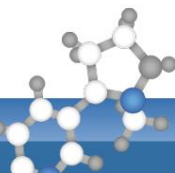EURL-SRM

EU Reference Laboratories for Residues of Pesticides

Single Residue Methods

EU PROFICIENCY TEST
EUPT-SRM13, 2018

Residues of Pesticides
Requiring Single Residue Methods
Test Item: Soybean Flour

Preliminary Report

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June 2018

General Remark

- **Please note that all assigned values, CV*s and z-scores presented in the following are <u>preliminary</u>.**
  The final report on the EUPT-SRM13 will be drafted following the joint EURL/NRL-Workshop and the evaluation of the results by the EUPT-Scientific Committee.

- **All labs are kindly asked to check their results carefully and to report any errors.**
- **Please note that only transcription errors by the organizers can be considered at this stage.**
- **Labs with questionable or unacceptable results (individual absolute z-scores > 2) as well as labs with false negative or false positive results are requested to give a feedback about any actions undertaken to find out the reasons for their poor performance via e-mail by <u>06 July, 2018</u>.**

Background

The proficiency test EUPT-SRM13 was conducted using organic flour of whole soybeans produced in Austria. The test item was prepared by spiking the soybeans flour with the following 15 compounds dissolved in standard solutions: Bromide ion, cyromazine, fluazifop, glyphosate, haloxyfop, mepiquat, 2,4-DB, diquat, glufosinate, MPP, N-acetyl-glyphosate, perchlorate, phsophine, phosphonic acid, and quizalofop. In addition soybean flour containing phosphine was mixed into the test item. This phosphine-containing soybean flour was produced from organic soybeans that were fumigated with phosphine in an industrial facility.

In addition, a second test item material ("PH3-Sample") was distributed in Falcon tubes only to laboratories indicating their intention to analyse for phosphine within this EUPT.

Following spiking, homogenisation, portioning, freezing and cryo-milling, portions of approx. 200 g of the test item and blank were bottled and distributed deeply frozen in insulated boxes containing gel packs to the participating laboratories on 23 April, 2018.

Using an online submission tool the participants had the possibility to submit their results by 30 May, 2018, as well as the requested information about the analytical methods employed by 15 June, 2018.

10 bottles of the test item were selected randomly and tested for homogeneity. Furthermore, the stability of the test material was checked during a period covering the EUPT duration.

6 of the compounds present in the test item (bromide ion, cyromazine, fluazifop, glyphosate, haloxyfop, mepiquat) were classified as "**compulsory compounds**" and will be considered in the scope-based lab classification into Categories A and B. The other 10 compounds present in the test item (2,4-DB, diquat, glufosinate, MPP, N-acetyl-glyphosate, perchlorate, phsophine, phosphonic acid, and quizalofop and phosphine in PH3-sample) were declared as "**optional compounds**" and will not be considered in the scope-based lab classification, but will still be evaluated as far as the quantitative and qualitative results are concerned (z-scores, false positives, false negatives).

For the calculation of the **preliminary assigned values** only the results of the participating 109 OfLs[1] from EU member states and EFTA countries were considered with exception of phosphine. In the case of phosphine the two preliminary assigned values were based on the entire population of labs submitting results for this compound.

It is noted that in order to have sufficient results for evaluation of phosphine, a few private laboratories were exceptionally invided to participate in the present PT. These private labs were also allowed to report results also for any of the other pesticides in the target pesticides list if they wish.

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[1] These are labs performing official food controls on pesticides as well as official import controls ("669-Labs") or official organic food controls ("889-Labs")

Results

In total 109 participating labs from EU and EFTA countries, 2 OfLs from an EU candidate country and 8 laboratories from third countries submitted results of at least one compound.

Five results were **preliminarily judged as false positives**: AMPA (2x), ethephon (1x), N-acetyl-glufosinate (1x) and paraquat (1x). In cases where the reported concentration of a compound not present in the Test Item was lower than the respective MRRL the results were preliminarily not judged as false positives. This concerned carbofuran, chlorate and AMPA in one case each.

16 labs reported in 29 cases results that were **preliminarily judged as false negatives**. These concerned cases where compounds present in the test item were analysed by the labs, but not detected. For these results z-scores were calculated using the corresponding MRRL in the target pesticide list or the RL, if this was lower. The false negative results concerned N-acetyl-glyphosate (5x), quizalofop (4x), 2,4-DB, gylufosinate ande 2,4-DB (each 3x), fluazifop, mepiquat and perchlorate (each 2x) as well as bromide ion, cyromazine, diquat, hyloxyfop and MPP (each 1x).

