Stragglers	2	3	2	1	2	2	1	0	0	2	0	1

2006-07: Total Iron (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	32	32	32	32	32	32	32	32	32	32	32	32
Minimum i	121	44	49.3	26.9	29	9	48.07	20.7	41.3	46	11	71.5
Maximum i	243	96	105	61.1	265	71.6	150.4	76.5	472	1085	166	522
Median i	191	74	66.82	44.85	43.14	14.2	96.65	29.75	195.5	611.5	66.25	343
Mean i	189	73.9	68.5	45.6	57.4	18.2	97.1	31.5	197	592	71.8	346
MAD i	13.5	5.15	4.37	5.25	4.1	2.2	9	2.5	10.5	68.5	7.6	47.5
IQR i	20.8	7.88	6.86	7.38	7.36	4.03	13.2	3.85	13.7	113	14.3	79.1
Robust CV% i	11	11	10	16	17	28	14	13	7	18	22	23
Median f	191	74	66.43	44.85	43	13.9	96.65	29.4	195.5	611.5	65.6	345
Mean f	188	73.4	67.4	45.6	43.1	14.4	97.1	29.3	192	595	67.2	355
MAD f	11	4.8	4.07	5.25	2.4	1.9	7.35	2.3	10.4	53.5	6.6	46
IQR f	17	6.08	6.26	7.38	4	2.73	12.1	3.45	12	102	11.9	80.8
Robust CV% f	8.9	8.2	9.4	16	9.3	20	13	12	6.2	17	18	23
Outliers	1	2	2	0	4	5	3	3	4	3	4	1
Stragglers	2	0	0	0	3	0	1	0	0	1	0	0

2006-07: Total Lead (mg Pb/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	10	10	10	10	9	9	9	9	9	9	9	10
Minimum i	0.05	0.077	0.029	0.036	0.0737	0.002	0.0334	0.003	0.0991	0.0274	0.0238	0.704
Maximum i	1.59	5.38	3.23	2.68	1.87	1.76	1.74	1.04	0.892	1.01	0.91	4.35
Median i	0.1705	0.256	0.094	0.122	0.224	0.045	0.155	0.0912	0.18	0.195	0.28	3.305
Mean i	0.312	0.76	0.415	0.371	0.396	0.269	0.326	0.215	0.26	0.302	0.329	3.13
MAD i	0.049	0.0715	0.0455	0.054	0.076	0.037	0.033	0.0772	0.064	0.056	0.033	0.205
IQR i	0.0908	0.0814	0.0652	0.0825	0.159	0.164	0.0852	0.198	0.12	0.175	0.125	0.391
Robust CV% i	53	32	69	68	71	360	55	220	67	90	44	12
Median f	0.161	0.25	0.093	0.114	0.194	0.0426	0.127	0.0483	0.1635	0.189	0.28	3.305
Mean f	0.17	0.247	0.102	0.115	0.212	0.0436	0.127	0.0838	0.181	0.214	0.284	3.29
MAD f	0.045	0.065	0.036	0.047	0.0575	0.0169	0.028	0.0429	0.0365	0.0555	0.01	0.1
IQR f	0.0764	0.0893	0.0638	0.0767	0.104	0.0375	0.0341	0.0618	0.0877	0.151	0.0237	0.241
Robust CV% f	47	36	69	67	53	88	27	130	54	80	8.5	7.3
Outliers	1	1	1	1	1	2	1	1	1	1	2	2
Stragglers	0	0	0	0	0	0	1	1	0	0	2	0

2006-07: Total Magnesium (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	34	34	34	34	34	34	34	34	34	34	34	34
Minimum i	0.29	0.567	0.173	0.055	0.059	0.032	0.07	0.078	0.281	0.485	0.477	0.335
Maximum i	0.426	0.877	0.3	0.16	0.081	0.047	0.12	0.129	0.452	0.827	0.852	0.604
Median i	0.3555	0.711	0.2335	0.127	0.069	0.04	0.1035	0.1065	0.3525	0.664	0.696	0.4295
Mean i	0.357	0.713	0.233	0.126	0.0687	0.0395	0.102	0.107	0.357	0.673	0.7	0.433
MAD i	0.0165	0.0275	0.012	0.007	0.003	0.00125	0.0055	0.0045	0.013	0.034	0.0405	0.0205
IQR i	0.023	0.0421	0.0202	0.0109	0.0044	0.0021	0.0090	0.0078	0.0215	0.0628	0.0563	0.0304
Robust CV% i	6.5	5.9	8.7	8.6	6.4	5.2	8.7	7.3	6.1	9.5	8.1	7.1
Median f	0.3535	0.711	0.233	0.127	0.069	0.04	0.104	0.106	0.3525	0.661	0.696	0.4295
Mean f	0.352	0.711	0.231	0.127	0.0684	0.0401	0.104	0.107	0.357	0.665	0.704	0.43
MAD f	0.0105	0.0195	0.012	0.006	0.003	0.001	0.005	0.004	0.011	0.0255	0.018	0.0135
IQR f	0.0195	0.0289	0.0193	0.0093	0.004	0.0015	0.008	0.0056	0.02	0.04	0.0432	0.0235
Robust CV% f	5.5	4.1	8.3	7.3	5.8	3.7	7.7	5.2	5.7	6.1	6.2	5.5
Outliers	3	6	3	3	1	6	2	4	5	6	3	4
Stragglers	3	2	0	1	0	1	0	1	1	0	3	2

2006-07: Total Manganese (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	32	32	32	32	32	32	32	32	33	33	33	33
Minimum i	36.63	121	49.8	34.47	41.7	1.83	16.1	14.4	37	26.5	70.3	140
Maximum i	60.5	199	82	64	76.1	17	44.75	41	66.3	51.6	191	242
Median i	44.3	145	62	46.8	61.75	3.64	36.8	26.55	46	34.7	93.8	174.8
Mean i	45.4	149	62.4	47	61.1	4.06	36.4	26.4	45.8	35	113	174
MAD i	2.6	8	2.95	2.25	2.1	0.29	2.05	1.4	2.2	1.4	14.6	8.83
IQR i	3.87	11.9	4.63	3.65	3.32	0.463	3.24	2.08	2.97	2.45	50.3	12.6
Robust CV% i	8.7	8.2	7.5	7.8	5.4	13	8.8	7.8	6.4	7	54	7.2
Median f	43.95	144	62	46.8	62	3.673	36.8	26.55	45.6	34.8	84.4	174.8
Mean f	44.4	146	61.5	46.2	61.3	3.64	36.8	26.3	45.2	34.9	84.5	173
MAD f	2.25	7.5	2.8	2.1	1.5	0.167	1.85	1.34	1.75	1	3.3	8.17
IQR f	3.8	10	3.67	3.19	2.97	0.263	2.91	1.98	2.48	1.59	5.71	11.2
Robust CV% f	8.6	6.9	5.9	6.8	4.8	7.2	7.9	7.5	5.4	4.6	6.8	6.4
Outliers	2	2	3	5	4	7	2	2	2	5	9	2
Stragglers	0	0	0	0	1	0	0	0	1	2	5	0

2006-07: Total Molybdenum (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	19	19	19	19	17	17	17	17	17	18	17	17
Minimum i	0.005	0.0005	0.133	0.178	0.006	0.023	0.132	0.001	0.087	0.756	0.163	0.449
Maximum i	1.51	1.16	0.995	1.01	4.05	1.61	0.918	0.989	0.982	18.1	0.848	1.33
Median i	0.212	0.22	0.513	0.614	0.079	0.0654	0.488	0.51	0.215	7	0.265	0.764
Mean i	0.344	0.32	0.556	0.596	0.471	0.25	0.514	0.528	0.295	7.12	0.334	0.779
MAD i	0.095	0.097	0.109	0.052	0.073	0.0424	0.118	0.088	0.032	0.654	0.057	0.081
IQR i	0.17	0.142	0.138	0.0801	0.2	0.183	0.195	0.135	0.112	1.04	0.0949	0.129
Robust CV% i	80	65	27	13	250	280	40	27	52	15	36	17
Median f	0.209	0.207	0.5	0.636	0.056	0.049	0.488	0.502	0.203	7	0.248	0.75
Mean f	0.213	0.211	0.507	0.642	0.0526	0.0478	0.514	0.514	0.203	6.84	0.255	0.715
MAD f	0.039	0.032	0.088	0.034	0.011	0.009	0.118	0.0555	0.013	0.58	0.0465	0.075
IQR f	0.0741	0.0556	0.133	0.0504	0.0221	0.0167	0.195	0.0954	0.0222	0.915	0.0869	0.104
Robust CV% f	35	27	27	7.9	39	34	40	19	11	13	35	14
Outliers	3	3	1	6	4	4	0	2	4	2	3	2
Stragglers	0	3	0	0	4	4	0	1	2	0	0	0

2006-07: Total Nitrogen (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	30	30	30	30	28	28	28	28	29	29	29	29
Minimum i	2.19	0.73	2.48	1.68	0.126	0.771	0.863	1.45	2.21	1.31	0.764	2.272
Maximum i	3	1.35	3.3	2.4	2.52	1.722	2.79	2.548	2.95	1.86	1.23	3.14
Median i	2.57	0.836	2.87	1.88	0.23	0.975	1.405	2	2.53	1.56	0.942	2.75
Mean i	2.58	0.863	2.84	1.9	0.347	1.01	1.44	2.01	2.52	1.57	0.927	2.69
MAD i	0.095	0.0335	0.085	0.05	0.037	0.045	0.095	0.08	0.09	0.07	0.088	0.12
IQR i	0.13	0.065	0.174	0.076	0.089	0.076	0.141	0.137	0.148	0.111	0.123	0.152
Robust CV% i	5	7.8	6.1	4	39	7.8	10	6.9	5.9	7.1	13	5.5
Median f	2.57	0.83	2.87	1.88	0.211	0.974	1.4	2	2.52	1.56	0.942	2.76
Mean f	2.58	0.831	2.85	1.89	0.216	0.986	1.4	2.03	2.5	1.56	0.927	2.71
MAD f	0.075	0.024	0.08	0.04	0.018	0.039	0.07	0.07	0.095	0.065	0.088	0.115
IQR f	0.109	0.040	0.119	0.074	0.027	0.067	0.119	0.126	0.146	0.106	0.123	0.154
Robust CV% f	4.3	4.8	4.1	3.9	13	6.9	8.5	6.3	5.8	6.8	13	5.6
Outliers	2	2	2	2	4	3	2	3	1	1	0	1
Stragglers	0	2	1	1	4	1	1	0	0	0	0	0

2006-07: Total Phosphorus (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	33	33	33	33	32	32	32	32	33	33	33	33
Minimum i	0.0131	0.0314	0.0249	0.0335	0.02	0.124	0.139	0.164	0.1	0.12	0.22	0.16
Maximum i	1320	3183	2609	3510	0.066	0.193	0.231	0.253	119.6	144	297	198
Median i	0.131	0.302	0.24	0.322	0.03215	0.1485	0.177	0.199	0.131	0.167	0.33	0.239
Mean i	40.1	96.7	79.3	107	0.0342	0.151	0.178	0.201	3.75	4.53	9.32	6.23
MAD i	0.006	0.01	0.01	0.017	0.0022	0.0075	0.009	0.0095	0.005	0.012	0.024	0.01
IQR i	0.0078	0.0152	0.0145	0.0267	0.0048	0.0117	0.0135	0.015	0.0063	0.017	0.0371	0.0156
Robust CV% i	5.9	5	6	8.3	15	7.9	7.6	7.5	4.8	10	11	6.5
Median f	0.13	0.301	0.24	0.322	0.032	0.148	0.177	0.198	0.1305	0.1665	0.33	0.2395
Mean f	0.132	0.302	0.242	0.322	0.0325	0.147	0.177	0.197	0.131	0.167	0.334	0.236
MAD f	0.006	0.009	0.008	0.017	0.002	0.006	0.0085	0.009	0.0035	0.008	0.024	0.01
IQR f	0.0074	0.0139	0.0137	0.0259	0.0025	0.0093	0.0124	0.0135	0.0059	0.0135	0.0363	0.0133
Robust CV% f	5.7	4.6	5.7	8.1	7.7	6.3	7	6.8	4.5	8.1	11	5.6
Outliers	4	5	3	2	6	2	2	2	7	3	2	3
Stragglers	0	0	1	0	0	1	0	0	0	0	0	0

2006-07: Total Potassium (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	34	34	34	34	33	33	33	33	34	34	34	34
Minimum i	0.0777	0.239	0.238	0.0334	0.13	0.413	1.11	0.24	0.79	1.24	1.47	1.65
Maximum i	1.36	2.76	2.99	0.618	0.315	0.713	1.72	0.498	1.65	2.68	3.87	7.71
Median i	0.9995	2.416	2.52	0.391	0.215	0.532	1.417	0.355	1	1.63	2.425	3.655
Mean i	0.987	2.34	2.43	0.393	0.216	0.535	1.42	0.358	1.03	1.64	2.46	3.64
MAD i	0.0355	0.132	0.089	0.0285	0.015	0.028	0.063	0.028	0.0545	0.065	0.133	0.162
IQR i	0.0549	0.195	0.188	0.0423	0.0234	0.0452	0.119	0.0393	0.0871	0.108	0.205	0.319
Robust CV% i	5.5	8.1	7.5	11	11	8.5	8.4	11	8.7	6.6	8.4	8.7
Median f	0.999	2.426	2.52	0.39	0.216	0.531	1.418	0.355	1	1.63	2.405	3.655
Mean f	0.999	2.42	2.51	0.384	0.217	0.529	1.42	0.358	1.01	1.62	2.4	3.6
MAD f	0.031	0.132	0.08	0.024	0.01	0.026	0.0585	0.02	0.05	0.047	0.123	0.155
IQR f	0.046	0.183	0.117	0.0334	0.0159	0.0393	0.0964	0.0345	0.0804	0.0778	0.186	0.281
Robust CV% f	4.6	7.6	4.6	8.6	7.4	7.4	6.8	9.7	8	4.8	7.7	7.7
Outliers	3	2	3	4	7	3	3	3	2	3	4	4
Stragglers	0	0	0	0	0	0	0	1	0	2	0	0

