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LABORATORY NUMBER: [Available to participants from FAPAS SecureWeb](#)

FAPAS[®] Proficiency Test 19118

Pesticide Residues in Cucumber Purée

February–April 2011

Report

Prepared and authorised on behalf of FAPAS by

A handwritten signature in black ink that reads 'Michael Knaggs'.

Michael Knaggs

SUMMARY

1. The test material for FAPAS® proficiency test 19118 was dispatched in February 2011. Each participant received a cucumber purée test material. From a list of 146 pesticide residues, participants had to identify and quantify those present in the test material.
2. The test material contained carbofuran, fenazaquin, pirimicarb, pirimiphos-methyl, prochloraz and pyrimethanil. For each analyte, an assigned value (x_a) was determined. In conjunction with the standard deviation for proficiency (σ_p), a z-score for each result was calculated.
3. Results for this proficiency test are summarised as follows:

analyte	assigned value, x_a µg/kg	number of scores, $ z \leq 2$	total number of scores	% $ z \leq 2$
carbofuran	185	55	62	89
fenazaquin	258	45	52	87
pirimicarb	215	55	60	92
pirimiphos-methyl	123	63	68	93
prochloraz	139	41	50	82
pyrimethanil	37.0	51	56	91

4. Surplus test materials are available for sale, see APPENDIX II.
5. Whereas this report has been produced in good faith and in accordance with best industry practice, neither The Food and Environment Research Agency nor the Secretary of State for Environment, Food and Rural Affairs accepts any liability whatsoever as to the application or use of the information contained therein.

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1. INTRODUCTION

1.1. Proficiency Testing

Proficiency testing aims to provide an independent assessment of the competence of participating laboratories. Together with the use of validated methods, proficiency testing is an essential element of laboratory quality assurance.

Further details of the FAPAS[®] proficiency testing scheme is available in our protocols [1, 2].

2. TEST MATERIAL

2.1. Preparation

Sample preparation was carried out by a laboratory contracted to do so by FAPAS[®].

The test material was prepared from organic cucumbers that were obtained from a commercial supplier. They were frozen, cryogenically milled and thawed to produce a purée.

A sample of the purée was screened for the presence of incurred pesticide residues. No residues were found above 30 µg/kg.

The purée was split into two batches: one was used to prepare the blank test material, the other to prepare the spiked test material.

The following pesticides were spiked into the spiked test material: carbofuran, fenazaquin, pirimicarb, pirimiphos-methyl, prochloraz and pyrimethanil.

Samples were stored at -20°C until dispatch.

2.2. Homogeneity

To test for homogeneity, randomly selected test materials were analysed in duplicate by a laboratory contracted to do so by FAPAS[®].

These data showed sufficient homogeneity, and were not included in the subsequent calculation of the assigned values.

2.3. Dispatch

The start date was 21 February 2011. Test materials were sent to 83 participants.

3. RESULTS

The instructions for reporting results were as follows:

- Determine the level of pesticide residues present in the test material, in µg/kg, as received, uncorrected for recovery, together with the percentage recovery and limit of quantification (LoQ). PLEASE NOTE:
- All pesticide residues are to be reported as the parent compound only, unless specified otherwise on the results form.

Results were submitted by 78 participants (94%) before the closing date for this test, 7 April 2011.

Each participant was given a laboratory number, assigned in order of receipt of results. The reported analyte concentrations are given in Table 1 for carbofuran, fenazaquin and pirimicarb and in Table 2 for pirimiphos-methyl, prochloraz and pyrimethanil.

If a participant analysed for a pesticide residue that was in the test material, but did not identify it, and their limit of quantification was below the level needed for a z-score of -2.0, they were assessed as if their result was zero.

Participants' comments are given in Table 3.

Any participant identifying pesticide residues other than carbofuran, fenazaquin, pirimicarb, pirimiphos-methyl, prochloraz and pyrimethanil at levels ≥ 30 $\mu\text{g}/\text{kg}$ is listed in Table 4 together with the pesticide residues reported and the level determined.

The analytical methods used by each participant are summarised in APPENDIX I.

4. STATISTICAL EVALUATION OF RESULTS

The results submitted by participants were statistically analysed in order to provide an assigned value, x_a , for each analyte. In combination with the standard deviation for proficiency, σ_p , a z-score was calculated for each result. The procedure follows that recommended in the IUPAC International Harmonised Protocol for the Proficiency Testing of Analytical Chemistry Laboratories [3].

Further details on the procedure followed can be found in the relevant protocols [1, 2].

4.1. Calculation of the Assigned Value, x_a

The assigned value was set as the consensus of the results submitted by participants.

The following results were excluded from the calculation of the assigned value:

- i) results reported as approximately 10, 100 or 1000 \times greater or smaller than the majority of submitted results (as these were considered to be reporting errors),
- ii) results where no percentage recovery was reported,
- iii) results whose recovery was outside the range 70–120% [4],
- iv) results where no limit of quantification was reported,
- v) results lower than the participant's reported limit of quantification.

For all residues, this procedure was straightforward and the robust mean was chosen as the assigned value.

The assigned values for all analytes are shown in Table 5.

4.2. Standard Deviation for Proficiency, σ_p

The standard deviation for proficiency, σ_p , was set at a value that reflects best practice for the analyses in question.

For all residues, σ_p was derived from the appropriate form of the Horwitz equation [5].

The values for σ_p used to calculate z-scores from the reported results of this test are given in Table 5.

4.3. Individual z-Scores

Participants' z-scores were calculated as:

$$z = \frac{(x - x_a)}{\sigma_p}$$

where x = the participant's reported result,
 x_a = the assigned value
and σ_p = the standard deviation for proficiency.

Participants' z-scores are given in Table 1 for carbofuran, fenazaquin and pirimicarb and in Table 2 for pirimiphos-methyl, prochloraz and pyrimethanil. They are shown as histograms in Figures 1–6. It is possible for the z-scores published in this report to differ slightly from the z-score that can be calculated using the formula given above. These differences arise from the necessary rounding of the actual assigned values and standard deviations for proficiency prior to their publication in Table 5.

The number and percentage of z-scores in the range $-2 \leq z \leq 2$ for all analytes are given in Table 6.

5. ASSESSMENT OF SCORES

In normal circumstances, over time, about 95% of z-scores will lie in the range $-2 \leq z \leq 2$. Occasional scores in the range $2 < |z| < 3$ are to be expected, at a rate of 1 in 20. Whether or not such scores are of importance can only be decided by considering them in the context of the other scores obtained by that laboratory.

Scores where $|z| > 3$ are to be expected at a rate of about 1 in 300. Given this rarity, such z-scores very strongly indicate that the result is not fit-for-purpose and almost certainly requires investigation.

The consideration of a set or sequence of z-scores over time provides more useful information than a single z-score. Examples of suitable methods of comparison are provided in the IUPAC International Harmonised Protocol for the Proficiency Testing of Analytical Chemistry Laboratories [3].

6. REFERENCES

- 1 FAPAS, 2010, Protocol for Proficiency Testing Schemes, Part 1 – Common Principles, Version 2, Issued December 2010.
- 2 FAPAS, 2009, Protocol for Proficiency Testing Schemes, Part 2 – FAPAS®, Revision 2009, Version 1, Issued November 2009.
- 3 Thompson, M., Ellison, S.L.R. and Wood, R., 2006, The International Harmonised Protocol for the Proficiency Testing of Analytical Chemistry Laboratories, *Pure Appl. Chem.*, **78**, No. 1, 145–196.
- 4 Pihlström, T (Co-ordinator), 2010, *Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed*, Document No. SANCO/10684/2009.
- 5 Thompson, M., 2000, Recent trends in inter-laboratory precision at ppb and sub-ppb concentrations in relation to fitness for purpose criteria in proficiency testing, *Analyst*, **125**, 385-386.

Table 1: Results and z-Scores for Carbofuran, Fenazaquin and Pirimicarb

laboratory number	analyte											
	carbofuran assigned value 185 µg/kg				fenazaquin assigned value 258 µg/kg				pirimicarb assigned value 215 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
001	175.4	91	10	-0.2	201.9	88	10	-1.1	218.6	109	10	0.1
002	187	100.8	10	0.1	255	97.2	10	-0.1	235	90.3	10	0.5
003	170	86	60	-0.4	240	73	30	-0.4	210	81	60	-0.1
004	200	90	10	0.4	320	100	10	1.2	237	90	10	0.5
005	164.3		10	-0.5	206.5		10	-1.0	165.9		10	-1.1
006	200	94	3.0	0.4	#				#			
007	#				295	106	10	0.7	232	106	10	0.4
008	209	105	3	0.6	290	113	5	0.6	#			
009	#				#				#			
010	#				#				#			
011	170	90.88	10	-0.4	290	107.79	10	0.6	230	105.14	10	0.4
012	222	91	5	1.0	211	89	5	-0.9	252	84	5	0.9
013	200.0	78.0	3.0	0.4	#				0	96.0	32.0	-5.0
014	193	90	20	0.2	264	90	10	0.1	171	70	30	-1.0
015	218	80	10	0.9	276	90	10	0.4	184.5	70	10	-0.7
016	199	91	10	0.4	256	91	50	0.0	#			
017	195	102.5	10	0.3	#				232.2	101.5	4	0.4
018	173	99	10	-0.3	293	94	10	0.7	214	95	10	0.0
019	191	111	10	0.2	#				199	86	10	-0.4
020	142	88	10	-1.1	177	95	10	-1.6	206	84	10	-0.2
021	108			-2.0	70			-3.7	221			0.1
022	139	89	10	-1.2	271	92	10	0.3	141	78	10	-1.7
023	187		10	0.1	211		10	-0.9	261		20	1.1
024	230	95	5	1.2	274	90	5	0.3	228	85	5	0.3
025	208.82	84.2	10	0.6	#				#			
026	189	99	10	0.1	186	91	10	-1.4	217	70	10	0.1

LoQ = limit of quantification
z-scores outside |z| >2 are shown in **bold**, see Section 5

= pesticide not analysed for

Table 1 (continued): Results and z-Scores for Carbofuran, Fenazaquin and Pirimicarb

laboratory number	analyte											
	carbofuran assigned value 185 µg/kg				fenazaquin assigned value 258 µg/kg				pirimicarb assigned value 215 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
027	180	95	100	-0.1	#				#			
028	212.92	112	10	0.7	#				257.92	103	10	1.0
029	#				#				#			
030	#				#				#			
031	140.01		10	-1.2	203.70		10	-1.1	199.71		10	-0.3
032	114			-1.9	108.1			-3.0	209.3			-0.1
033	170.18	86.6	10	-0.4	#				193.00	80.5	10	-0.5
034	#				#				#			
035	#				#				#			
036	177	105	5	-0.2	167	95	5	-1.8	211	96	5	-0.1
037	#				#				#			
038	200.12	93.0	5	0.4	284.73	103.7	5	0.5	206.44	97.5	5	-0.2
039	188	90	10	0.1	220	90	10	-0.8	193	90	10	-0.5
040	#				251	100	10	-0.1	196	98	10	-0.4
041	116	73	10	-1.8	366	87	10	2.1	208	97	10	-0.2
042	183	87	2	0.0	0		3	-5.1	214	83	7	0.0
043	87	53	10	-2.6	283	76	10	0.5	229	83	10	0.3
044	160			-0.7	220			-0.8	233			0.4
045	180	105	10	-0.1	#				230	102	5	0.4
046	266	124	10	2.1	197	103	10	-1.2	238	85	10	0.5
047	#				297		10	0.8	229		10	0.3
048	483.00	120.00	1.00	7.8	#				#			
049	171	91.3	30	-0.4	158	62.8	30	-2.0	207	87.7	30	-0.2
050	#				#				139.5	80.0	10	-1.7
051	233.00	97.20	1.63	1.3	#				212.50	100.00	1.26	-0.1
052	211	102	5	0.7	334	95	10	1.5	242	102	5	0.6

