

CRL-EUROPEAN PROFICIENCY TEST FV-11, 2009

Incurred Residues of Pesticides in Cauliflower Homogenate

Final Report

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QCG: Quality Control Group
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CRL-EUROPEAN COMMISSION PROFICIENCY TEST 11
FOR THE DETERMINATION OF PESTICIDES IN FRUIT AND VEGETABLES USING
MULTIRESIDUE METHODS
2009

According to Article 28 of Regulation 396/2005/EC of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin¹, all laboratories analysing samples for the official controls on pesticide residues shall participate in the European Community Proficiency Tests (EUPTs) for pesticide residues organised by the Commission. These proficiency tests are carried out on an annual basis in order to ensure the quality, accuracy and comparability of the residue data reported by EU Member States to the European Commission as well as other Member States within the framework of co-ordinated and national monitoring and surveillance programs.

Regulation (EC) No 882/2004² lays down the general tasks, duties and requirements for Community Reference Laboratories (CRLs) for Food, Feed and Animal Health. Among these tasks is the provision of independently-organised comparative tests. The European Proficiency Test 11 has been organised by the CRL in Fruit and Vegetables at the University of Almería, Spain³.

Now that Regulation 396/2005 has fully come into force, participation in this European Proficiency Test 11 was mandatory for all National Reference Laboratories, as well as all other EU official laboratories involved in the determination of pesticide residues in fruit and vegetables for the EU-coordinated monitoring programme or for their own national programme. Additionally, laboratories from Iceland, Norway, Switzerland, Egypt, and Uruguay, who had been invited to take part in the previous test, again participated. Turkey participated in this test for the first time.

This report will be presented to the European Commission Standing Committee for Animal Health and the Food Chain. Furthermore, DG-SANCO has full access to all data of EUPTs including the lab-code/lab-name key.

¹ Regulation (EC) No 396/2005, published at OJ of the EU L70 of 16.03.2005, as last amended by Regulation 839/2008 published at OJ of the EU L234 of 30.08.2008.

² Regulation (EC) No 882/2004 of the European Parliament and of the Council on official controls performed to ensure compliance verification with feed and food law, animal health and animal welfare rules. Published at OJ of the EU L191 of 28.05.2004

³ Commission Regulation (EC) No 776/2006 of 23 May 2006 - amending Annex VII to Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards Community Reference Laboratories.

1. INTRODUCTION

One hundred and fifty one laboratories agreed to participate in the European Commission Proficiency Test 11.

The proficiency test was performed in 2009 using cauliflower homogenate. The cauliflowers were grown in Almería, in the south of Spain, and were treated post-harvest, using commercial formulations and analytical standards - both were applied using a microspray technique. Twenty-four pesticides were used for the treatments (nine as diluted commercial formulations and fifteen as standards dissolved in solvent). Twenty-one pesticides were to be assessed in total as three of those used were part of the same residue definition: aldicarb and aldicarb sulfoxide, carbofuran and 3-hidroxy-carbofuran and parathion-methyl and paraoxon-methyl. These were therefore expressed as one single residue, aldicarb sum, carbofuran sum and parathion sum, respectively. Participating laboratories were also provided with a 'blank' cauliflower homogenate as well as the treated test material.

The test materials, 300 g of cauliflower homogenate containing pesticide residues, together with 300 g of 'blank' cauliflower homogenate, were shipped to participants on 4th May 2009. The deadline for result submission to the Organiser was 9th June 2009. The participants were provided with a list of one hundred and four target pesticide residue definitions (Annex 1) and informed that any of these pesticides (and components within the residue definitions) might be present in the test material. They were asked to determine the residue levels of all the components and report the concentrations for each of the pesticides that they detected. This list of target pesticides also contained the Minimum Required Reporting Level (MRRL) for each pesticide fixed at 0.01 mg/Kg.

Participants were asked to analyse the blank test material and report residues of any of the pesticides they found which were included in the list. This 'blank' material was intended to be used for recovery experiments for the pesticides found in the test material and, if necessary, for the preparation of matrix-matched calibration standard solutions.

The median values of the analytical data submitted were used to obtain the assigned (true) values for each of the twenty-one pesticide residues present. A fit-for-purpose relative target standard deviation (FFP RSD) of 25% was chosen to calculate the target standard deviations (σ) as well as the z-scores for each pesticide.

For the assessment of the overall laboratory performance, the Sum of Weighted z-Scores (SWZ) was used as in the last Proficiency Test with the same criteria. Only laboratories that detected at least 90% of the pesticides present in the test material, reported no false positives and sought all the pesticides marked with an asterisk on the test material, have been considered to have demonstrated 'sufficient scope' and have therefore been classified into Category A. Within this category, the laboratories have also been sub-classified as 'good', 'satisfactory' or

'unsatisfactory'. All the other laboratories have been classified into Category B, because they have demonstrated 'insufficient scope'. For laboratories in Category B, individual z-scores have been calculated, but their overall performance has not been assessed. They have been listed in order of the number of pesticides sought and the number of acceptable z-scores achieved.

Laboratories that did not report results have not been classified into any category and are indicated in Annex 2.

Only RSZ was employed as classical procedures for summing z-scores using the individual z-scores of the participating laboratories.

As was the case last year, a ring test was organised in order to estimate the contribution of participants' calibration solutions to the overall accuracy of their reported test results.

Laboratories that requested to participate when applying for the proficiency test, received a vial containing a solution of the pesticides that were present in the treated cauliflower test material after the deadline for submitting the PT results had passed. One hundred and twenty-three laboratories agreed to participate in this additional standard solution ring test, and ninety-four reported results. Participants and their results are presented in Annex 3.

2. TEST MATERIALS

2.1 Analytical methods

The two analytical methods, described briefly below, were used by the Organiser for the homogeneity and stability tests performed by the University of Almeria. These were:

- GC method [1, 2]: liquid-liquid partitioning with buffered acetonitrile and MgSO_4 anh. followed by dispersive solid-phase extraction with PSA and MgSO_4 anh. Evaporation and re-dissolution with cyclohexane and determination by GC-MS/MS.
- LC method [3]: liquid-liquid partitioning with buffered acetonitrile and MgSO_4 anh. followed by dispersive solid-phase extraction with PSA and MgSO_4 anh. Evaporation and re-dissolution in acetonitrile/water (1:9) and determination by LC-MS/MS.

Aldicarb, aldicarb sulfoxide, aldicarb sulfone, carbofuran, 3-hydroxy-carbofuran, metalaxyl and metalaxyl-M, methamidophos, methidathion, methomyl, thiodicarb, monocrotophos, oxamyl, and thiacloprid were determined using the LC method described above. All other pesticides (azinphos-methyl, boscalid, buprofezin, cadusafos, deltamethrin, diazinon, isofenphos-methyl, lambda-cyhalothrin, parathion-methyl, paraoxon-methyl, phosalone, procymidone and triazophos), were analysed using the GC method described above. For confirmation purposes, MS/MS spectra were used.

2.2 Preparation of the treated test material

Before preparation of the test material, the pesticides and target residue levels were selected, following recommendations made by the Quality Control Group, which had been appointed specifically for Proficiency Test 11. One hundred and fifty kilograms of cauliflower were treated; some with post-harvest commercial pesticide formulations dissolved in water (buprofezin, deltamethrin, diazinon, lambda-cyhalothrin, methidathion, methomyl, oxamyl, procymidone and thiacloprid), and others with analytical standards dissolved in solvent (aldicarb, aldicarb sulfoxide, azinphos-methyl, boscalid, cadusafos, carbofuran, 3-hydroxy-carbofuran, isofenphos-methyl, metalaxyl, methamidophos, monocrotophos, phosalone, parathion methyl, paraoxon methyl and triazophos). Both the formulations and the standard solutions were applied to the cauliflowers using a microspray. After all the pesticides had been applied, a portion of the treated cauliflower was taken and analysed to check if the residue levels present were close to the target levels or whether any additional spraying was necessary. When the residue levels in the cauliflowers were close to those recommended by the Quality Control Group the entire sample was frozen and chopped using liquid nitrogen and a mincer. The frozen minced cauliflowers were mixed in a constantly-spinning container until a homogeneous material was obtained. 300g portions of the well-mixed homogenate were weighed out into screw-capped polyethylene plastic bottles; sealed and stored in a freezer at about -20 °C prior to distribution to participants.

Traces of endosulfan α and β (0.006 mg/Kg) were detected by the Organiser after the treatment with the commercial pesticide formulations. Nevertheless, the test material was sent to participants, as this level was below the MRRL fixed by the Organiser. Traces of Sulfotep were also detected but this pesticide was not in the target pesticide list and therefore was not considered.

2.3 Preparation of 'blank' test material

The cauliflower used for the production of the blank test material were organically-grown in the same field as the test material. A homogenate was prepared in the same way as the treated test material described above.

2.4 Homogeneity test

Ten bottles of treated test material were randomly chosen from those stored in the freezer and analyses were performed on duplicate portions taken from each bottle. The sequence of analyses was determined using a table of randomly-generated numbers. The injection sequence of the 20 extracts analysed by GC and LC was also randomly chosen. The quantification by GC and LC was performed using a 3-point calibration curve constructed from matrix-matched standards prepared from the 'blank' cauliflower test material.

The statistical evaluation was performed according to the International Harmonized Protocol published by IUPAC, ISO and AOAC [4]. The individual residue data from the homogeneity tests are given in Appendix 1. The results of the statistical analyses are given in Tables 2.1. The acceptance criteria for the test material to be sufficiently homogenous for the proficiency test were that: $S_s^2 < c$ where S_s is the between-bottle sampling standard deviation and $c = F_1\sigma_{all}^2 + F_2S_{an}^2$: F_1 and F_2 being constants with values of 1.88 and 1.01, respectively, from the 10 samples taken, and $\sigma_{all}^2 = 0.3 \times \text{FFP RSD}(25\%) \times \text{the analytical sampling mean for all pesticides}$.