Please note that the final judgement on false positive and false negative results will be done in the final report following consultation with the EUPT-Scientiffic Committee.

All submitted results on pesticides incurred and spiked to the test material are shown in Table 1 for the "compulsory compounds" and Table 2 for the "optional compounds". The preliminary false positive results are shown in Table 3.

Since the robust standard deviation of diquat and phosphine were very high, the z-scores calculated for these analytes are currently considered uncertain and are therefore displayed in italic letters. A re-evaluation following differentiation between methods may follow.

Results preliminarily judged as false negatives are marked in the tables with the abbreviation FN. Empty cells in the tables correspond to "not analysed" compounds.

The tables also contain the results of the participating laboratories from 3rd countries and EU candidate countries and exceptionally also of the participating private laboratories. In all these cases the z-scores were calculated using the same assigned values as for the EU and EFTA labs.

Table 1: Results for <u>compulsory</u> compounds in EUPT-SRM13 reported (z-scores were calculated using preliminary assigned values)

Pesticide	Bromide ion		Cyromazine		Fluazifop		Glyphosate		Haloxyfop		Mepiquat	
MRRL [mg/kg]	2		0.01		0.01		0.03		0.003		0.01	
AV [mg/kg]	15.3		0.097		0.049		0.903		0.017		0.124	
CV* [mg/kg]	24.0%		23.5%		20.3%		22.6%		20.4%		22.9%	
No. Numerical Results[‡] / No. FN[‡]	65 / 1		83 / 1		87 / 2		89 / 0		84 / 1		88 / 2	
Test No.	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
1	20.5	1.3			0.0534	0.3	0.922	0.1	0.0159	-0.2	0.123	0.0
2	15.5	0.0	FN	-3.6	0.052	0.2	0.631	-1.2	0.014	-0.7	FN	-3.7
3			0.0818	-0.6	0.0463	-0.2			0.0147	-0.5		
4	18.5	0.8	0.100	0.1	0.0718	1.8	0.926	0.1	0.016	-0.2	0.124	0.0
5					0.0473	-0.2	0.4327	-2.1	0.0241	1.7	0.0829	-1.3
6	14.6	-0.2	0.107	0.4	0.0485	-0.1	0.950	0.2	0.0127	-1.0	0.115	-0.3
7			0.113	0.7	0.0335	-1.3			0.0157	-0.3		
8	16.4	0.3	0.111	0.6	0.0466	-0.2	0.924	0.1	0.0151	-0.4	0.120	-0.1
9												
10	14.8	-0.1	0.0464	-2.1	0.0213	-2.3	0.999	0.4	0.0151	-0.4	0.110	-0.4
11	14.3	-0.3	0.102	0.2	0.0539	0.4	1.120	1.0	0.0177	0.2	0.0959	-0.9
12	12.8	-0.7	0.100	0.1	0.052	0.2	1.040	0.6	0.017	0.0	0.154	1.0
13	17.8	0.6	0.230	5.5	0.038	-0.9	1.060	0.7	0.0139	-0.7	0.301	5.7
14	14.8	-0.1	0.112	0.6	0.0701	1.7	0.821	-0.4	0.0181	0.3	0.120	-0.1
15	12.1	-0.8	0.0997	0.1	0.0632	1.1	0.733	-0.8	0.0181	0.3	0.128	0.1
16	19.3	1.0	0.072	-1.0	0.062	1.0	1.170	1.2	0.019	0.5	0.131	0.2
17			0.0848	-0.5	0.0426	-0.5	0.615	-1.3	0.0182	0.3		
18												
19	20.3	1.3	1.180	44.7	0.068	1.5	1.220	1.4	0.017	0.0	1.330	39.0
20	16.5	0.3	0.101	0.2	0.0422	-0.6	0.969	0.3	0.0144	-0.6	0.149	0.8
21	14.3	-0.3			0.048	-0.1	0.839	-0.3	0.016	-0.2	0.147	0.7
22	16.4	0.3	0.0772	-0.8	0.0406	-0.7	1.050	0.7	0.0147	-0.5	0.132	0.3
23					0.052	0.2	1.020	0.5	0.017	0.0	0.138	0.5
24			0.121	1.0	0.065	1.3	1.000	0.4	0.021	1.0	0.167	1.4
25	18.7	0.9	0.118	0.9	0.052	0.2			0.019	0.5	0.125	0.0
26	15.0	-0.1	0.085	-0.5	0.032	-1.4	0.650	-1.1	0.011	-1.4	0.160	1.2
27	17.3	0.5	0.084	-0.5	0.046	-0.3	1.020	0.5	0.010	-1.6	0.150	0.8
28					0.0565	0.6						
29	23.6	2.1	0.080	-0.7	0.072	1.8	0.893	0.0	0.015	-0.4	0.089	-1.1
30	12.9	-0.6	0.114	0.7	0.049	0.0	1.040	0.6	0.049	7.6	0.149	0.8
31	18.0	0.7	0.075	-0.9	0.049	0.0	0.959	0.2	0.016	-0.2	0.108	-0.5
32			0.0842	-0.5	0.0455	-0.3	1.020	0.5	0.0157	-0.3	0.118	-0.2
33	11.3	-1.1	0.092	-0.2	0.0531	0.3	0.883	-0.1	0.017	0.0	0.118	-0.2
34	9.89	-1.4	0.105	0.3	0.047	-0.2	0.779	-0.5	0.016	-0.2	0.088	-1.2
35			0.040	-2.3	0.037	-1.0	1.230	1.4	0.011	-1.4	0.151	0.9
36			0.0786	-0.8	0.0496	0.0	0.721	-0.8	0.0171	0.1	0.0841	-1.3
37	16.4	0.3	0.087	-0.4	0.057	0.6	1.290	1.7	0.022	1.2	0.150	0.8
38					0.0483	-0.1					0.131	0.2
39							0.983	0.4				

