

Annex 1

Measurement uncertainty for the analysis of tea samples

Twenty four analytes were measured in 6 samples. Some replicate samples were fortified with analyte at 10 and 100 ng/g. Six extracts were from each sample were produced independently. The quantity of analyte in extracts was measured in a single run which included two sets of matrix matched calibration standards (Calibrations shown in figures “Calibration”). The measurement was repeated in a second run for some samples.

For each of the twenty four analytes in each sample the following was estimated to provide a summary of the measurement performance Table 1:

- The mean concentration of analyte, not corrected for recovery
- The standard deviation of concentration estimates across the six unfortified samples
- The average recovery of 10 ng/g added to each sample
- The average recovery of 100 ng/g added to each sample
- The standard errors of the recoveries
- The relative standard error associated with the calibration

Table 2 shows those analyses that demonstrated:

- Relative standard deviation $\leq 30\%$
- Mean recovery 50 to 200% on addition of 100 ng /g
- Calibration relative standard error $\leq 30\%$

Estimates of expanded uncertainty.

Table 1: Estimates of performance

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			10 ng/g Mean(%)	Recovery added		100 added Mean(%)	added u(rec)	rse (ca)l
				Mean ng/g (%)	s.d.(ng/g)	rsd		u(rec)	ng/g			
Acetylintermedine	tea560	0	A	9.8	0.11	1.1	14	0.9				70.5
Acetylintermedine	tea560	10	A	11.2	0.18	1.6	14	0.9				61.3
Acetylintermedine	tea584	0	A	10.7	0.95	8.8						64.6
Acetylintermedine	tea623	0	A	10.0	0.05	0.5	301	48.6				69.5
Acetylintermedine	tea623	0	B	10.8	0.06	0.6				38	4.3	53.4
Acetylintermedine	tea623	10	A	40.1	9.72	24.3	301	48.6				16.3
Acetylintermedine	tea623	100	B	48.4	10.54	21.8				38	4.3	11.3
Acetylintermedine	tea757	0	A	10.0	0.71	7.1						69.3
Acetylintermedine	tea758	0	A	10.6	1.74	16.4						65.3
Acetylintermedine	tea767	0	A	9.9	0.11	1.1						70.3
Acetylintermedine N-oxide	tea560	0	A	2.8	0.07	2.5	6	0.6				63.6
Acetylintermedine N-oxide	tea560	10	A	3.4	0.13	3.8	6	0.6				52.7
Acetylintermedine N-oxide	tea584	0	A	2.9	0.08	2.7						62.0
Acetylintermedine N-oxide	tea623	0	A	3.0	0.42	14.0	8	2.2				59.7
Acetylintermedine N-oxide	tea623	0	B	0.8	0.04	5.0				1	0.1	224.8
Acetylintermedine N-oxide	tea623	10	A	3.8	0.27	7.1	8	2.2				47.3
Acetylintermedine N-oxide	tea623	100	B	1.7	0.16	9.0				1	0.1	109.5
Acetylintermedine N-oxide	tea757	0	A	2.9	0.11	3.6						62.1
Acetylintermedine N-oxide	tea758	0	A	2.9	0.09	3.0						62.6
Acetylintermedine N-oxide	tea767	0	A	3.1	0.09	2.9						58.3