Table 2.1A. Statistical evaluation of the homogeneity test data (n = 20 analyses)

	Aldicarb	Aldicarb sulfoxide	Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Carbofuran	3-hydroxy-carbofuran	Deltamethrin	Diazinon	Isolenphos-methyl	Lambda-cyhalothrin
Mean Conc. (mg/Kg)	0.352	0.306	0.342	0.405	0.656	0.651	0.239	0.048	0.154	0.949	0.560	0.255
S_s^2	0.0006	0.0003	0.0007	0.0025	0.0003	0.0004	0.0004	0.00001	0.00002	0.0003	0.0004	0.00001
c	0.001	0.001	0.001	0.004	0.005	0.005	0.001	0.00003	0.0003	0.010	0.003	0.001
$S_s^2 < c$ Pass/Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

S_s : Between-Sampling Standard Deviation

Table 2.1B. Statistical evaluation of the homogeneity test data (n = 20 analyses)

	Metolaxyl sum	Methamidophos	Methidathion	Methomyl	Monocrotophos	Oxamyl	Parathion-methyl	Paraoxon-methyl	Phosalone	Procymidone	Thiacloprid	Triazophos
Mean Conc. (mg/Kg)	0.437	0.378	0.435	0.249	0.412	0.260	0.153	0.184	0.320	0.705	0.850	0.512
S_s^2	0.0001	0.0007	0.00005	0.0008	0.0001	0.0001	0.0002	0.0001	0.0002	0.001	0	0.001
c	0.001	0.002	0.003	0.004	0.002	0.001	0.0004	0.0004	0.001	0.008	0.01	0.003
$S_s^2 < c$ Pass/Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

S_s : Between-Sampling Standard Deviation

2.5 Stability tests

The two analytical methods described briefly above (in section 2.1) were also used for the stability tests.

The tests were performed on two occasions. On each occasion, a single bottle stored in the freezer at -20°C was chosen randomly and duplicate analyses were performed.

The two occasions were:

- Day 1: coinciding with the first sample shipment, which took place on 4th May 2009.
- Day 2: shortly after the deadline for reporting results, on 9th June 2009.

The individual results are given in Tables 2.2.. In general, these tests did not show any significant decrease in the levels of the pesticides. This demonstrates that, for the duration of the proficiency test and provided that the storage conditions prescribed were followed, the time elapsed until analysis was performed by the participants would not have influenced their results. Moreover, as a result of some doubts which laboratories may have had regarding the stability of their sample if it did not arrive completely frozen, a duplicate analysis of a bottle stored at room temperature for 48 hours was performed - finding no differences greater than 10%. Laboratories could therefore be sufficiently confident accepting the sample even if not completely frozen.

Table 2.2A. Statistical test for analytical precision and to demonstrate stability

(mg/kg)	Aldicarb	Aldicarb sulfoxide	Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Carbofuran	3-hydroxy-carbofuran	Deltamethrin	Diazinon	Isofenphos-methyl	Lambda-cyhalothrin
Day 1 (1 st analysis)	0.292	0.306	0.361	0.435	0.696	0.593	0.233	0.040	0.152	0.975	0.464	0.273
Day 1 (2 nd analysis)	0.267	0.307	0.342	0.434	0.664	0.599	0.237	0.042	0.157	0.928	0.454	0.282
Mean 1	0.280	0.307	0.352	0.435	0.680	0.596	0.235	0.041	0.155	0.952	0.459	0.278
Day 2 (1 st analysis)	0.301	0.330	0.358	0.415	0.680	0.613	0.225	0.043	0.139	1.00	0.494	0.266
Day 2 (2 nd analysis)	0.304	0.350	0.360	0.440	0.613	0.649	0.227	0.047	0.147	0.999	0.504	0.248
Mean 2	0.303	0.340	0.359	0.428	0.647	0.631	0.226	0.045	0.143	1.00	0.499	0.257
(M1-M2)/M1	-0.082	-0.109	-0.021	0.016	0.049	-0.059	0.038	-0.098	0.074	-0.050	-0.087	0.074
%	-8%	-11%	-2%	2%	5%	-6%	4%	-10%	7%	-5%	-9%	7%

Table 2.2B. Statistical test for analytical precision and to demonstrate stability

(mg/kg)	Metlaxyl sum	Methamidophos	Methidathion	Methomyl	Monocrotophos	Oxamyl	Parathion-methyl	Paraoxon-methyl	Phosalone	Procymidone	Thiacloprid	Triazophos
Day 1 (1 st analysis)	0.499	0.395	0.439	0.308	0.416	0.249	0.110	0.181	0.331	0.723	0.880	0.520
Day 1 (2 nd analysis)	0.488	0.325	0.403	0.268	0.400	0.252	0.100	0.171	0.315	0.688	0.780	0.536
Mean 1	0.494	0.360	0.421	0.288	0.408	0.251	0.105	0.176	0.323	0.706	0.830	0.528
Day 2 (1 st analysis)	0.445	0.396	0.391	0.262	0.435	0.245	0.117	0.168	0.307	0.612	0.725	0.525
Day 2 (2 nd analysis)	0.457	0.376	0.459	0.260	0.380	0.232	0.109	0.180	0.317	0.749	0.841	0.517
Mean 2	0.451	0.386	0.425	0.261	0.408	0.239	0.113	0.174	0.312	0.681	0.783	0.521
(M1-M2)/M1	0.086	-0.072	-0.010	0.094	0.001	0.048	-0.076	0.011	0.034	0.035	0.057	0.013
%	9%	-7%	-1%	9%	0%	5%	-8%	1%	3%	4%	6%	1%

2.6 Distribution of test material and protocol to participants

One bottle of treated test material and one bottle of 'blank' material were shipped to each participant in boxes containing dry ice. The samples were sent on the 4th May 2009.

Before shipment of the samples, the laboratories received full instructions (Annex 1) for the receipt, storage and analysis of the test materials, although they were encouraged to use their normal sample receipt procedure and method(s) of analysis. These instructions were uploaded onto the open site of the CRL-FV web page as the Specific Protocol. Together with this, the Application Form was also available. When applying for the test, each laboratory decided on their own password, which was required in order to enter the restricted zone where the Protocol and Forms 1, 2 and 3 could be accessed on-line. This information was made accessible when laboratories received an e-mail from the Organiser confirming their acceptance to be able to participate in the test: this ensured that confidentiality was maintained throughout the duration of Proficiency Test 11. The Target Pesticide List, together with the Minimum Required Reporting Level (MRRL) established by the Organiser, was uploaded onto the CRL-FV open web site to allow laboratories sufficient time to purchase standards and validate their methods.

3. STATISTICAL METHODS

3.1 False positives and negatives

3.1.1 False positives

Results reported for pesticides that were included in the pesticide list, but which were (i) not used in the preparation of the test material and (ii) not detected by the Organiser (even after a repeated analysis with lower detection limits) were assigned as false positives - if they were reported at concentrations at, or above, the Minimum Required Reporting Level (MRRL) as stipulated by the Organiser. Results reported which were lower than 0.01 mg/Kg have been disregarded and have not therefore been considered to be false positives. No z-score values have been calculated for these results. Any laboratory reporting a false positive, even when reporting the necessary number of pesticides to obtain sufficient scope, has been classified in Category B.

3.1.2 False negatives

Results for pesticides reported by the laboratories as not detected (ND), even though they were used by the Organiser to treat the test material and were subsequently detected at, or above, the MRRL specified by the Organiser (and the majority of participating laboratories) have been considered to be false negatives. z-Scores have been calculated for all pesticides detected at levels at or above the MRRL, including false negatives.

3.2 Estimation of the assigned values

The assigned values were based on the median level of all the reported results, excluding outliers. Individual results without any absolute values reported, such as detected (D), were not considered.

3.3 Fixed target standard deviations

Based on experience from previous EU proficiency tests and recommendations by the Advisory Group, a fixed relative standard deviation (FFP RSD) of 25 % was chosen. This is in line with the internationally accepted target-measurement uncertainty of 50% for multiresidue analysis of pesticides [5] which is derived from, and linked to, the EUPTs. The same target RSD has been applied to all the pesticides, and is independent of the residue level. The target standard deviation (σ) for each individual pesticide was calculated by multiplying this FFP RSD by the assigned value.

3.4 z-Scores

A z-score for each laboratory/pesticide combination was calculated according to the following equation:

$$z = (x-X) / \sigma \quad \text{Eq.1}$$

Where:

- x is the result reported by the participant, or the MRRL for those labs not having detected the presence of the pesticide in the sample
- X is the assigned value
- σ is the target standard deviation (= FFP RSD of 25% multiplied by the assigned value)

z-Score classification is as follows:

$$|z| \leq 2 \quad \text{Acceptable}$$

$$2 < |z| \leq 3 \quad \text{Questionable}$$

$$|z| > 3 \quad \text{Unacceptable}$$

- Any z-score values of $|z| > 5$ have been reported as '+5', or '-5'.
- No calculations of z-scores have been performed for false positive results.
- For false negative results, the MRRL has been used to calculate the z-score. These z-scores have also been included in the graphical representation, and are marked with an asterisk.

3.5 Combined z-Scores

In order to evaluate each laboratory's overall performance, and to take into account all the results reported, the 'Sum of Weighted z-Scores' - as introduced in EUPT 6 - has been used.

The re-scaled sum of z-scores (RSZ) and the sum of squared z-scores (SSZ) are not longer calculated.