Table 1: Results for _compulsory_ compounds in EUPT-SRM13 reported (z-scores were calculated using preliminary assigned values)

Pesticide	Bromide ion		Cyromazine		Fluazifop		Glyphosate		Haloxyfop		Mepiquat	
MRRL [mg/kg]	2		0.01		0.01		0.03		0.003		0.01	
AV [mg/kg]	15.3		0.097		0.049		0.903		0.017		0.124	
CV* [mg/kg]	24.0%		23.5%		20.3%		22.6%		20.4%		22.9%	
No. Numerical Results[‡] / No. FN[‡]	65 / 1		83 / 1		87 / 2		89 / 0		84 / 1		88 / 2	
Test No.	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
40							1.090	0.8				
41					0.0686	1.6	1.170	1.2	0.0226	1.4		
42			0.075	-0.9	0.038	-0.9			0.014	-0.7	0.111	-0.4
43							0.794	-0.5				
44							1.989	4.8				
45	15.9	0.1	0.186	3.7	0.022	-2.2	0.736	-0.7	0.020	0.7	0.141	0.6
46	15.1	-0.1	0.106	0.4	0.047	-0.2	0.912	0.0	0.016	-0.2	0.095	-0.9
47												
48	32.6	4.5	0.0792	-0.7	0.0538	0.4	0.713	-0.8	0.0198	0.7	0.155	1.0
49	21.9	1.7	0.058	-1.6	0.033	-1.3	0.756	-0.7	0.019	0.5	0.655	17.2
50	17.1	0.5	0.0988	0.1	0.0472	-0.2	1.310	1.8	0.0192	0.6	0.124	0.0
51	17.1	0.5	0.097	0.0			0.970	0.3			0.122	-0.1
52	16.2	0.2	0.101	0.2	0.052	0.2	0.794	-0.5	0.018	0.3	0.115	-0.3
53			0.100	0.1	0.039	-0.8					0.096	-0.9
54	15.8	0.1	0.092	-0.2	0.044	-0.4	1.210	1.4	0.014	-0.7	0.126	0.1
55	12.9	-0.6	0.110	0.5	0.052	0.2	0.667	-1.0	0.019	0.5	0.133	0.3
56	13.1	-0.6	0.119	0.9	0.0613	1.0	0.916	0.1	0.023	1.5	0.103	-0.7
57			0.104	0.3							0.148	0.8
58							0.867	-0.2				
59												
60			0.117	0.8	0.0507	0.1	0.772	-0.6	0.0137	-0.7	0.120	-0.1
61			0.116	0.8	0.052	0.2	0.987	0.4	0.017	0.0	0.142	0.6
62	20.0	1.2	0.0446	-2.2	0.0413	-0.6			0.0117	-1.2		
63	13.6	-0.4	0.103	0.3	0.053	0.3	0.680	-1.0	0.0155	-0.3	0.021	-3.3
64							0.751	-0.7				
65	FN	-3.5	0.073	-1.0	0.054	0.4	0.650	-1.1	0.018	0.3	0.115	-0.3
66					0.054	0.4			0.023	1.5	FN	-3.7
67	14.1	-0.3	0.0379	-2.4	0.0345	-1.2	1.090	0.8			0.108	-0.5
68	13.7	-0.4	0.143	1.9	0.043	-0.5			0.0058	-2.6	0.173	1.6
69	13.7	-0.4	0.095	-0.1	0.047	-0.2	0.849	-0.2	0.014	-0.7	0.107	-0.5
70							0.962	0.3			0.128	0.1
71			0.0996	0.1	0.0516	0.2	0.788	-0.5	0.014	-0.7	0.112	-0.4
72	14.1	-0.3	0.0894	-0.3	0.0431	-0.5	0.896	0.0	0.0164	-0.1	0.093	-1.0
73			0.220	5.1	0.074	2.0	0.833	-0.3	0.022	1.2	0.127	0.1
74	4.29	-2.9	0.0472	-2.1	0.0431	-0.5	0.560	-1.5	0.0168	0.0	0.133	0.3
75												
76			0.0716	-1.0	0.0287	-1.7	0.690	-0.9	0.0166	-0.1	0.0657	-1.9
77			0.084	-0.5							0.122	-0.1
78	12.4	-0.8	0.045	-2.1	0.055	0.5	0.722	-0.8	0.025	1.9	0.109	-0.5