LoQ = limit of quantification

= pesticide not analysed for

z-scores outside |z| >2 are shown in **bold**, see Section 5

Table 1 (continued): Results and z-Scores for Carbofuran, Fenazaquin and Pirimicarb

laboratory number	analyte											
	carbofuran assigned value 185 µg/kg				fenazaquin assigned value 258 µg/kg				pirimicarb assigned value 215 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
053	125	106	10	-1.6	315	101	10	1.1	180	110	10	-0.8
054	171	83	10	-0.4	#				70	100	5	-3.3
055	#				#				#			
056	#				#				#			
057	163		100	-0.6	#				#			
058	112	102	25	-1.9	120	99	25	-2.7	202	95	25	-0.3
059	150	93	30	-0.9	265	89	17	0.1	248	84	16	0.8
060	290	80	10	2.8	328	80	10	1.4	0	80	10	-5.0
061	160		10	-0.7	169		10	-1.8	207		10	-0.2
062	NQ		10		196.1	86	10	-1.2	222.4	98	10	0.2
063	#				#				#			
064	112	86	10	-1.9	220	111	10	-0.8	215	86	10	0.0
065	102	90	10	-2.2	153	94	10	-2.1	242	90	10	0.6
066	0.100		10	-4.8	233.7		10	-0.5	213.3		10	0.0
067	#				#				#			
068	195	100-120	10	0.3	260	105	10	0.0	217	100	10	0.1
069	150	155	0.01	-0.9	347	95	0.01	1.8	210	118	0.01	-0.1
070	190	97	10	0.1	260	110	10	0.0	210	108	10	-0.1
071	210	104	10	0.7	340	106	10	1.6	210	100	10	-0.1
072	130	98	10	-1.4	275	95	10	0.3	170	97	10	-1.0
073	144	60.2	10	-1.1	197	90.4	10	-1.2	200	85.3	10	-0.3
074	140		10	-1.2	284		10	0.5	178		10	-0.8
075	248	80	50	1.7	#				190	85	50	-0.6
076	172	100	10	-0.3	557	100	10	5.9	383	100	10	3.9
077	300	86	10	3.0	200	89	10	-1.1	310	92	10	2.2
078	130	106	10	-1.4	250	100	10	-0.2	250	107	10	0.8

LoQ = limit of quantification
NQ = identified, but not quantified

= pesticide not analysed for
z-scores outside |z| >2 are shown in bold, see Section 5

Table 2: Results and z-Scores for Pirimiphos-methyl, Prochloraz and Pyrimethanil

laboratory number	analyte											
	pirimiphos-methyl assigned value 123 µg/kg				prochloraz assigned value 139 µg/kg				pyrimethanil assigned value 37.0 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
001	116.3	92	10	-0.2	89.9	75	10	-1.7	36.0	100	10	-0.1
002	138	99.2	10	0.6	174	90.3	10	1.2	33	83	10	-0.5
003	120	83	60	-0.1	180	72	150	1.4	30	79	30	-0.9
004	230	94	10	4.0	166	113	10	0.9	45	101	10	1.0
005	117.6		10	-0.2	119.6		10	-0.7	27.7		10	-1.1
006	#				#				42	103	2.0	0.6
007	147	108	10	0.9	NQ		10		37	108	10	0.0
008	#				#				<LoQ		100	
009	138	86.7	10	0.6	#				#			
010	#				#				41	94	12	0.5
011	170	106.91	10	1.8	270	89.35	30	4.4	#			
012	133	85	5	0.4	146	82	5	0.2	32	85	5	-0.6
013	78.0	103.0	8.0	-1.7	#				41.0	88.0	3.0	0.5
014	138	90	40	0.6	165	130	50	0.9	30	70	40	-0.9
015	96.3	75	10	-1.0	159.2	105	10	0.7	27.1	81	10	-1.2
016	#				#				NQ		333	
017	146	101	7	0.9	#				37.95	100.6	10	0.1
018	117	92	10	-0.2	153	94	10	0.5	38	98	10	0.1
019	106	85	10	-0.6	132	87	10	-0.2	31	87	10	-0.7
020	95	85	10	-1.0	117	102	10	-0.7	27	100	10	-1.2
021	106		20	-0.6	152			0.4	30			-0.9
022	84	116	10	-1.4	131	86	10	-0.3	0	73	10	-4.5
023	160		20	1.4	141		10	0.1	32		20	-0.6
024	132	99	5	0.3	74	86	5	-2.2	39	94	5	0.2
025	#				#				#			
026	113	70	10	-0.4	153	92	10	0.5	29	79	10	-1.0

LoQ = limit of quantification
 NQ = identified, but not quantified

= pesticide not analysed for
 z-scores outside $|z| > 2$ are shown in bold, see Section 5

Table 2 (continued): Results and z-Scores for Pirimiphos-methyl,
 Prochloraz and Pyrimethanil

laboratory number	analyte											
	pirimiphos-methyl assigned value 123 µg/kg				prochloraz assigned value 139 µg/kg				pyrimethanil assigned value 37.0 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
027	120	97	100	-0.1	#				#			
028	153.87	115	10	1.2	#				#			
029	137.67	95.63	30	0.6	#				#			
030	#				#				#			
031	115.37		10	-0.3	170.23		10	1.0	34.94		10	-0.3
032	113.6			-0.3	#				#			
033	135.90	97.7	10	0.5	186.96	103.0	20	1.6	45.35	111.8	10	1.0
034	126	82	—	0.1	#				#			
035	120	65	10	-0.1	#				#			
036	122	104	5	0.0	127	88	5	-0.4	30	99	5	-0.9
037	#				#				#			
038	163.05	115.8	10	1.5	152.67	102.6	15	0.4	39.27	103.8	20	0.3
039	128	90	10	0.2	188	90	10	1.6	33	90	10	-0.5
040	131	108	10	0.3	#				#			
041	100	70	10	-0.8	161	87	10	0.7	35.0	92	10	-0.2
042	113	82	7	-0.4	#				0		3	-4.5
043	143	60	10	0.8	184	77	10	1.5	42	82	10	0.6
044	98			-0.9	100			-1.3	29			-1.0
045	130	91	10	0.3	160	150	10	0.7	38	102	2.5	0.1
046	139	96	10	0.6	138	90	10	0.0	39	94	10	0.2
047	128		10	0.2	157		10	0.6	41		10	0.5
048	#				#				#			
049	0	100	30	-4.6	124	76.2	30	-0.5	35	70.5	30	-0.2
050	89.0	88.6	10	-1.2	28.0	112.0	20	-3.7	27.0	68.4	10	-1.2
051	152.50	92.40	1.93	1.1	#				#			
052	111	102	10	-0.4	135	117	10	-0.1	27	111	10	-1.2

LoQ = limit of quantification
 z-scores outside |z| >2 are shown in **bold**, see Section 5

= pesticide not analysed for

Table 2 (continued): Results and z-Scores for Pirimiphos-methyl,
 Prochloraz and Pyrimethanil

laboratory number	analyte											
	pirimiphos-methyl assigned value 123 µg/kg				prochloraz assigned value 139 µg/kg				pyrimethanil assigned value 37.0 µg/kg			
	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score	result µg/kg	recovery %	LoQ µg/kg	z-score
053	139	108	10	0.6	130	80	10	-0.3	38	103	10	0.1
054	101	90	2	-0.8	#				#			
055	53	104.15	10	-2.6	#				#			
056	70	70	10	-2.0	0		50	-4.6	#			
057	#				#				#			
058	108	100	25	-0.5	114	not known	25	-0.8	36.4	98	25	-0.1
059	116	81	20	-0.2	#				42	90	16	0.6
060	183	80	10	2.2	0	80	10	-4.6	75	80	10	4.7
061	112		10	-0.4	#				31.0		10	-0.7
062	118.7	85	10	-0.1	146.5	103	10	0.2	32.2	88	10	-0.6
063	78	70	10	-1.7	52	94	10	-2.9	#			
064	156	91	10	1.2	117	93	10	-0.7	34	100	10	-0.4
065	122	100	10	0.0	111	90	10	-0.9	36	92	10	-0.1
066	257.4		10	5.0	#				38.7		10	0.2
067	74	100	10	-1.8	#				#			
068	117	115	10	-0.2	118	100-120	10	-0.7	38	115	10	0.1
069	136	110	0.01	0.5	85	110	0.01	-1.8	30	72	0.01	-0.9
070	140	100	10	0.6	140	84	10	0.0	40	94	10	0.4
071	150	89	10	1.0	150	101	10	0.4	43	114	5	0.7
072	130	97	10	0.3	90	96	10	-1.6	38	99	10	0.1
073	104	76.7	10	-0.7	116	84.7	10	-0.8	34	92.2	20	-0.4
074	95		10	-1.0	155		40	0.5	26		10	-1.3
075	118	90	10	-0.2	0		25	-4.6	58	80	25	2.6
076	#				261	100	10	4.1	57	100	10	2.5
077	80	90	10	-1.6	220	89	10	2.7	38	95	10	0.1
078	140	111	10	0.6	120	92	10	-0.6	40	110	10	0.4

LoQ = limit of quantification
 z-scores outside |z| >2 are shown in **bold**, see Section 5

= pesticide not analysed for

Table 3: Participants' Comments

participant number	comments
049	Matrix matched calibration

comments are as submitted by participants

Table 4: Additional Pesticide Residues Reported

laboratory number	pesticide residue >30 µg/kg	result µg/kg	recovery %	LoQ µg/kg
009	permethrin	215	92	25
009	pp'-DDE	168	100	25
009	op'-DDT	165	112	25
050	tebuconazole	39.1	70.5	10
055	fenitrothion	60	104.15	25
060	tebuconazole	35	80	10

Table 5: Assigned Values and Standard Deviations for Proficiency

analyte	assigned value, x_a , µg/kg			standard deviation for proficiency, µg/kg	
	data points, n	robust mean, \hat{X}	uncertainty, u	derived from	σ_p
carbofuran	48	185	5.57	Horwitz Equation [5]	38.1
fenazaquin	40	258	9.85	Horwitz Equation [5]	50.6
pirimicarb	48	215	3.85	Horwitz Equation [5]	43.3
pirimiphos-methyl	54	123	3.73	Horwitz Equation [5]	26.9
prochloraz	37	139	6.61	Horwitz Equation [5]	30.0
pyrimethanil	43	37.0	0.90	Horwitz Equation [5]	8.14

Table 6: Number and Percentage of z-Scores where $|z| \leq 2$

analyte	number of scores where $ z \leq 2$	total number of scores	% $ z \leq 2$
carbofuran	55	62	89
fenazaquin	45	52	87
pirimicarb	55	60	92
pirimiphos-methyl	63	68	93
prochloraz	41	50	82
pyrimethanil	51	56	91