The Sum of Weighted z-Scores overall assessment was only applied to labs with sufficient scope (those in Category A), i.e. those labs that have reported 90% or more of the total number of pesticides present in the test material, reported no false positives, and detected all the pesticides marked with an asterisk in the Target Pesticide List that were present in the test material. The weighting factor ω is defined as follows:

$$\omega|z_i| = \begin{cases} 1 & \text{if } |z| \leq 2 \\ 3 & \text{if } 2 < |z| \leq 3 \\ 5 & \text{if } |z| > 3 \end{cases}$$

Therefore, the 'Sum of Weighted z-Scores' $|z|$ formula is:

$$\text{'Sum of Weighted z-Scores' (SWZ) } |z| = \frac{\sum_{i=1}^n |Z_i| \omega(Z_i)}{n}$$

So for each lab:

- The first term is the sum of absolute values of z-scores between zero and two, multiplied by one.
- The second term is the sum of absolute values of z-scores greater than two, but less than or equal to three, multiplied by three.
- The third term is the sum of absolute values of z-scores greater than three, multiplied by five.

The sum is then divided by the number of reported results (n) by each laboratory.

The 'Sum of Weighted z-Scores' has subsequently been used to produce an overall classification of laboratories with three sub-classifications used: 'good', 'satisfactory' and 'unsatisfactory'.

$$|SWZ| \leq 2 \text{ Good}$$

$$2 < |SWZ| \leq 3 \text{ Satisfactory}$$

$$|SWZ| > 3 \text{ Unsatisfactory}$$

In this way, a simple, single combined value is produced, that should encourage laboratories to not only improve the accuracy of their results, but also to analyse a greater number of pesticides.

This SWZ-evaluation has not been applied to those laboratories with insufficient scope, i.e. those in Category B, which is for those laboratories reporting less than 90% of the pesticides present in the test material, reporting any false positives and/or not having sought all the pesticides marked with an asterisk in the target pesticide list and present in the sample.

4. RESULTS

4.1 Summary of reported results

One hundred and fifty-one laboratories agreed to participate in this proficiency test. However, three of them did not submit results. The results reported by all the laboratories are presented in this report. However, only results reported by laboratories from EU-countries and EFTA-countries (Norway, Iceland and Switzerland) have been included in the statistical treatment. The results from laboratories in Egypt, Turkey and Uruguay have not been used. Twenty-four pesticides were used to treat the sample, although twenty-one have been used to evaluate the laboratories performance as residue definition was followed.

A summary of the reported results can be seen below in Table 4.1.

Table 4.1 Summary of Reported Results

Pesticides	No. of Reported Results	No. of Not Analysed Results	No. of False Negatives Results	% of Reported Results *
* Aldicarb (sum)	91	55	2	62
* Azinphos-methyl	128	15	5	86
Boscalid	102	45	1	70
Buprofezin	118	29	1	80
Cadusafos	76	71	1	51
Carbofuran (sum)	107	41	0	72
* Deltamethrin	130	15	3	88
Diazinon	144	4	0	97
Isofenphos-methyl	86	61	1	58
* Lambda-cyhalothrin	138	8	2	93
* Metalaxyl and Metalaxyl-M	122	25	1	82
* Methamidophos	109	32	7	74
* Methidathion	136	9	3	92
Methomyl (sum)	84	60	4	57
* Monocrotophos	95	48	5	64
* Oxamyl	89	57	2	60
* Parathion-methyl (sum)	129	15	4	87
* Phosalone	136	10	2	92
* Procymidone	136	10	2	92
* Thiocloprid	82	65	1	55
Triazophos	132	16	0	89

* The % of Reported Results has been calculated relative to the total number of laboratories submitting results (148 including results from Egypt, Turkey and Uruguay for information purposes only).

The laboratories that agreed to participate are listed in Annex 2. All analytical results reported by the participants are given in Appendix 3, whilst the analytical methods used are given in Appendix 7. For an explanation of the symbols used in these Appendixes, see Annex 1.

4.1.1 False positives

Nine laboratories reported results for additional pesticides that had not been used to treat the test material. These pesticides and the residue levels reported are presented in Table 4.2, together with the MRRL. Where the reported residue level of the erroneously - detected pesticide was higher than the assigned MRRL value in the Target Pesticide List (Annex 1), the result has been considered to be a false positive.

Any laboratory that reported even a single false positive result has not been classified in Category A.

Table 4.2 Laboratories that reported results for pesticides that were not present in the treated test material

Laboratory Code	Pesticide	Concentration (mg/kg)	Determination Technique	RL (mg/Kg)	MRRL (mg/Kg)
Lab10	* Carbendazim	0.018	LC-MS/MS	0.01	0.01
Lab110	* Malathion	0.168	GC-ECD-NPD	0.05	0.01
Lab114	Tolclofos-methyl	0.0944	GC-ECD	0.050	0.01
Lab122	* Carbendazim	0.22	LC-MS/MS	0.1	0.01
Lab17	* Chlorpyrifos-methyl	0.059	GC-QQQ-MS/MS	0.02	0.01
	Fenpropathrin	0.248	GC-QQQ-MS/MS	0.01	0.01
Lab4	* Chlorpyrifos	0.163	GC-Q-MS	0.010	0.01
	* Chlorpyrifos-methyl	0.014	LC-MS/MS	0.010	0.01
Lab50	Phosmet	0.023	LC-MS/MS	0.010	0.01
Lab75	Methiocarb	0.032	HPLC-FL	0.004	0.01
Lab95	Tolclofos-methyl	0.0335	GC-ECD/NPD	0.025	0.01

If the residue levels reported were below the MRRLs, or if the pesticides did not appear in the pesticide list included in Annex I, then they were not considered to be false positives.

However, some laboratories should have taken more care in reporting their results as the concentrations reported were not only lower than the MRRL but, in all cases, also lower than their own reporting limits. These results can be seen in Table 4.2.2.

Table 4.2.2. Laboratories reporting residue concentration levels below the MRRL and (mostly) below their own Reporting Limit

Laboratory Code	Pesticide	Concentration (mg/kg)	Determination Technique	RL (mg/Kg)	MRRL (mg/Kg)
Lab103	* Malathion	0.0030 #	GC-FPD	0.01	0.01
	Quinoxifen	0.0050 #	GC-ITD-MS/MS	0.01	0.01
Lab97	* Acephate	0.0182 #	GC-QQQ-MS/MS	0.02	0.01

Residue levels that have been erroneously reported below the RL of the laboratory

Traces of endosulfan α and β were detected by the Organiser in the treated test material. This low residue level was assumed to have arisen from contamination of one, or more, of the commercial formulations used to treat the cauliflower. Results for this pesticide were reported by 14 laboratories, but because they were below the MRRL stipulated in the Pesticide List, the EUPT-FV-11 Committee decided not to include them in the assessment.

Traces of Sulfotep were also detected by the Organiser and reported by two laboratories. This pesticide was not considered as it was not in the Target Pesticide List.

4.1.2 False negatives

Pesticides that were actually present in the test material but were reported as not detected (ND), were considered to be false negatives. Table 4.3 summarises the results from laboratories that reported false negatives.

Table 4.3. Laboratories that failed to report pesticides that were present in the treated test material

Laboratory Code	Aldicarb sum	Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Deltamethrin	Isofenphos-methyl	Lambda-cyhalothrin	Metaxyl sum	Methamidophos	Methidathion	Methomyl sum	Monocrotophos	Oxamyl	Parathion-methyl sum	Phosalone	Procymidone	Thiacloprid
9		ND																
22										ND								
27											ND				ND			
30					ND								ND					
44										ND								
46									ND	ND								
55															ND			
57				ND														

Laboratory Code	Aldicarb sum	Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Deltamethrin	Isfenphos-methyl	Lambda-cyhalothrin	Metaxyl sum	Methamidophos	Methidathion	Methomyl sum	Monocrotophos	Oxamyl	Parathion-methyl sum	Phosalone	Procyridone	Thiacloprid
60																	ND	
66								ND										
70						ND						ND	ND					
72										ND								
74		ND																
75																		ND
78		ND									ND					ND		
80	ND																	
85		ND																
89													ND					
94													ND	ND				
95						ND												
99											ND						ND	
103								ND										
104			ND															
105										ND		ND	ND					
106												ND						
109						ND												
110															ND			
112		ND								ND								
116										ND								
118	ND																	
120																ND		
122														ND				
124							ND											
129															ND			
151													ND					

4.1.3 Distribution of data

The distributions of the residue levels of the twenty-one pesticides reported by the laboratories have been plotted as histograms after removing results that were distant from the main population (values that gave in a first round calculation a z-score above 5.0).

4.2 Assigned values and target standard deviations

The assigned values were based on the median values calculated using all the reported results, but excluding those values that were distant from the median, i.e. outliers. The assigned values for all pesticides are presented in Table 4.4.

The target standard deviation was calculated using a fixed FFP RSD value of 25%. For comparison, a robust standard deviation (Qn) was also calculated for informative purposes. These RSDs can be seen in Table 4.4.

Table 4.4 Median values and %RSDs for all pesticides present in the test material

Pesticides	MRRL (mg/Kg)	Median (mg/Kg)	FFP RSD (%)	Qn RSD (%)
* Aldicarb (sum)	0.01	0.658	25	20
* Azinphos-methyl	0.01	0.355	25	28
Boscalid	0.01	0.414	25	25
Buprofezin	0.01	0.638	25	30
Cadusafos	0.01	0.611	25	24
Carbofuran (sum)	0.01	0.283	25	20
* Deltamethrin	0.01	0.157	25	25
Diazinon	0.01	1.25	25	26
Isofenphos-methyl	0.01	0.540	25	24
* Lambda-cyhalothrin	0.01	0.266	25	24
* Metalaxyl and Metalaxyl-M	0.01	0.450	25	21
* Methamidophos	0.01	0.405	25	33
* Methidathion	0.01	0.472	25	24
Methomyl (sum)	0.01	0.277	25	18
* Monocrotophos	0.01	0.438	25	21
* Oxamyl	0.01	0.249	25	17
* Parathion-methyl (sum)	0.01	0.320	25	24
* Phosalone	0.01	0.368	25	30
* Procymidone	0.01	0.780	25	20
* Thiacloprid	0.01	0.879	25	15
Triazophos	0.01	0.538	25	30

* Pesticides marked with an asterisk had to be sought by laboratories in order to be considered for classification in Category A.