Table 1: Results for _compulsory_ compounds in EUPT-SRM13 reported (z-scores were calculated using preliminary assigned values)

Pesticide	Bromide ion		Cyromazine		Fluazifop		Glyphosate		Haloxyfop		Mepiquat	
MRRL [mg/kg]	2		0.01		0.01		0.03		0.003		0.01	
AV [mg/kg]	15.3		0.097		0.049		0.903		0.017		0.124	
CV* [mg/kg]	24.0%		23.5%		20.3%		22.6%		20.4%		22.9%	
No. Numerical Results[‡] / No. FN[‡]	65 / 1		83 / 1		87 / 2		89 / 0		84 / 1		88 / 2	
Test No.	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
79	12.5	-0.7	0.094	-0.1	0.050	0.1	1.182	1.2	0.015	-0.4	0.110	-0.4
80					0.062	1.0	2.300	6.2	0.025	1.9	0.131	0.2
81												
82	17.0	0.4	0.096	0.0								
83	3.00	-3.2	0.104	0.3	0.047	-0.2	0.480	-1.9	0.016	-0.2	0.028	-3.1
84			0.120	1.0	0.069	1.6			0.017	0.0		
85	9.00	-1.7	0.132	1.4	0.038	-0.9			0.020	0.7	0.185	2.0
86			0.116	0.8	0.0538	0.4	0.896	0.0	0.0236	1.6	0.165	1.3
87			0.0898	-0.3	0.0451	-0.3	0.692	-0.9	0.017	0.0	0.111	-0.4
88	16.9	0.4	0.0263	-2.9	0.048	-0.1	1.100	0.9	0.014	-0.7	0.104	-0.6
89	16.5	0.3	0.081	-0.7	0.051	0.1	0.931	0.1	0.015	-0.4	0.075	-1.6
90					FN	-3.6						
91	12.4	-0.8	0.108	0.5	0.0579	0.7	1.010	0.5	0.0142	-0.6	0.149	0.8
92	12.9	-0.6	0.115	0.7	0.0403	-0.7	0.967	0.3	0.014	-0.7	0.137	0.4
93	13.0	-0.6	0.111	0.6	0.055	0.5	0.820	-0.4	0.018	0.3	0.150	0.8
94	18.5	0.8										
95											0.121	-0.1
96			0.0895	-0.3	0.058	0.7	0.954	0.2	0.0166	-0.1	0.0986	-0.8
97	27.9	3.3	0.102	0.2	0.048	-0.1	0.832	-0.3	0.019	0.5	0.027	-3.1
98	11.6	-1.0	0.084	-0.5	0.054	0.4	0.859	-0.2	0.018	0.3	0.125	0.0
99											0.115	-0.3
100	16.3	0.2			0.049	0.0			0.019	0.5		
101			0.101	0.2	0.025	-2.0	1.038	0.6	0.009	-1.9	0.198	2.4
102	7.82	-2.0										
103							13.500	55.8				
104	23.0	2.0	0.075	-0.9	0.025	-2.0	0.678	-1.0	0.012	-1.2	0.110	-0.4
105	10.3	-1.3	0.088	-0.4	0.041	-0.7	0.366	-2.4	0.0071	-2.3	0.190	2.1
106			0.940	34.8			0.930	0.1			0.100	-0.8
107					0.060	0.9	0.930	0.1	0.020	0.7	0.090	-1.1
108												
109			0.168	2.9	0.0451	-0.3	0.824	-0.3	0.0199	0.7	0.122	-0.1
110							0.550	-1.6			0.143	0.6
111	19.9	1.2									0.089	-1.1
112	12.0	-0.9	0.120	1.0	0.060	0.9	0.850	-0.2	0.020	0.7	0.117	-0.2
113												
114												
3rd-115			0.087	-0.4			1.070	0.7	FN	-3.3	0.123	0.0
3rd-116	12.9	-0.6	0.070	-1.1			0.600	-1.3	0.007	-2.3	0.110	-0.4
3rd-117	15.8	0.1	0.0689	-1.2	0.0433	-0.5	0.175	-3.2	0.0119	-1.2	0.152	0.9