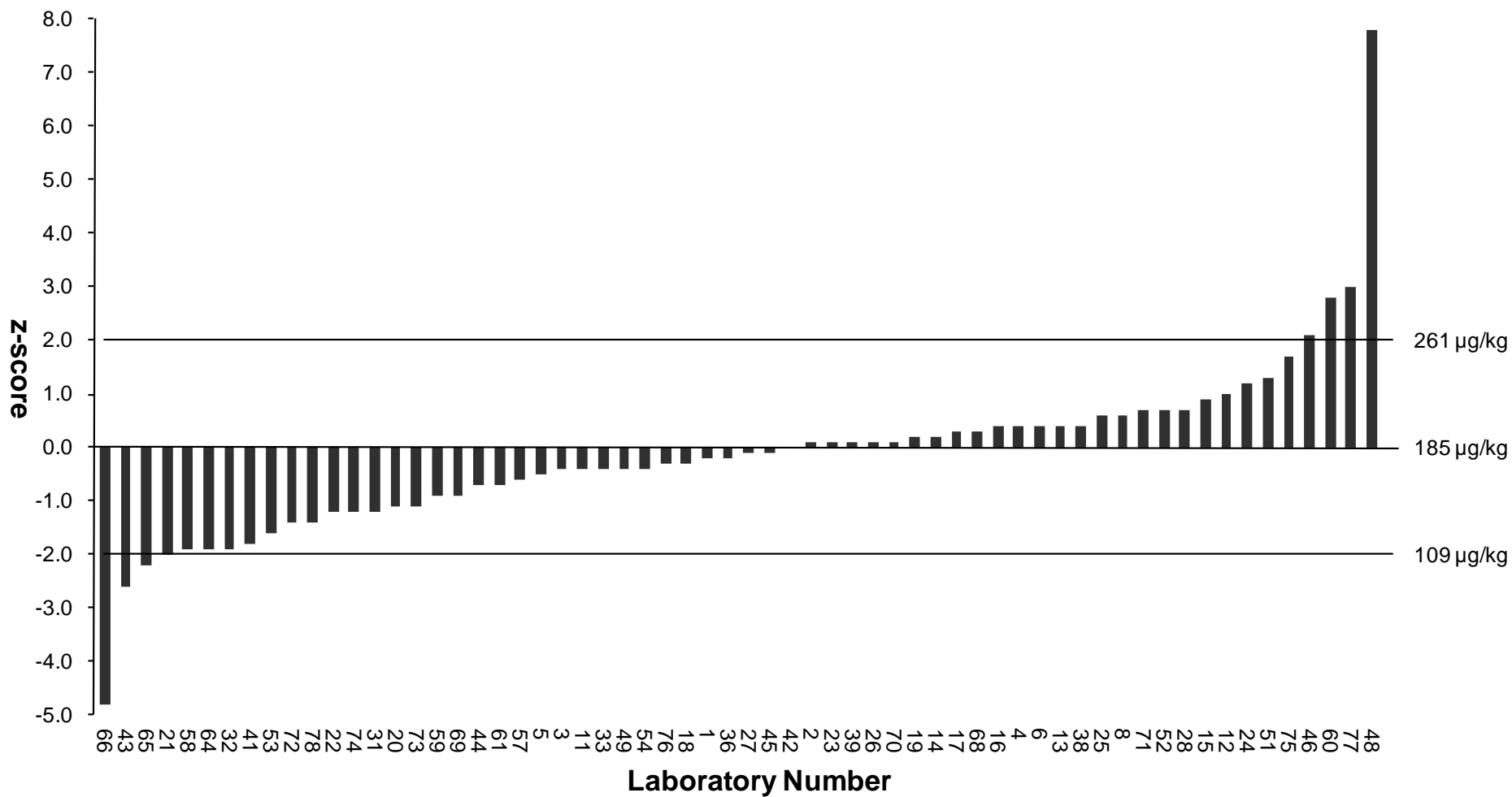


Figure 1: z-Scores for Carbofuran

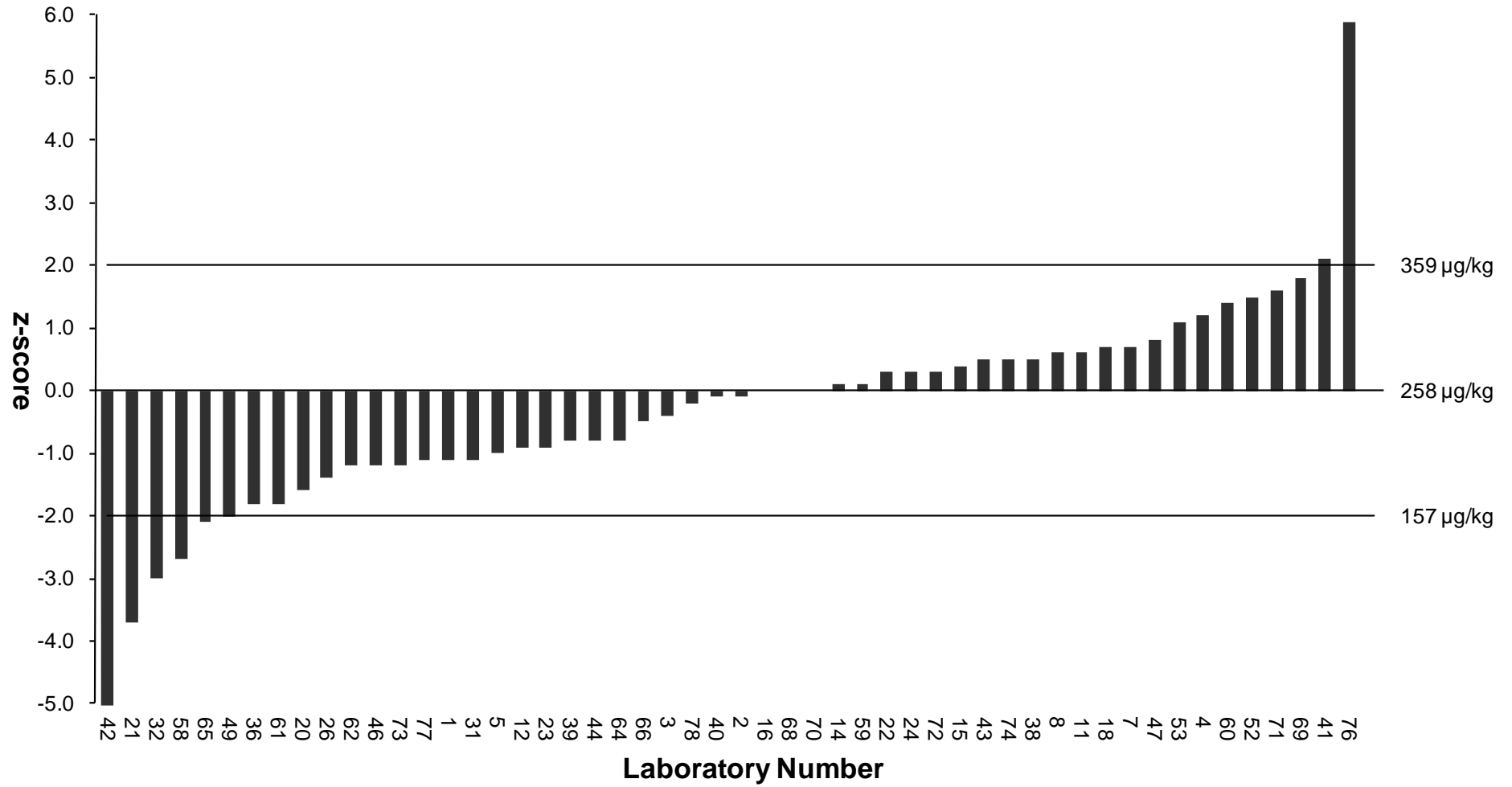


Figure 2: z-Scores for Fenazaquin

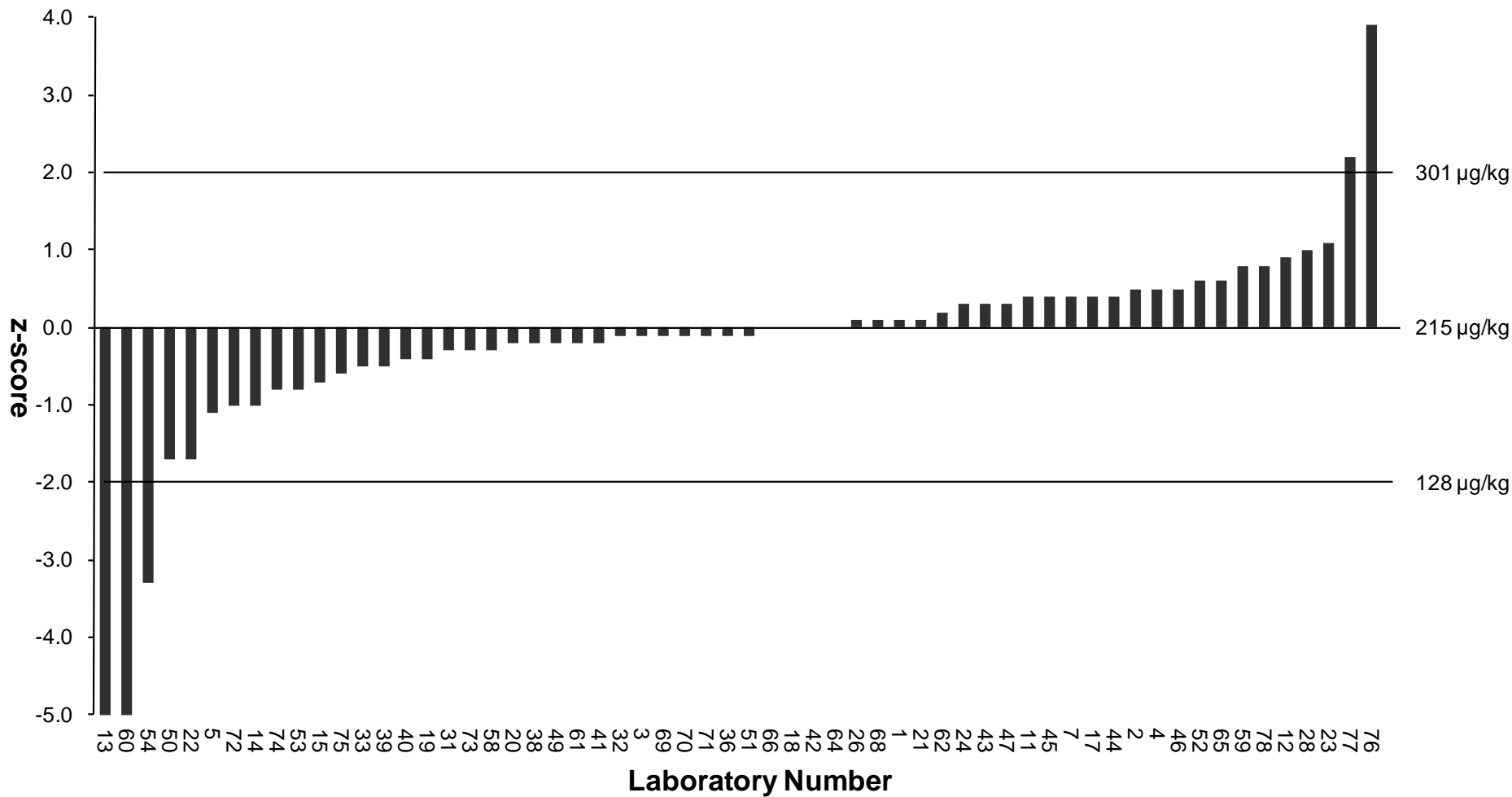


Figure 3: z-Scores for Pirimicarb

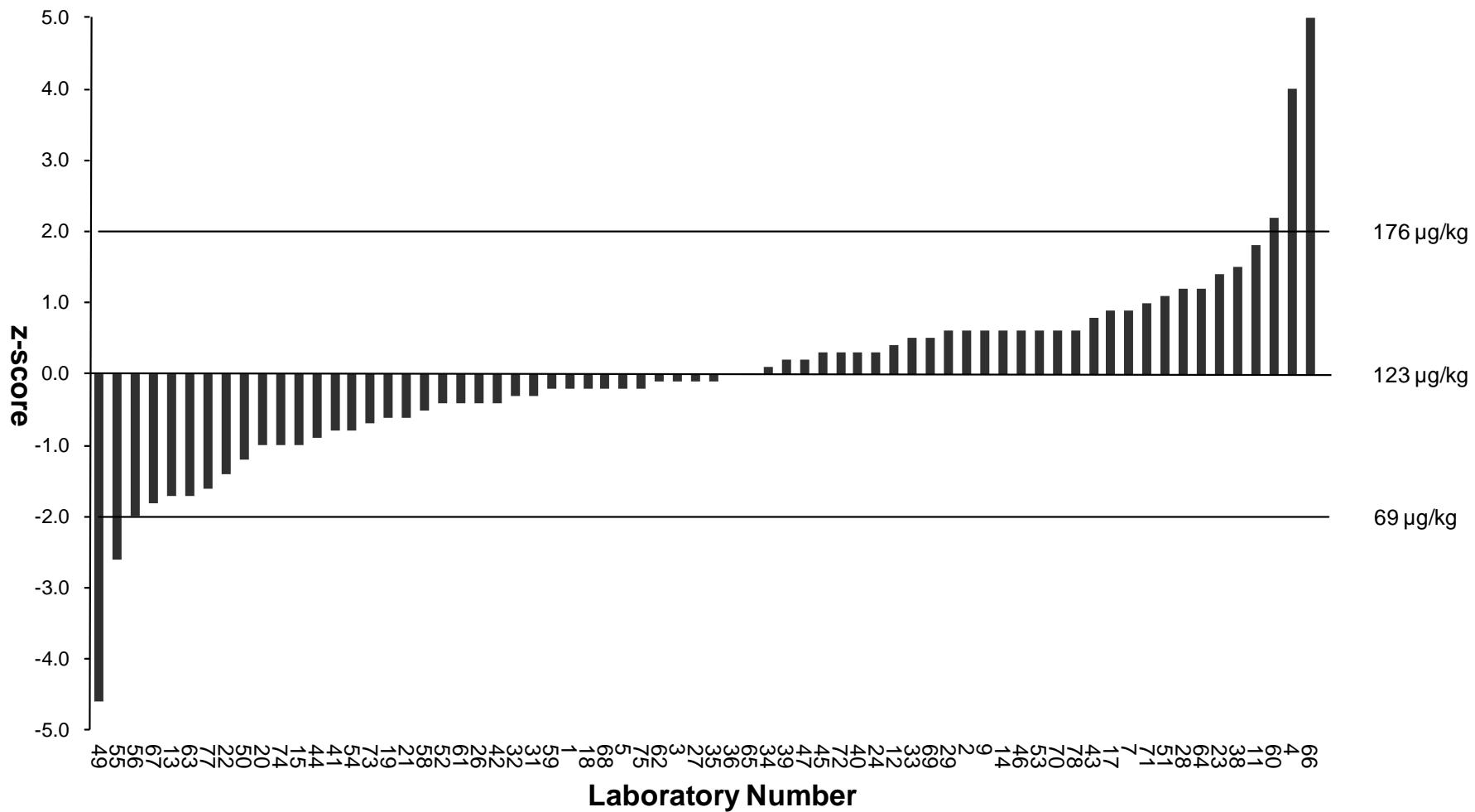


Figure 4: z-Scores for Pirimiphos-methyl

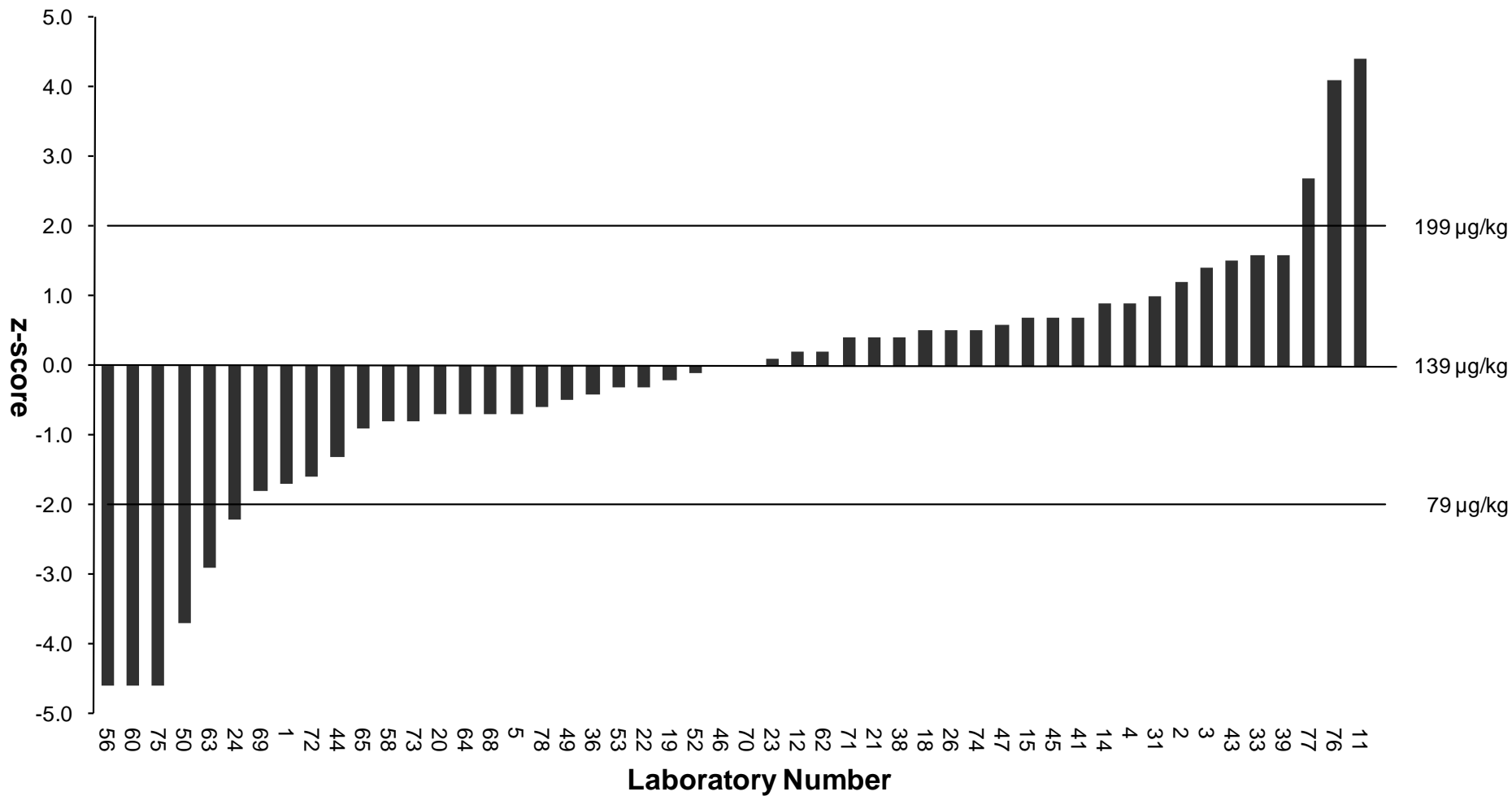


Figure 5: z-Scores for Prochloraz

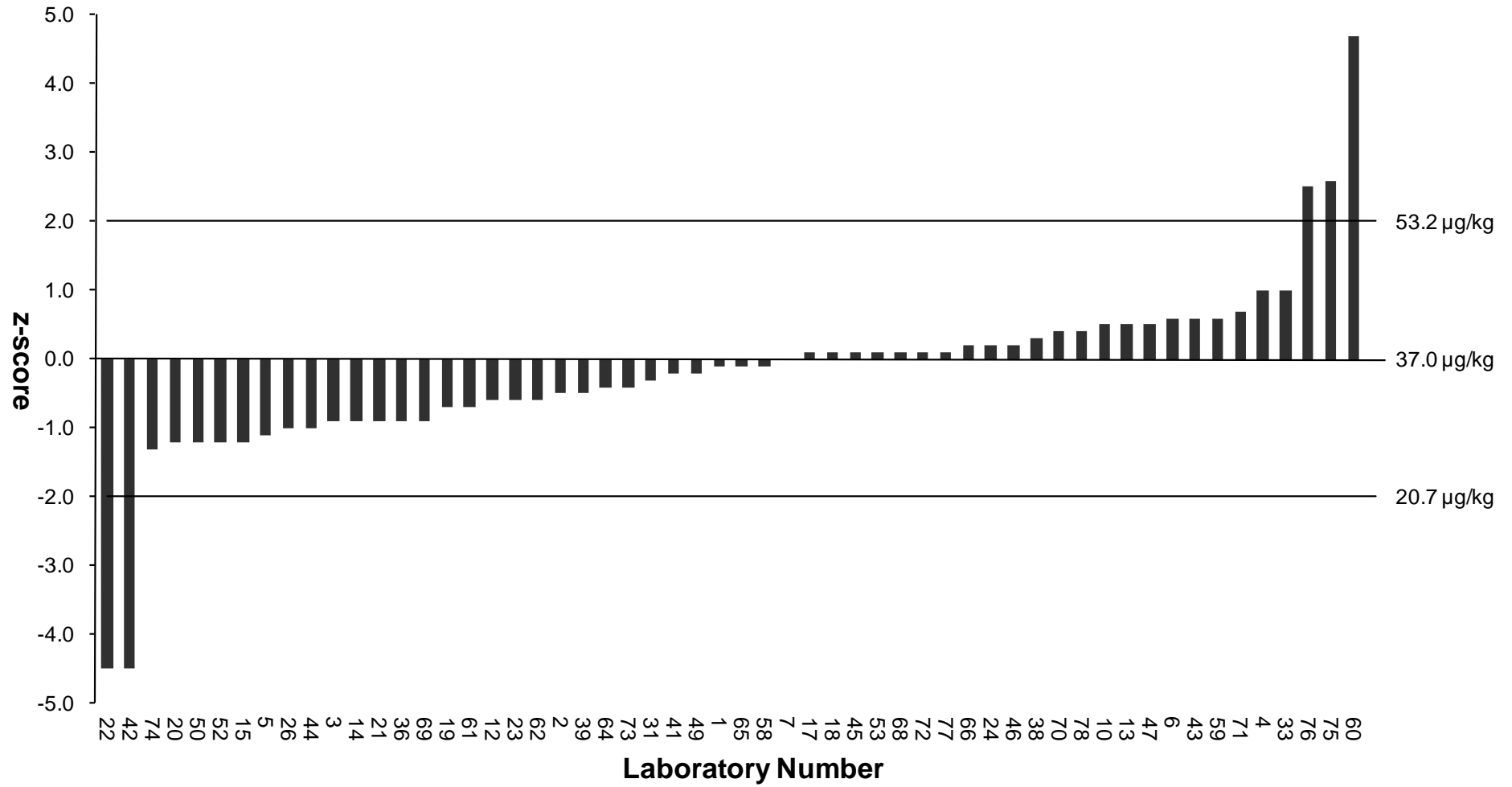


Figure 6: z-Scores for Pyrimethanil

APPENDIX I: Analytical Methods Used by Participants

Methods are tabulated according to the information supplied by participants, but some responses may have been combined or edited for clarity.

Carbofuran

Accredited Method Used	laboratory number
yes	001 002 003 004 005 006 008 012 013 014 016 017 018 020 022 023 025 026 027 031 032 033 038 041 043 044 045 048 051 052 053 058 059 062 064 068 071 072 073 077 078
no	015 024 046 049 054 061 066

Sample Weight (g)	laboratory number
≥5 - <10	016 018 022 023 024 026 033 049 061 062 071 078
≥10 - <25	002 003 004 006 008 012 014 015 017 031 032 038 041 043 044 045 046 051 052 053 054 058 059 064 066 068 072 073 077
≥25 - <50	001 005 020 027
≥50	013 025 048

Extraction Solvent Components	laboratory number
acetic acid	051 058
acetone	002 077