4.3 Assessment of laboratory performance

4.3.1 z-Scores

z-Scores were calculated using the FFP RSD of 25% for all the pesticides present. In Appendix 3, the individual z-scores are presented for each laboratory, together with the median values for each pesticide. In Table 4.5, a summary of the z-scores is presented.

Table 4.5 Classification of z-scores for the pesticides reported

Pesticides	Acceptable (%)	Questionable (%)	Unacceptable (%)
* Aldicarb (sum)	90	7	3
* Azinphos-methyl	86	5	9
Boscalid	96	1	3
Buprofezin	92	5	3
Cadusafos	95	1	4
Carbofuran (sum)	93	5	2
* Deltamethrin	87	7	6
Diazinon	92	5	3
Isofenphos-methyl	92	7	1
* Lambda-cyhalothrin	91	4	5
* Metalaxyl and Metalaxyl-M	94	2	4
* Methamidophos	78	13	9
* Methidathion	94	2	4
Methomyl (sum)	92	1	7
* Monocrotophos	87	7	6
* Oxamyl	95	1	4
* Parathion-methyl (sum)	62	26	12
* Phosalone	88	8	4
* Procymidone	92	3	5
* Thiacloprid	94	2	4
Triazophos	92	6	2

* Pesticides marked with an asterisk had to be sought by laboratories in order to be considered for classification in Category A.

z-Scores for false negative results have been calculated using the MRRL value reported in the Target Pesticide List (Annex 1).

In Appendix 4, graphical representations of the z-scores are presented. No z-scores have been calculated for false positive results. z-Scores for false negative results have been included on the chart and are indicated by an asterisk. The charts have been constructed using different colour bars according to the determination technique used for each particular pesticide.

The Organiser considers it to be important to clarify the Scientific Committee decisions on three of the twenty-one pesticide evaluations performed in this test. They are as follows:

- Aldicarb Sum: the sample was treated with aldicarb and aldicarb sulfoxide. Some laboratories converted the concentrations found correctly to aldicarb sum, but others did not. In order to fairly assess the results for this pesticide, the scientific committee decided to calculate the aldicarb sum median from those laboratory results which: firstly reported both concentrations and, secondly, correctly converted aldicarb sulfoxide to aldicarb. The z-scores for aldicarb sum have been calculated for all the laboratories reporting, whatever the concentration - coming either from aldicarb alone and/or from aldicarb sulfoxide although no corrected conversion has been performed.

- Carbofuran Sum: the sample was treated with carbofuran and 3-hydroxy-carbofuran. Some laboratories converted the concentrations found correctly to carbofuran sum, but others did not. In order to fairly assess the results for this pesticide, the scientific committee decided to calculate the carbofuran sum median from those laboratory results which: firstly reported both concentrations and, secondly, correctly converted 3-hydroxy-carbofuran to carbofuran. The z-scores for carbofuran sum have been calculated for all the laboratories reporting, whatever the concentration - coming either from carbofuran alone and/or from 3-hydroxy-carbofuran - although no corrected conversion has been performed.

Parathion-methyl Sum: the sample was treated with parathion-methyl and paraoxon-methyl. Some laboratories converted the concentrations found correctly to parathion-methyl sum, but others did not. In order to fairly assess the results for this pesticide, the scientific committee decided to calculate the parathion-methyl sum median from those laboratory results which: firstly reported both concentrations, and, secondly, correctly converted paraoxon-methyl to parathion-methyl. The z-scores for parathion-methyl sum have been calculated for all the laboratories reporting, whatever the concentration - coming either from parathion-methyl alone and/or from paraoxon-methyl - although no corrected conversion has been performed.

4.3.2 Combined z-Scores

Appendix 5 shows a table with the values of individual z-scores for each pesticide and the combined 'Sum of Weighted z-Scores' for those laboratories in Category A. In this category are the laboratories that reported 19 or more results, including all the target pesticides marked with an asterisk present in the sample, and did not report any false positive results. A graphical representation of the results for these laboratories can also be found in Appendix 6.

Seventy-six of the one hundred and forty-eight laboratories that submitted results have been classified into Category A (51%). Seventy-nine percent were sub-divided as 'good', nine percent as 'satisfactory' and twelve percent as 'unsatisfactory'.

Of the seventy-two laboratories in Category B, two could have been in Category A if they had not reported a false positive result.

Laboratories in Category A must have analysed all the pesticides marked with an asterisk that were present in the test material. Because of this, one laboratory, was placed in Category B for not reporting Oxamyl, marked with an asterisk.

Table 4.6.1 shows the laboratories in Category A, the number of pesticides reported, the SWZ value and the sub-classification. Laboratories that reported false negative results in Category A are marked with an asterisk and laboratories with SWZ values greater than 3.0 have been marked with an '†'.

Table 4.6.2 shows the laboratories in Category B, the number of results reported, and the number of acceptable z-scores. Laboratories reporting a false negative are marked with an asterisk, laboratories reporting a false positive are marked with a '+' and laboratories not reporting all the pesticides marked with an asterisk present in the test material are marked with a ‡ sign.

A SWZ graphical representation for laboratories classified into Category A can be seen in Appendix 6. As was the case last year, the National Reference Laboratories for Fruit and Vegetables have been plotted on the graph using a different colour.

The performance of the laboratories in the last three EUPTs has been summarised as follows:

- For EUPT-FV-11, out of 148 laboratories, 76 were in Category A with the following sub-divisions: 9 'unsatisfactory', 7 'satisfactory' and 60 'good'.
- For EUPT-FV-10, out of 129 laboratories, 66 are in Category A with the following sub-divisions: 8 'unsatisfactory', 6 'satisfactory' and 52 'good'.
- For EUPT-FV-9, out of 132 laboratories, 68 are in Category A with the following sub-divisions: 7 'unsatisfactory', 13 'satisfactory' and 48 'good'.

Table 4.6.1 Performance and sub-classification of laboratories in Category A

Lab Code EUPT-FV11	No. of z-scores achieved	SWZ	Classification
Lab36	21	0.3	Good
Lab41	21	0.4	Good
Lab32	21	0.4	Good
Lab131	21	0.4	Good
Lab15	21	0.4	Good
Lab61	21	0.4	Good

Lab Code EUPF-FV11	No. of z-scores achieved	SWZ	Classification
Lab3	21	0.4	Good
Lab37	21	0.5	Good
Lab79	21	0.5	Good
Lab6	21	0.5	Good
Lab143	21	0.5	Good
Lab7	21	0.5	Good
Lab23	21	0.5	Good
Lab38	21	0.5	Good
Lab47	21	0.6	Good
Lab63	21	0.6	Good
Lab5	21	0.6	Good
Lab87	21	0.6	Good
Lab18	21	0.6	Good
Lab28	21	0.6	Good
Lab119	21	0.6	Good
Lab136	21	0.6	Good
Lab31	21	0.7	Good
Lab93	21	0.7	Good
Lab35	21	0.7	Good
Lab62	21	0.7	Good
Lab51	21	0.8	Good
Lab135	21	0.8	Good
Lab82	21	0.8	Good
Lab29	21	0.9	Good
Lab56	21	0.9	Good
Lab45	21	0.9	Good
Lab121	21	0.9	Good
Lab49	21	0.9	Good
Lab11	21	1.0	Good
Lab58	21	1.1	Good
Lab19	21	1.2	Good
Lab69	21	1.2	Good
Lab91	21	1.2	Good
Lab57*	21	1.2	Good
Lab71	21	1.3	Good
Lab54	21	1.3	Good

Lab Code EUPF-FV11	No. of z-scores achieved	SWZ	Classification
Lab59	21	1.4	Good
Lab141	21	1.5	Good
Lab76	21	1.5	Good
Lab109*	21	1.6	Good
Lab52	21	1.7	Good
Lab120*	21	1.7	Good
Lab9*	21	1.8	Good
Lab85*	21	1.8	Good
Lab44*	21	1.9	Good
Lab92	21	2.8	Satisfactory
Lab39	21	2.9	Satisfactory
Lab96	21	3.0	Satisfactory
Lab106*↑	21	3.3	Unsatisfactory
Lab2↑	21	3.4	Unsatisfactory
Lab66*↑	21	3.8	Unsatisfactory
Lab89*↑	21	3.8	Unsatisfactory
Lab40	20	0.5	Good
Lab24	20	0.7	Good
Lab133	20	0.7	Good
Lab30*	20	1.5	Good
Lab90	20	1.6	Good
Lab20	20	1.8	Good
Lab60*	20	2.6	Satisfactory
Lab145	20	2.8	Satisfactory
Lab148↑	20	4.2	Unsatisfactory
Lab104*↑	20	5.0	Unsatisfactory
Lab64	19	0.4	Good
Lab68	19	0.9	Good
Lab125	19	1.2	Good
Lab26	19	2.5	Satisfactory
Lab108	19	2.5	Satisfactory
Lab33↑	19	3.2	Unsatisfactory
Lab137↑	19	4.5	Unsatisfactory
Lab27*↑	19	4.7	Unsatisfactory

* Laboratories reporting a false negative result.

↑ Laboratories with SWZ values of > 3

Table 4.6.2 Performance of laboratories in Category B.