Table 1: Results for <u>compulsory</u> compounds in EUPT-SRM13 reported (z-scores were calculated using preliminary assigned values)

Pesticide	Bromide ion		Cyromazine		Fluazifop		Glyphosate		Haloxyfop		Mepiquat	
MRRL [mg/kg]	2		0.01		0.01		0.03		0.003		0.01	
AV [mg/kg]	15.3		0.097		0.049		0.903		0.017		0.124	
CV* [mg/kg]	24.0%		23.5%		20.3%		22.6%		20.4%		22.9%	
No. Numerical Results[‡] / No. FN[‡]	65 / 1		83 / 1		87 / 2		89 / 0		84 / 1		88 / 2	
Test No.	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
3rd-118	14.4	-0.2	0.0831	-0.6	FN	-3.2	0.715	-0.8				
3rd-119					0.0407	-0.7						
3rd-120							0.900	0.0				
3rd-121							0.919	0.1				
3rd-122	16.8	0.4	0.147	2.1			0.903	0.0	0.019	0.5	0.270	4.7
Private-123	16.6	0.3	0.104	0.3	0.0424	-0.6	1.050	0.7			0.140	0.5
Private-124			0.0871	-0.4	0.0546	0.4	0.980	0.3	0.0208	0.9	0.129	0.2
Private-125												
Private-126							0.911	0.0	0.022	1.2	0.050	-2.4
Private-127												
Private-128	16.3	0.2	0.055	-1.7	0.056	0.5	0.890	-0.1	0.018	0.3	0.117	-0.2
Private-129												
Private-130			0.210	4.7	0.110	4.9	1.600	3.1	0.034	4.1	0.140	0.5
Private-131												
Private-132												
Private-133	32.3	4.4	0.099	0.1	0.045	-0.3	0.639	-1.2	0.017	0.0	0.028	-3.1

[‡] including results from EU/EFTA countries, an EU candidate country and 3rd countries

Table 2: Results for <u>optional</u> compounds in EUPT- SRM13 reported (z-scores were calculated using preliminary assigned values.)