2006-07: Total Selenium (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	11	11	11	11	11	11	11	11	10	10	10	10
Minimum i	0.03	0.07	0.01	0.01	0.00025	0.00025	0.00025	0.00025	0.024	0.0282	0.0474	0.0465
Maximum i	3.53	1.989	2.484	2.707	0.768	0.062	0.53	0.48	2.74	3.82	2.87	1.57
Median i	0.06	0.109	0.0472	0.09	0.0383	0.01	0.08	0.148	0.0452	0.2375	0.0785	0.0745
Mean i	0.42	0.321	0.284	0.326	0.108	0.0166	0.144	0.168	0.331	0.569	0.38	0.245
MAD i	0.0089	0.039	0.0372	0.048	0.0153	0.004	0.04	0.036	0.0161	0.09	0.0298	0.0263
IQR i	0.0107	0.066	0.063	0.0786	0.0274	0.0045	0.106	0.0578	0.0746	0.131	0.105	0.0806
Robust CV% i	18	61	130	87	72	45	130	39	170	55	130	110
Median f	0.053	0.108	0.0371	0.0878	0.03	0.01	0.0685	0.148	0.034	0.225	0.064	0.07
Mean f	0.0526	0.114	0.0438	0.0878	0.0317	0.0084	0.0672	0.151	0.0381	0.208	0.0703	0.0818
MAD f	0.008	0.03	0.0211	0.043	0.0083	0.00055	0.0186	0.018	0.0057	0.067	0.014	0.015
IQR f	0.0115	0.0549	0.0415	0.0686	0.0154	0.0035	0.0334	0.04	0.0193	0.102	0.0274	0.051
Robust CV% f	22	51	110	78	51	35	49	27	57	45	43	73
Outliers	2	2	2	1	2	2	2	1	2	1	2	2
Stragglers	0	0	0	0	0	1	1	1	1	0	1	0

2006-07: Total Silicon (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	7	7	7	7	6	6	6	6	6	6	6	6
Minimum i	0.026	0.012	0.011	0.028	0.003	0.001	0.02	0.001	0.11	0.023	0.023	0.038
Maximum i	1292	239	81.9	56.5	0.06	0.033	1.75	0.0665	0.226	0.079	0.061	1.22
Median i	0.165	0.05	0.044	0.453	0.022	0.0086	0.6915	0.0221	0.148	0.0375	0.036	0.365
Mean i	185	34.2	11.8	8.39	0.0288	0.0122	0.77	0.0256	0.159	0.0463	0.037	0.487
MAD i	0.092	0.032	0.0319	0.274	0.0136	0.004	0.597	0.017	0.03	0.0117	0.0098	0.302
IQR i	0.163	0.0756	0.155	0.506	0.0318	0.0104	0.984	0.031	0.06	0.0344	0.0179	0.638
Robust CV% i	99	150	350	110	140	120	140	140	40	92	50	170
Median f	0.1415	0.04	0.029	0.428	0.022	0.0086	0.6915	0.0221	0.148	0.0375	0.0358	0.365
Mean f	0.133	0.0518	0.0284	0.373	0.0288	0.0122	0.77	0.0256	0.159	0.0463	0.037	0.487
MAD f	0.0792	0.0252	0.0169	0.226	0.0136	0.0041	0.597	0.017	0.03	0.0117	0.0098	0.302
IQR f	0.131	0.0551	0.0248	0.427	0.0318	0.0104	0.984	0.031	0.0599	0.0344	0.0179	0.638
Robust CV% f	92	140	86	100	140	120	140	140	40	92	50	170
Outliers	1	1	1	1	0	0	0	0	0	0	0	0
Stragglers	0	0	1	0	0	0	0	0	0	0	0	0

2006-07: Total Sodium (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	33	33	33	33	33	33	33	33	33	33	33	33
Minimum i	0.012	0.01	0.01	0.003	0.006	0.008	0.007	0.0006	0.013	0.0178	0.044	0.013
Maximum i	0.2	1.48	0.093	1.375	0.065	0.12	0.09	0.023	0.05	0.06	0.165	0.073
Median i	0.02	0.127	0.042	0.006	0.022	0.0835	0.029	0.004	0.02	0.025	0.12	0.02
Mean i	0.0278	0.162	0.043	0.0538	0.0238	0.0803	0.0324	0.0056	0.0238	0.0275	0.123	0.0215
MAD i	0.002	0.005	0.004	0.002	0.0022	0.0045	0.003	0.001	0.003	0.003	0.013	0.003
IQR i	0.0043	0.0107	0.0063	0.0074	0.0037	0.0084	0.0048	0.003	0.0044	0.0048	0.0137	0.0034
Robust CV% i	22	8.5	15	120	17	10	16	74	22	19	11	17
Median f	0.02	0.1275	0.042	0.005	0.0215	0.0838	0.0286	0.003	0.02	0.0249	0.123	0.02
Mean f	0.02	0.126	0.0417	0.0054	0.0223	0.0833	0.0285	0.0033	0.0199	0.0254	0.126	0.0195
MAD f	0.002	0.0035	0.004	0.001	0.0022	0.0038	0.0016	0.001	0.0021	0.0029	0.0105	0.003
IQR f	0.003	0.0056	0.0061	0.001	0.0033	0.0059	0.0022	0.0007	0.0037	0.0041	0.0124	0.003
Robust CV% f	15	4.4	14	19	15	7.1	7.8	25	19	16	10	15
Outliers	6	6	3	9	3	6	6	7	4	2	2	2
Stragglers	0	3	0	3	0	1	3	3	2	0	1	0

2006-07: Total Sulfur (%)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	26	26	26	26	26	26	26	26	26	26	26	26
Minimum i	0.179	0.087	0.186	0.018	0.019	0.048	0.09	0.027	0.204	0.854	0.068	0.171
Maximum i	0.327	0.196	0.508	0.18	0.087	0.155	0.146	0.162	0.54	2.462	2.712	3.849
Median i	0.262	0.143	0.29	0.1495	0.025	0.0835	0.1235	0.138	0.2655	1.81	0.154	0.312
Mean i	0.258	0.146	0.294	0.142	0.0293	0.0841	0.123	0.132	0.277	1.8	0.256	0.442
MAD i	0.015	0.005	0.0225	0.0065	0.004	0.0065	0.0085	0.008	0.0125	0.11	0.0095	0.0195
IQR i	0.0254	0.0096	0.0343	0.0098	0.0062	0.012	0.0122	0.0128	0.0217	0.17	0.0163	0.0291
Robust CV% i	9.7	6.7	12	6.6	25	14	9.9	9.3	8.2	9.4	11	9.3
Median f	0.2665	0.143	0.29	0.15	0.024	0.083	0.1235	0.139	0.265	1.81	0.1515	0.312
Mean f	0.264	0.144	0.289	0.151	0.0249	0.0816	0.123	0.14	0.266	1.82	0.152	0.314
MAD f	0.012	0.0045	0.0215	0.006	0.002	0.004	0.0085	0.008	0.012	0.11	0.0065	0.017
IQR f	0.0209	0.0076	0.0335	0.0082	0.004	0.0096	0.0122	0.0119	0.0178	0.159	0.0093	0.0282
Robust CV% f	7.9	5.3	12	5.4	17	12	9.9	8.5	6.7	8.8	6.1	9
Outliers	3	4	2	3	2	2	0	3	3	2	4	2
Stragglers	1	0	0	0	1	1	0	0	0	0	2	1

2006-07: Total Zinc (mg/kg)

Statistical parameters	Plant sample identification and values											
	October 2006 (Round 106)				*January 2007 (Round 306)*				*April 2007 (Round 506)*			
	ASP 10 1	ASP 10 2	ASP 10 3	ASP 10 4	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
No of results	32	32	32	32	32	32	32	32	33	33	33	33
Minimum i	51.67	61.7	8	0.167	10.98	2.26	4.41	16.5	46.1	5	9.45	35.9
Maximum i	108	123	202	58.3	28.2	21.7	20.3	33.1	96.5	867	100.45	63.7
Median i	65.4	75	23.95	18.2	19.85	6.045	11.35	26.55	65.6	8.9	77.3	43.9
Mean i	67.3	78.1	30.4	19.6	19.8	6.83	11.5	26.3	66.1	37	75.3	44.7
MAD i	2.85	5	1.5	1.4	1.05	0.575	0.7	1.25	3.3	0.57	3.5	1.8
IQR i	4.41	8.34	2.59	2.13	1.48	1.28	1.16	1.95	4.78	0.927	5.78	2.56
Robust CV% i	6.7	11	11	12	7.5	21	10	7.3	7.3	10	7.5	5.8
Median f	64.45	74.6	23.6	18.2	19.8	5.94	11.35	26.6	65.6	8.855	77.5	43.85
Mean f	65.2	75.3	23.7	18.4	19.9	6.07	11.5	26.8	65.8	8.84	77.7	43.9
MAD f	3.05	4.8	1.35	1.1	0.8	0.425	0.55	1.1	3.2	0.48	3.15	1.2
IQR f	3.8	7.04	1.91	2.02	1.11	0.617	0.885	1.7	4.41	0.695	5.17	1.65
Robust CV% f	5.9	9.4	8.1	11	5.6	10	7.8	6.4	6.7	7.8	6.7	3.8
Outliers	4	3	4	4	6	6	5	5	3	5	4	6
Stragglers	0	0	0	0	1	0	1	0	1	0	0	1

4. Comments on Measurement Performance

A detailed evaluation of measurement performance is beyond the scope of this report. Such evaluations are typically made at ASPAC Workshops and in other national and international fora. However, it is appropriate to make a few observations.

Firstly, the data summaries in Section 3 show examples of skewed data, particularly for ultrat-trace tests and silicon; i.e. there were quite large differences at times between the median and mean values reported by laboratories. This emphasised the importance of using medians and MADs, which are less influenced by 'rogue' results in small data sets.

Secondly, the median robust % CVs across the 12 samples, after the removal of "outliers" and "stragglers", ranged from 4 to 110%. This covered the 21 tests reported by a minimum of six laboratories. Table 4 provides the identity of the six best and six worst tests, with their corresponding median robust %CVs. There were some "round-by-round" fluctuations in measurement performance by test, but total C always had the lowest robust %CVs and Si the highest. Numbers in brackets in Table 4 show corresponding performances in 2005-06. Generally there was no real change in the performance in 2006-07 with %CVs similar to 2005-06. Overall 11 of the 21 tests had median CVs of <10%; with another three being <15%. Silicon is the only test with CV >100% and shows that there is still a major issue with the methodologies used by the seven participating laboratories.

Thirdly, the median robust %CV across the 21 tests on a sample-by-sample basis ranged from 7.3% (ASP 102) to 13% (ASP 104 and ASP 14), with a grand median for the 12 samples of 9.1%. Based on the similarity of these CVs, no sample was outstandingly more difficult than others to analyse.

Table 4. The six best performed and worst performed plant chemical tests in 2006-07, based on median percent robust coefficients of variation after the removal of "outliers" and "stragglers". Numbers in brackets show performance data for 2005-06.

Best (Lowest Robust %CVs)	
Plant test	***%CV***
Carbon	4.4 (4.0)
Magnesium	5.8 (6.3)
Nitrogen	6.1 (6.0)
Phosphorus	6.6 (6.5)
Manganese	6.8 (8.1)
Zinc	7.3 (8.3)

Worst (Highest Robust %CVs)	
Plant test	***%CV***
Cadmium	22.5 (22.5)
Molybdenum	27 (29)
Cobalt	31.5 (29.5)
Selenium	50 (57)
Lead	54 (43)
Silicon	110 (135)

Appendix 1: Laboratories in ASPAC's Plant ILPP, 2006-07

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Appendix 2: Summary examples of homogeneity data and statistical assessments for plant samples used in the ASPAC Plant ILPP, 2006-07.