Lab Code	No. of pesticides sought	No. of acceptable z-scores
Lab17+	20	17
Lab50+	20	16
Lab70*‡	19	12
Lab16	18	16
Lab124*	18	16
Lab73	18	14
Lab94*	18	14
Lab75*	18	14
Lab48	17	17
Lab25	17	16
Lab72*	17	15
Lab107	17	15
Lab95*	17	9
Lab97	16	15
Lab77	16	14
Lab105*	16	8
Lab81	16	4
Lab149	15	15
Lab150	15	15
Lab113	15	15
Lab13	15	14
Lab151*	15	12
Lab144	15	12
Lab21	15	11
Lab4	14	14
Lab140	14	13
Lab80*	14	10
Lab34	13	12
Lab98	13	12
Lab123	13	12
Lab126	13	11
Lab65	13	9
Lab74*	13	9
Lab102	12	11
Lab14	12	8
Lab46*	12	7

Lab Code	No. of pesticides sought	No. of acceptable z-scores
Lab100	12	6
Lab67	11	10
Lab10	11	10
Lab83	11	9
Lab78*	11	7
Lab130	10	10
Lab101	10	10
Lab138	10	9
Lab142	10	9
Lab114	10	8
Lab103*	10	8
Lab22*	10	7
Lab122*	10	6
Lab86	9	9
Lab1	9	9
Lab116*	9	8
Lab117	9	8
Lab55*	9	8
Lab88	9	7
Lab43	9	7
Lab110*	9	7
Lab118*	9	7
Lab146	8	8
Lab139	8	7
Lab112*	8	6
Lab128	7	7
Lab132	7	6
Lab111	7	6
Lab129*	7	6
Lab99*	6	0
Lab53	5	4
Lab12	5	4
Lab115	3	3
Lab84	2	2
Lab134	2	2
Lab127	0	0

* Laboratories reporting a false negative result.

+ Laboratories reporting a false positive result.

‡ Laboratories that have failed in the analysis of oxamyl and therefore have been placed in Category B.

5. CONCLUSIONS

One hundred and fifty-one laboratories agreed to participate in EUPT-FV-11, and one hundred and forty-eight of them submitted results following the analysis of the treated cauliflower homogenate test material.

The pesticide residue levels in the treated cauliflower test material were in agreement with the target levels proposed by the Quality Control Group.

For each laboratory/pesticide combination, z-scores based on the FFP RSD of 25% have been calculated. The different separation techniques used by the participant laboratories, either gas chromatography or liquid chromatography, are shown in the z-score graphs. Asterisks have been used to mark each bar of the chart to represent a false negative result reported as 'ND' by a laboratory. Sub-classification of z-score values into 'acceptable', 'questionable' and 'unacceptable' has also been undertaken.

The criterion of using the Sum of Weighted z-Score formula, first introduced in the EUPT 6 Proficiency Test Report, was applied to the laboratory results and continued to demonstrate their overall performance. Those laboratories reporting nineteen or more results (at least 90%), including all the pesticides marked with an asterisk in the Target Pesticide List and present in the sample, along with no false positive results, were considered to have sufficient scope and were therefore classified into Category A. Those laboratories that reported less than nineteen results were considered to have insufficient scope and were automatically classified into Category B. Laboratories in Category A were also sub-classified into 'good', 'satisfactory' and 'unsatisfactory'. Laboratories in Category A that reported false negatives were marked with an asterisk and those obtaining a SWZ value greater than 3 were marked with an '↑'.

The median value of each pesticide was used to obtain the assigned value or "true" concentration, which was also used to calculate the z-scores. Results were required from the laboratories not only for the pesticides as defined by the MRL definition, but also for all the individual components that are included in the MRL definition.

Low residue levels of endosulfan alpha and beta (below the MRRL) were detected in the treated cauliflower test material by fourteen laboratories. These residues were assumed to have arisen from impurities (contaminants) present in one, or more, of the commercial formulations used to treat the cauliflower. These results were not statistically assessed, because the level of 0.006mg/kg for the sum was well below the MRRL, and therefore no medians/assigned values have been calculated for this pesticide.

Traces of sulfotep were detected in the treated cauliflower test material below the MRRL but this pesticide was not in the Target Pesticide List.

The overall results, with regard to each pesticide present in the test material z-scores, were very good. Most of the pesticides had just a few unacceptable z-scores. Therefore, laboratories generally achieved very accurate results for the twenty-one pesticides - above 85%, for all except methamidophos and parathion-methyl sum.

For methamidophos, the high percentage of unacceptable z-score results comes from the seven false negative results reported. This is the same case each time this pesticide is present. A possible reason could be because of its high polarity: making it more difficult to extract using low polarity solvents; or because of poor partitioning between aqueous and organic solvents during solvent exchange.

In the case of parathion-methyl sum, the inclusion of paraoxon-methyl in the sample, at a concentration close to the parent compound (which is not usual in real samples), made the laboratories report a high number of unacceptable z-score results because of an underestimation of the true value. Many laboratories did not have paraoxon-methyl in their scope. This is reflected in the number of non-analysed results for paraoxon-methyl compared to parathion-methyl - which is 30% higher in the case of the first one.

For the other pesticides present in the sample and the sum of different analytes such as aldicarb sum and carbofuran sum, the z-score results achieved by the laboratories were better. Underestimation is not appreciable in the z-score graphs. But this does not mean that laboratories follow the residue definition and have their pesticides in their scope. In the case of carbofuran 21% of all laboratories did not analyse 3-hidroxy-carbofuran. As this contribution was at a low concentration (0.055 mg/Kg), it did not influence the overall result. On the contrary, the number of laboratories reporting aldicarb and aldicarb sulfoxide are practically the same. In this case, a higher percentage of laboratories followed the residue definition.

Converting factors have been noticeable over the last years, and the difficulties laboratories have when using them. CRLs will work on this point, in order to have a database for laboratories to consult about them.

Ever since the introduction of the MRRL in EUPT 6, laboratories' 'reporting levels' have been continuously decreasing and their overall performances have improved. The increased use of mass spectrometry, particularly modern LC-MS/MS instrumentation, is probably one of the main reasons why the results from more participating laboratories have continued to show an overall improvement year on year. This year, the MRRL, fixed to a value of 0.01mg/Kg, remained. Laboratories lower their limits of detection and quantification and therefore, fewer false negative results have been reported. Compared to last year's results, the percentage of 'good' laboratories in Category A has not changed but the number of laboratories has. From 66 laboratories in EUPT-FV 10 to 76 laboratories in this PT. The number of new laboratories applying for this test has risen from 132 in EUPT-FV10 to 151. It seems that the extra demand imposed on laboratories to analyse all of the pesticides marked with an asterisk in the target list works well and

laboratories tend to enlarge their scope and thus achieve sufficient performance to be in Category A. Only one laboratory failed to comply with this instruction and was placed in Category B for not seeking out oxamyl. Only two laboratories were placed in Category B for reporting false positive results.

The scientific committee for this test strongly recommends that laboratories continue equipping themselves with LC-MS/MS seeing as many very important pesticides (particularly the polar compounds) can only be analysed using liquid chromatography.

The pesticides marked with an asterisk in the target list were considered of the utmost importance with regard to the monitoring of fruits and vegetables by both the Quality Control Group and the European Commission. Each year, laboratories will be encouraged to further enlarge the scope of their methods, and to ensure that the pesticides listed in the coordinated EU-monitoring programme are included.

This test will carry on treating the sample with low concentration and non-approved pesticides. This year only the 3-hydroxi-carbofuran was at a low concentration level. Isofenphos-methyl, an illegal/banned substance in Europe, had a high percentage of acceptable z-scores, which again reflects that laboratories accurately measure this type of residue, although sixty-one percent of the participating laboratories did not include this pesticide in their scope.

Participation in this year's European Proficiency Test 11 involved laboratories from 25 of the 27 EU member states (the missing ones were Malta represented by the UK and Luxembourg), plus Iceland, Norway and Switzerland, who regularly participate in the EU-monitoring programmes. Non-European laboratories in Egypt, Turkey and Uruguay also participated. These Non-EU laboratories are official laboratories in their own countries. As is laid down in Article 32 of Regulation (EC) N° 882/2004, one of the CRL's duties is to collaborate with laboratories in third countries that are responsible for analysing feed and food samples and to help them improve the quality of their analyses.

6. SUGGESTIONS FOR FUTURE WORK

The following suggestions were made by the Organiser, the Scientific Committee and DG SANCO for EUPT-FV12.

As a result of the continuing trend of improvement in performance, the stricter conditions applied to EUPT-FV-11 will be carried forward to next year. The aim is that laboratories continue to increase the scope of their methods, in order to be able to fully enforce EU legislation. Consequently, the number of pesticides that will be mandatory to analyse (marked with an asterisk in the Target Pesticide List) will further increase next year, along with the total number of pesticides in the Target Pesticide List based on the EU-coordinated Community Control Programme. The new Target Pesticide Lists will be published in January 2010. The (tentative) shipment date for EUPT-FV-12 will be around May 2010.

The harmonised MRRL will be maintained for all pesticides. The Target Pesticide List will contain individual analytes that must be sought and reported as well as the MRL residue definition. This will allow a better statistical treatment of the data to be undertaken, and easier traceability of any possible analytical error by the laboratories.

A numerical result for at least 90% of the pesticides present in the test material, including all those marked with an asterisk, must be reported in order to have sufficient scope.

These changes are aimed at ensuring that, each year, laboratories strive further to increase the scope of their methods, and to improve their performance (both in terms of correctly detecting the pesticides present in the test material, and also in accurately quantifying the residue levels present). It is recommended that laboratories should continue to evaluate and adopt new techniques/instrumentation that will help them to attain, or maintain, a Category A classification.