Pesticide	2,4-DB		Diquat		Glufosinate		MPP		N-Acetyl-Glyphosate		Perchlorate		Phosphonic acid		Quizalofop		Phsophine (Test Item)		Phosphine (PH3-Sample)	
MRRL	0.01		0.02		0.02		0.02		0.02		0.01		0.05		0.01		0.005		0.005	
AV	0.183		1.701 (uncertain)		0.192		0.188		0.835		0.100		1.864		0.052		0.092 (uncertain)		0.040 (uncertain)	
CV	20.7%		52.8%		28.7%		18.9%		21.1%		16.9%		24.3%		23.6%		93.1%		74.8%	
No. Numerical Results[‡] / No. FN[‡]	52 / 3		32 / 1		46 / 3		24 / 1		18 / 5		53 / 2		42 / 3		60 / 4		18* / 0*		18* / 0*	
TestNr	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
1	0.231	1.0	1.2	-1.2											0.0	-0.5				
2	0.174	-0.2	2.94	2.9	0.137	-1.1					FN	-3.6	0.142	-3.7	0.083	2.4				
3	0.146	-0.8													0.054	0.2				
4			0.187	-0.1					0.862	0.1	0.101	0.1	2.38	1.1	0.0572	0.4				
5											0.0842	-0.6								
6											0.115	0.6	1.973	0.2						
7	0.1557	-0.6													0.0395	-1.0				
8	0.156	-0.6							0.644	-0.9	0.113	0.5			0.0377	-1.1				
9																				
10											0.0996	0.0	0.902	-2.1						
11	0.225	0.9									0.0915	-0.3	FN	-3.9			0.015	-3.3	0.016	-2.4
12	0.160	-0.5							0.803	-0.2					0.055	0.2				
13	0.285	2.2	7.59	13.8	0.194	0.1	0.215	0.6	0.784	-0.2	0.109	0.4	2.36	1.1	0.0557	0.3				
14	0.192	0.2	1.39	-0.7	0.131	-1.3					0.104	0.2	1.59	-0.6	0.0512	-0.1	0.0181	-3.2	0.0211	-1.9
15					0.261	1.4	0.173	-0.3	0.613	-1.1	0.0726	-1.1	2.01	0.3						
16	0.219	0.8			0.286	2.0					0.093	-0.3	1.6	-0.6	0.066	1.1	0.016	-3.3	0.013	-2.7
17					0.069	-2.6					0.0763	-0.9	1.94	0.2	0.0546	0.2	0.122	1.3	0.047	0.7
18																				
19	0.232	1.1													0.065	1.0				
20	0.157	-0.6									0.0968	-0.1			0.0437	-0.6				
21			0.529	-2.8					0.863	0.1					0.043	-0.7				
22	0.200	0.4			0.198	0.1														
23	0.200	0.4													0.056	0.3				
24	0.190	0.2													0.059	0.5				
25																				
26	0.140	-0.9			0.160	-0.7					0.16	2.4	2.2	0.7	0.023	-2.2				
27			2.44	1.7	0.240	1.0	0.17	-0.4			0.12	0.8	1.623	-0.5	0.03	-1.7				
28																				
29															0.071	1.5				
30	0.203	0.4	1.35	-0.8	0.189	-0.1	0.189	0.0	1.18	1.7	0.093	-0.3	2.05	0.4	0.062	0.8				
31			0.878	-1.9							0.092	-0.3	1.47	-0.8						
32	0.142	-0.9	1.59	-0.3							0.096	-0.1	1.98	0.2	0.0515	0.0	0.0827	-0.4	0.0455	0.6
33	0.218	0.8			0.180	-0.2					0.097	-0.1	1.91	0.1	0.061	0.7				
34	0.176	-0.2	1.979	0.7	0.201	0.2	0.181	-0.1	16.685	76.0	0.089	-0.4	1.982	0.3	0.058	0.5	0.127	1.5	0.069	2.9
35	0.131	-1.1	1.563	-0.3	0.183	-0.2	0.307	2.5			0.048	-2.1	1.278	-1.3	0.037	-1.1				
36	0.197	0.3	0.742	-2.3	0.154	-0.8	0.171	-0.4	0.733	-0.5	0.0728	-1.1	1.65	-0.5	0.0505	-0.1				
37					0.240	1.0	0.19	0.0			0.11	0.4	2.04	0.4						

Table 2: Results for <u>optional</u> compounds in EUPT- SRM13 reported (z-scores were calculated using preliminary assigned values.)