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (cal)
Echimidine	tea560	0	A	10.6	0.04	0.4	15	1.0			37.9
Echimidine	tea560	10	A	12.1	0.25	2.1	15	1.0			33.0
Echimidine	tea584	0	A	13.3	2.50	18.8					30.3
Echimidine	tea623	0	A	10.8	0.16	1.5	1325	61.3			37.2
Echimidine	tea623	0	B	10.9	0.04	0.4			125	5.0	34.3
Echimidine	tea623	10	A	143.4	12.26	8.6	1325	61.3			2.1
Echimidine	tea623	100	B	135.5	12.17	9.0			125	5.0	2.1
Echimidine	tea757	0	A	11.5	1.67	14.6					35.2
Echimidine	tea758	0	A	12.8	4.60	35.9					31.5
Echimidine	tea767	0	A	11.0	0.10	0.9					36.6
Erucifoline	tea560	0	A	7.4	0.06	0.8	2	0.5			41.5
Erucifoline	tea560	10	A	7.5	0.10	1.4	2	0.5			40.6
Erucifoline	tea584	0	A	11.5	3.66	31.9					26.7
Erucifoline	tea623	0	A	7.7	0.34	4.4	931	30.0			39.7
Erucifoline	tea623	0	B	9.3	0.06	0.7			128	4.1	70.6
Erucifoline	tea623	10	A	100.8	5.99	5.9	931	30.0			2.3
Erucifoline	tea623	100	B	137.3	10.07	7.3			128	4.1	3.6
Erucifoline	tea757	0	A	8.8	2.20	25.1					35.0
Erucifoline	tea758	0	A	10.6	6.11	57.8					29.0
Erucifoline	tea767	0	A	7.4	0.29	3.9					41.7
Erucifoline N-oxide	tea560	0	A	1.5	0.05	3.6	84	3.5			71.7
Erucifoline N-oxide	tea560	10	A	9.8	0.87	8.8	84	3.5			10.2
Erucifoline N-oxide	tea584	0	A	3.6	2.04	57.3					29.3
Erucifoline N-oxide	tea623	0	A	1.8	0.39	21.3	672	7.4			56.6
Erucifoline N-oxide	tea623	0	B	1.6	0.29	17.4			59	1.4	47.0
Erucifoline N-oxide	tea623	10	A	69.0	1.45	2.1	672	7.4			1.2
Erucifoline N-oxide	tea623	100	B	60.4	3.31	5.5			59	1.4	1.1
Erucifoline N-oxide	tea757	0	A	2.2	1.53	71.0					48.3
Erucifoline N-oxide	tea758	0	A	3.4	3.98	115.4					30.2
Erucifoline N-oxide	tea767	0	A	1.7	0.19	11.1					61.2

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)
Heliotrine	tea560	0	A	4.1	0.08	2.0	50	3.1			39.5
Heliotrine	tea560	10	A	9.1	0.75	8.3	50	3.1			17.6
Heliotrine	tea584	0	A	7.7	3.21	41.9					21.3
Heliotrine	tea623	0	A	4.5	0.26	5.7	1308	64.3			36.3
Heliotrine	tea623	0	B	5.6	1.29	23.1			121	4.6	23.2
Heliotrine	tea623	10	A	135.3	12.85	9.5	1308	64.3			0.9
Heliotrine	tea623	100	B	126.3	11.18	8.8			121	4.6	0.8
Heliotrine	tea757	0	A	5.0	2.14	42.7					32.5
Heliotrine	tea758	0	A	6.9	5.95	85.7					23.5
Heliotrine	tea767	0	A	4.2	0.15	3.5					38.5
Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)
Heliotrine N-oxide	tea560	0	A	-1.3	0.05	-4.1	49	1.8			-228.0
Heliotrine N-oxide	tea560	10	A	3.6	0.45	12.4	49	1.8			81.7
Heliotrine N-oxide	tea584	0	A	1.8	3.09	174.1					168.5
Heliotrine N-oxide	tea623	0	A	-1.2	0.16	-14.0	1502	87.4			-255.3
Heliotrine N-oxide	tea623	0	B	-1.8	0.04	-2.0			138	5.5	-212.2
Heliotrine N-oxide	tea623	10	A	149.0	17.47	11.7	1502	87.4			1.5
Heliotrine N-oxide	tea623	100	B	136.1	13.37	9.8			138	5.5	2.0
Heliotrine N-oxide	tea757	0	A	-0.5	1.97	-429.8					-652.8
Heliotrine N-oxide	tea758	0	A	1.5	5.95	387.4					194.8
Heliotrine N-oxide	tea767	0	A	-1.1	0.18	-15.7					-261.9