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APPENDIX 1. Homogeneity Data

Aldicarb (mg/Kg)		Aldicarb sulfoxide (mg/Kg)		Azinphos-methyl (mg/Kg)		Boscalid (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.369	0.365	0.279	0.283	0.344	0.331	0.483	0.479
0.361	0.363	0.314	0.315	0.308	0.294	0.348	0.336
0.337	0.338	0.297	0.310	0.361	0.367	0.486	0.475
0.360	0.371	0.337	0.333	0.361	0.366	0.476	0.480
0.333	0.341	0.295	0.300	0.329	0.312	0.341	0.338
0.297	0.297	0.280	0.284	0.323	0.321	0.359	0.362
0.374	0.376	0.306	0.304	0.384	0.377	0.314	0.401
0.379	0.363	0.327	0.334	0.368	0.374	0.498	0.400
0.373	0.372	0.309	0.318	0.313	0.317	0.348	0.361
0.350	0.328	0.306	0.288	0.357	0.340	0.497	0.313

Buprofezin (mg/Kg)		Cadusafos (mg/Kg)		Carbofuran (mg/Kg)		3-hydroxy-carbofuran (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.697	0.651	0.651	0.654	0.242	0.244	0.042	0.042
0.682	0.675	0.608	0.691	0.218	0.220	0.050	0.045
0.679	0.603	0.672	0.679	0.265	0.266	0.046	0.046
0.670	0.664	0.684	0.663	0.269	0.265	0.046	0.045
0.677	0.643	0.634	0.631	0.233	0.240	0.047	0.048
0.642	0.655	0.641	0.630	0.218	0.204	0.052	0.051
0.660	0.664	0.695	0.680	0.236	0.234	0.053	0.052
0.635	0.610	0.602	0.611	0.232	0.230	0.052	0.050
0.612	0.618	0.625	0.633	0.217	0.221	0.053	0.054
0.689	0.687	0.660	0.671	0.262	0.255	0.048	0.046

Deltamethrin (mg/Kg)		Diazinon (mg/Kg)		Isofenphos-methyl (mg/Kg)		Lambda-cyhalothrin (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.153	0.150	0.962	0.904	0.541	0.529	0.259	0.265
0.160	0.156	0.930	0.901	0.546	0.543	0.259	0.258
0.154	0.150	0.985	0.920	0.557	0.556	0.253	0.257
0.150	0.153	0.952	0.969	0.570	0.550	0.254	0.250
0.147	0.149	0.993	0.993	0.588	0.591	0.252	0.255
0.157	0.160	0.963	0.975	0.556	0.555	0.255	0.248
0.158	0.155	0.961	0.962	0.589	0.585	0.253	0.250
0.160	0.157	0.914	0.913	0.585	0.593	0.258	0.260
0.157	0.159	0.942	0.942	0.520	0.551	0.251	0.257
0.142	0.150	0.913	0.976	0.566	0.538	0.256	0.256

APPENDIX 1. Homogeneity Data

Metalaxyl sum (mg/Kg)		Methamidophos (mg/Kg)		Methidathion (mg/Kg)		Methomyl (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.382	0.397	0.330	0.326	0.448	0.437	0.277	0.272
0.455	0.449	0.395	0.399	0.438	0.441	0.224	0.229
0.393	0.423	0.375	0.387	0.472	0.399	0.296	0.271
0.424	0.427	0.392	0.371	0.464	0.400	0.222	0.221
0.442	0.447	0.409	0.383	0.449	0.450	0.254	0.251
0.418	0.442	0.390	0.400	0.452	0.451	0.221	0.227
0.460	0.462	0.409	0.398	0.399	0.414	0.325	0.336
0.458	0.460	0.383	0.380	0.400	0.400	0.027	0.272
0.504	0.503	0.387	0.380	0.440	0.479	0.267	0.257
0.391	0.417	0.323	0.339	0.422	0.449	0.285	0.253

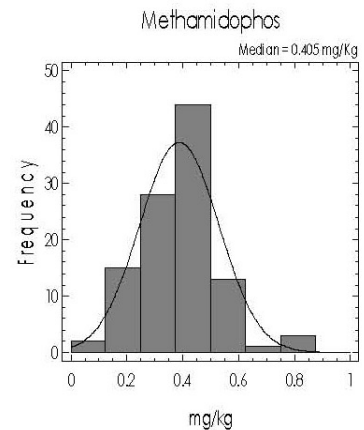
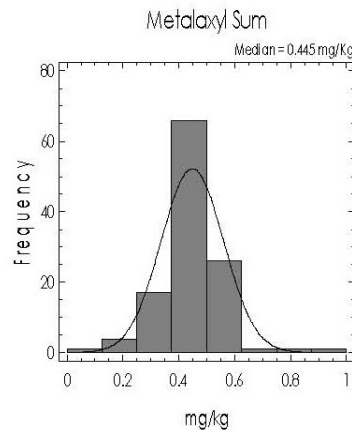
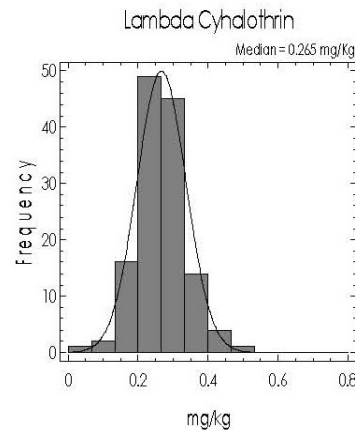
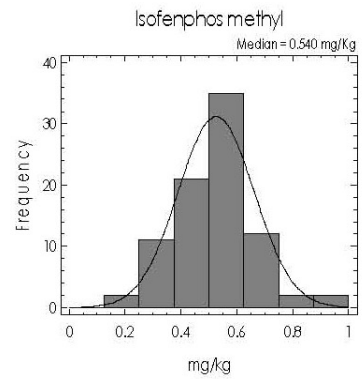
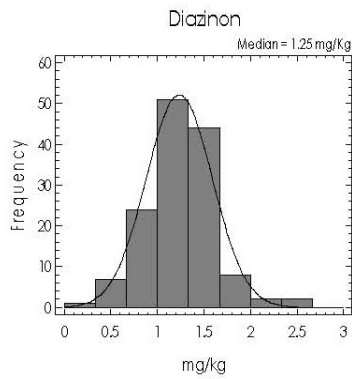
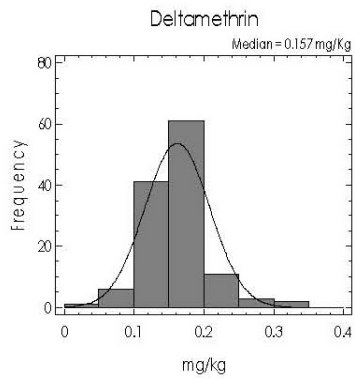
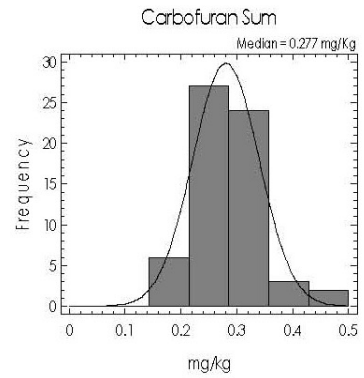
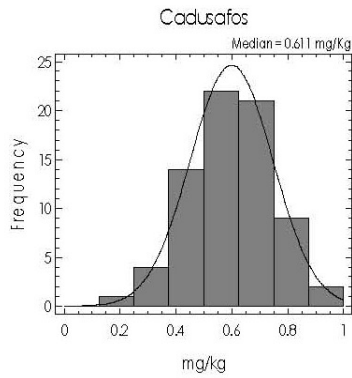
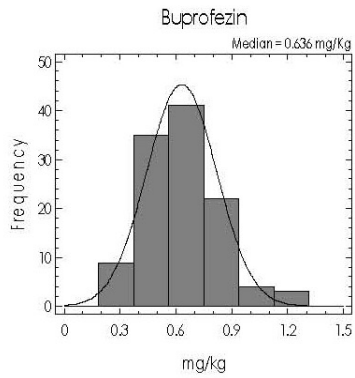
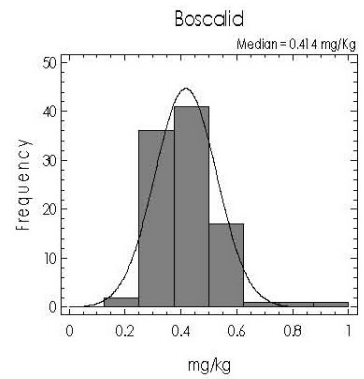
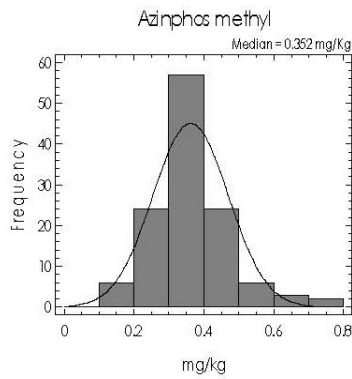
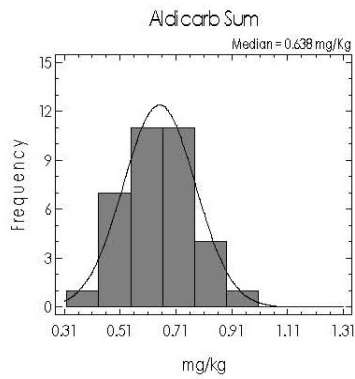
Monocrotophos (mg/Kg)		Oxamyl (mg/Kg)		Parathion-methyl (mg/Kg)		Paraoxon-methyl (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.441	0.443	0.244	0.246	0.156	0.152	0.186	0.182
0.397	0.383	0.255	0.256	0.154	0.152	0.184	0.182
0.423	0.408	0.248	0.249	0.150	0.153	0.170	0.153
0.385	0.394	0.251	0.251	0.151	0.156	0.171	0.166
0.407	0.440	0.267	0.262	0.160	0.157	0.180	0.177
0.423	0.438	0.268	0.268	0.160	0.159	0.200	0.189
0.392	0.435	0.272	0.272	0.196	0.193	0.196	0.193
0.405	0.394	0.266	0.258	0.145	0.147	0.205	0.207
0.398	0.422	0.274	0.267	0.150	0.109	0.190	0.189
0.378	0.431	0.271	0.250	0.150	0.106	0.190	0.166