Pesticide	2,4-DB		Diquat		Glufosinate		MPP		N-Acetyl-Glyphosate		Perchlorate		Phosphonic acid		Quizalofop		Phsophine (Test Item)		Phosphine (PH3-Sample)	
MRRL	0.01		0.02		0.02		0.02		0.02		0.01		0.05		0.01		0.005		0.005	
AV	0.183		1.701 (uncertain)		0.192		0.188		0.835		0.100		1.864		0.052		0.092 (uncertain)		0.040 (uncertain)	
CV	20.7%		52.8%		28.7%		18.9%		21.1%		16.9%		24.3%		23.6%		93.1%		74.8%	
No. Numerical Results[‡] / No. FN[‡]	52 / 3		32 / 1		46 / 3		24 / 1		18 / 5		53 / 2		42 / 3		60 / 4		18* / 0*		18* / 0*	
TestNr	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
38											0.102	0.1			0.0499	-0.2				
39																				
40																				
41	0.217	0.7			0.230	0.8	0.159	-0.6	0.743	-0.4			7.5	12.1	0.0713	1.5				
42															0.052	0.0				
43																				
44					0.319	2.7					0.138	1.5								
45	0.194	0.2	2.62	2.2	0.240	1.0	1.08	19.0	FN	-3.9	0.143	1.7	1.17	-1.5	0.07	1.4				
46	0.182	0.0	5.07	7.9	0.174	-0.4	0.17	-0.4	0.71	-0.6	0.102	0.1	1.93	0.1	0.049	-0.2				
47															FN	-4.0				
48											0.0892	-0.4	2.07	0.4	0.0463	-0.4				
49	0.164	-0.4													0.057	0.4				
50	0.183	0.0									0.101	0.1	2.29	0.9						
51																				
52	0.216	0.7	3.116	3.3	0.205	0.3	0.225	0.8			0.11	0.4	1.84	-0.1	0.0504	-0.1				
53																				
54															0.04	-0.9				
55	FN	-3.8			FN	-3.6			FN	-3.9			1.4	-1.0	0.056	0.3				
56											0.098	-0.1			0.0596	0.6				
57											0.102	0.1								
58																				
59																				
60	0.176	-0.2			0.172	-0.4	0.165	-0.5			0.0925	-0.3			0.0502	-0.1				
61																				
62			0.864	-2.0	0.371	3.7					0.115	0.6	1.96	0.2	0.0568	0.4				
63	0.190	0.2	0.43	-3.0	0.700	10.6	0.156	-0.7	0.769	-0.3	0.033	-2.7	0.387	-3.2	0.044	-0.6				
64																				
65																				
66															FN	-3.2				
67					0.177	-0.3	0.173	-0.3			0.0825	-0.7	1.95	0.2	0.0301	-1.7				
68																				
69	0.234	1.1									0.193	3.7	1.86	0.0	0.046	-0.5				
70																				
71	0.155	-0.6	1.25	-1.1	0.203	0.2			0.977	0.7	0.117	0.7								
72	0.164	-0.4									0.0921	-0.3	1.75	-0.2	0.0486	-0.3				
73					0.152	-0.8														
74	0.139	-1.0																		

Table 2: Results for <u>optional</u> compounds in EUPT- SRM13 reported (z-scores were calculated using preliminary assigned values.)

Pesticide	2,4-DB		Diquat		Glufosinate		MPP		N-Acetyl-Glyphosate		Perchlorate		Phosphonic acid		Quizalofop		Phsophine (Test Item)		Phosphine (PH3-Sample)	
MRRL	0.01		0.02		0.02		0.02		0.02		0.01		0.05		0.01		0.005		0.005	
AV	0.183		1.701 (uncertain)		0.192		0.188		0.835		0.100		1.864		0.052		0.092 (uncertain)		0.040 (uncertain)	
CV	20.7%		52.8%		28.7%		18.9%		21.1%		16.9%		24.3%		23.6%		93.1%		74.8%	
No. Numerical Results[‡] / No. FN[‡]	52 / 3		32 / 1		46 / 3		24 / 1		18 / 5		53 / 2		42 / 3		60 / 4		18* / 0*		18* / 0*	
TestNr	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
75																				
76	0.174	-0.2	3.48	4.2	0.166	-0.5			FN	-3.9					0.0221	-2.3				
77																				
78					0.133	-1.2														
79	0.132	-1.1			0.105	-1.8									0.041	-0.8	0.123	1.4	0.057	1.7
80																				
81																				
82																				
83	0.190	0.2	1.5	-0.5	0.130	-1.3	0.15	-0.8	0.65	-0.9	0.023	-3.1	0.37	-3.2	0.055	0.2				
84																				
85	0.173	-0.2									0.102	0.1	FN	-3.9						
86	0.319	3.0	1.28	-1.0	0.224	0.7			0.979	0.7			2.13	0.6	0.0517	0.0				
87	0.146	-0.8									0.0679	-1.3			0.0508	-0.1				
88	0.180	-0.1			0.247	1.2	0.233	1.0			0.11	0.4	2.12	0.5	0.052	0.0				
89	0.167	-0.3	1.45	-0.6	FN	-3.6	0.162	-0.6	FN	-3.9	0.102	0.1	2.24	0.8	0.052	0.0				
90																				
91	0.134	-1.1					0.215	0.6	0.72	-0.5	0.106	0.3	0.688	-2.5	0.0547	0.2				
92			1.74	0.1	0.095	-2.0	0.19	0.0			0.101	0.1			0.0332	-1.4				
93	0.216	0.7	1.8	0.2	0.181	-0.2					0.14	1.6	2.4	1.1	0.068	1.2				
94																				
95																				
96															0.0613	0.7				
97	0.234	1.1	1.9	0.5	0.227	0.7	0.169	-0.4			0.099	0.0	FN	-3.9	0.063	0.9				
98	0.147	-0.8			0.199	0.2					0.102	0.1	2.45	1.3	0.054	0.2	0.13	1.7	0.067	2.7
99																				
100																				
101	0.104	-1.7	1.922	0.5	0.188	-0.1	0.617	9.1			0.335	9.5	2.133	0.6	0.023	-2.2				
102																				
103																				
104																				
105	0.193	0.2			FN	-3.6	0.066	-2.6	0.938	0.5	0.09	-0.4	1.67	-0.4	0.035	-1.3				
106													2.4	1.1						
107	0.160	-0.5	1.41	-0.7	0.230	0.8									0.1	3.7				
108																				
109	FN	-3.8	FN	-4.0	0.114	-1.6	FN	-3.6	FN	-3.9	FN	-3.6			0.045	-0.5				
110			0.768	-2.2							0.087	-0.5								
111											0.096	-0.1								