Analyte	Name	Add ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)
Intermedine N-oxide	tea560	0	A	8.0	0.91	11.5	120	7.8			68.6
Intermedine N-oxide	tea560	10	A	19.9	1.69	8.5	120	7.8			26.1
Intermedine N-oxide	tea584	0	A	5.4	2.56	47.5					102.9
Intermedine N-oxide	tea623	0	A	6.0	3.02	50.8	1081	34.7			94.3
Intermedine N-oxide	tea623	0	B	-1.7	0.03	-1.7			135	4.3	-283.0
Intermedine N-oxide	tea623	10	A	114.0	6.49	5.7	1081	34.7			3.6
Intermedine N-oxide	tea623	100	B	133.0	10.46	7.9			135	4.3	2.6
Intermedine N-oxide	tea757	0	A	6.3	15.09	241.2					89.7
Intermedine N-oxide	tea758	0	A	47.8	16.56	34.6					9.4
Intermedine N-oxide	tea767	0	A	0.3	0.28	94.7					1903.4
Intermedine	tea560	0	A	12.0	0.16	1.3	83	7.0			55.1
Intermedine	tea560	10	A	20.3	1.70	8.4	83	7.0			31.3
Intermedine	tea584	0	A	19.7	7.19	36.5					33.6
Intermedine	tea623	0	A	12.9	0.58	4.5	2876	217.2			51.1
Intermedine	tea623	0	B	12.8	0.23	1.8			222	8.2	28.6
Intermedine	tea623	10	A	300.5	43.43	14.5	2876	217.2			3.2
Intermedine	tea623	100	B	235.2	20.02	8.5			222	8.2	1.6
Intermedine	tea757	0	A	13.9	4.61	33.3					47.9
Intermedine	tea758	0	A	18.0	12.80	71.0					36.8
Intermedine	tea767	0	A	12.5	0.30	2.4					52.9

Analyte	Name	Add ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)
Jacobine	tea560	0	A	9.8	0.94	9.5	-3	4.3			45.3
Jacobine	tea560	10	A	9.6	0.48	5.0	-3	4.3			46.6
Jacobine	tea584	0	A	12.7	3.16	24.9					35.0
Jacobine	tea623	0	A	9.5	0.27	2.9	1038	26.8			47.1
Jacobine	tea623	0	B	11.9	0.37	3.1			210	7.1	35.0
Jacobine	tea623	10	A	113.2	5.36	4.7	1038	26.8			2.9
Jacobine	tea623	100	B	222.1	17.40	7.8			210	7.1	1.6
Jacobine	tea757	0	A	11.0	1.24	11.3					40.4
Jacobine	tea758	0	A	13.0	5.41	41.8					34.2
Jacobine	tea767	0	A	8.9	0.00	0.0					49.9
Jacobine N-oxide	tea560	0	A	9.8	1.81	18.5	91	10.2			12.6
Jacobine N-oxide	tea560	10	A	18.9	1.72	9.1	91	10.2			6.3
Jacobine N-oxide	tea584	0	A	5.4	1.83	33.9					23.3
Jacobine N-oxide	tea623	0	A	7.4	3.25	43.8	664	21.5			17.1
Jacobine N-oxide	tea623	0	B	0.8	0.03	4.1			69	1.6	160.2
Jacobine N-oxide	tea623	10	A	73.9	3.39	4.6	664	21.5			1.3
Jacobine N-oxide	tea623	100	B	70.0	4.01	5.7			69	1.6	1.5
Jacobine N-oxide	tea757	0	A	11.7	25.14	214.0					10.8
Jacobine N-oxide	tea758	0	A	80.7	34.47	42.7					1.1
Jacobine N-oxide	tea767	0	A	0.5	0.00	0.0					240.0

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rsd (ca)
Lasiocarpine	tea560	0	A	4.2	0.05	1.2	26	1.9			71.0
Lasiocarpine	tea560	10	A	6.9	0.47	6.8	26	1.9			43.2
Lasiocarpine	tea584	0	A	6.1	1.87	30.4					48.8
Lasiocarpine	tea623	0	A	4.4	0.13	3.0	672	25.2			67.6
Lasiocarpine	tea623	0	B	5.5	0.02	0.3			55	2.1	65.6
Lasiocarpine	tea623	10	A	71.7	5.04	7.0	672	25.2			3.3
Lasiocarpine	tea623	100	B	60.8	5.06	8.3			55	2.1	4.9
Lasiocarpine	tea757	0	A	4.9	1.34	27.4					61.5
Lasiocarpine	tea758	0	A	5.8	3.42	58.7					51.5
Lasiocarpine	tea767	0	A	4.4	0.12	2.7					68.8
Lasiocarpine N-oxide	tea560	0	A	1.8	0.26	14.2	51	2.5			119.5
Lasiocarpine N-oxide	tea560	10	A	6.9	0.56	8.1	51	2.5			30.8
Lasiocarpine N-oxide	tea584	0	A	3.0	1.17	38.5					70.6
Lasiocarpine N-oxide	tea623	0	A	1.9	0.40	21.3	648	28.1			114.8
Lasiocarpine N-oxide	tea623	0	B	1.1	0.13	12.0			76	2.8	251.9
Lasiocarpine N-oxide	tea623	10	A	66.7	5.61	8.4	648	28.1			2.6
Lasiocarpine N-oxide	tea623	100	B	77.4	6.74	8.7			76	2.8	2.8
Lasiocarpine N-oxide	tea757	0	A	2.1	0.76	36.0					101.6
Lasiocarpine N-oxide	tea758	0	A	2.8	2.38	84.1					75.8
Lasiocarpine N-oxide	tea767	0	A	2.0	0.39	19.8					109.4