Phosalone (mg/Kg)		Procymidone (mg/Kg)		Thiacloprid (mg/Kg)		Triazophos (mg/Kg)	
Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
0.307	0.301	0.771	0.779	0.866	0.868	0.518	0.517
0.334	0.332	0.642	0.667	0.846	0.840	0.512	0.524
0.303	0.303	0.742	0.742	0.874	0.880	0.530	0.534
0.313	0.317	0.759	0.760	0.864	0.871	0.461	0.453
0.326	0.324	0.775	0.749	0.865	0.863	0.527	0.536
0.345	0.349	0.728	0.625	0.855	0.849	0.528	0.549
0.316	0.316	0.794	0.621	0.818	0.815	0.470	0.470
0.324	0.336	0.620	0.609	0.885	0.882	0.468	0.471
0.327	0.329	0.710	0.661	0.878	0.688	0.517	0.548
0.304	0.302	0.682	0.656	0.828	0.865	0.546	0.557

The sample numbers used for this test were: 5, 44, 69, 77, 116, 141, 182, 209, 253 and 281

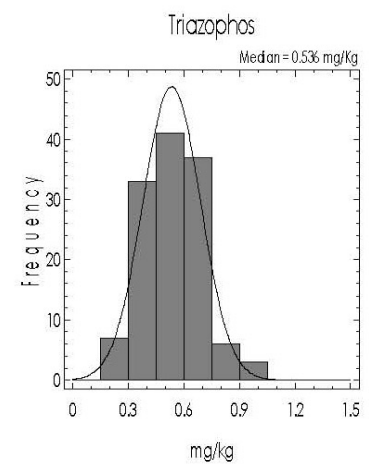
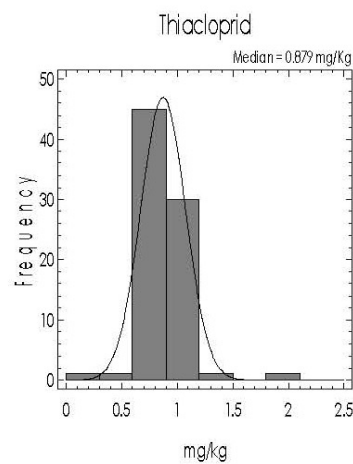
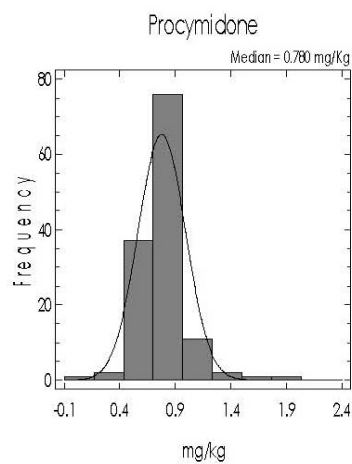
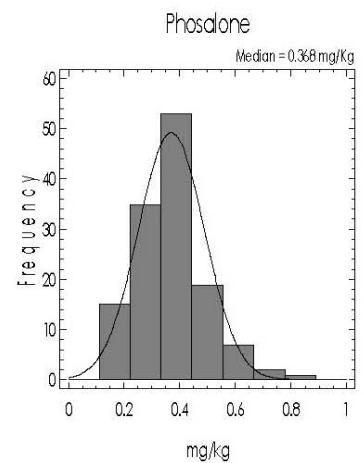
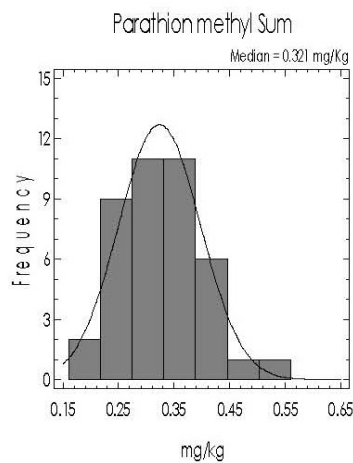
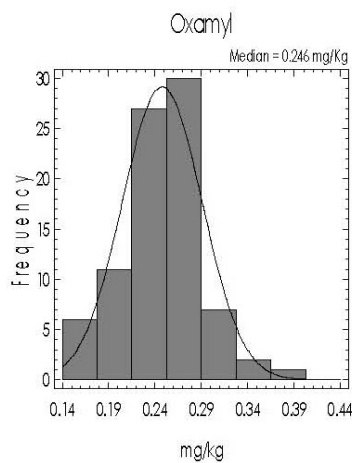
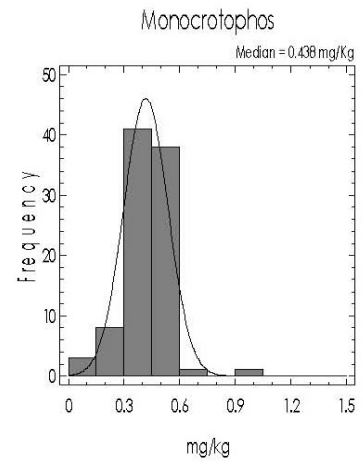
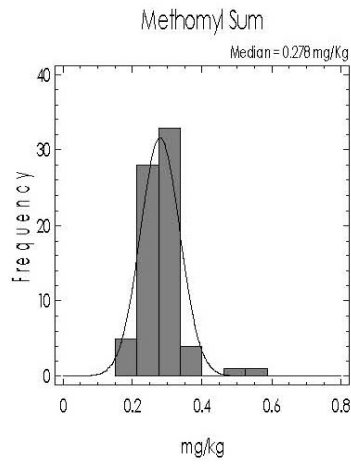
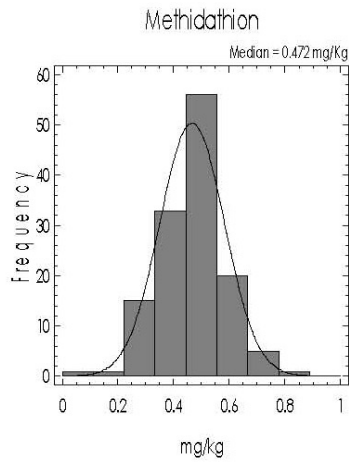
APPENDIX 2. Histograms of residue data for each pesticide from all the laboratories.

Results presented as histograms.



APPENDIX 2. Histograms of residue data for each pesticide from all the laboratories.

Results presented as histograms.



APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Results given by the laboratories (mg/kg) and their calculated z-score value using FFP RSD 25%

Lab Code	*Aldicarb sum		* Azinphos-methyl		Boscalid		Buprofezin	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.658		0.355		0.414		0.638	
Lab-001	NA		0.366	0.1	NA		NA	
Lab-002	0.658	0.0	0.317	-0.4	0.485	0.7	1.14	3.1
Lab-003	0.696	0.2	0.36	0.1	0.45	0.3	0.689	0.3
Lab-004	0.708	0.3	0.292	-0.7	NA		NA	
Lab-005	0.524	-0.8	0.332	-0.3	0.315	-1.0	0.663	0.2
Lab-006	0.679	0.1	0.349	-0.1	0.373	-0.4	0.453	-1.2
Lab-007	0.66	0.0	0.425	0.8	0.469	0.5	0.756	0.7
Lab-008	No results reported							
Lab-009	0.745	0.5	ND	-3.9	0.28	-1.3	0.662	0.2
Lab-010	NA		NA		NA		0.96	2.0
Lab-011	0.525	-0.8	0.438	0.9	0.53	1.1	0.67	0.2
Lab-012	0.421	-1.4	NA		NA		NA	
Lab-013	NA		0.401	0.5	0.356	-0.6	0.411	-1.4
Lab-014	NA		0.52	1.9	NA		NA	
Lab-015	0.554	-0.6	0.384	0.3	0.43	0.2	0.608	-0.2
Lab-016	0.316	-2.1	0.227	-1.4	NA		0.634	0.0
Lab-017	0.863	1.2	0.387	0.4	0.431	0.2	0.432	-1.3
Lab-018	0.649	-0.1	0.391	0.4	0.585	1.7	0.726	0.6
Lab-019	0.663	0.0	0.465	1.2	0.492	0.8	0.432	-1.3
Lab-020	0.59	-0.4	0.27	-1.0	0.32	-0.9	0.42	-1.4
Lab-021	NA		0.314	-0.5	0.366	-0.5	0.647	0.1
Lab-022	NA		NA		NA		NA	
Lab-023	0.566	-0.6	0.316	-0.4	0.275	-1.3	0.477	-1.0
Lab-024	0.75	0.6	0.45	1.1	0.35	-0.6	0.4	-1.5
Lab-025	NA		0.415	0.7	0.45	0.3	0.66	0.1
Lab-026	0.762	0.6	NA		0.764	3.4	0.856	1.4
Lab-027	0.464	-1.2	0.183	-1.9	0.256	-1.5	0.404	-1.5
Lab-028	0.614	-0.3	0.26	-1.1	0.299	-1.1	0.474	-1.0
Lab-029	0.733	0.5	0.317	-0.4	0.358	-0.5	0.581	-0.4
Lab-030	0.759	0.6	0.389	0.4	0.504	0.9	0.475	-1.0
Lab-031	0.554	-0.6	0.236	-1.3	0.262	-1.5	0.559	-0.5
Lab-032	0.63	-0.2	0.404	0.6	0.456	0.4	0.612	-0.2
Lab-033	NA		0.209	-1.6	0.367	-0.5	0.464	-1.1
Lab-034	0.281	-2.3	0.322	-0.4	0.36	-0.5	0.592	-0.3
Lab-035	0.72	0.4	0.437	0.9	0.435	0.2	0.826	1.2
Lab-036	0.505	-0.9	0.384	0.3	0.434	0.2	0.673	0.2
Lab-037	0.781	0.7	0.33	-0.3	0.393	-0.2	0.528	-0.7
Lab-038	0.948	1.8	0.378	0.3	0.414	0.0	0.754	0.7
Lab-039	0.721	0.4	0.322	-0.4	0.598	1.8	0.678	0.3
Lab-040	0.642	-0.1	0.214	-1.6	0.346	-0.7	0.607	-0.2
Lab-041	0.743	0.5	0.388	0.4	0.454	0.4	0.789	0.9
Lab-042	No results reported							
Lab-043	NA		0.45	1.1	NA		NA	
Lab-044	0.322	-2.0	0.447	1.0	0.37	-0.4	0.503	-0.8
Lab-045	0.56	-0.6	0.225	-1.5	0.253	-1.6	0.516	-0.8
Lab-046	NA		0.754	4.5	NA		NA	