acetonitrile	003 004 006 008 013 015 016 017 018 022 023 024 026 031 032 033 038 041 043 045 046 048 049 051 052 053 054 058 059 061 071 072 078
dichloromethane	002
ethyl acetate	001 005 012 014 020 027 062 064 066 073
methanol	008 025 051
petroleum ether/spirit	002

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 006 012 014 015 018 022 023 024 026 027 031 033 038 046 048 049 052 054 058 062 071 072 073 077 078

Extraction Technique Used (continued)	laboratory number
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
liquid liquid extraction	025
solvent extraction	045

Extraction pH Adjusted	laboratory number
yes	004 005 008 012 014 018 024 033 038 041 045 053 061 073 078
no	001 002 003 006 013 015 016 017 020 022 023 025 026 027 031 043 046 048 049 051 052 054 058 059 062 064 066 071 072 077

Sample Clean-up Technique	laboratory number
carbon based column	005 013 025
extraction	016 058 073
filter	058
GPC/HPGPC	027
liquid/liquid extraction	077
MgSO ₄ , PSA	053
NH ₂ /aminopropyl column	013
none	001 002 012 014 024 026 052 059 064
PSA	015 018 061
QuEChERS	003 053 059
solid phase extraction (SPE) (column/cartridge)	013 048 054 062 071 078
solid phase extraction (SPE) (dispersive)	003 004 006 008 017 022 023 031 033 038 041 043 045 046 049 051 072