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (cal)
Lycopsamine	tea560	0	A	12.8	0.68	5.3	42	4.6			30.5
Lycopsamine	tea560	10	A	17.0	0.90	5.3	42	4.6			22.5
Lycopsamine	tea584	0	A	15.2	3.22	21.2					25.7
Lycopsamine	tea623	0	A	13.3	0.77	5.8	1102	48.0			29.4
Lycopsamine	tea623	0	B	13.0	0.18	1.4			109	3.2	23.9
Lycopsamine	tea623	10	A	123.5	9.57	7.8	1102	48.0			2.4
Lycopsamine	tea623	100	B	121.8	7.92	6.5			109	3.2	1.9
Lycopsamine	tea757	0	A	12.6	3.31	26.2					31.1
Lycopsamine	tea758	0	A	17.4	4.26	24.5					21.9
Lycopsamine	tea767	0	A	11.9	0.60	5.0					32.9
Lycopsamine N-oxide	tea560	0	A	2.8	0.47	16.8	86	3.6			127.8
Lycopsamine N-oxide	tea560	10	A	11.4	0.76	6.6	86	3.6			30.4
Lycopsamine N-oxide	tea584	0	A	3.4	1.66	48.7					105.5
Lycopsamine N-oxide	tea623	0	A	2.3	1.08	46.2	1705	57.3			154.9
Lycopsamine N-oxide	tea623	0	B	0.7	0.04	5.5			125	3.4	349.0
Lycopsamine N-oxide	tea623	10	A	172.8	11.43	6.6	1705	57.3			1.6
Lycopsamine N-oxide	tea623	100	B	125.3	8.28	6.6			125	3.4	1.3
Lycopsamine N-oxide	tea757	0	A	2.6	5.44	208.0					138.4
Lycopsamine N-oxide	tea758	0	A	12.8	0.79	6.2					27.0
Lycopsamine N-oxide	tea767	0	A	2.6	2.34	89.9					138.6

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (cal)
Monocrotaline	tea560	0	A	10.6	0.11	1.0	7	1.4			36.1
Monocrotaline	tea560	10	A	11.4	0.31	2.8	7	1.4			33.7
Monocrotaline	tea584	0	A	14.4	3.33	23.1					26.7
Monocrotaline	tea623	0	A	11.2	0.33	3.0	777	48.1			34.4
Monocrotaline	tea623	0	B	11.6	0.04	0.3			94	3.6	45.5
Monocrotaline	tea623	10	A	88.8	9.61	10.8	777	48.1			3.3
Monocrotaline	tea623	100	B	105.9	8.90	8.4			94	3.6	3.8
Monocrotaline	tea757	0	A	12.0	2.01	16.8					32.1
Monocrotaline	tea758	0	A	13.4	5.70	42.5					28.6
Monocrotaline	tea767	0	A	10.8	0.21	1.9					35.5
Monocrotaline N-oxide	tea560	0	A	2.0	0.30	15.1	65	3.9			142.2
Monocrotaline N-oxide	tea560	10	A	8.5	0.90	10.5	65	3.9			32.2
Monocrotaline N-oxide	tea584	0	A	3.0	1.42	48.1					95.4
Monocrotaline N-oxide	tea623	0	A	2.6	1.17	44.8	443	18.1			107.4
Monocrotaline N-oxide	tea623	0	B	2.6	0.18	7.1			55	1.7	69.5
Monocrotaline N-oxide	tea623	10	A	46.9	3.48	7.4	443	18.1			5.2
Monocrotaline N-oxide	tea623	100	B	57.2	4.04	7.1			55	1.7	2.6
Monocrotaline N-oxide	tea757	0	A	2.2	1.13	52.0					129.6
Monocrotaline N-oxide	tea758	0	A	5.9	2.58	43.8					47.5
Monocrotaline N-oxide	tea767	0	A	1.8	0.17	9.3					155.9