Sample name		ASP 101	ASP 102	ASP 103	ASP 104	ASP 11	ASP 12	ASP 13	ASP 14	ASP 41	ASP 42	ASP 43	ASP 44
Test Method		Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N	Dumas N
Sample 1	replicate 1	2.687	0.796	3.60	1.980	0.201	1.01	1.502	2.118	2.687	1.655	0.796	2.943
	replicate 2	2.691	0.846	3.50	1.940	0.191	1.00	1.469	2.104	2.691	1.650	0.846	2.879
Sample 2	replicate 1	2.708	0.818	3.50	1.987	0.166	0.986	1.577	2.097	2.708	1.582	0.818	2.925
	replicate 2	2.709	0.825	3.50	1.906	0.213	0.985	1.548	2.075	2.709	1.638	0.825	2.896
Sample 3	replicate 1	2.634	0.859	3.60	2.022	0.211	0.973	1.538	2.070	2.634	1.600	0.859	2.875
	replicate 2	2.716	0.756	3.50	1.932	0.172	0.991	1.472	2.037	2.716	1.604	0.756	2.844
Sample 4	replicate 1	2.657	0.859	3.60	1.967	0.212	1.00	1.579	2.094	2.657	1.594	0.859	2.828
	replicate 2	2.602	0.880	3.40	1.925	0.142	0.984	1.545	2.047	2.602	1.605	0.880	2.774
Sample 5	replicate 1	2.574	0.848	3.50	1.947	0.160	0.992	1.525	2.078	2.574	1.663	0.848	2.865
	replicate 2	2.715	0.808	3.60	1.963	0.167	0.990	1.465	2.036	2.715	1.676	0.808	2.877
Sample 6	replicate 1	2.659	0.834	3.60	1.993	0.237	0.971	1.517	2.122	2.659	1.679	0.834	2.863
	replicate 2	2.665	0.839	3.50	1.906	0.170	1.011	1.469	2.097	2.665	1.687	0.839	2.825
Sample 7	replicate 1	2.646	0.779	3.50	1.974	0.158	0.987	1.544	2.101	2.646	1.622	0.779	2.882
	replicate 2	2.725	0.857	3.50	1.927	0.174	0.980	1.576	2.118	2.725	1.661	0.857	2.888
Sample 8	replicate 1	2.549	0.810	3.60	1.921	0.167	0.998	1.515	2.084	2.549	1.637	0.810	2.884
	replicate 2	2.648	0.842	3.40	1.899	0.156	0.959	1.440	2.089	2.648	1.541	0.842	2.862
Sample 9	replicate 1	2.650	0.797	3.50	2.021	0.209	0.969	1.567	2.097	2.650	1.654	0.797	2.930
	replicate 2	2.615	0.776	3.60	1.966	0.204	0.973	1.518	2.043	2.615	1.642	0.776	2.855
Sample 10	replicate 1	2.635	0.881	3.50	1.981	0.211	0.982	1.550	2.089	2.635	1.607	0.881	2.971
	replicate 2	2.700	0.847	3.60	1.870	0.177	0.974	1.476	2.070	2.700	1.614	0.847	2.919
Mean		2.659	0.828	3.53	1.9514	0.1849	0.9857	1.5196	2.0833	2.6593	1.6305	0.8278	2.8793
Analytical SD		0.0506	0.0346	0.0837	0.0468	0.0272	0.014	0.0373	0.0223	0.0506	0.0294	0.0346	0.031
Sampling SD		0.0137	0.0246	0.0532	0.0234	0.0096	0.0028	0.0212	0.0143	0.0137	0.0233	0.0028	0.0334
SD of proficiency data		0.1112	0.0341	0.1186	0.0593	0.0297	0.0556	0.1112	0.1038	0.1409	0.0964	0.1305	0.1705
Homogeneity index		0.123	0.0809	0.4488*	0.3942*	0.3234*	0.0506	0.1903	0.1382	0.0971	0.2419	0.0212	0.196
Status		**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**
F-statistic		0.8539	-	0.1905	0.7813	0.752	0.9195	-	-	-	-	-	-
F critical		3.02	-	3.02	3.02	3.02	3.02	-	-	-	-	-	-
F<F critical		**Y**	**-**	**Y**	**Y**	**Y**	**Y**	**-**	**-**	**-**	**-**	**-**	**-**

Samples are assessed using ISO/REMCO N237 or ISO/DIS 13528

* Samples ASP 103, ASP 104 and ASP 11 had an homogeneity Index >0.3. However, there were no statistically significant sample to sample differences and proficiency assessments were not unduly influenced.

Appendix 3: Statistical procedures used by ASPAC for its upgraded Plant ILPP

Refer to Table 3 for a description of most statistical terms and their meaning. Of most significance is the "median / MAD" non-parametric, iterative procedure for identifying "outliers" (††) and "stragglers" (†) within datasets for particular tests and samples from multiple (typically 6 or greater) laboratories. See references in the body of the report for more details. The median is regarded as a good estimate of the true mean (μ), while the MAD; ie. the median of the absolute deviations from the median, is regarded as a good estimate of the standard deviation (@).

After tabulating the data with a separate column for each sample result and a separate row for each laboratory, calculations were applied iteratively. Each iteration operated at an action level of [(X- μ)/f@] (called the "ASPAC Score" for convenience) > 2, where "X" is the value reported by the laboratory (one replicate assumed), "μ" is the median of the population of values, and "f@" is a code for the Gaussian distribution of the sample size "n", approximated by (0.7722 + 1.604/n * t, with t = the Student's "t" for 2.5% (two-tailed) with n-1 degrees of freedom. Excluding any case when a laboratory reported no result (or a non-numeric value), the laboratories at first iteration with an "ASPAC score" > 2 were rated as "outliers" (††).

Following their removal (if any), the remaining population of laboratory data was subject to a second iteration involving a recalculation of the "ASPAC score". Where this was again >2, the relevant laboratories were rated as "stragglers" (†).

Further iterations can be undertaken if the sample is targeted for upgrading to the status of a reference, only to converge the mean and the median, thereby providing a more likely "correct" reference result.

The other statistics summarised in Table 3 were calculated on the same populations of data. However, only the first (i) and second (final; f) values appear in the data summaries in Section 3.

Appendix 4: "Raw" program data for the 12 samples across three "rounds"

These tabulations list, in alphabetical order, the "raw" data provided by participating laboratories for each method, with unnecessary precision removed after completion of statistical tests only to assist data presentation. Statistical "outliers" and "stragglers" are indicated by †† and †, respectively. All results are on an oven dry basis.

Lab. Code #	Method Codes	Reported data on plant Aluminum (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	96.4		43.8		26.4		17.7		156		4.6		185		0.001	†	146		373		68.5		295	
L011	Pooled	210		87.4		59.2	††	47.7	††	159		18.9	††	216		20.1	††	192		531		91		388	
L013	Pooled	168		75		25.5		11.5		131		1		171		9		175		491		66		343	
L016	Pooled	138		58.4		16.8		11.3		151		1.35		203		4.91		172		507		65.1		390	
L017	Pooled	185		77		21		9		151		6		216		7		192		549		86		384	
L019	Pooled	179		58.8		20.1		11.6		133.6		12.5	†	158		10.5	†	157		428		69.1		262	
L022	Pooled	183		75.1		27.6		14		138		1.8		179		4.6		173		532		68		341	
L023	Pooled	168		70.8		25.3		15.8		130		3.8		200		8.3		230	††	582		92.9		458	
L024	Pooled	190		82.6		25.8		12.3		141		19.1	††	173		10.3		172		381		57.9		283	
L026	Pooled	160		64.8		24.2		12.3		140		3.51		172		21.9	††	164		552		64.5		298	
L028	Pooled	208		90		31		12		142		5		202		5		195		543		75		349	
L030	Pooled	214		98.7		29.5		14.6		144		0.95		192		4.82		248	††	708	††	106	††	538	††
L032	Pooled	134		65.9		24.3		13.5		145		2.31		167		3.02		161		419		58.1		287	
L034	Pooled	136		61.7		21.2		12.5		130		2.94		174		5.49		132		434		47.8		217	
L036	Pooled	156		59.8		17.6		6.75		147		3.24		204		5.22		175		605		79.9		416	
L037	Pooled	177		71.7		26.9		15.1																	
L040	Pooled	145		57.3		17.7		8.34																	
L044	Pooled	126		55.6		33		10.4		73.5	††	10		105	††	10		156		414		74.6		263	
L046	Pooled	143		63.2		23.2		12.6		146		7.84		196		254	††	174		527		79.4		342	
L079	Pooled	180		80.2		25.7		12.1		146		2.01		194		5.41		163		560		58.5		352	
L097	Pooled	156		77.6		31.7		14.5		158		8.1		223		4.02		182		487		71.7		302	
L133	Pooled	166		78.7		28.4		20.6	††	169		116	††	144		31.6	††	175		434		70.9		464	
L135	Pooled									131		4.98		157		4.82		196		536		76.6		345	

Lab. Code #	Method Codes	Reported data on plant Boron (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L005	Pooled	83		38		16		17	††	12.1	††	13.6	††	13.29	††	11.42	††	8.78	††	8.33	††	8.6	††	7.74	††
L009	Pooled	91.1		38.6		14.5		2.68		5.64		2.35		8.18		2.71		94.4		63.3		41.9		19.9	
L011	Pooled	100		35		21.4	††	15.7	††	5.07		7.06	††	7.65		8.53	††	94.6		65		42.9		21.7	
L013	Pooled	89.7		39.2		15.8		2.6		4.5		1.3		7.1		1.2		90.6		59.7		39.6		18.4	
L015	Pooled									7.17		3.38		7.83		3.42		88.9		64.5		41.4		22.2	
L016	Pooled	98.7		41.1		15.2		1.8		6.38		2.49		9.24		2.51		100		64.5		43.1		20.2	
L018	Pooled									6.4		2.8		8.4		2.6		102		68		42		20	
L019	Pooled	92.1		40.6		17		2.4		7.65		1.7		0.34	††	0.268	†	116	††	67.5		42		21.5	
L022	Pooled	98.6		41.2		16.2		2.45		6.4		3		9		2.9		95.3		59.4		41.6		19.1	
L023	Pooled	91.2		37.2		14				5.3		1.6		7.9		1.7		96.5		64.5		40		18.5	
L024	Pooled	96.1		37.4		13.7		0.246	†	7.11		3.46		8.55		4.66	†	107		64.6		45.3		25.9	††
L026	Pooled	105		43.1		16.3		2.34		7.44		2.28		8.77		2.71		101		69.2		44.8		23.2	
L028	Pooled	104		42.1		14.6		0.15	†	6.4		2.7		9.9		2.6		97.3		64.4		42.6		19	
L030	Pooled	138	††	59.6	††	22.3	††	2.65		6.43		2.07		8.62		2.98		99.6		69.4		44.5		24.1	
L032	Pooled	95.4		38.9		15.7		2.86		6.24		2.62		8.25		2.59		90.9		58.3		39.1		20.7	
L034	Pooled	92.9		40.7		15.7		1.95		5.97		2.43		8.49		2.49		87.9		57.7		39.6		19	
L036	Pooled	88.2		36.9		14		1.4		6.72		3.17		12.3	††	3.36		102		71.8		49.3		21.9	
L037	Pooled	103		43.8		24.4	††	29.8	††																
L040	Pooled	110		45.5		17.5		2.52																	
L046	Pooled	114		57.6	††	31.9	††	17.2	††	18.1	††	14.6	††	19.1	††	28.3	††	108		68.6		43		21.1	
L064	Pooled	91.2		38.3		16.9		3.28		6.57		3.75		10.5	†	3.17		90.2		63.9		38.7		22.3	
L079	Pooled	88.7		39.1		15.8		1.4		5.11		2.29		6.25		1.81		99.9		68.3		44.5		20	
L080	Pooled	97.9		40.7		17.2		26.4	††	9	†	27	††	52	††	250	††	85.5		60.1		32	††	26.8	††
L084	Pooled	98.7		41.7		25.3	††	2.3		10.1	††	5.7	††	14	††	8.7	††	70.1	††	59.8		36.2		31.5	††
L097	Pooled	90.9		35.1		13		1.43		6.26		2.07		7.33		2.82		104		67.4		44.3		21.3	
L100	Pooled	93.6		39.3		15.5		1.87		4.29		1.42		6.66		1.63		96.2		63.9		42.6		20.4	
L133	Pooled	102		44.77		23.8	††	7.66	††	58.2	††	37.2	††	44.2	††	38.6	††	106		73.6		55	††	30.3	††
L135	Pooled									5.8		2.16		7.68		1.92		97.4		64.1		43.2		19.9	
L139	Pooled	98		43		17		2.2		6.2		2.1		8		2.1		99		78		53	††	22	

Lab. Code #	Method Codes	Reported data on plant Carbon (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	45.1	†	45.6	††	47.1		48.6		49.3		49		46.7		49.2	†	40.8		32.7		38		38.5	
L011	Pooled	45.4	†	46.6	††	48		50.7	††	53.8		50.9		49.3		52	††	46.4		39.1	††	46.5		46.2	
L013	Pooled	44.4		40.8		46.1		47.2		51.7		42.5		44.8		44.6		44.8		35.9		41.9		42.6	
L015	Pooled	43.4		40.2		44.5		45.1		50		42.5		43		43.8		43.1		35.2		40		41	
L019	Pooled	44.9		41		45.7		46.1		45.7		38.2		38.6		39.9		41.8		33.6		38.6		39.4	
L023	Pooled	43.1		40		44.4		44.8		50		45		43		44		42.6		34.9		39.7		40.7	
L028	Pooled	43.5		40.5		44.8		45.5		50.2		42.5		43.5		43.9									
L032	Pooled	41.2	†	38.2	††	41.9		42.1		46.5		39.1		40.2		40.6		41.9		34.1		38.6		39.8	
L036	Pooled	43.1		40.7		45		45		48.9		42.7		42.6		43.6		45.2		39.5	††	42.4		42.5	
L037	Pooled	43.1		39.9		44.2		44.3																	
L040	Pooled	43.1		40		44.6		45.2																	
L042	Pooled	42.8		39.4		43.1		42.9		50.6		42.8		43		43.1		42.6		34.7		40		40.7	
L046	Pooled	42.7		39.4		43.6		44.2		47.8		39.4		40.6		40.9		43.4		34.9		40.2		41.5	
L079	Pooled	43.6		40.6		44.8		45.5		48.4		41.2		41.6		41.8		43.5		35.7		40.6		41.3	
L133	Pooled	85.97	††	89.1	††	91.2	††	96.8	††																