SPE Sorbent Type	laboratory number
alumina	052
C18	048
Envicarb/GCB	013 062
NH ₂	045 078
PSA	003 004 006 008 015 017 022 023 031 033 038 041 043 046 049 051 054 072
silica	071
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 006 008 012 013 014 015 016 017 018 020 023 024 025 026 031 033 038 041 043 044 046 048 049 051 052 053 054 058 059 062 064 066 071 072 073 077 078
no	005 022 027 045 061

MS Confirmation	laboratory number
yes	001 002 003 004 005 006 008 012 013 014 015 016 017 018 020 022 023 024 026 027 031 033 038 041 045 046 048 049 051 052 053 054 058 059 061 062 064 066 071 072 073 077 078
no	025 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 006 008 012 013 014 015 017 018 022 023 024 026 032 033 038 041 044 045 046 048 049 051 052 058 062 064 066 073 078
multi-level	002 003 004 006 012 013 014 015 016 017 020 022 027 031 043 044 045 046 048 049 052 053 058 059 061 062 064 066
single-level	025 071 077
solvent	043 061
standard addition	052 072

Source of Standards	laboratory number
ChemService	003 013 016
Dr Ehrenstorfer	001 002 004 012 014 015 018 020 022 023 024 025 026 031 033 038 041 043 051 053 059 062 064 071 072 073 077
Fluka	004 064
Neochema	043
Restek	017
Sigma/Aldrich	004 033 044 046 049 051 052 054 058 064
Supelco	064
US EPA Repository	006 008 016 048

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material? laboratory number

yes	002 003 004 006 008 012 013 014 016 018 020 022 023 024 025 026 027 031 033 038 041 043 045 046 048 049 051 052 053 059 062 064 066 072 073 077 078
no	001 015 017 044 054 058 061 071

If Measured in the same Batch, When was the Spike Added laboratory number

prior to extraction	002 003 004 006 008 012 013 014 015 016 018 020 022 023 024 025 026 027 031 033 038 041 043 045 046 048 049 051 052 053 059 062 064 066 072 073 077 078
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Ratio of Isomers laboratory number

20%	013
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Level of Spike (µg/kg) laboratory number

<25	006 008 012 013 015 017 020 023 031 033 041 045 046 048 062 064 066
≥25 - <50	022 023 024 051 062
≥50 - <100	002 023 025 026 053 054 064 066 078
≥100 - <150	004 016 018 043 049 052 059 064 072
≥150 - <200	014 071
≥200 - <250	003 023 038 077
≥250 - <300	073
≥400 - <500	027
≥500	023 066

Composition of Blank Commodity used for Spiking laboratory number

cucumber blank provided	002 004 008 014 015 016 017 020 023 024 027 033 038 041 043 045 049 053 062 064 066 071 077
cucumber test material provided	018 022 026 051 059 072
cucumber	003 006 012 031 046 048 052
in house	013

GC Column Type	laboratory number
capillary	002 003 016 018 022 024 026 027 038 054 059 062 064 073 077 078
widebore	072

GC Column Packing	laboratory number
14% cyanopropylphenyl 86% methyl polysiloxane	003
50% methyl 50% phenyl polysiloxane	016 027
95% methyl 5% phenyl polysiloxane	002 022 024 026 038 054 059 062 064 072 073 077
5% methylsiloxan	018

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	018 022 027 038 062 073 077
≥2 - <5	002 003 072
≥5 - <10	016 024 059
≥10	026 054 064

GC Injection Mode	laboratory number
on-column	022
PTV	018 026 054 059 077
split	024 073
splitless	002 003 016 027 038 062 064 072 078

GC Detector	laboratory number
ECD	016 027
MS	003 016 018 022 024 026 027 038 062 072 077 078
MS-MS	002 054 059 064 073

HPLC Column Packing	laboratory number
C18	001 005 006 008 015 016 017 018 020 022 023 024 033 041 043 044 045 046 048 049 052 058 059 061 066 071 073
C18 X-Terra type	004 013
C8	025 026 031
endcapped	024 033
RP-C18-Phase	053
UPLC BEH C18	012
Water carbamate analysis column	027
Waters Acquity UPLC BEH C18	051

HPLC Guard Column Used	laboratory number
yes	001 005 006 008 014 015 016 017 018 020 023 024 025 027 031 041 043 044 051 052 053 058 059 073
no	004 012 013 022 026 033 045 046 048 049 061 066 071

Mobile Phase Programme	laboratory number
gradient	001 004 005 006 008 012 013 014 015 016 017 018 020 022 023 024 025 026 027 031 032 033 041 043 044 045 046 048 049 051 052 053 058 059 061 066 071 073

Mobile Phase Components	laboratory number
acetate	004 012 022 053 059
acetic acid	022 043
acetonitrile	006 015 016 022 025 044 045 046 048 058 066
ammonium acetate	049 051
ammonium formate	001 033 044
formic acid	001 006 008 014 017 020 024 044 045 046 048 049 053 058 066
methanol	001 004 005 008 012 013 014 017 018 023 024 026 027 031 032 033 041 043 044 046 049 051 052 053 061 071 073
water	004 005 006 008 012 013 014 015 016 017 018 022 023 024 025 027 031 033 041 045 046 048 051 052 053 058 061 073

HPLC Column Temperature (°C)	laboratory number
ambient	013 014 018 020 031 041 052 059 071
>ambient - <50	001 005 006 008 012 015 016 017 022 023 024 025 026 027 033 043 044 045 046 048 049 051 053 058 061 066 073
≥50	004

HPLC Injection Volume (µL)	laboratory number
<5	005 008 012 018 026 033 045 061
≥5 - <10	004 013 017 020 023 024 046 052 059 066 071
≥10 - <25	006 015 025 041 043 044 048 051 053 058 073
≥25 - <50	001 014 016 022 027 031 049

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	015 016 020 023 044 045 052 059 073
≥0.25 - <0.75	001 004 005 006 008 012 014 017 018 022 024 026 031 033 041 043 046 048 049 051 053 058 061 066 071
≥0.75 - <1.25	013 025
≥1.25 - <1.75	027

HPLC Post Column Derivatisation	laboratory number
none	001 004 006 012 013 014 015 016 017 018 022 024 026 043 048 051 053 058 059 073
OPA	025
OPA-MERC	027

HPLC Detector Type	laboratory number
fluorescence	027
MS	031
MS-MS	001 004 005 006 008 012 013 014 015 016 017 018 020 022 023 024 025 026 032 033 041 043 044 045 046 048 049 051 052 053 058 059 061 066 071 073

Fenazaquin

Accredited Method Used	laboratory number
yes	001 002 003 004 005 007 008 012 014 016 018 020 022 023 026 031 032 038 040 041 043 044 052 053 058 059 062 064 066 068 071 072 073 077 078
no	015 024 046 047 049

Sample Weight (g)	laboratory number
≥5 - <10	016 018 022 024 026 049 062 071 078
≥10 - <25	002 003 004 007 008 012 014 015 023 031 032 038 040 041 043 044 046 047 052 053 058 059 064 066 068 072 073 077
≥25 - <50	001 005 020

Extraction Solvent Components	laboratory number
acetic acid	058
acetone	002 007 014 068 077
acetonitrile	003 004 008 015 016 018 022 024 026 031 032 038 040 041 043 046 047 049 052 053 058 059 064 071 072 078
dichloromethane	002 014
ethyl acetate	001 005 012 020 023 062 066 073
methanol	008
petroleum ether/spirit	002 014

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 012 014 015 018 022 023 024 026 031 038 040 046 047 049 052 058 062 068 071 072 073 077 078
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
liquid-liquid extraction	064
solvent extraction at increased pressure/PLE	066

Extraction pH Adjusted	laboratory number
yes	004 005 008 012 014 018 024 038 040 041 053 073 078
no	001 002 003 007 015 016 020 022 026 031 043 046 047 049 052 058 059 062 064 066 068 071 072 077

Sample Clean-up Technique	laboratory number
carbon based column	005
extraction	016 058 073
filter	058
GPC/HPGPC	066
liquid/liquid extraction	007 077
MgSO ₄ , PSA	053
PSA	015 018
QuEChERS	003 053 059
solid phase extraction (SPE) (column/cartridge)	062 071 078
solid phase extraction (SPE) (dispersive)	003 004 008 022 026 031 038 040 041 043 046 047 049 072
none	001 002 012 014 024 052 059 064 068

SPE Sorbent Type	laboratory number
alumina	052
Envicarb/GCB	062
GCB/PSA/MgSO ₄	026
NH ₂	078
PSA	003 004 008 015 022 031 038 040 041 043 046 047 049 072
silica	068 071
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 007 008 012 014 015 016 018 020 023 024 026 031 038 041 043 044 046 047 049 052 053 058 059 062 064 066 068 071 072 073 077 078
no	005 022 040

MS Confirmation	laboratory number
yes	001 002 003 004 005 008 012 014 015 016 018 020 022 023 024 026 031 038 040 041 046 047 049 052 053 058 059 062 064 066 068 071 072 073 077 078
no	007 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 007 008 012 014 015 018 022 024 026 032 038 040 041 044 046 047 049 052 058 062 064 066 073 078
multi-level	002 003 004 012 014 015 016 020 022 031 043 044 046 049 052 053 058 059 062 064
single-level	047 068 071 077
solvent	043
standard addition	023 052 072

Source of Standards	laboratory number
ChemService	003 016
Dr Ehrenstorfer	001 002 004 012 014 015 018 020 022 023 024 026 031 038 040 041 043 047 053 059 062 064 068 071 072 073 077
Fluka	004 064
Neochema	043
Riedel de Haën	046
Sigma/Aldrich	004 044 049 052 058 064
Supelco	064
US EPA Repository	008 016

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material?	laboratory number
yes	002 003 004 007 008 012 014 016 018 020 022 023 024 026 031 038 040 041 043 046 049 052 053 059 062 064 072 073 077 078
no	001 015 044 047 058 066 068 071

If Measured in the same Batch, When was the Spike Added	laboratory number
prior to extraction	002 003 004 007 008 012 014 015 016 018 020 022 023 024 026 031 038 040 041 043 046 049 052 053 059 062 064 066 072 073 077 078

Level of Spike (µg/kg)	laboratory number
<25	008 012 015 020 023 031 041 046 047 062 064 066
≥25 - <50	022 023 024 062
≥50 - <100	002 007 023 026 053 064 078
≥100 - <150	004 016 018 040 043 049 052 059 064
≥150 - <200	014 071 073
≥200 - <250	003 023 068 077
≥250 - <300	038 072
≥500	023

Composition of Blank Commodity used for Spiking	laboratory number
cucumber blank provided	002 004 007 008 014 015 016 020 023 024 038 041 043 049 053 062 064 071 077
cucumber test material provided	018 022 026 059 072
cucumber	003 012 031 046 052
fruit mixed	040
rice	066

GC Column Type	laboratory number
capillary	001 002 003 004 005 007 014 016 018 022 023 024 026 040 046 047 053 059 062 064 066 068 073 077 078
widebore	072

GC Column Packing	laboratory number
14% cyanopropylphenyl 86% methyl polysiloxane	003
50% methyl 50% phenyl polysiloxane	016 066
65% methyl 35% phenyl polysiloxane	004
95% methyl 5% phenyl polysiloxane	001 002 005 007 014 022 023 024 026 040 046 047 053 059 062 068 072 073 077
95% dimethyl polysiloxane 5% phenyl	064
5% methylsiloxane	018

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	007 018 022 023 046 062 066 068 073 077
≥2 - <5	001 002 003 004 014 040 047 053 072
≥5 - <10	016 024 059
≥10	005 026 064

GC Injection Mode	laboratory number
cold injection system	053
on-column	022 047
PTV	001 005 018 026 040 059 077
pulsed splitless	046
split	024 073
splitless	002 003 004 007 014 016 023 062 064 066 068 072 078