Table 2: Results for <u>optional</u> compounds in EUPT- SRM13 reported (z-scores were calculated using preliminary assigned values.)

Pesticide	2,4-DB		Diquat		Glufosinate		MPP		N-Acetyl-Glyphosate		Perchlorate		Phosphonic acid		Quizalofop		Phsophine (Test Item)		Phosphine (PH3-Sample)	
MRRL	0.01		0.02		0.02		0.02		0.02		0.01		0.05		0.01		0.005		0.005	
AV	0.183		1.701 (uncertain)		0.192		0.188		0.835		0.100		1.864		0.052		0.092 (uncertain)		0.040 (uncertain)	
CV	20.7%		52.8%		28.7%		18.9%		21.1%		16.9%		24.3%		23.6%		93.1%		74.8%	
No. Numerical Results[‡] / No. FN[‡]	52 / 3		32 / 1		46 / 3		24 / 1		18 / 5		53 / 2		42 / 3		60 / 4		18* / 0*		18* / 0*	
TestNr	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score	Conc. [mg/kg]	z-score
112	0.240	1.2	1.6	-0.2	0.185	-0.1	0.198	0.2	1.04	1.0	0.106	0.3	2.02	0.3	0.081	2.2	0.336	10.6	0.0931	5.4
113																	0.21	5.2	0.106	6.7
114																	0.105	0.6	0.038	-0.2
3rd-115	FN		1.11	-1.4	0.183	-0.2											FN			
3rd-116			0.27	-3.4	0.166	-0.5														
3rd-117	0.131	-1.1			0.166	-0.5														
3rd-118			0.913	-1.9													FN			
3rd-119	0.188	0.1																		
3rd-120					0.200	0.2														
3rd-121																				
3rd-122					0.223	0.7														
Private-123					0.186	-0.1											0.148	2.5	0.0545	1.5
Private-124	0.276	2.0	1.56	-0.3	0.199	0.2					FN				0.0695	1.4	0.538	19.5	0.0509	1.1
Private-125																	0.0465	-2.0	0.0178	-2.2
Private-126			0.483	-2.9	0.162	-0.6									0.048	-0.3				
Private-127																	0.0084	-3.6	0.0033	-3.7
Private-128	0.185	0.0	1.98	0.7	0.150	-0.9	0.16	-0.6			0.105	0.2	1.81	-0.1			0.025	-2.9	0.028	-1.2
Private-129																				
Private-130	0.380	4.3			0.150	-0.9	0.33	3.0			0.094	-0.2	FN		0.039	-1.0				
Private-131																	0.028	-2.8	0.0111	-2.9
Private-132																	0.007	-3.7	0.008	-3.2
Private-133	0.133	-1.1	0.381	-3.1	0.746	11.6	0.205	0.4	0.774	-0.3	0.103	0.1	1.35	-1.1	0.052	0.0				

‡ including results from EU/EFTA countries, an EU candidate country and 3rd countries; * including also results from private laboratories

Table 3: Potentially False Positive Results

Test No.	Analyte	MRRL [mg/kg]	RL [mg/kg]	Reported results [mg/kg] (cp. to MRRL)	Preliminary Judgement
7	Carbofuran	0.005		0.0028 (< MRRL)	not FP
41	Ethephon	0.02	0.01	0.368	FP
41	AMPA	0.05	0.01	0.078	FP
45	N-Acetyl-Glufosinate	0.02	0.02	1.26	FP
67	Chlorate	0.01	0.005	0.0043 (< MRRL)	not FP
98	AMPA	0.05	0.01	0.002 (< MRRL)	not FP
3rd-118	AMPA	0.05	0.05	0.0906	FP
3rd-118	Paraquat	0.02	0.05	0.495	FP