Lab. Code #	Method Codes	Reported data on plant Calcium (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	0.216	††	1.73		1.32		0.086		0.305		0.02		0.114		0.033		4.37		6.2		1.84		1.41	
L005	Pooled	5.4	†	2.1		1.5		0.1	†	0.37		0.01	††	0.12		0.02	††	2.34	††	3.87	††	1.93		1.52	
L007	Pooled	4.33		1.7		1.19		0.114	††	0.33		0.03	†	1.144	††	0.052	†	4.38		5.96		1.53		1.2	
L009	Pooled	5.67	††	2.75	††	1.46		0.12	††	0.35		0.052	††	0.159	††	0.067	††	3.37	††	4.38	††	1.37		1.14	††
L011	Pooled	4.94		1.92		1.3		0.077		0.316		0.034	†	0.125		0.044		4.87		6.65		1.74		1.23	
L012	Pooled	4.86		1.86		1.46		0.121	††	0.45	††	0.051	††	0.206	††	0.084	††	4.09		4.81	††	1.88		1.57	††
L013	Pooled	4.7		1.80		1.42		0.069		0.323		0.016		0.111		0.03		4.48		5.96		1.62		1.32	
L015	Pooled	4.86		1.91		1.46		0.089		0.351		0.027		0.135		0.043		4.8		6.68		1.88		1.43	
L016	Pooled	4.33		1.7		1.21		0.074		0.327		0.023		0.119		0.036		4.5		6.41		1.61		1.33	
L017	Pooled	5.36	†	1.99		1.58		0.07										4.99		7.33		1.88		1.41	
L018	Pooled									0.352		0.024		0.128		0.04		4.77		6.87		1.93		1.42	
L019	Pooled	4.54		1.77		1.34		0.07		0.301		0.021		0.106		0.034		4.79		6.79		1.84		1.4	
L022	Pooled	4.61		1.79		1.36		0.078		0.319		0.022		0.121		0.038		4.62		6.59		1.68		1.34	
L023	Pooled	4.66		1.79		1.36		0.073		0.33		0.022		0.11		0.037		5.19		7.45		2.02		1.53	
L024	Pooled	5.03		1.93		1.49		0.086		0.239	††	0.015		0.087	†	0.032		4.23		5.23	†	1.34		1.12	††
L026	Pooled	4.57		1.77		1.34		0.067		0.33		0.021		0.114		0.033		4.55		6.43		1.63		1.31	
L028	Pooled	4.79		1.88		1.4		0.075		0.311		0.023		0.126		0.037		4.47		6.69		1.65		1.35	
L030	Pooled	5.43	††	2.09		1.58		0.089		0.324		0.222	††	0.1		0.036		4.29		5.81		1.69		1.46	
L032	Pooled	3.96	†	1.65		1.29		0.0707		0.303		0.0211		0.113		0.034		4.29		5.94		1.63		1.22	
L034	Pooled	4.66		1.85		1.38		0.083		0.321		0.026		0.123		0.038		4.6		6.33		1.68		1.35	
L035	Pooled	4.3		1.75		1.17		0.049	††	0.259		0.001	††	0.004	††	0.001	††	3.14	††	4.4	††	1	††	0.73	††
L036	Pooled	4.94		1.63		1.27		0.065		0.305		0.022		0.118		0.035		5.57	††	9.27	††	2.01		1.66	††
L037	Pooled	4.61		1.66		1.4		0.072																	
L040	Pooled	4.75		1.98		1.54		0.08																	
L042	Pooled	4.66		1.86		1.38		0.07		0.365		0.034	†	0.133		0.046		4.8		6.62		1.87		1.41	
L044	Pooled	4.48		1.701		1.348		0.076		0.28		0.034	†	0.114		0.039		4.69		6.26		1.78		1.38	
L046	Pooled	5.25	†	1.64		1.31		0.07		0.298		0.020		0.107		0.08	††	4.59		8.03	††	1.8		1.31	
L064	Pooled	4.7		1.86		1.22		0.105	††	0.326		0.04	††	0.105		0.073	††	4.62		6.32		1.88		1.36	
L079	Pooled	4.56		1.78		1.37		0.086		0.317		0.026		0.133		0.042		4.66		6.88		1.77		1.42	
L080	Pooled	4.81		2.25	††	1.45		0.011	††	0.372		0.005	††	0.038	††	0.008	††	7.31	††	8.87	††	2.25	††	1.72	††
L084	Pooled	4.6		1.81		1.36		0.08		0.328		0.041	††	0.128		0.043		4.3		6.29		1.55		1.28	
L097	Pooled	4.71		1.78		1.17		0.077		0.341		0.024		0.133		0.039		4.89		6.78		1.66		1.37	
L100	Pooled	4.41		1.71		1.3		0.069		0.295		0.022		0.113		0.036		4.6		7.14		1.61		1.31	
L133	Pooled	6.25	††	1.86		1.37		0.065		0.306		0.022		0.093		0.025		7.12	††	6.30		1.80		1.4	
L135	Pooled									0.347		0.026		0.124		0.041		4.46		6.05		1.64		1.33	
L139	Pooled	3.86	††	1.7		1.34		0.081		0.335		0.022		0.117		0.036		3.83		6.5		1.84		1.35	

Lab. Code #	Method Codes	Reported data on plant Cadmium (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	2.85	††	3.06	††	2.55	††	2.61	††	0.541	††	0.582	††	0.467	††	0.508	††	0.031	††	0.16		0.197		0.34	
L011	Pooled	0.005		0.212		0.043	†	0.005		0.0722		0.0757		0.0082		0.0103		0.003	†	0.129		0.298		0.331	
L016	Pooled	0.016		0.281		0.068		0.032	†	0.072		0.081		0.013		0.008		0.013		0.154		0.188		0.367	
L019	Pooled	0.281	††	0.494		0.352	††	0.359	††	0.005	††	0.123	†	0.005		0.005				0.063	††	0.25		0.25	†
L024	Pooled	0.867	††	0.364		0.151	††	0.005		0.113	††	0.055		0.108	††	0.0055									
L030	Pooled	0.013		0.263		0.067		0.001		0.07		0.082		0.019		0.013		0.019		0.175		0.383		0.348	
L032	Pooled	0.013		0.238		0.055	†	0.003		0.064		0.065		0.0162		0.004		0.013		0.156		0.276		0.351	
L036	Pooled	0.01		0.31		0.07		0.01		0.078		0.083		0.018		0.011		0.033	††	0.215	†	0.252		0.475	††
L037	Pooled	0.084	††	0.345		0.076		0.024																	
L040	Pooled	0.016		0.307		0.069		0.009																	
L044	Pooled	0.012		0.232		0.332	††	0.028		0.059		0.001	††	0.12	††	0.033	††	0.014		0.128		0.242		0.28	
L079	Pooled	0.02		0.355		0.082	†	0.008		0.065		0.07		0.015		0.004		0.015		0.167		0.16		0.328	
L133	Pooled	0.023		0.2		0.068		0.012		0.005	††	0.010	††	0.0022		0.0066		0.011		0.153		0.205		0.409	†

Lab. Code #	Method Codes	Reported data on plant Chloride (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L005	Pooled	1	††	1.8	††	2.3	††	0.1	††	0.04	†	0.12	††	0.3		0.07		0.33	††	2.82	††	0.56	††	1.48	††
L009	Pooled	0.508	††	0.76	††	0.81	††	0.258	††	0.051	††	0.417	††	0.237	††	0.107		0.994	††	1.38	††	0.09	††	2.63	††
L011	Pooled	0.079		0.396		0.496		0.076		0.071	††	0.06		0.277		0.09		0.1	†	2.42		0.43		1.16	
L013	Pooled	0.07		0.42		0.59		0.06		0.01		0.05		0.3		0.09		0.07		2.37		0.38		1.18	
L016	Pooled	0.07		0.398		0.542		0.05		0.018		0.041		0.299		0.083		0.071		2.34		0.411		1.26	
L018	Pooled									0.024		0.051		0.306		0.094		0.07		2.52		0.42		1.22	
L019	Pooled	0.238	††	0.438		0.6		0.063										0.165	††	2.43		0.63	††	1.32	††
L022	Pooled	0.075		0.433		0.575		0.055		0.02		0.049		0.306		0.091		0.08		2.36		0.45		1.17	
L023	Pooled	0.12	††	0.41		0.6		0.11	††	0.07	††	0.1	††	0.3		0.17	††	0.073		2.32		0.47		1.22	
L026	Pooled	0.089		0.405		0.568		0.048		0.019		0.055		0.292		0.106		0.093		2.02	†	0.409		1.19	
L028	Pooled	0.087		0.368		0.495		0.054		0.035		0.058		0.299		0.088		0.08		2.28		0.4		1.19	
L030	Pooled	0.073		0.38		0.534		0.052		0.007		0.026		0.246	††	0.067		0.069		2.2		0.386		1.12	
L032	Pooled	0.076		0.471		0.544		0.056		0.039		0.063		0.306		0.092		0.08		2.38		0.442		1.18	
L034	Pooled	0.078		0.374		0.553		0.061		0.014		0.04		0.33	††	0.102		0.074		2.45		0.387		1.2	
L036	Pooled	0.076		0.42		0.578		0.058		0.02		0.043		0.33	††	0.095		0.078		2.57		0.41		1.08	†
L037	Pooled	0.282	††	0.451		0.899	††	0.063																	
L040	Pooled	0.07		0.41		0.58		0.05																	
L064	Pooled	0.086		0.424		0.629		0.066		0.024		0.058		0.312		0.01		0.075		2.39		0.403		1.19	
L097	Pooled	0.072		0.406		0.59		0.053		0.017		0.049		0.305		0.095		0.07		2.4		0.383		1.19	
L100	Pooled	0.08		0.391		0.53		0.052		0.017		0.05		0.289		0.092		0.078		2.2		0.36		1.13	
L133	Pooled	0.063		0.29	††	0.526		0.34	††	0.015		0.045		0.3		0.076		0.102	†	2.26		0.426		1.25	
L135	Pooled									0.009		0.03		0.253	††	0.054	††	0.031	††	2.19		0.291	††	1.03	††
L139	Pooled	0.248	††	0.477		0.647		0.047		0.029		0.039		0.315		0.077		0.222	††	2.27		0.429		1.19	

Lab. Code #	Method Codes	Reported data on plant Cobalt (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	0.666	††	0.714	†	0.595	††	0.297	††	0.117	††	0.245	††	0.195		0.109	††	0.193		0.0937		0.267		0.369	
L011	Pooled	0.172		0.339		0.266		0.05		0.047		0.037		0.112		0.005	†	0.171		0.124		0.492	††	0.253	
L013	Pooled	0.18		0.39		0.32		0.06		0.06		0.04		0.14		0.02		0.17		0.11		0.18		0.32	
L016	Pooled	0.191		0.346		0.335		0.068		0.053		0.042		0.153		0.018		0.188		0.105		0.178		0.341	
L017	Pooled	0.1		1.4	††	0.3		0.01																	
L019	Pooled	0.018		0.0005	†	0.0005	††	0.0005		0.174	††	0.137	††	0.248		0.119	††	0.036		0.137		0.087		0.068	††
L022	Pooled	0.202		0.35		0.34		0.04		0.055		0.04		0.121		0.016		0.18		0.1		0.17		0.3	
L024	Pooled	0.108		0.272		0.198	†	0.029		0.067		0.357	††	0.377	††	0.228	††	0.072		0.034		0.066		0.002	††
L030	Pooled	0.202		0.382		0.307		0.037		0.056		0.04		0.14		0.013		0.209		0.129		0.383		0.298	
L032	Pooled	0.357		0.654		0.44	†	0.048		0.058		0.041		0.146		0.017		0.124		0.055		0.329		0.184	
L034	Pooled	0.161		0.43		0.302		0.045		0.039		0.041		0.123		0.014		0.135		0.046		0.18		0.245	
L036	Pooled	0.22		0.44		0.36		0.06		0.081	†	0.057	†	0.217		0.018									
L037	Pooled	1.48	††	1.12	††	0.838	††	0.296	††																
L040	Pooled	0.168		0.365		0.307		0.033																	
L044	Pooled	0.123		0.171		0.193	†	0.041		0.001	††	0.001	††	0.038		0.001	†	0.141		0.07		0.863	††	0.177	
L079	Pooled	0.31		0.489		0.42	†	0.064		0.062		0.043		0.146		0.02		0.259		0.225		0.256		0.324	
L097	Pooled	0.172		0.305		0.325		0.07		0.057		0.049		0.189		0.02		0.159		0.056		0.155		0.311	
L133	Pooled	0.344		0.755	†	0.485	††	0.229	††	0.374	††	0.387	††	0.564	††	0.454	††	0.090		0.153		0.22		0.317	
L135	Pooled									0.085	†	0.068	†	0.168		0.043	†	0.221		0.182		0.324		0.396	
L139	Pooled	0.108		0.266		0.325		0.034		0.055		0.051	†	0.081		0.023		0.103		0.04		0.155		0.276	