GC Detector	laboratory number
ECD	016
MS	003 004 005 007 014 016 018 022 023 024 026 062 066 068 072 077 078
MS-MS	001 002 040 046 047 059 064 073
MSD	053

HPLC Column Packing	laboratory number
C18	008 015 016 018 020 022 024 041 043 044 049 052 058 059 064 071 073
C8	026 031
endcapped	024
UPLC BEH C18	012
Zorbax eclipsed + C18	038

HPLC Guard Column Used	laboratory number
yes	008 015 016 018 020 024 031 041 043 044 052 058 059 073
no	012 022 026 038 049 064 071

Mobile Phase Programme	laboratory number
gradient	008 012 015 016 018 020 022 024 026 031 032 038 041 043 044 049 052 058 059 064 071 073

Mobile Phase Components	laboratory number
acetate	012 022 059
acetic acid	022 043
acetonitrile	015 016 022 044 058
ammonium acetate	049
ammonium formate	044
formic acid	008 020 024 044 049 058
methanol	008 012 018 024 026 031 032 038 041 043 044 049 052 064 071 073
water	008 012 015 016 018 022 024 031 038 041 052 058 064 073

HPLC Column Temperature (°C)	laboratory number
ambient	008 018 020 031 041 052 059 071
>ambient - <50	012 015 016 022 024 026 043 044 049 058 064 073
≥50	038

HPLC Injection Volume (µL)	laboratory number
<5	008 012 018 026 038
≥5 - <10	020 024 052 059 071
≥10 - <25	015 041 043 044 058 064 073
≥25 - <50	016 022 031 049

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	015 016 020 044 052 059 073
≥0.25 - <0.75	008 012 018 022 024 026 031 038 041 043 049 058 064 071

HPLC Detector Type	laboratory number
MS	031
MS-MS	008 012 015 016 018 020 022 024 026 032 038 041 043 044 049 052 058 059 064 071 073

Pirimicarb

Accredited Method Used	laboratory number
yes	001 002 003 004 005 007 012 014 017 018 020 022 023 026 031 032 033 038 040 041 043 044 045 050 051 052 053 058 059 061 062 064 066 068 071 072 073 077 078
no	015 024 046 047 049 054

Sample Weight (g)	laboratory number
≥5 - <10	018 022 024 026 033 049 062 071 078
≥10 - <25	002 003 004 007 012 014 015 017 020 023 032 038 040 041 043 044 045 046 047 050 051 052 053 054 058 059 061 064 066 068 072 073 077
≥25 - <50	001 005
≥50	031

Extraction Solvent Components	laboratory number
acetic acid	007 051 058
acetone	002 014 031 061 068 077
acetonitrile	003 004 007 017 018 022 024 026 032 033 038 040 041 043 045 046 047 049 051 052 053 054 058 059 064 071 072 078
cyclohexane	061 068
dichloromethane	002 014
ethyl acetate	001 005 012 015 020 023 044 061 062 066 068 073
methanol	050 051
petroleum ether/spirit	002 014
water	050

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 012 014 015 018 022 023 024 026 033 038 040 044 046 047 049 050 052 054 058 061 062 068 071 072 073 077 078
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
liquid-liquid extraction	064
solvent extraction	045
solvent extraction at increased pressure/PLE	066

Extraction pH Adjusted	laboratory number
yes	004 005 007 012 014 018 024 033 038 040 041 045 053 073 078
no	001 002 003 015 017 020 022 026 031 043 044 046 047 049 050 051 052 054 058 059 061 062 064 066 068 071 072 077

Sample Clean-up Technique	laboratory number
carbon based column	005
liquid/liquid extraction with Chemelut	050
extraction	058 073
filter	058
GPC/HPGPC	061 066
liquid/liquid extraction	031 077
MgSO ₄ , PSA	053
PSA	018
QuEChERS	003 053 059
solid phase extraction (SPE) (column/cartridge)	012 054 062 071 078
solid phase extraction (SPE) (dispersive)	003 004 017 022 033 038 040 041 043 045 046 047 049 051 072
none	001 002 014 015 024 026 052 059 064

SPE Sorbent Type	laboratory number
alumina	052
diatomaceous earth	050
Envicarb/GCB	012 062
NH ₂	045 078
PSA	003 004 017 022 033 038 040 041 043 046 047 049 051 054 072
silica	071
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 007 012 014 015 017 018 020 023 024 026 031 033 038 041 043 044 046 047 049 050 051 052 053 054 058 059 062 064 066 068 071 072 073 077 078
no	005 022 040 045 061

MS Confirmation	laboratory number
yes	001 002 003 004 005 012 014 015 017 018 020 022 023 024 026 031 033 038 040 041 044 045 046 047 049 050 051 052 053 054 058 059 061 062 064 066 068 071 072 073 077 078
no	007 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 007 012 014 015 017 018 022 024 026 032 033 038 040 041 044 045 046 047 049 050 051 052 058 062 064 066 068 073 078
multi-level	002 003 004 012 014 015 017 020 022 031 043 044 045 046 049 050 052 053 058 059 061 062 064
single-level	047 071 077
solvent	043 050 061
standard addition	023 052 072

Source of Standards	laboratory number
ChemService	003 050
Dr Ehrenstorfer	001 002 004 012 014 015 018 020 022 023 024 026 031 033 038 040 041 043 047 051 053 059 061 062 064 068 071 072 073 077
Fluka	004 064
Neochema	043
QMX	007
Restek	017
Sigma/Aldrich	004 033 044 046 049 051 052 054 058 064
Supelco	064

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material?	laboratory number
yes	002 003 004 007 012 014 018 020 022 023 024 026 031 033 038 040 041 043 045 046 049 050 051 052 053 059 062 064 072 073 077 078
no	001 015 017 047 054 058 061 066 068 071

If Measured in the same Batch, When was the Spike Added laboratory number

prior to extraction	002 003 004 007 012 014 015 018 020 022 023 024 026 031 033 038 040 041 043 045 046 049 050 051 052 053 059 061 062 064 066 072 073 077 078
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Level of Spike (µg/kg) laboratory number

<25	007 012 015 020 023 031 033 041 045 046 062 064 066
≥25 - <50	022 023 024 051 062
≥50 - <100	002 017 023 026 053 054 064 068 078
≥100 - <150	004 018 040 043 049 050 052 059 064 068
≥150 - <200	068 071 072
≥200 - <250	003 023 068 073 077
≥250 - <300	014 038
≥500	023

Composition of Blank Commodity used for Spiking laboratory number

cucumber blank provided	002 004 014 015 017 020 023 024 033 038 041 043 045 049 053 062 064 071 077
cucumber test material provided	018 022 026 050 051 059 072
cucumber	003 012 031 046 052
blueberry	068
fruit mixed	040
rice	066
in house blank	007

GC Column Type laboratory number

capillary	001 002 003 007 014 015 018 020 022 023 024 026 031 038 040 041 044 054 059 061 062 064 066 068 073 077 078
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GC Column Packing laboratory number

14% cyanopropylphenyl 86% methyl polysiloxane	003
50% methyl 50% phenyl polysiloxane	066

GC Column Packing (continued)	laboratory number
95% methyl 5% phenyl polysiloxane	001 002 007 014 015 022 023 024 026 031 038 040 041 044 054 059 061 062 068 073 077
5% methylsiloxane	018
95% dimethyl polysiloxane 5%phenyl	064
100% methyl polysiloxane	020

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	015 018 022 023 031 038 061 062 066 068 073 077
≥2 - <5	001 002 003 007 014 040
≥5 - <10	020 024 041 059
≥10	026 044 054 064

GC Injection Mode	laboratory number
on-column	022
PTV	001 015 018 026 040 044 054 059 068 077
split	024 050 073
splitless	002 003 007 014 020 023 031 038 061 062 064 066 078

GC Detector	laboratory number
MS	003 007 014 018 022 023 024 026 031 038 050 061 062 066 068 077 078
MS-MS	001 002 015 020 040 041 044 050 054 059 064 073
NPD	014 031

HPLC Column Packing	laboratory number
C18	005 017 018 022 024 033 043 045 046 047 049 052 058 059 061 064 071 072 073
C18 X-Terra type	004

HPLC Column Packing (continued)	laboratory number
C8	026
endcapped	024 033 050
RP-C18-Phase	053
Silica	050
UPLC BEH C18	012
Waters Acquity UPLC BEH C18	051

HPLC Guard Column Used	laboratory number
yes	005 017 018 024 043 047 050 051 052 053 058 059 072 073
no	004 012 015 022 026 033 041 045 046 049 061 064 071

Mobile Phase Programme	laboratory number
isocratic	041
gradient	004 005 012 015 017 018 022 024 026 032 033 043 045 046 047 049 050 051 052 053 058 059 061 064 071 072 073

Mobile Phase Components	laboratory number
acetate	004 012 022 053 059
acetic acid	022 043 047
acetonitrile	015 022 045 046 058
ammonium acetate	047 049 051
ammonium formate	033
ammonium formate buffer pH3	050
formic acid	017 024 045 046 049 053 058 061
methanol	004 005 012 017 018 024 026 032 033 043 046 047 049 050 051 052 053 061 064 071 072 073
water	004 005 012 015 017 018 022 024 033 045 046 047 051 052 053 058 061 064 072 073

HPLC Column Temperature (°C)	laboratory number
ambient	018 052 059 061 071 072
>ambient - <50	005 012 015 017 022 024 026 033 043 045 046 047 049 051 053 058 064 073
≥50	004 050

HPLC Injection Volume (µL)	laboratory number
<5	005 012 018 026 033 045
≥5 - <10	004 017 024 046 052 059 061 071
≥10 - <25	015 043 050 051 053 058 064 073
≥25 - <50	022 047 049
≥100 - <150	072

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	015 045 050 052 059 072 073
≥0.25 - <0.75	004 005 012 017 018 022 024 026 033 043 046 049 051 053 058 061 064 071
≥0.75 - <1.25	047

HPLC Detector Type	laboratory number
MS	061
MS-MS	004 005 012 015 017 018 022 024 026 032 033 041 043 045 046 047 049 050 051 052 053 058 059 064 071 072 073

Pirimiphos-methyl

Accredited Method Used	laboratory number
yes	001 002 003 004 005 007 012 013 014 017 018 020 022 023 026 027 029 031 032 033 035 038 040 041 043 044 045 050 051 052 053 055 058 059 061 062 063 064 066 067 068 071 072 073 074 077 078
no	009 015 024 034 046 047 054 056

Sample Weight (g)	laboratory number
≥2 - <5	063
≥5 - <10	018 022 024 026 033 062 064 067 068 071 078
≥10 - <25	002 003 004 007 009 012 014 015 017 020 023 029 032 038 040 041 043 044 045 046 047 050 051 052 053 054 055 056 058 059 061 066 072 073 074 077
≥25 - <50	001 005 027 034 035
≥50	013 031

Extraction Solvent Components	laboratory number
acetic acid	007 051 058
acetone	002 009 014 031 034 035 068 077
acetonitrile	003 004 007 013 017 018 022 024 026 029 032 033 038 040 041 043 045 046 047 051 052 053 054 056 058 059 061 063 071 072 074 078
cyclohexane	068
dichloromethane	002 014 034 035
ethyl acetate	001 005 009 012 015 020 023 027 044 055 062 064 066 067 068 073
hexane	009
methanol	050 051
petroleum ether/spirit	002 014
water	050

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 009 012 014 015 018 022 023 024 026 027 029 033 038 040 044 046 047 050 052 054 056 058 061 062 063 067 068 071 072 073 074 077 078
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
solvent extraction	045
solvent extraction at atmospheric pressure	034
solvent extraction at increased pressure/PLE	066

Extraction pH Adjusted	laboratory number
yes	005 012 014 018 024 033 038 040 041 045 053 061 073 078
no	001 002 003 004 007 009 013 015 017 020 022 026 027 029 031 034 035 043 044 046 047 050 051 052 054 055 056 058 059 062 063 066 067 068 071 072 074 077