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)
Retrorsine	tea560	0	A	11.0	1.59	14.5	-10	8.7			27.4
Retrorsine	tea560	10	A	10.0	1.43	14.4	-10	8.7			30.6
Retrorsine	tea584	0	A	14.4	3.21	22.2					21.0
Retrorsine	tea623	0	A	11.3	1.52	13.4	965	25.6			26.9
Retrorsine	tea623	0	B	11.1	0.23	2.1			121	2.9	44.5
Retrorsine	tea623	10	A	107.8	4.97	4.6	965	25.6			2.1
Retrorsine	tea623	100	B	132.3	7.11	5.4			121	2.9	2.8
Retrorsine	tea757	0	A	10.8	2.42	22.4					27.8
Retrorsine	tea758	0	A	13.3	7.37	55.5					22.7
Retrorsine	tea767	0	A	101.1	20.23	20.0					2.3
Retrorsine N-oxide	tea560	0	A	2.4	9.50	401.1	58	38.9			50.2
Retrorsine N-oxide	tea560	10	A	8.2	0.76	9.3	58	38.9			14.0
Retrorsine N-oxide	tea584	0	A	8.1	3.02	37.2					14.4
Retrorsine N-oxide	tea623	0	A	4.8	8.27	172.5	850	47.7			24.3
Retrorsine N-oxide	tea623	0	B	0.5	1.21	235.7			83	2.2	381.2
Retrorsine N-oxide	tea623	10	A	89.8	6.73	7.5	850	47.7			1.0
Retrorsine N-oxide	tea623	100	B	83.9	5.35	6.4			83	2.2	1.8
Retrorsine N-oxide	tea757	0	A	0.5	5.53	1147.9					247.2
Retrorsine N-oxide	tea758	0	A	11.0	3.96	36.2					10.3
Retrorsine N-oxide	tea767	0	A	532.9	43.20	8.1					0.5

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (cal)
Senecionine	tea560	0	A	9.5	0.26	2.7	2	1.4			37.4
Senecionine	tea560	10	A	9.7	0.21	2.2	2	1.4			36.8
Senecionine	tea584	0	A	13.0	2.60	20.1					27.4
Senecionine	tea623	0	A	9.9	0.25	2.5	774	59.4			35.9
Senecionine	tea623	0	B	10.9	0.11	1.0			107	4.5	42.3
Senecionine	tea623	10	A	87.3	11.87	13.6	774	59.4			3.1
Senecionine	tea623	100	B	118.0	10.93	9.3			107	4.5	2.9
Senecionine	tea757	0	A	12.4	1.12	9.1					28.6
Senecionine	tea758	0	A	12.3	4.69	38.2					28.9
Senecionine	tea767	0	A	51.7	10.94	21.1					5.7
Senecionine N-oxide	tea560	0	A	0.6	3.94	643.4	65	16.2			260.8
Senecionine N-oxide	tea560	10	A	7.1	0.51	7.2	65	16.2			21.8
Senecionine N-oxide	tea584	0	A	1.2	2.22	191.4					137.6
Senecionine N-oxide	tea623	0	A	1.5	3.78	252.1	987	66.5			106.3
Senecionine N-oxide	tea623	0	B	-1.2	0.13	-10.9			97	4.4	-232.0
Senecionine N-oxide	tea623	10	A	100.2	12.93	12.9	987	66.5			1.2
Senecionine N-oxide	tea623	100	B	95.9	10.69	11.1			97	4.4	2.2
Senecionine N-oxide	tea757	0	A	103.1	45.29	43.9					1.1
Senecionine N-oxide	tea758	0	A	1.2	4.84	399.2					131.5
Senecionine N-oxide	tea767	0	A	297.3	30.41	10.2					0.6