Lab. Code #	Method Codes	Reported data on plant Copper (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	23.7		16.8		5.17		1.73	††	1.68		1.92		5.15		2.9		24.4		2.6	†	17.3		32	
L005	Pooled	33	††	24	††	5		5		5.91	††	1.8		6.11		5.13		213.46	††	2.45	†	226	††	342	††
L007	Pooled	20	†	9.5	††	0.5	††	0.5	††	5.5	††	5.5	††	8.5	††	8.25	††	21.5		1.5		19		29.8	
L009	Pooled	30.8	††	20.2	†	5.81	†	5.14		6.75	††	4.08	††	6.5		4.3		24.4		3.23	††	19.3		31.6	
L011	Pooled	27.8		19.6		5.37		4.77		1.73		2.79		6.68		3.8		26.4		1.59		19		35.9	
L013	Pooled	24.3		17.7		5.1		4.4		1.9		2.8		5.8		3.8		23.9		1.2		19.5		32.5	
L015	Pooled	23.2		16.8		5.07		4.45		2.55	†	3.28		6.29		4.31		25.2		1.44		18.2		32.8	
L016	Pooled	24.9		17.2		4.96		4.51		1.7		2.83		5.94		3.93		25.6		1.26		20		34.7	
L017	Pooled	24		17		3	††	2	††																
L018	Pooled									1.81		3.03		6.46		4.51		26.4		1.2		18.7		34.8	
L019	Pooled	17.1	††	14.2	†	5.12		3.63		2.82	††	3.65	†	5.33		5.42		21.8		3.5	††	17.3		30.8	
L022	Pooled	24.5		17.4		5.22		4.45		1.63		2.58		5.54		3.72		24		1.35		19.8		33.6	
L023	Pooled	24.8		16.9		4.66		4.41		1.5		2.6		5.9		4		26.6		1.2		18.8		37.6	
L024	Pooled	25.6		18.4		5.4		5.6		2.54	†	3.47		4.87		5.06		23.5		1.75		17.1		27.7	
L026	Pooled	25.3		17.8		5.02		4.19		1.67		2.63		5.38		3.45		23.9		1.84		19.5		32.7	
L028	Pooled	27.2		20		5.1		4.3		1.8		2.8		6.5		4.6		26.2		1.8		22.1		36.9	
L030	Pooled	21.3		15.7		4.23	†	3.87		1.36		2.25		5.28		3.46		26.3		1.16		18		39.1	†
L032	Pooled	22.3		16.1		4.69		4.25		1.69		2.26		4.96		3.31		22.3		1.11		15.8		31.4	
L034	Pooled	22.8		16.8		4.85		4.43		1.75		2.7		5.57		3.73		22.5		1.53		18.3		29	
L035	Pooled	24.6		17.4		4.75		3.56		1.17		1.86		2.21	††	2.69		24.6		2.19		17		32.3	
L036	Pooled	24.3		15.9		4.95		4.12		1.4		2.47		5.75		3.65		24.2		1.14		20.2		34.3	
L037	Pooled	23.6		15.9		5.25		4.2																	
L040	Pooled	24.7		18.3		5.17		5.11																	
L042	Pooled	22		17		3.5	††	5.7		2.2		2.1		4.7		1.2	††	28		3.2	††	20		36	
L044	Pooled	19.4	†	12.4	††	3.96	††	2.85	†	1.7		2.41		4.8		3.27		16.9	††	1.25		13.1	††	22.1	††
L046	Pooled	23.9		16.8		5.02		4.58		1.79		2.19		4.94		3.56		22.1		1.06		17.7		31	
L064	Pooled	24.5		17.5		4.04	††	3.9		1.33		2.79		6.33		4.25		25.5		1.5		16.4		32.2	
L079	Pooled	26.9		18.7		5.42		4.95		1.57		2.53		5.34		3.71		21.1		1.67		16.9		28.1	
L080	Pooled	24		16		3	††	1.167	††	0.1	††	0.1	††	2	††	0.1	††	25		1		25	††	31.7	
L084	Pooled	22.2		21.1	†	5.02		4.32		1.36		2.38		6.14		3.33		24.3		1.96		19		32.6	
L097	Pooled	25.6		17.8		5.22		5.02		2.26		3.64	†	7.64		4.86		24.6		0.985		20.1		34.1	
L100	Pooled	24.4		19.1		7.19	††	5.01		1.63		2.53		5.4		3.69		24.7		4.49	††	21.4		35.7	
L133	Pooled	20.8		16.6		5.39		7.37	††	2.23		5.48	††	6.88		9.18	††	22.9		4.79	††	18.2		30.9	
L135	Pooled									1.98		2.62		5.75		3.85		24.4		0.757		20.7		33	
L139	Pooled	23		18		4.9		1.5	††	1.5		2.3		3.6	†	3.1		22.2		0.93		22.1		31.8	

Lab. Code #	Method Codes	Reported data on plant Iron (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	163		65.1		62.1		33.2		40.7		13.3		91.5		27.7		197		493		118	††	357	
L005	Pooled	203		69		56		46		41.8		12.7		48.1	††	27.9		153	††	488		64.3		286	
L007	Pooled	146		61.3		65.5		38.8		36.8		13.2		90.5		23.8		41.3	††	46	††	11	††	71.5	††
L009	Pooled	180		81.5		72.5		50.9		209	††	40.2	††	131	†	40.6	††	199		606		79.8		387	
L011	Pooled	243	†	90.4		82.6	†	61.1		54.7	†	25.7	††	120		36		222		683		88.7		430	
L013	Pooled	184		72.7		69.4		50.4		40.9		13.9		90.1		28.6		185		581		63.2		370	
L015	Pooled	190		74		66		44.8		46.1		18.4		104		33.4		202		640		77		391	
L016	Pooled	186		67.6		58.3		44.9		45.4		14		107		31.7		200		677		69.1		420	
L017	Pooled	191		74		72		50		43		10		117		25		198		659		82		412	
L018	Pooled									50.9		17.8		120		35.8		216		731		84		442	
L019	Pooled	192		93.6	†	78.8		41.5		109	††	71.6	††	150	††	76.5	††	181		455		66.5		271	
L022	Pooled	192		74.8		66		44.9		43.5		15.4		95		30.1		196		625		66		345	
L023	Pooled	190		69.6		72.1		56.4		40		15		100		32		209		697		83.1		426	
L024	Pooled	191		78.8		70.6		53.8		50.7		29.3	††	84.2		27.3		195		460		62.4		299	
L026	Pooled	196		79.3		70.4		39.1		43.2		13.7		89.9		29.4		185		609		58.3		333	
L028	Pooled	207		79.3		70.5		40.9		42.8		16.2		97.5		28		192		587		59.5		362	
L030	Pooled	229		96	††	77.6		56.2		42		13.4		107		28.8		282	††	872	†	119	††	522	
L032	Pooled	164		74.1		62.8		45		40		14.1		90.9		27.1		175		512		67.3		308	
L034	Pooled	172		65.8		59.5		40.8		37.3		13.9		84.7		29		156		460		49.1		248	
L035	Pooled	212		54.4	†	49.3	††	48.1		30.5	†	10.8		70.7		20.7		210		630		49.9		293	
L036	Pooled	227		82.5		81		52.6		45		12		99.2		25.9		199		737		65.2		447	
L037	Pooled	195		76.8		68.3		54.9																	
L040	Pooled	194		69.6		67.2		44.1																	
L042	Pooled	121	††	44	††	56		37		29	†	12		70		31		199		614		75		264	
L044	Pooled	169		68.4		105	††	37		41		20.4		92.5		32.7		196		597		72.5		338	
L046	Pooled	176		70.7		65.8		44.4		43.4		16.7		96.1		36		192		621		76.2		341	
L064	Pooled	193		77.2		62.9		50.2		48.2		12.7		97.2		29.4		185		617		69		362	
L079	Pooled	241	†	93.7	†	78.9		26.9		60.5	††	14.3		104		30.5		472	††	1085	††	166	††	432	
L080	Pooled	196		77		63		40		35		9		60	††	22		174		510		59		303	
L084	Pooled	172		69.1		65.1		44.8		37.7		10.7		100		25.4		182		664		59		341	
L097	Pooled	202		75.7		61.4		55.5		50.5		19.7		122		32.3		185		532		60.9		330	
L100	Pooled	171		68.4		67.9		43.2		48.9		26.9	††	108		42.5	††	175		557		62		310	
L133	Pooled	174		69.7		66.4		42.9		265	††	18		80.8		30.6		165		285	††	49.2		243	
L135	Pooled									43.1		16.4		89		31.1		198		619		64.6		390	

Lab. Code #	Method Codes	Reported data on plant Potassium (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	1.03		2.52		2.55		0.389		0.197		0.54		1.31		0.335		0.926		1.48		2.53		3.29	
L005	Pooled	1.1		2.7		2.7		0.4		0.24		0.53		1.59		0.35		1.07		1.77		3.02	††	4.55	††
L007	Pooled	1.36	††	2.76		2.99	††	0.565	††	0.288	††	0.663	††	1.6		0.45	†	1.11		1.79		2.77		4.19	
L009	Pooled	0.947		2.23		2.29		0.422		0.227		0.505		1.36		0.359		0.864		1.24	††	1.47	††	1.93	††
L011	Pooled	0.954		1.96		2.52		0.456		0.25		0.537		1.26		0.394		1.14		1.62		2.4		3.42	
L012	Pooled	0.906		2.52		2.73		0.345		0.196		0.501		1.32		0.408		0.931		1.52		2.26		3.52	
L013	Pooled	0.953		2.42		2.54		0.357		0.197		0.458		1.26		0.304		0.892		1.47		2.24		3.49	
L015	Pooled	1.01		2.47		2.55		0.381		0.218		0.557		1.45		0.37		1.02		1.64		2.47		3.74	
L016	Pooled	0.978		2.43		2.59		0.366		0.208		0.524		1.44		0.339		0.98		1.61		2.41		3.7	
L017	Pooled	0.99		2.39		2.49		0.39										1.04		1.69		2.53		3.67	
L018	Pooled									0.23		0.586		1.52		0.394		1.05		1.76		2.59		3.81	
L019	Pooled	1.01		2.47		2.55		0.401		0.157	††	0.458		1.3		0.347		1.02		1.65		2.47		3.64	
L022	Pooled	1.02		2.41		2.51		0.392		0.218		0.532		1.39		0.352		0.99		1.59		2.38		3.55	
L023	Pooled	1		2.49		2.59		0.42		0.22		0.6		1.6		0.39		1.09		1.79		2.62		3.91	
L024	Pooled	0.078	††	0.239	††	0.238	††	0.033	††	0.155	††	0.438		1.38		0.324		0.941		1.63		2.37		3.7	
L026	Pooled	0.999		2.38		2.49		0.363		0.214		0.516		1.36		0.316		0.98		1.62		2.44		3.68	
L028	Pooled	1.06		2.64		2.65		0.39		0.208		0.549		1.59		0.347		0.998		1.65		2.57		3.77	
L030	Pooled	1.04		2.57		2.79		0.408		0.226		0.55		1.48		0.358		1.18		1.63		2.45		3.63	
L032	Pooled	1.03		2.46		2.58		0.395		0.197		0.491		1.32		0.315		0.962		1.56		2.36		3.65	
L034	Pooled	1.04		2.52		2.61		0.414		0.209		0.522		1.37		0.359		1.17		1.85	†	2.65		3.71	
L035	Pooled	0.986		2.27		2.26		0.334		0.13	††	0.496		1.14	††	0.39		0.79	††	1.37	††	2.09		3.12	
L036	Pooled	0.974		2.21		2.44		0.359		0.219		0.504		1.47		0.354		0.98		1.49		2.21		3.24	
L037	Pooled	1.02		2.28		2.52		0.394																	
L040	Pooled	1.15	††	2.68		2.75		0.393																	
L042	Pooled	0.99		2.26		2.26		0.436		0.254		0.613		1.47		0.403		1.03		1.64		2.51		3.96	
L044	Pooled	0.978		2.24		2.34		0.387		0.215		0.522		1.42		0.346		0.91		1.44		2.2		3.39	
L046	Pooled	0.999		1.9	††	1.62	††	0.329		0.187		0.446		1.11	††	0.301		1.04		1.54		2.1		1.65	††
L064	Pooled	1.06		2.29		2.34		0.614	††	0.308	††	0.57		1.37		0.398		1.1		1.63		2.3		3.8	
L079	Pooled	1.03		2.21		2.34		0.402		0.207		0.542		1.44		0.36		0.96		1.59		2.39		3.66	
L080	Pooled	0.925		2.46		2.43		0.349		0.201		0.603		1.72	††	0.245	††	1.65	††	2.68	††	3.87	††	3.22	
L084	Pooled	0.96		2.25		2.31		0.42		0.238		0.575		1.42		0.379		1		1.66		2.4		3.81	
L097	Pooled	1.05		2.58		2.61		0.387		0.22		0.556		1.52		0.383		1		1.64		2.46		3.81	
L100	Pooled	0.907		2.3		2.51		0.618	††	0.315	††	0.713	††	1.55		0.498	††	0.973		1.58		2.12		3.25	
L133	Pooled	0.968		2.37		2.47		0.352		0.227		0.525		1.42		0.341		1.07		1.68		3.25	††	7.71	††
L135	Pooled									0.212		0.533		1.38		0.355		0.95		1.52		2.28		3.4	
L139	Pooled	1.05		2.54		2.59		0.302		0.136	††	0.413	††	1.38		0.24	††	1.1		1.86	†	2.55		3.32	

