

Reference Material and Inter-laboratory Quality Control Materials Product Summary

June 2023

Version: 1

Assigned Values: Values provided have been generated from an Inter-Laboratory Proficiency Programme (ILPP). The reference material values provided in this summary are the mean of the results after the exclusion of statistical outliers. The Assigned Range provided for the Inter-laboratory QC Materials is the range of test values available for purchase. Each Reference and QC Material comes with a Data Summary Sheet.

Missing Values and Available Tests: For Reference Materials where property values do not meet the statistical criteria, the summary values have not been provided. For this reason, not all tests will be available for every Reference Material of the same matrix. However, if there are 3 or more data points available, an Assigned Value will be provided with the corresponding QC material.

Sample Sizes: Available sample sizes are shown for reference materials.

Reference Materials: Plant Material

Product Type	Citrus Leaves	Wholegrain Oats	Fava Beans	Red Rice
Product ID	643-C-1	808-C-1	644-C-1	832-C-1
Expiry Date	30 Aug 23	28 Feb 24	28 Feb 25	31 May 26
Sample Size	20g	20g	20g	20g
Aluminium (mg/kg)				3.55
Boron (mg/kg)	70.1	1.12	10.3	0.780
Calcium (%w/w)	2.58	0.0512	0.101	0.0081
Carbon (%w/w)		46.3		42.2

Chloride (mg/kg)		476		225
Cobalt (µg/kg)				22.2
Copper (mg/kg)	9.18	3.94	7.88	2.57
Iron (mg/kg)	75.0		46.8	8.39
Magnesium (%w/w)	0.526	0.127	0.135	0.0850
Manganese (mg/kg)		50.0		15.4
Molybdenum (µg/kg)		1,079		483
Nitrogen (%w/w)		1.72	4.33	1.58
Phosphorus (%w/w)	0.312	0.393	0.329	0.248
Potassium (%w/w)	1.66	0.369	1.05	0.176
Selenium (µg/kg)		140		38.2
Sodium (mg/kg)		22.9	181	6.10
Sulphur (%w/w)	0.196	0.143	0.177	0.128
Zinc (mg/kg)	13.4	17.6	28.6	18.3

QC Material: Plant Material

Matrix: Plant Material	Product ID	7891-QC	9336-QC	10596-QC	10849-QC	12307-QC	12959-QC	12815-QC
	Process Run	PR10821	PR10273	PR8255	PR9947	PR10107	PR9537	PR10821
	Expiry Date	01 Aug 23	30 Oct 23	28 Feb 25	30 May 25	31 Aug 26	31 Aug 26	01 May 28
	Sample Size	20g	20g	20g	20g	20g	20g	20g
	Aluminium (mg/kg)	29.1	334	131	311	2.03	1.93	261
	Boron (mg/kg)	34.3	80.6	45.0	14.9	6.64	0.720	5.84
	Cadmium (µg/kg)	249	1.99	7.80	1080	19.6	18.0	53.5
	Calcium (%w/w)	1.33	3.04	0.980	1.40	0.0390	0.0100	0.296
	Carbon (%w/w)	48.8	44.3	49.6	40.5	43.6	43.5	44.5
	Chloride (mg/kg)	534	1090	1600	2710	282	314	4190
	Cobalt (µg/kg)	35.0	79.3	1330	191	47.8	9.83	80.0
	Copper (mg/kg)	33.9	127	8.73	9.06	5.67	4.40	4.51
	Iron (mg/kg)	52.7	206	155	345	40.7	11.6	195
	Lead (µg/kg)	64.0	110	69.0	226	4.03	3.00	120
	Magnesium (%w/w)	0.350	0.280	0.211	0.825	0.109	0.124	0.137
	Manganese (mg/kg)	145	28.6	196	141	12.1	24.9	54.3
	Molybdenum (µg/kg)	124	190	22.1	277	2380	169	368
	Nitrate Nitrogen (mg/kg)	3.50	8.27	432	987	3.25	1.18	137
	Nitrogen (%w/w)	2.47	2.33	3.15	4.23	3.80	1.34	1.25
	Phosphorus (%w/w)	0.150	0.160	0.122	0.383	0.383	0.343	0.188



Potassium (%w/w)	0.959	1.76	2.10	5.90	1.04	0.283	1.11
Selenium (µg/kg)	100	83.4	49.8	28.0	933	17.0	34.2
Sodium (mg/kg)	44.1	91.0	11.3	91.7	17.2	13.9	400
Sulphur (%w/w)	0.240	0.213	0.202	0.438	0.130	0.0930	0.109
Zinc (mg/kg)	28.6	22.3	7.53	95.4	20.8	21.2	25.6