Sample Clean-up Technique	laboratory number
alumina column	074
carbon based column	005 013
liquid/liquid extraction with Chemelut	050
extraction	058 067 073
filter	058
GPC/HPGPC	027 066
liquid/liquid extraction	007 031 077
MgSO ₄ , PSA	053
NH ₂ /aminopropyl column	013
PSA	018
QuEChERS	003 053 059
silica column	071
solid phase extraction (SPE) (column/cartridge)	009 012 013 029 054 055 062 078
solid phase extraction (SPE) (dispersive)	003 004 017 022 026 033 038 040 041 043 045 046 047 051 052 056 061 063 072
none	001 002 014 015 024 034 035 059 064 068

SPE Sorbent Type	laboratory number
C18	029 067
diatomaceous earth	050
Envicarb/GCB	012 013 062
GCB/PSA/MgSO ₄	026
NH ₂	045 078
PSA	003 004 017 022 033 038 040 041 043 046 047 051 052 054 056 061 063 072
SAX	009
SAX/PSA	055
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 007 009 012 013 014 015 017 018 020 023 024 026 029 031 033 034 035 038 041 043 044 046 047 050 051 052 053 054 055 056 058 059 061 062 063 064 066 067 068 071 072 073 074 077 078
no	005 022 027 040 045

MS Confirmation	laboratory number
yes	001 002 003 004 005 009 012 013 014 015 017 018 020 022 023 024 026 027 029 031 033 038 040 041 044 045 046 047 050 051 052 053 054 055 056 058 059 061 062 063 064 066 067 068 071 072 073 074 077 078
no	007 034 035 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 007 012 013 014 015 017 018 022 024 026 032 033 038 040 041 044 045 046 047 050 051 052 056 058 062 063 066 068 073 074 078
multi-level	002 003 004 009 012 013 014 015 017 020 022 027 031 034 035 043 044 045 046 050 052 053 055 056 058 059 061 062 063 064
single-level	047 071 077
solvent	029 043 050 061
standard addition	023 052 067 072

Source of Standards	laboratory number
Accustandard	050 074
ChemService	003 013
Dr Ehrenstorfer	001 002 004 009 014 015 018 020 022 023 024 026 029 031 033 034 035 038 040 041 043 047 051 053 055 056 059 061 062 063 064 067 068 071 072 073 077
Fluka	004 056
Neochema	043
Restek	017
Riedel de Haën	046
Sigma/Aldrich	004 033 044 051 052 054 058
Supelco	004

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material? laboratory number

yes	002 003 004 007 009 012 013 014 018 020 022 023 024 026 027 029 031 033 034 035 038 040 041 043 045 046 050 051 052 053 055 059 062 063 064 067 068 072 073 074 077 078
no	001 015 017 047 054 056 058 061 066 071

If Measured in the same Batch, When was the Spike Added laboratory number

prior to extraction	002 003 004 007 009 012 013 014 015 018 020 022 023 024 026 027 029 031 033 034 035 038 040 041 043 045 046 050 051 052 053 055 059 062 063 064 066 067 068 072 073 074 077 078
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Ratio of Isomers laboratory number

20%	013
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Level of Spike (µg/kg) laboratory number

<25	007 013 015 017 020 023 031 033 041 046 062 066 067 074
≥25 - <50	009 012 022 023 024 051 062
≥50 - <100	002 023 026 038 053 054 063 064 068 078
≥100 - <150	004 014 018 034 040 043 050 052 055 056 059 072 073
≥150 - <200	068 071
≥200 - <250	003 023 035 077
≥300 - <400	068
≥400 - <500	027
≥500	023 029 068

Composition of Blank Commodity used for Spiking laboratory number

cucumber blank provided	002 004 014 015 017 020 023 024 027 033 038 041 043 045 053 056 062 064 071 074 077
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Composition of Blank Commodity used for Spiking (continued)	laboratory number
cucumber test material provided	018 022 026 029 034 035 050 051 059 067 072
cucumber	003 012 031 046 052 055
carrot	009
fruit mixed	040
rice	066 068
in house blank	007 013

GC Column Type	laboratory number
capillary	001 002 003 005 007 009 012 014 015 018 020 022 023 024 026 027 029 031 034 035 038 040 041 044 045 046 050 052 053 054 055 059 061 062 063 064 066 067 068 071 073 074 077 078
megabore	013 017
widebore	072

GC Column Packing	laboratory number
100% methyl polysiloxane	017 020 071
14% cyanopropylphenyl 86% methyl polysiloxane	003 029 035
50% methyl 50% phenyl polysiloxane	009 017 027 066 067
95% methyl 5% phenyl polysiloxane	001 002 005 012 014 015 022 023 024 026 031 034 038 040 041 044 045 046 050 052 053 054 055 056 059 061 062 063 068 072 073 074 077
5% methylsiloxane	018
XLB	013

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	007 012 015 018 022 023 027 029 031 034 038 045 046 056 061 062 063 066 068 073 077
≥2 - <5	001 002 003 009 014 017 035 040 050 053 055 072
≥5 - <10	013 020 024 041 059 064 067 071 074
≥10	005 026 044 052 054

GC Injection Mode	laboratory number
cold injection system	053
on-column	012 022
PTV	001 005 015 018 026 040 044 045 054 059 068 077
pulsed splitless	046
solvent vent	052
split	024 067 073 074
splitless	002 003 007 009 013 014 017 020 023 027 029 031 034 035 038 050 055 056 061 062 063 066 071 072 078

GC Detector	laboratory number
ECD	027 035 050
FPD	009 014 017 034 035 055 063
ITD	013
MS	003 005 007 014 018 022 023 024 026 031 038 050 056 061 062 066 067 068 071 072 077 078
MSD	053
MS-MS	001 002 012 015 020 040 041 044 045 046 054 059 064 073 074
NPD	029 031 050
TOF-MS	052

HPLC Column Packing	laboratory number
C18	004 018 022 024 029 033 043 047 058 059 073 074
C8	026
endcapped	024 033 050
Water carbamate analysis column	027
Waters Acquity UPLC BEH C18	051

HPLC Guard Column Used	laboratory number
yes	018 024 027 043 047 051 052 058 059 073
no	004 013 015 017 022 026 029 033 041 050 061

Mobile Phase Programme	laboratory number
isocratic	041
gradient	004 013 015 017 018 022 024 026 027 029 032 033 043 047 050 051 052 058 059 061 073

Mobile Phase Components	laboratory number
acetate	004 022 059
acetic acid	022 043 047
acetonitrile	015 022 029 058
ammonium acetate	033 047 051
ammonium formate	033
formic acid	024 058
methanol	004 018 024 026 027 032 033 043 047 051 061 073
water	004 015 018 022 024 027 033 047 051 058 061 073

HPLC Column Temperature (°C)	laboratory number
ambient	018 059
>ambient - <50	015 022 024 026 027 029 033 043 047 051 058 061 073
≥50	004

HPLC Injection Volume (µL)	laboratory number
<5	018 026 029 033
≥5 - <10	024 059 061
≥10 - <25	004 015 043 051 058 073
≥25 - <50	022 027 047

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	015 059 073
≥0.25 - <0.75	004 018 022 024 026 029 033 043 051 058 061
≥0.75 - <1.25	047
≥1.25 - <1.75	027

HPLC Post Column Derivatisation	laboratory number
none	004 015 018 022 024 026 029 043 047 051 058 059 073
OPA-MERC	027

HPLC Detector Type	laboratory number
fluorescence	027
MS-MS	004 015 018 022 024 026 032 033 041 043 047 051 058 059 061 073
UV	029

Prochloraz

Accredited Method Used	laboratory number
yes	001 002 003 004 005 012 014 018 020 022 023 026 031 033 038 041 043 044 045 050 052 053 058 062 063 064 071 072 073 077 078
no	007 024 046 047 049

Sample Weight (g)	laboratory number
≥2 - <5	063
≥5 - <10	018 022 023 024 026 033 049 062 071 078
≥10 - <25	002 003 004 007 012 014 031 038 041 043 044 045 046 047 050 052 053 058 064 072 073 077
≥25 - <50	001 005 020

Extraction Solvent Components	laboratory number
acetic acid	058
acetone	002 007 014 077
acetonitrile	003 004 018 022 023 024 026 031 033 038 041 043 045 046 047 049 052 053 058 063 064 071 072 078
dichloromethane	002 014
ethyl acetate	001 005 012 020 062 073
methanol	050
petroleum ether/spirit	002 014
water	050

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 012 014 018 022 023 024 026 031 033 038 046 047 049 050 052 058 062 063 071 072 073 077 078
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
liquid-liquid extraction	064
solvent extraction	045

Extraction pH Adjusted	laboratory number
yes	004 005 012 014 018 024 033 038 041 045 053 073 078
no	001 002 003 007 020 022 023 026 031 043 046 047 049 050 052 058 062 063 064 071 072 077

Sample Clean-up Technique	laboratory number
carbon based column	005
liquid/liquid extraction Chemelut extraction	050 058 073
filter	058
liquid/liquid extraction MgSO ₄ , PSA	007 077 053
PSA	018
QuEChERS	003 053
solid phase extraction (SPE) (column/cartridge)	012 062 071 078
solid phase extraction (SPE) (dispersive)	003 004 022 023 031 033 038 041 043 045 046 047 049 052 063 072
none	001 002 014 024 026 064

SPE Sorbent Type	laboratory number
diatomaceous earth	050
Envicarb/GCB	012 062
NH ₂	045 078
PSA	003 004 022 023 031 033 038 041 043 046 047 049 052 063 072
silica	071
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 007 012 014 018 020 023 024 026 031 033 038 041 043 044 046 047 049 050 052 053 058 062 063 064 071 072 073 077 078
no	005 022 045

MS Confirmation	laboratory number
yes	001 002 003 004 005 012 014 018 020 022 023 024 026 031 033 038 041 045 046 047 049 050 052 053 058 062 063 064 071 072 073 077 078
no	007 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 007 012 014 018 022 023 024 026 033 038 041 044 045 046 047 049 050 052 058 062 063 064 073 078
multi-level	002 003 004 012 014 020 022 031 043 044 045 046 049 050 052 053 058 062 063 064
single-level	047 071 077
solvent	043 050
standard addition	052 072

Source of Standards	laboratory number
Chem service	003
Dr Ehrenstorfer	001 002 004 012 014 018 020 022 023 024 026 031 033 038 041 043 047 053 062 063 064 071 072 073 077
Fluka	004 064
Neochema	043
Riedel de Haën	046 050
Sigma/Aldrich	004 033 044 049 052 058 064
Supelco	064

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material?	laboratory number
yes	002 003 004 007 012 014 018 020 022 023 024 026 031 033 038 041 043 045 046 049 050 052 053 062 063 064 072 073 077 078
no	001 044 047 058 071

If Measured in the same Batch, When was the Spike Added laboratory number

prior to extraction	002 003 004 007 012 014 018 020 022 023 024 026 031 033 038 041 043 045 046 049 050 052 053 062 063 064 072 073 077 078
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Level of Spike (µg/kg) laboratory number

<25	012 020 023 031 033 041 046 062 063 064
≥25 - <50	022 023 024 062
≥50 - <100	002 007 023 026 053 064 072 078
≥100 - <150	004 018 038 043 049 050 052 064
≥150 - <200	071 073
≥200 - <250	003 014 023 077
≥500	023

Composition of Blank Commodity used for Spiking laboratory number

cucumber blank provided	002 004 007 014 020 023 024 033 038 041 043 045 049 053 064 071 077
cucumber test material provided	018 022 026 050 072
cucumber	003 012 031 046 052

GC Column Type laboratory number

capillary	002 003 004 007 014 022 024 026 045 050 052 053 064 073 077 078
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GC Column Packing laboratory number

14% cyanopropylphenyl 86%methyl polysiloxane	003
65% methyl 35% phenyl polysiloxane	004
95% methyl 5% phenyl polysiloxane	002 007 014 022 024 026 045 050 052 053 073 077
95%dimethyl polysiloxane 5%phenyl	064