Lab. Code #	Method Codes	Reported data on plant Magnesium (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	0.334		0.625	†	0.221		0.118		0.064		0.037		0.098		0.09	†	0.36		0.673		0.714		0.439	
L005	Pooled	0.4	†	0.8	†	0.3	††	0.1	††	0.08		0.04		0.12		0.12		0.35		0.63		0.7		0.46	
L007	Pooled	0.426	††	0.746		0.245		0.124		0.081	††	0.047	††	0.118		0.126	††	0.36		0.66		0.63		0.42	
L009	Pooled	0.378		0.821	††	0.233		0.132		0.070		0.042		0.106		0.107		0.286	††	0.485	††	0.504	††	0.335	††
L011	Pooled	0.426	††	0.872	††	0.281	††	0.147		0.069		0.042		0.106		0.107		0.358		0.639		0.71		0.426	
L012	Pooled	0.393		0.759		0.269		0.16	††	0.072		0.04		0.109		0.117		0.429	††	0.727		0.753		0.506	†
L013	Pooled	0.356		0.712		0.241		0.128		0.063		0.036	†	0.096		0.097		0.343		0.63		0.653		0.409	
L015	Pooled	0.366		0.714		0.249		0.147		0.078		0.046	††	0.119		0.125	††	0.379		0.678		0.754		0.466	
L016	Pooled	0.332		0.679		0.216		0.125		0.069		0.04		0.104		0.106		0.339		0.643		0.675		0.416	
L017	Pooled	0.35		0.71		0.24		0.13		0.07		0.04		0.11		0.11		0.37		0.7		0.74		0.44	
L018	Pooled									0.074		0.042		0.11		0.12		0.372		0.713		0.754		0.441	
L019	Pooled	0.361		0.741		0.24		0.131		0.069		0.042		0.1		0.109		0.403	††	0.723		0.763		0.475	
L022	Pooled	0.364		0.71		0.234		0.131		0.068		0.039		0.103		0.103		0.355		0.666		0.704		0.427	
L023	Pooled	0.32		0.72		0.22		0.13		0.069		0.04		0.11		0.11		0.35		0.75		0.81	†	0.45	
L024	Pooled	0.312	†	0.567	††	0.216		0.12		0.065		0.04		0.096		0.129	††	0.371		0.611		0.643		0.405	
L026	Pooled	0.361		0.721		0.233		0.126		0.071		0.039		0.103		0.104		0.348		0.652		0.689		0.419	
L028	Pooled	0.378		0.761		0.244		0.13		0.066		0.039		0.109		0.102		0.34		0.66		0.69		0.42	
L030	Pooled	0.405	†	0.877	††	0.274		0.152	†	0.072		0.041		0.102		0.109		0.452	††	0.827	††	0.85	†	0.604	††
L032	Pooled	0.29	††	0.591	††	0.191		0.111		0.061		0.034	††	0.092		0.091		0.281	††	0.53	††	0.595	†	0.358	†
L034	Pooled	0.364		0.74		0.24		0.141		0.068		0.039		0.103		0.106		0.352		0.647		0.686		0.42	
L035	Pooled	0.337		0.674		0.212		0.112		0.062		0.033	††	0.07	††	0.094		0.31		0.61		0.65		0.37	
L036	Pooled	0.351		0.662		0.215		0.117		0.066		0.039		0.104		0.106		0.397		0.817	††	0.852	††	0.546	††
L037	Pooled	0.362		0.733		0.245		0.132																	
L040	Pooled	0.352		0.729		0.238		0.139																	
L042	Pooled	0.338		0.688		0.223		0.122		0.062		0.04		0.108		0.114		0.399		0.732		0.79		0.467	
L044	Pooled	0.361		0.702		0.242		0.126		0.067		0.041		0.106		0.104		0.382		0.677		0.734		0.452	
L046	Pooled	0.316		0.66		0.208		0.12		0.061		0.034	††	0.093		0.01		0.304	†	0.591		0.684		0.387	
L064	Pooled	0.371		0.705		0.214		0.111		0.077		0.04		0.096		0.104		0.371		0.675		0.688		0.435	
L079	Pooled	0.352		0.732		0.243		0.134		0.07		0.041		0.106		0.112		0.352		0.662		0.705		0.44	
L080	Pooled	0.355		0.592	††	0.173	††	0.055	††	0.059		0.032	††	0.072	††	0.078	††	0.365		0.808	††	0.477	††	0.341	††
L084	Pooled	0.344		0.695		0.221		0.125		0.069		0.042		0.107		0.109		0.353		0.69		0.693		0.453	
L097	Pooled	0.358		0.716		0.209		0.135		0.076		0.043		0.113		0.117		0.35		0.668		0.699		0.432	
L100	Pooled	0.333		0.685		0.222		0.124		0.065		0.038		0.097		0.102		0.343		0.659		0.678		0.412	
L133	Pooled	0.331		0.7		0.224		0.11		0.067		0.038		0.096		0.097		0.334		0.631		0.681		0.406	
L135	Pooled									0.07		0.039		0.103		0.109		0.346		0.62		0.68		0.416	
L139	Pooled	0.349		0.703		0.234		0.137		0.066		0.038		0.099		0.103		0.34		0.808	††	0.78		0.433	

Lab. Code #	Method Codes	Reported data on plant Manganese (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	38.1		121		49.8	††	35.4	††	62.3		3.68		34.2		22		49.5		38.2		158	††	183	
L005	Pooled	51		168		62		49		66.9		2.3	††	42.6		27.1		46.29		35.5		90		176	
L007	Pooled	60.5	††	168		70.8		64	††	76	††	17	††	44.8	††	41	††	53.8	†	40	†	95.5		201	
L009	Pooled	47.1		153		63.4		48.3		62.3		2.47	††	36		27		46.3		34.2		84.4		175	
L011	Pooled	48.5		159		66.4		45.7		62		3.84		38.6		23.9		49.7		36.7		160	††	184	
L013	Pooled	41.7		143		61.1		45.1		58.8		1.9	††	34.4		23.1		44.9		34		83.1		165	
L015	Pooled	44.1		145		61.2		47		63		3.95		39.3		27.5		47		36.1		156	††	180	
L016	Pooled	44.5		145		55.9		48.1		63.6		3.76		38.7		27.1		46.4		35.4		84.8		180	
L017	Pooled	51		193	††	82	††	58	††									45		34		151	††	178	
L018	Pooled									68.4		4.2		41.6		30.4		49.2		38.8		167	††	187	
L019	Pooled	43.8		153		63.7		44		76.1	††	3.94		35.9		30.1		37	††	26.5	††	135	†	151	
L022	Pooled	45.8		149		63.5		47.8		60.5		3.51		35.6		25.4		44.6		32.7		80.8		164	
L023	Pooled	43.1		138		59.9		48.9		63		3.6		39		28		46		35.9		152	††	176	
L024	Pooled	43.1		142		59.9		43.2		52	††	3.58		30.7		27		42.5		29.1	††	70.3		147	
L026	Pooled	44.8		148		62.1		44.3		61.4		3.36		36.7		25.1		45		34.7		83.2		169	
L028	Pooled	47		159		65		49		62		4		40		26		44		34		83		172	
L030	Pooled	59	††	199	††	81.2	††	63.3	††	62.8		3.73		37.7		26.7		66.3	††	51.6	††	191	††	242	††
L032	Pooled	41.7		132		58		43.8		54.5	†	3.12		32.2		22.2		39.6		29.5	†	129	†	154	
L034	Pooled	42		137		55.7		45.2		56.8		3.58		35		24.9		38.9		28.8	††	71		140	††
L035	Pooled									41.7	††	1.83	††	16.1	††	14.4	††	43.8		32.8		139	†	168	
L036	Pooled	46.2		140		59.1		43.3		59.9		3.52		37		26.4		48.3		40.4	††	94.7		198	
L037	Pooled	47.2		153		66.8		46.8																	
L040	Pooled	38.9		135		57.4		46.8																	
L042	Pooled	43		142		62		48		61		8.6	††	35		28.5		48		35		164	††	184	
L044	Pooled	42.8		138		62.7		43.5		63.1		3.16		36.9		27.7		46		33.5		142	†	166	
L046	Pooled	42.5		140		59.2		44.5		55.3		3.17		33		23.5		42.7		32		144	†	158	
L064	Pooled	45.8		152		58.2		40.5		61.5		4.8	††	37.7		25.4		43.5		33.4		151	††	169	
L079	Pooled	48.9		157		68.5		48.4		59.1		3.83		39.5		29.1		48.4		37.5		88.8		187	
L080	Pooled	50.34		170		66.9		39.4		62		4		33		25		47.3		35.3		87		177	
L084	Pooled	43		141		62.4		46.9		57.8		3.8		36.9		25.2		45.2		34.9		82.7		167	
L097	Pooled	47.4		153		54		51.4		64.1		3.46		41.9		28		46.1		35.3		86.1		177	
L100	Pooled	40		142		60		44.9		57.7		3.5		35.6		25.8		40.6		33.9		81.1		160	
L133	Pooled	36.6		125		53.9		34.5	††	58.5		3.27		34		25.7		43.8		30.8		79.2		156	
L135	Pooled									63.4		3.67		38.4		27.9		46.2		34.5		85.4		175	
L139	Pooled	42		143		63		54		59		3.7		36		27		40.1		38.7		93.8		170	

Lab. Code #	Method Codes	Reported data on plant Molybdenum (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	0.655	††	0.841	††	0.747		0.65		0.227	†	0.065		0.342		0.416		0.541	††	8.26		0.678	††	1.2	††
L011	Pooled	0.412		0.335		0.628		0.918	††	0.178	†	0.135	†	0.587		0.552		0.247		6.7		0.246		0.781	
L013	Pooled	0.21		0.22		0.57		0.67		0.03		0.03		0.37		0.45		0.19		7.03		0.25		0.75	
L016	Pooled	0.105		0.188		0.498		0.614		0.055		0.047		0.533		0.494		0.215		7.01		0.321		0.825	
L017	Pooled	0.4		0.1		0.5		0.6																	
L018	GJ-23																	0.4	††	7.6		0.2		0.9	
L019	Pooled	0.546	†	0.0005	†	0.378		0.663		0.006		0.216	†	0.672		0.768		0.198		6.99		0.186		0.726	
L022	Pooled	0.27		0.24		0.58		0.66		0.05		0.058		0.4		0.51		0.22		6.02		0.265		0.655	
L023	DN-23																			7.18					
L024	Pooled	0.184		0.123		0.133		0.178	††	0.237	†	1.61	††	0.918		0.989	††	0.982	††	18.1	††	0.848	††	1.33	††
L030	Pooled	0.185		0.207		0.481		0.59		0.067		0.049		0.474		0.48		0.235		7.17		0.243		0.764	
L032	Pooled	0.307		0.409	†	0.845		0.597		0.072		0.052		0.225		0.356		0.147		6.15		0.163		0.449	
L034	Pooled	0.209		0.344		0.484		0.636		0.179	†	0.209	†	0.458		0.598		0.194		5.98		0.322		0.785	
L036	Pooled	1.51	††	1.16	††	0.995	††	0.726		1.42	††	0.401	††	0.623		0.548		0.203		8		0.217		0.845	
L037	Pooled	0.182		0.152		0.177		0.221	††																
L040	Pooled	0.17		0.185		0.513		0.562																	
L044	Pooled	0.005		0.005	†	0.404		0.291	††	4.05	††	0.368	††	0.452		0.001	††								
L079	Pooled	0.212		0.235		0.588		0.773		0.056		0.044		0.488		0.456		0.177		6.44		0.319		0.667	
L097	Pooled	0.234		0.237		0.64		1.01	††	0.058		0.061		0.606		0.561		0.211		7.5		0.285		0.795	
L133	Pooled	0.63	††	0.914	††	0.944	†	0.611		0.828	††	0.653	††	0.771		0.788	†	0.489	††	0.756	††	0.582	††	0.58	
L135	Pooled									0.413	††	0.223	†	0.68		0.633		0.285	†	6.293		0.354		0.745	
L139	Pooled	0.103		0.175		0.454		0.354	††	0.079		0.023		0.132		0.369		0.087	†	5.04		0.203		0.452	