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery				rse (ca)%
Seneciphylline	tea560	0	A	9.7	0.52	5.3	2	2.7			38.7
Seneciphylline	tea560	10	A	10.0	0.40	4.0	2	2.7			37.9
Seneciphylline	tea584	0	A	12.0	1.57	13.1					31.4
Seneciphylline	tea623	0	A	10.7	1.28	11.9	689	58.3			34.8
Seneciphylline	tea623	0	B	14.0	0.21	1.5			108	5.3	39.7
Seneciphylline	tea623	10	A	79.6	11.62	14.6	689	58.3			3.7
Seneciphylline	tea623	100	B	121.5	12.94	10.6			108	5.3	3.5
Seneciphylline	tea757	0	A	12.8	1.52	11.8					29.0
Seneciphylline	tea758	0	A	11.8	3.54	29.9					31.8
Seneciphylline	tea767	0	A	34.2	3.69	10.8					10.2
Seneciphylline N-oxide	tea560	0	A	1.2	0.41	35.4	39	4.8			236.3
Seneciphylline N-oxide	tea560	10	A	5.1	1.09	21.6	39	4.8			53.7
Seneciphylline N-oxide	tea584	0	A	1.6	0.39	24.6					170.7
Seneciphylline N-oxide	tea623	0	A	0.7	0.61	85.5	46	12.4			388.1
Seneciphylline N-oxide	tea623	0	B	-0.9	0.18	-20.0			6	0.8	-333.5
Seneciphylline N-oxide	tea623	10	A	5.3	2.42	45.7	46	12.4			51.6
Seneciphylline N-oxide	tea623	100	B	5.3	1.99	37.3			6	0.8	55.2
Seneciphylline N-oxide	tea757	0	A	0.4	0.62	141.0					629.0
Seneciphylline N-oxide	tea758	0	A	1.9	0.62	32.9					143.8
Seneciphylline N-oxide	tea767	0	A	2.8	2.00	72.4					99.5
Senkirkine	tea560	0	A	1.4	0.05	3.7	50	2.5			167.0
Senkirkine	tea560	10	A	6.4	0.62	9.6	50	2.5			36.9
Senkirkine	tea584	0	A	3.3	1.81	54.5					72.6
Senkirkine	tea623	0	A	1.6	0.11	7.0	908	42.8			150.5
Senkirkine	tea623	0	B	1.6	0.08	4.7			90	2.9	137.3
Senkirkine	tea623	10	A	92.4	8.56	9.3	908	42.8			1.9
Senkirkine	tea623	100	B	92.0	7.20	7.8			90	2.9	1.8
Senkirkine	tea757	0	A	2.1	1.31	63.4					116.6
Senkirkine	tea758	0	A	3.1	3.50	111.4					76.9
Senkirkine	tea767	0	A	1.6	0.10	6.2					149.1

Table 2: Samples for which quantitative results were observed

Analyte	Name	Added ng/g	run	Results (not corrected for bias)			Recovery			rse (cal)
				Mean ng/g	s.d.(ng/g)	rsd	10 ng/g added ng/g Mean(%)	100 u(rec)	added u(rec)	
		d		(%)			Mean(%)			
Echimidine	tea623	100	B	135.5	12.17	9.0		125	5.0	2.1
Erucifoline	tea623	100	B	137.3	10.07	7.3		128	4.1	3.6
Erucifoline N-oxide	tea623	100	B	60.4	3.31	5.5		59	1.4	1.1
Heliotrine	tea623	0	B	5.6	1.29	23.1		121	4.6	23.2
Heliotrine	tea623	100	B	126.3	11.18	8.8		121	4.6	0.8
Heliotrine N-oxide	tea623	100	B	136.1	13.37	9.8		138	5.5	2.0
Intermedine N-oxide	tea623	100	B	133.0	10.46	7.9		135	4.3	2.6
Jacobine N-oxide	tea623	100	B	70.0	4.01	5.7		69	1.6	1.5
Lasiocarpine	tea623	100	B	60.8	5.06	8.3		55	2.1	4.9
Lasiocarpine N-oxide	tea623	100	B	77.4	6.74	8.7		76	2.8	2.8
Lycopsamine	tea623	0	B	13.0	0.18	1.4		109	3.2	23.9
Lycopsamine	tea623	100	B	121.8	7.92	6.5		109	3.2	1.9
Lycopsamine N-oxide	tea623	100	B	125.3	8.28	6.6		125	3.4	1.3
Monocrotaline	tea623	100	B	105.9	8.90	8.4		94	3.6	3.8
Monocrotaline N-oxide	tea623	100	B	57.2	4.04	7.1		55	1.7	2.6
Retrorsine	tea623	100	B	132.3	7.11	5.4		121	2.9	2.8
Retrorsine N-oxide	tea623	100	B	83.9	5.35	6.4		83	2.2	1.8
Senecionine	tea623	100	B	118.0	10.93	9.3		107	4.5	2.9
Senecionine N-oxide	tea623	100	B	95.9	10.69	11.1		97	4.4	2.2
Seneciphylline	tea623	100	B	121.5	12.94	10.6		108	5.3	3.5
Senkirkine	tea623	100	B	92.0	7.20	7.8		90	2.9	1.8