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	007 022 045 073 077
≥2 - <5	002 003 004 014 050 053
≥5 - <10	024
≥10	026 052 064

GC Injection Mode	laboratory number
cold injection system	053
on-column	022
PTV	026 045 077
solvent vent	052
split	024 073
splitless	002 003 004 007 014 050 064

GC Detector	laboratory number
ECD	014 050
MS	003 004 007 014 022 024 026 050 077 078
MSD	053
MS-MS	002 045 064 073
NPD	050
TOF-MS	052

HPLC Column Packing	laboratory number
C18	001 005 018 020 022 023 024 033 041 043 044 046 047 049 058 062 063 064 071 072 073
C8	026 031
endcapped	024 033 050
UPLC BEH C18	012
Zorbax eclipsed + C18	038

HPLC Guard Column Used?	laboratory number
yes	001 005 018 020 023 024 031 041 043 044 047 052 058 062 072 073
no	012 022 026 033 038 046 049 050 063 064 071 078

Mobile Phase Programme	laboratory number
gradient	001 005 012 018 020 022 023 024 026 031 033 038 041 043 044 046 047 049 050 052 058 062 063 064 071 072 073 078

Mobile Phase Components	laboratory number
acetate	012 022
acetic acid	022 043 047
acetonitrile	022 044 046 058 062 063 078
ammonium acetate	047 049
ammonium formate	001 033 044
formic acid	001 020 024 044 046 049 058 063
methanol	001 005 012 018 023 024 026 031 033 038 041 043 044 046 047 049 064 071 072 073
water	005 012 018 022 023 024 031 033 038 041 046 047 058 062 064 072 073 078

HPLC Column Temperature (°C)	laboratory number
ambient	018 020 031 041 063 071 072
>ambient - <50	001 005 012 022 023 024 026 033 043 044 046 047 049 058 062 064 073 078
≥50	038

HPLC Injection Volume (µL)	laboratory number
<5	005 012 018 026 033 038 062 078
≥5 - <10	020 023 024 046 071
≥10 - <25	041 043 044 058 063 064 073
≥25 - <50	001 022 031 047 049
≥100 - <150	072

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	020 023 044 062 072 073
≥0.25 - <0.75	001 005 012 018 022 024 026 031 033 038 041 043 046 049 058 063 064 071 078
≥0.75 - <1.25	047

HPLC Detector Type	laboratory number
MS	031
MS-MS	001 005 012 018 020 022 023 024 026 033 038 041 043 044 046 047 049 058 062 063 064 071 072 073 078

Pyrimethanil

Accredited Method Used	laboratory number
yes	001 002 003 004 005 006 007 012 013 014 017 018 020 023 026 031 033 038 041 043 044 045 047 050 052 053 058 059 061 062 064 066 068 071 072 073 077 078
no	010 024 046 049

Sample Weight (g)	laboratory number
≥5 - <10	018 023 024 026 033 049 062 064 071 078
≥10 - <25	002 003 004 006 007 010 012 014 017 020 038 041 043 044 045 046 047 050 052 053 058 059 061 066 068 072 073 077
≥25 - <50	001 005
≥50	013 031

Extraction Solvent Components	laboratory number
acetic acid	002 058
acetone	007 014 031 068 077
acetonitrile	002 003 004 006 010 013 017 018 023 024 026 033 038 041 043 045 046 047 049 052 053 058 059 061 071 072 078
dichloromethane	014
ethyl acetate	001 005 012 020 044 062 064 066 073
methanol	050
petroleum ether/spirit	014
water	050

Extraction Technique Used	laboratory number
cold solvent extraction at atmospheric pressure	001 002 004 005 006 010 012 014 018 023 024 026 033 038 044 046 047 049 050 052 058 061 062 068 071 072 073 077 078
hot solvent extraction at atmospheric pressure (e.g. Soxhlet)	043
solvent extraction	045
solvent extraction at increased pressure/PLE	066

Extraction pH Adjusted	laboratory number
yes	002 004 005 012 014 018 024 033 038 041 045 053 061 073 078
no	001 003 006 007 010 013 017 020 023 026 031 043 044 046 047 049 050 052 058 059 062 066 068 071 072 077

Sample Clean-up Technique	laboratory number
carbon based column	005 013
liquid/liquid extraction with Chemelut	050
extraction	058 073
filter	058
GPC/HPGPC	066
liquid/liquid extraction	007 031 077
MgSO ₄ , PSA	053
NH ₂ /aminopropyl column	013
PSA	018
QuEChERS	003 053 059
solid phase extraction (SPE) (column/cartridge)	010 012 013 062 071 078
solid phase extraction (SPE) (dispersive)	002 003 004 006 017 023 026 033 038 041 043 045 046 047 049 052 061 072
none	001 014 024 059 064 068

SPE Sorbent Type	laboratory number
diatomaceous earth	050
Envicarb/GCB	012 013 062
GCB/PSA/MgSO ₄	026

SPE Sorbent Type (continued)	laboratory number
NHY	045 078
PSA	002 003 004 006 010 017 023 033 038 041 043 046 047 049 052 061 072
silica	068 071
none	053

Certified Standards Used	laboratory number
yes	001 002 003 004 006 007 010 012 013 014 017 018 020 023 024 026 031 033 038 041 043 044 046 047 049 050 052 053 058 059 062 064 066 068 071 072 073 077 078
no	005 045 061

MS Confirmation	laboratory number
yes	001 002 003 004 005 006 010 012 013 014 017 018 020 023 024 026 031 033 038 041 044 045 046 047 049 050 052 053 058 059 061 062 064 066 068 071 072 073 077 078
no	007 043

Calibrations	laboratory number
matrix-matched	001 002 003 004 005 006 007 012 013 014 017 018 023 024 026 033 038 041 044 045 046 047 049 050 052 058 062 066 073 078
multi-level	002 003 004 006 010 012 013 014 017 020 031 043 044 045 046 049 050 052 053 058 059 061 062 064
single-level	047 068 071 077
solvent	043 050 061
standard addition	052 072

Source of Standards	laboratory number
ACOS	050
ChemService	003 013
Dr Ehrenstorfer	001 002 004 010 012 014 018 020 023 024 026 031 033 038 041 043 047 053 059 061 062 064 068 071 072 073 077

Source of Standards (continued)	laboratory number
Fluka	004
Neochema	043
Restek	017
Riedel de Haën	046
Sigma/Aldrich	004 033 044 049 052 058
US EPA Repository	006

Is Quoted Percentage Recovery Measured in Same Analytical Batch as Test Material?	laboratory number
yes	002 003 004 006 007 010 012 013 014 018 020 023 024 026 031 033 038 041 043 045 046 049 050 052 053 059 062 064 072 073 077 078
no	001 017 047 058 061 066 068 071

If Measured in the same Batch, When was the Spike Added	laboratory number
prior to extraction	002 003 004 006 007 010 012 013 014 018 020 023 024 026 031 033 038 041 043 045 046 049 050 052 053 059 062 064 066 072 073 077 078

Ratio of Isomers	laboratory number
20%	013

Level of Spike (µg/kg)	laboratory number
<25	006 012 013 017 020 023 031 033 038 041 045 046 062 066
≥25 - <50	014 023 024 062 072
≥50 - <100	002 007 010 023 026 053 064 068 073 078
≥100 - <150	004 018 043 049 050 052 059
≥150 - <200	071
≥200 - <250	003 023 077
≥500	023

Composition of Blank Commodity used for Spiking	laboratory number
cucumber blank provided	004 007 014 017 020 023 024 033 038 041 043 045 049 053 062 064 071 077
cucumber test material provided	010 018 026 050 059 072
cucumber	002 003 006 012 031 046 052
rice	066
in house	013

GC Column Type	laboratory number
capillary	001 003 004 005 007 010 014 020 024 026 031 038 041 044 052 053 059 061 062 064 066 068 073 077 078

GC Column Packing	laboratory number
14% cyanopropylphenyl 86% methyl polysiloxane	003
50% methyl 50% phenyl polysiloxane	066
65% methyl 35% phenyl polysiloxane	004
95% methyl 5% phenyl polysiloxane	001 005 007 014 024 026 031 038 041 044 052 053 059 061 062 068 073 077
100% methyl polysiloxane	020

GC Injection Volume (µL)	laboratory number
<1	078
≥1 - <2	007 010 031 038 061 062 066 068 073 077
≥2 - <5	001 003 004 014 053
≥5 - <10	020 024 041 059 064
≥10	005 026 044 052

GC Injection Mode	laboratory number
cold injection system	053
PTV	001 005 010 026 044 059 077
solvent vent	052
split	024 050 073
splitless	003 004 007 014 020 031 038 061 062 066 068 078

GC Detector	laboratory number
MS	003 004 005 007 010 014 024 026 031 038 050 061 062 066 068 077 078
MSD	053
MS-MS	001 020 041 044 050 059 064 073
NPD	014 031
TOF-MS	052

HPLC Column Packing	laboratory number
C18	002 006 017 018 023 024 033 043 045 046 047 049 058 059 071 072 073
C18 X-Terra type	013
C8	026
endcapped	024 033 050
Silica	050
UPLC BEH C18	012

HPLC Guard Column Used?	laboratory number
yes	006 017 018 023 024 043 047 050 052 058 059 072 073
no	002 012 013 026 033 041 045 046 049 071

Mobile Phase Programme	laboratory number
isocratic	041
gradient	002 006 012 013 017 018 023 024 026 033 043 045 046 047 049 050 052 058 059 071 072 073

Mobile Phase Components	laboratory number
acetate	012 059
acetic acid	043 047
acetonitrile	006 045 046 058
ammonium acetate	047 049

Mobile Phase Components (continued)	laboratory number
ammonium formate	033
ammonium formate buffer pH3	050
formic acid	006 017 024 045 046 049 058
methanol	002 012 013 017 018 023 024 026 033 043 046 047 049 050 071 072 073
water	002 006 012 013 017 018 023 024 033 045 046 047 058 072 073

HPLC Column Temperature (°C)	laboratory number
ambient	013 018 059 071 072
>ambient - <50	002 006 012 017 023 024 026 033 043 045 046 047 049 058 073
≥50	050

HPLC Injection Volume (µL)	laboratory number
<5	012 018 026 033 045
≥5 - <10	013 017 023 024 046 059 071
≥10 - <25	002 006 043 050 058 073
≥25 - <50	047 049
≥100 - <150	072

Mobile Phase Flow Rate (mL/min)	laboratory number
<0.25	023 045 050 059 072 073
≥0.25 - <0.75	006 012 017 018 024 026 033 043 046 049 058 071
≥0.75 - <1.25	002 013 047

HPLC Detector Type	laboratory number
MS-MS	002 006 012 013 017 018 023 024 026 033 041 043 045 046 047 049 050 058 059 071 072 073

APPENDIX II: FAPAS SecureWeb, Reports and Protocol

1. FAPAS SECUREWEB

Access to the secure area of our website is only available to participants in our proficiency tests. Please contact us if you require a UserID and Password. FAPAS SecureWeb allows participants to:

- Obtain their laboratory numbers for the proficiency tests in which they have participated.
- View the results they submitted in past and current proficiency tests.
- Submit their results and methods for current tests.
- Review future tests they have ordered.
- Order proficiency tests and quality control materials, including surplus test materials from the batch used in this proficiency test.
- Freely download copies of reports, in Acrobat PDF format, of proficiency tests in which they have participated.

2. REPORTS

The Acrobat PDF version of this report is available to all participants as a free download from FAPAS SecureWeb.

A printed and bound version of this report can be purchased, please contact FAPAS for current pricing.

3. PROTOCOL

The Protocols [1, 2] set out how FAPAS® is organised. Copies can be downloaded from our website.

4. QUALITY SYSTEMS

FAPAS® is accredited by UKAS as complying with the requirements of ISO/IEC Guide 43 - 1: 1997, through assessment against ILAC Guide G13:2007.

The Food and Environment Research Agency is an ISO 9001 certified organisation.



5. CONTACT DETAILS

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