Lab. Code #	Method Codes	Reported data on plant Nitrogen (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	2.19	††	0.79		2.54	†	1.68	††	0.35	†	1		0.863	††	1.45	††	2.38		1.49		0.77		2.38	
L005	Pooled	3	††	1	††	3.3	††	2.4	††	0.27		0.94		1.27		1.97		2.33		1.5		0.98		2.46	
L007	Pooled	2.4		0.756		2.95		1.84		0.658	††	1.72	††	1.75	†	2.55	††	2.21		1.46		0.95		2.63	
L009	Pooled	2.7		0.924		2.8		1.88		0.212		1.02		1.5		2.12		2.41		1.48		0.947		2.61	
L011	Pooled	2.41		0.837		2.63		1.84		0.195		0.936		1.34		1.93		2.45		1.5		0.764		2.61	
L012	Pooled	2.76		1.35	††	2.62		1.95										2.95	††	1.86	††	1.23		3.14	
L013	Pooled	2.67		0.85		2.96		1.99		0.2		1		1.41		2.04		2.57		1.55		0.98		2.79	
L015	Pooled	2.61		0.83		2.95		1.91		0.206		1.05		1.46		2.13		2.63		1.62		0.84		2.82	
L016	Pooled	2.7		0.905		2.88		1.94		0.36	†	0.987		1.47		2.01		2.7		1.69		1.06		2.95	
L018	Pooled									0.27		1.04		1.54		2.16		2.7		1.7		0.876		2.88	
L019	Pooled	2.63		0.87		2.98		1.94		0.126		0.973		1.4		2.11		2.48		1.54		0.82		2.65	
L022	Pooled	2.55		0.835		2.8		1.84		0.235		0.97		1.42		2		2.55		1.59		1.01		2.81	
L023	Pooled	2.63		0.96	†	2.89		2.04		0.32	†	1.1		1.6		2.2		2.61		1.76		0.93		2.83	
L024	Pooled	2.38		0.75		2.48	††	1.7	†	0.21		0.815	†	1.17		1.67	††	2.31		1.31		0.9		2.31	
L026	Pooled	2.56		0.816		2.81		1.86		2.52	††	0.771	††	2.79	††	1.86		2.55		1.57		1		2.62	
L028	Pooled	2.71		0.9		3.01		1.98		0.2		0.9		1.3		2									
L030	Pooled	2.52		0.81		2.79		1.84		0.191		0.935		1.29		1.95		2.67		1.62		0.833		2.77	
L032	Pooled	2.55		0.852		2.87		1.87		0.198		0.961		1.36		1.98		2.51		1.56		0.823		2.72	
L034	Pooled	2.39		0.79		2.56		1.72		0.192		0.976		1.35		1.97		2.36		1.46		0.965		2.47	
L036	Pooled	2.66		0.856		2.97		1.84		0.215		1.07		1.46		2.14									
L037	Pooled	2.56		0.828		2.87		1.89																	
L040	Pooled	2.56		0.822		2.94		1.92																	
L042	Pooled	2.62		0.817		2.96		1.86		0.225		1.03		1.45		2.09		2.61		1.6		0.823		2.81	
L044	Pooled	2.41		0.73		2.73		1.83										2.42		1.46		0.8		2.39	
L045	CA-37																	2.51		1.56		1.03		2.75	
L046	Pooled	2.58		0.845		2.82		1.88		0.23		0.927		1.33		1.94		2.62		1.58		0.765		2.82	
L064	Pooled	2.59		0.869		2.68		1.8		0.32	†	1		1.45		1.97		2.59		1.65		0.824		2.8	
L079	Pooled	2.72		0.963	†	3.12		2.05		0.291		0.945		1.36		1.96		2.59		1.64		1.03		2.97	
L084	Pooled	2.55		0.83		2.92		1.93		0.23		0.95		1.3		2.02		2.44		1.65		0.98		2.61	
L097	Pooled	2.73		0.909		2.82		2.02		0.433	††	1.1		1.58		2.16		2.66		1.75		1.16		2.8	
L100	Pooled	2.52		0.768		2.91		1.88		0.443	††	1.17	††	1.7		2.24		2.53		1.55		0.942		2.79	
L135	Pooled									0.233		0.926		1.19		1.81		2.21		1.39		0.884		2.27	††
L139	Pooled	2.45		0.814		2.68		1.78		0.194		0.93		1.31		1.93		2.44		1.51		0.958		2.68	

Lab. Code #	Method Codes	Reported data on plant Sodium (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	0.022		0.096	††	0.047		0.006		0.023		0.087		0.027		0.0006		0.024		0.03		0.142		0.017	
L005	Pooled	0.02		0.01	††	0.01	††	0.05	††	0.006	††	0.008	††	0.007	††	0.002		0.024		0.025		0.044	††	0.026	
L007	Pooled	0.039	††	0.205	††	0.093	††	0.05	††	0.018		0.111	††	0.068	††	0.018	††	0.02		0.03		0.11		0.02	
L009	Pooled	0.0244		0.124		0.046		0.019	††	0.0298		0.0808		0.0314		0.0105	††	0.0479	††	0.0278		0.134		0.0341	††
L011	Pooled	0.0237		1.48	††	0.049		0.0097	†	0.0242		0.0835		0.0281		0.0081	††	0.0221		0.0259		0.134		0.0209	
L013	Pooled	0.012	††	0.112		0.036		0.003		0.02		0.072		0.024		0.003		0.013		0.019		0.102		0.013	
L015	Pooled	0.022		0.127		0.044		0.01	†	0.027		0.091		0.031		0.009	††	0.02		0.025		0.133		0.019	
L016	Pooled	0.017		0.126		0.037		0.004		0.025		0.089		0.029		0.003		0.018		0.022		0.117		0.015	
L017	Pooled	0.2	††	0.13		0.04		1.38	††	0.02		0.03	††	0.09	††	0.003		0.02		0.02		0.13		0.02	
L018	Pooled									0.024		0.092		0.03		0.004		0.025		0.027		0.14		0.021	
L019	Pooled	0.034	††	0.129		0.063	††	0.006		0.022		0.083		0.039	†	0.007	†	0.042	††	0.034		0.151		0.073	††
L022	Pooled	0.02		0.126		0.042		0.007		0.021		0.08		0.028		0.004		0.02		0.024		0.119		0.02	
L023	Pooled	0.017		0.11	†	0.036		0.006		0.021		0.087		0.027		0.004		0.019		0.024		0.12		0.017	
L024	Pooled	0.0203		0.129		0.042		0.0056		0.0169		0.082		0.0339		0.0025		0.0307	†	0.0284		0.101		0.0272	
L026	Pooled	0.017		0.123		0.04		0.005		0.021		0.08		0.026		0.003		0.016		0.023		0.118		0.016	
L028	Pooled	0.018		0.133		0.04		0.004		0.021		0.085		0.029		0.003		0.018		0.023		0.126		0.016	
L030	Pooled	0.02		0.143	†	0.046		0.005		0.022		0.081		0.02	†	0.004		0.0221		0.0249		0.141		0.0208	
L032	Pooled	0.0187		0.115		0.0355		0.0044		0.0192		0.0742		0.0241		0.0028		0.0164		0.0209		0.116		0.0148	
L034	Pooled	0.018		0.128		0.041		0.006		0.021		0.08		0.028		0.004		0.018		0.023		0.115		0.016	
L035	Pooled	0.047	††	0.136		0.057		0.018	††	0.065	††	0.12	††	0.052	††	0.023	††	0.05	††	0.06	††	0.15		0.02	
L036	Pooled	0.022		0.132		0.042		0.007		0.02		0.084		0.028		0.003		0.018		0.027		0.136		0.02	
L037	Pooled	0.019		0.12		0.042		0.01	†																
L040	Pooled	0.015		0.119		0.038		0.004																	
L042	Pooled	0.018		0.128		0.048		0.014	††	0.045	††	0.102	††	0.055	††	0.003		0.024		0.032		0.165	†	0.023	
L044	Pooled	0.021		0.109	†	0.043		0.073	††	0.014		0.045	††	0.015	††	0.007	†	0.023		0.023		0.119		0.019	
L046	Pooled	0.0201		0.132		0.043		0.0054		0.0193		0.0739		0.024		0.0034		0.0231		0.0285		0.142		0.0211	
L064	Pooled	0.0192		0.12		0.033		0.0082		0.027		0.088		0.034		0.006		0.018		0.0245		0.131		0.017	
L079	Pooled	0.018		0.132		0.043		0.005		0.021		0.084		0.027		0.005		0.017		0.022		0.12		0.017	
L080	Pooled	0.026		0.08	††	0.034		0.016	††	0.028		0.092		0.04	†	0.01	††	0.03	†	0.03		0.134		0.022	
L084	Pooled	0.02		0.127		0.045		0.005		0.025		0.083		0.032		0.002		0.023		0.029		0.118		0.021	
L097	Pooled	0.02		0.129		0.039		0.005		0.024		0.091		0.03		0.004		0.018		0.023		0.118		0.017	
L100	Pooled	0.019		0.077	††	0.031		0.007		0.023		0.084		0.029		0.007	†	0.0164		0.0178		0.0656	††	0.0231	
L133	Pooled	0.024		0.124		0.046		0.016	††	0.03		0.07		0.03		0.01	††	0.0209		0.024		0.11		0.0185	
L135	Pooled									0.023		0.088		0.029		0.004		0.02		0.03		0.12		0.02	
L139	Pooled	0.047	††	0.131		0.046		0.005		0.018		0.068	†	0.024		0.003		0.049	††	0.059	††	0.134		0.025	

Lab. Code #	Method Codes	Reported data on plant Phosphorus (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	0.131		0.296		0.23		0.307		0.054	††	0.148		0.173		0.19		0.154	††	0.196		0.306		0.243	
L005	Pooled	0.17	††	0.29		0.24		0.3		0.02	††	0.13		0.16		0.18		0.1	††	0.12	††	0.22	††	0.16	††
L007	Pooled	0.137		0.294		0.255		0.336		0.047	††	0.124		0.145		0.194		0.1	††	0.14		0.33		0.19	††
L009	Pooled	0.15		0.312		0.239		0.34		0.022	††	0.146		0.188		0.201		0.159	††	0.175		0.377		0.249	
L011	Pooled	0.137		0.329		0.233		0.308		0.033		0.151		0.178		0.201		0.136		0.165		0.32		0.24	
L012	Pooled	0.184	††	0.35	††	0.262		0.345		0.066	††	0.193	††	0.231	††	0.253	††	0.162	††	0.179		0.37		0.276	
L013	Pooled	0.129		0.305		0.248		0.354		0.033		0.145		0.177		0.194		0.135		0.185		0.355		0.253	
L015	Pooled	0.137		0.325		0.256		0.35		0.038		0.164		0.196		0.226		0.142		0.187		0.347		0.261	
L016	Pooled	0.127		0.3		0.237		0.318		0.034		0.158		0.186		0.208		0.134		0.172		0.353		0.239	
L017	Pooled	1320	††	3183	††	2609	††	3510	††									0.14		0.18		0.33		0.24	
L018	Pooled									0.034		0.159		0.188		0.217		0.136		0.182		0.324		0.24	
L019	Pooled	0.129		0.312		0.252		0.322		0.03		0.142		0.169		0.182		0.129		0.162		0.29		0.222	
L022	Pooled	0.138		0.309		0.251		0.334		0.032		0.15		0.182		0.198		0.132		0.166		0.344		0.234	
L023	Pooled	0.13		0.28		0.24		0.3		0.032		0.14		0.17		0.2		0.12		0.16		0.33		0.24	
L024	Pooled	0.013	††	0.031	††	0.025	††	0.034	††	0.029		0.148		0.182		0.245	††	0.128		0.146		0.298		0.208	
L026	Pooled	0.128		0.299		0.234		0.305		0.031		0.149		0.175		0.193		0.13		0.167		0.343		0.229	
L028	Pooled	0.141		0.334		0.259		0.342		0.032		0.155		0.191		0.201		0.129		0.169		0.36		0.237	
L030	Pooled	0.143		0.347	††	0.275	†	0.366		0.033		0.152		0.174		0.204		0.128		0.165		0.309		0.256	
L032	Pooled	0.127		0.289		0.237		0.33		0.031		0.143		0.139	††	0.183		0.123		0.154		0.288		0.221	
L034	Pooled	0.131		0.312		0.247		0.331		0.03		0.143		0.171		0.193		0.13		0.164		0.34		0.226	
L036	Pooled	0.124		0.293		0.229		0.292		0.032		0.15		0.172		0.198		0.137		0.154		0.325		0.259	
L037	Pooled	0.137		0.304		0.253		0.321																	
L040	Pooled	0.116		0.285		0.233		0.321																	
L042	Pooled	0.134		0.308		0.236		0.326		0.037		0.157		0.183		0.209		0.135		0.171		0.317		0.239	
L044	Pooled	0.118		0.272		0.223		0.279		0.026		0.134		0.152		0.164		0.129		0.152		0.295		0.222	
L046	Pooled	0.121		0.291		0.228		0.305		0.031		0.1428		0.172		0.197		0.119		0.152		0.298		0.218	
L064	Pooled	0.13		0.302		0.245		0.321		0.039		0.142		0.186		0.2		0.133		0.162		0.306		0.229	
L079	Pooled	0.137		0.316		0.254		0.324		0.037		0.175	†	0.206		0.233		0.128		0.171		0.357		0.241	
L080	Pooled	0.147		0.244	††	0.19	††	0.277		0.042	††	0.187	††	0.191		0.172		119.6	††	144	††	297	††	198	††
L084	Pooled	0.125		0.294		0.233		0.331		0.028		0.14		0.166		0.188		0.109	††	0.144		0.303		0.203	
L097	Pooled	0.136		0.313		0.231		0.351		0.034		0.16		0.183		0.21		0.136		0.171		0.361		0.243	
L100	Pooled	0.12		0.294		0.233		0.305		0.028		0.136		0.162		0.183		0.129		0.18		0.354		0.234	
L133	Pooled	0.127		0.294		0.24		0.281		0.032		0.14		0.162		0.175		0.131		0.159		0.335		0.203	
L135	Pooled									0.032		0.151		0.177		0.204		0.14		0.17		0.36		0.24	
L139	Pooled	0.128		0.302		0.25		0.345		0.036		0.168		0.199		0.225		0.127		0.228	††	0.421		0.241	

Lab. Code #	Method Codes	Reported data on plant Lead (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	1.59	††	5.38	††	3.23	††	2.68	††	1.87	††	1.76	††	1.74	††	1.04	††	0.892	††	1.01	††	0.91	††	4.35	††
L011	Pooled	0.236		0.185		0.162		0.183		0.148		0.026		0.155		0.091		0.257		0.378		0.29		3.39	
L019	Pooled	0.161		0.328		0.148		0.161		0.246		0.123		0.122		0.306	†	0.188		0.25		0.313		3.19	
L022	Pooled	0.18		0.33		0.095		0.13		0.285		0.045		0.165		0.045		0.18		0.195		0.28		3.34	
L023	Pooled																							2.88	
L024	Pooled									0.074		0.059		0.033		0.097		0.099		0.027		0.024	††	0.704	††
L030	Pooled	0.128		0.23		0.057		0.069		0.164		0.008		0.127		0.014		0.138		0.152		0.263		3.01	
L032	Pooled	0.16		0.262		0.093		0.114		0.224		0.043		0.165		0.048		0.147		0.183		0.276		3.85	
L037	Pooled	0.05		0.077		0.029		0.036																	
L040	Pooled	0.116		0.23		0.091		0.062																	
L079	Pooled	0.214		0.328		0.081		0.099		0.131		0.002		0.119		0.003		0.116		0.139		0.161	†	3.27	
L133	Pooled	0.282		0.25		0.166		0.177		0.423		0.352	††	0.306	†	0.288		0.321		0.385		0.447	†	3.35	

Lab. Code #	Method Codes	Reported data on plant Sulfur (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	0.281		0.15		0.265		0.148		0.021		0.074		0.113		0.131		0.258		1.65		0.147		0.291	
L011	Pooled	0.261		0.13		0.294		0.147		0.025		0.086		0.129		0.14		0.278		1.81		0.152		0.321	
L013	Pooled	0.258		0.142		0.309		0.157		0.019		0.074		0.114		0.126		0.249		1.68		0.145		0.291	
L015	Pooled	0.278		0.152		0.306		0.164		0.029		0.093		0.139		0.161		0.289		1.86		0.166		0.337	
L016	Pooled	0.259		0.142		0.266		0.147		0.024		0.083		0.121		0.135		0.265		1.79		0.156		0.306	
L018	Pooled									0.026		0.087		0.131		0.147		0.276		1.95		0.151		0.312	
L019	Pooled	0.194	††	0.143		0.251		0.025	††	0.02		0.048	††	0.093		0.027	††	0.54	††	1.88		0.22	††	0.38	
L022	Pooled	0.272		0.147		0.295		0.156		0.024		0.081		0.127		0.139		0.269		1.81		0.164		0.307	
L023	Pooled	0.27		0.14		0.3		0.15		0.026		0.09		0.14		0.15		0.29		1.93		0.16		0.34	
L024	Pooled	0.304		0.196	††	0.312		0.152		0.029		0.082		0.146		0.154		0.254		1.58		0.151		0.237	†
L026	Pooled	0.258		0.14		0.28		0.14		0.025		0.084		0.123		0.138		0.262		1.7		0.154		0.3	
L028	Pooled	0.284		0.156		0.311		0.158		0.025		0.086		0.135		0.141		0.263		1.9		0.158		0.312	
L030	Pooled	0.309		0.172	††	0.339		0.18	††	0.038	†	0.084		0.124		0.14		0.266		1.61		0.15		0.329	
L032	Pooled	0.226		0.132		0.29		0.157		0.024		0.08		0.121		0.131		0.235		1.64		0.133		0.274	
L034	Pooled	0.263		0.143		0.29		0.154		0.024		0.081		0.121		0.137		0.257		1.73		0.151		0.287	
L036	Pooled	0.271		0.138		0.286		0.143		0.024		0.084		0.125		0.14		0.298		2.19		0.189	†	0.379	
L037	Pooled	0.272		0.148		0.313		0.151																	
L040	Pooled	0.327	††	0.167	††	0.333		0.162																	
L044	Pooled	0.214		0.148		0.508	††	0.135		0.087	††	0.155	††	0.099		0.094	††	0.345	††	1.7		0.247	††	0.315	
L046	Pooled	0.25		0.139		0.283		0.144		0.025		0.080		0.119		0.137		0.232		1.81		0.131		0.272	
L064	Pooled	0.279		0.149		0.258		0.173		0.033		0.096		0.119		0.138		0.278		1.7		0.141		0.312	
L079	Pooled	0.25		0.16		0.32		0.14		0.065	††	0.108	†	0.14		0.143		0.295		2.1		0.176		0.326	
L084	Pooled	0.232		0.152		0.265		0.155		0.019		0.063		0.125		0.126		0.241		2		0.134		0.281	
L097	Pooled	0.27		0.139		0.242		0.149		0.022		0.069		0.123		0.127		0.271		1.84		0.158		0.314	
L100	Pooled	0.248		0.139		0.279		0.147		0.02		0.072		0.111		0.123		0.262		1.92		0.154		0.309	
L133	Pooled	0.179	††	0.143		0.257		0.018	††	0.019		0.066		0.090		0.089	††	0.253		2.46	††	2.71	††	3.849	††
L135	Pooled									0.033		0.092		0.134		0.153		0.281		1.79		0.19	†	0.33	
L139	Pooled	0.205	†	0.087	††	0.186	††	0.146		0.036		0.09		0.138		0.162		0.204	††	0.85	††	0.068	††	0.171	††

Lab. Code #	Method Codes	Reported data on plant Selenium (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	0.062		0.108		0.0371		0.0855		0.0002		0.0002	†	0.0002		0.0002	†	0.028		0.028		0.047		0.046	
L011	Pooled									0.0465		0.0535	††	0.205	†	0.184		0.107	†	0.26		0.255	††	0.145	
L013	Pooled	0.03		0.07		0.01		0.07		0.03		0.01		0.04		0.07		0.03		0.12		0.05		0.06	
L016	Pooled									0.025		0.006		0.062		0.149		0.024		0.158		0.06		0.072	
L019	Pooled	0.061		0.078		0.035		0.042		0.133	††	0.062	††	0.124		0.106		0.036		0.137		0.087		0.068	
L022	Pooled	0.05		0.1		0.05		0.1		0.04		0.01		0.08		0.145		0.06		0.25		0.07		0.05	
L024	Pooled	0.0644		0.109		0.0472		0.036																	
L030	Pooled									0.022		0.005		0.063		0.148									
L032	Pooled	0.0511		0.157		0.101		0.128		0.0383		0.0111		0.094		0.166		0.054		0.225		0.114		0.136	
L037	Pooled	0.618	††	0.52	††	0.245	††	0.168																	
L040	Pooled	0.053		0.15		0.088		0.148																	
L079	Pooled	0.06		0.17		0.01		0.01		0.06		0.01		0.53	††	0.48	††	0.2	††	0.42		0.18	†	0.23	††
L097	Pooled	0.042		0.081		0.016		0.09		0.023		0.005		0.074		0.136		0.034		0.273		0.064		0.077	
L133	Pooled	3.53	††	1.99	††	2.48	††	2.707	††	0.768	††	0.01		0.307	††	0.259		2.74	††	3.82	††	2.87	††	1.57	††

Lab. Code #	Method Codes	Reported data on plant Silicon (%w/w)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L009	Pooled	0.118		0.012		0.012		0.045		0.014		0.008		0.136		0.017		0.126		0.023		0.023		0.038	
L011	Pooled	0.038		0.030		0.221	†	0.453		0.052		0.033		1.24		0.038		0.149		0.042		0.041		0.485	
L015	Pooled	0.257		0.081		0.046		0.727		0.06		0.015		1.75		0.027		0.226		0.079		0.061		1.22	
L019	Pooled	1292	††	239	††	81.9	††	56.5	††	0.003		0.001		0.02		0.001		0.11		0.029		0.023		0.089	
L036	Pooled	0.196		0.05		0.029		0.58		0.027		0.009		1.33		0.004		0.195		0.072		0.043		0.842	
L040	Pooled	0.165		0.12		0.044		0.403																	
L133	Pooled	0.026		0.018		0.011		0.028		0.0169		0.007		0.143		0.066		0.147		0.033		0.031		0.245	

Lab. Code #	Method Codes	Reported data on plant Zinc (mg/kg)																							
		October 2006 (Round 106)								*January 2007 (Round 306)*								*April 2007 (Round 506)*							
		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS		ASS	
		10 1		10 2		10 3		10 4		11		12		13		14		41		42		43		44	
L002	Pooled	67.5		98.2	††	24		17.2		20.9		6.75		12.4		24.7		66.9		9.27		74.1		43.4	
L005	Pooled	87	††	96	††	27		20		10.98	††	2.26	††	4.41	††	18.56	††	78	†	7.32		100	††	57.2	††
L007	Pooled	108	††	123	††	66.5	††	58.3	††	19		3.25	††	14	†	25.5		65.8		7.75		78.3		40.3	
L009	Pooled	71.6		79.8		28.3		21.3		28.2	††	21.7	††	20.3	††	32.4	††	96.5	††	19.8	††	82.7		43.9	
L011	Pooled	82.1	††	90.7		30.6	††	20.5		25.3	††	10.1	††	15.9	††	30.5		77.6		13.5	††	86.4		51.8	††
L013	Pooled	62.8		84.6		25		18.7		20		6.1		10.7		25.3		61.2		8		71.6		41.9	
L015	Pooled	64.8		74.6		24.5		19.5		21.7		7.52		12.9		29.5		71.1		10.3		82.6		47.3	
L016	Pooled	63.6		73.8		22.3		17.1		19.8		5.88		11.3		26.4		65		8.68		74.9		43.9	
L017	Pooled	62		73		25		21										59		5	††	73		40	
L018	Pooled									20.5		6.31		12.1		29.9		70.4		9.4		82.6		45.8	
L019	Pooled	68.9		82.4		26.1		19.8		22.5		7.42		12.4		26.9		51.6	††	7		59.3	††	35.9	††
L022	Pooled	66.5		75.8		24.2		18		19.6		6		11.7		25.8		64		8.92		75.9		43.7	
L023	Pooled	58.6		66.9		21.9		18.4		19		6.2		11		28		63.6		8.48		77.1		44.7	
L024	Pooled	64.1		69.8		23.9		17.1		20		7.38		12.1		33.1	††	46.1	††	66.7	††	9.45	††	63.7	††
L026	Pooled	68.5		76.6		24.6		17.8		19.6		5.44		10.7		25.4		64.8		8.62		76.9		43.7	
L028	Pooled	73.3		81.2		25.4		19.2		19.5		5.8		11.9		26.5		67.1		9		77.5		45.7	
L030	Pooled	55.6		68		19.5		15.1		19.9		6.32		10.9		27.2		68.8		8.66		81.9		52.3	††
L032	Pooled	67.9		70.8		23.3		18		21.2		5.51		10.2		22.9		60.1		7.84		66.1		40.9	
L034	Pooled	63.4		73.1		23		17.9		17.9		5.52		10.4		24.7		58.2		8.53		62.2	††	37.4	†
L035	Pooled									17		4.99		7.09	††	24		67.5		9.44		74.4		43.2	
L036	Pooled	64		71		22.5		15.7		20.6		5.65		10.8		25.9		63		8.87		77.5		43.4	
L037	Pooled	67.4		89		23		15.6																	
L040	Pooled	60.7		69.8		20.9		17.3																	
L042	Pooled	68		75		23		18		21		5.4		11		26.8		75		10		88		48	
L044	Pooled	56.9		65.5		202	††	41.1	††	11.9	††	5.42		7.15	††	16.5	††	57.4		8.76		66		36.2	††
L046	Pooled	61.4		69.5		22.4		17.5		18.8		6.32		11.4		26.6		65.6		10.7		80.3		44.8	
L064	Pooled	67.6		76.4		22.8		16.7		19.7		7.41		13		26		68.8		8.9		77.3		43.8	
L079	Pooled	73.8		83.8		26.6		20		19.8		5.79		11.4		27.8		68.4		9.47		77.5		45.1	
L080	Pooled	63		74.6		8	††	0.17	††	14	††	5		11		17	††	69.3		10.3		80		43.6	
L084	Pooled	63.8		73.5		22.6		18.5		19.7		5.5		11.2		26.7		68.9		8.7		80.8		45.3	
L097	Pooled	69.7		77.7		22.1		19		20.1		6.09		11.6		27.7		68.9		8.84		79.3		46.3	
L100	Pooled	66		79.8		26.3		20.9		17.5		5.59		11		26.4		64.8		9.51		77		44	
L133	Pooled	51.7	††	61.7		19		12.2	††	23.4	†	13.7	††	12.5		27.5		62		867	††	72.3		40.9	
L135	Pooled									24	††	9.98	††	12.4		29.5		62.9		7.09		74.4		42.7	
L139	Pooled	64		75		25		20		21		6.4		11		29		62.9		9.26		88.2		45.3	