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	*Aldicarb sum		* Azinphos-methyl					
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.658		0.355		0.414		0.638	
Lab-047	0.76	0.6	0.382	0.3	0.566	1.5	0.771	0.8
Lab-048	0.389	-1.6	0.461	1.2	0.402	-0.1	0.94	1.9
Lab-049	0.36	-1.8	0.348	-0.1	0.398	-0.2	0.762	0.8
Lab-050	0.662	0.0	0.054	-3.4	0.44	0.3	0.708	0.4
Lab-051	0.427	-1.4	0.516	1.8	0.53	1.1	0.828	1.2
Lab-052	0.52	-0.8	0.199	-1.8	0.411	0.0	0.84	1.3
Lab-053	NA		NA		NA		NA	
Lab-054	0.605	-0.3	0.46	1.2	0.537	1.2	0.853	1.3
Lab-055	NA		0.244	-1.3	NA		NA	
Lab-056	0.495	-1.0	0.268	-1.0	0.328	-0.8	0.674	0.2
Lab-057	0.638	-0.1	0.343	-0.1	0.348	-0.6	ND	-3.9
Lab-058	0.314	-2.1	0.252	-1.2	0.284	-1.3	0.438	-1.3
Lab-059	0.323	-2.0	0.45	1.1	0.423	0.1	0.767	0.8
Lab-060	0.689	0.2	0.595	2.7	0.512	0.9	0.997	2.3
Lab-061	0.569	-0.5	0.326	-0.3	0.295	-1.1	0.684	0.3
Lab-062	0.585	-0.4	0.313	-0.5	0.265	-1.4	0.547	-0.6
Lab-063	0.76	0.6	0.381	0.3	0.461	0.5	0.812	1.1
Lab-064	0.584	-0.4	0.318	-0.4	0.383	-0.3	0.708	0.4
Lab-065	NA		0.207	-1.7	NA		0.316	-2.0
Lab-066	0.41	-1.5	0.149	-2.3	0.216	-1.9	0.37	-1.7
Lab-067	NA		0.55	2.2	NA		0.75	0.7
Lab-068	NA		0.3	-0.6	0.503	0.9	0.72	0.5
Lab-069	0.57	-0.5	0.275	-0.9	0.335	-0.8	0.632	0.0
Lab-070	0.418	-1.5	0.386	0.3	0.496	0.8	0.771	0.8
Lab-071	0.34	-1.9	0.41	0.6	0.42	0.1	0.92	1.8
Lab-072	NA		0.385	0.3	0.373	-0.4	0.541	-0.6
Lab-073	0.251	-2.5	0.33	-0.3	0.402	-0.1	0.317	-2.0
Lab-074	NA		ND	-3.9	0.307	-1.0	0.906	1.7
Lab-075	0.857	1.2	0.21	-1.6	0.285	-1.2	0.555	-0.5
Lab-076	0.745	0.5	0.44	1.0	0.36	-0.5	0.91	1.7
Lab-077	NA		0.29	-0.7	0.29	-1.2	0.44	-1.2
Lab-078	0.32	-2.1	ND	-3.9	NA		0.76	0.8
Lab-079	0.711	0.3	0.431	0.9	0.501	0.8	0.659	0.1
Lab-080	ND	-3.9	0.491	1.5	0.596	1.8	0.417	-1.4
Lab-081	0.559	-0.6	0.835	5.4	0.883	4.5	0.871	1.5
Lab-082	0.523	-0.8	0.367	0.1	0.432	0.2	0.615	-0.1
Lab-083	NA		0.652	3.3	0.304	-1.1	NA	
Lab-084	NA		NA		NA		NA	
Lab-085	0.589	-0.4	ND	-3.9	0.572	1.5	0.672	0.2
Lab-086	NA		NA		0.343	-0.7	0.574	-0.4
Lab-087	0.695	0.2	0.4	0.5	0.54	1.2	0.72	0.5
Lab-088	NA		0.353	0.0	NA		NA	
Lab-089	0.778	0.7	0.5	1.6	0.305	-1.1	0.273	-2.3
Lab-090	0.635	-0.1	0.325	-0.3	0.417	0.0	0.495	-0.9
Lab-091	0.687	0.2	0.35	-0.1	0.421	0.1	0.648	0.1
Lab-092	0.731	0.4	0.428	0.8	0.481	0.6	0.96	2.0
Lab-093	0.595	-0.4	0.365	0.1	0.428	0.1	0.616	-0.1

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Lab Code	*Aldicarb sum		* Azinphos-methyl					
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)	Buprofezin	z-Score (FFP RSD 25%)
Median (mg/kg)	0.658		0.355					
Lab-094	NA		0.332	-0.3	0.262	-1.5	0.378	-1.6
Lab-095	0.538	-0.7	0.712	4.0	0.312	-1.0	0.6545	0.1
Lab-096	0.994	2.0	0.376	0.2	0.437	0.2	0.786	0.9
Lab-097	0.561	-0.6	0.328	-0.3	NA		NA	
Lab-098	NA		0.327	-0.3	0.498	0.8	0.638	0.0
Lab-099	NA		NA		NA		1.142	3.2
Lab-100	NA		0.109	-2.8	NA		NA	
Lab-101	NA		0.287	-0.8	NA		0.487	-0.9
Lab-102	NA		NA		0.52	1.0	0.73	0.6
Lab-103	NA		0.298	-0.6	NA		0.528	-0.7
Lab-104	0.675	0.1	0.639	3.2	ND	-3.9	0.309	-2.1
Lab-105	NA		0.61	2.9	0.52	1.0	0.7	0.4
Lab-106	0.2	-2.8	0.482	1.4	0.487	0.7	0.518	-0.8
Lab-107	0.575	-0.5	0.198	-1.8	NA		0.366	-1.7
Lab-108	0.609	-0.3	0.191	-1.8	0.392	-0.2	0.311	-2.1
Lab-109	0.883	1.4	0.239	-1.3	0.321	-0.9	0.441	-1.2
Lab-110	NA		0.368	0.1	NA		NA	
Lab-111	NA		NA		NA		0.28	-2.2
Lab-112	NA		ND	-3.9	NA		0.45	-1.2
Lab-113	NA		0.256	-1.1	0.362	-0.5	0.422	-1.4
Lab-114	NA		0.319	-0.4	NA		NA	
Lab-115	NA		0.387	0.4	NA		NA	
Lab-116	NA		0.349	-0.1	NA		NA	
Lab-117	NA		0.31	-0.5	NA		NA	
Lab-118	ND	-3.9	0.348	-0.1	NA		NA	
Lab-119	0.51	-0.9	0.45	1.1	0.43	0.2	0.6	-0.2
Lab-120	0.536	-0.7	0.355	0.0	0.367	-0.5	0.614	-0.2
Lab-121	0.754	0.6	0.416	0.7	0.427	0.1	0.704	0.4
Lab-122	NA		NA		NA		0.888	1.6
Lab-123	NA		0.605	2.8	0.266	-1.4	0.511	-0.8
Lab-124	0.747	0.5	0.215	-1.6	0.582	1.6	0.762	0.8
Lab-125	0.584	-0.4	0.388	0.4	0.649	2.3	0.693	0.3
Lab-126	NA		0.32	-0.4	NA		0.49	-0.9
Lab-127	NA		NA		NA		NA	
Lab-128	NA		0.304	-0.6	NA		NA	
Lab-129	NA		0.227	-1.4	NA		NA	
Lab-130	NA		0.341	-0.2	NA		NA	
Lab-131	0.827	1.0	0.37	0.2	0.43	0.2	0.727	0.6
Lab-132	NA		0.336	-0.2	NA		NA	
Lab-133	0.632	-0.2	0.351	0.0	0.394	-0.2	0.391	-1.5
Lab-134	NA		NA		NA		0.58	-0.4
Lab-135	0.633	-0.2	0.38	0.3	0.35	-0.6	0.645	0.0
Lab-136	0.535	-0.7	0.345	-0.1	0.451	0.4	0.51	-0.8
Lab-137	0.664	0.0	0.307	-0.5	NA		1.158	3.3
Lab-138	NA		0.381	0.3	NA		0.771	0.8
Lab-139	NA		NA		NA		NA	
Lab-140	NA		0.5057	1.7	0.384	-0.3	0.7406	0.6

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	* Aldicarb sum		* Azinphos-methyl					
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)	Buprofezin	z-Score (FFP RSD 25%)
Median (mg/kg)	0.658		0.355					
Lab-141	0.765	0.7	0.34	-0.2	0.426	0.1	0.624	-0.1
Lab-142	NA		0.27	-1.0	NA		NA	
Lab-143	0.535	-0.7	0.372	0.2	0.408	-0.1	0.706	0.4
Lab-144	0.401	-1.6	0.29	-0.7	NA		0.545	-0.6
Lab-145	1.544	5.4	0.187	-1.9	0.224	-1.8	0.309	-2.1
Lab-146	NA		NA		NA		NA	
Lab-147	No results reported							
Lab-148	0.723	0.4	0.811	5.1	0.546	1.3	0.541	-0.6
Lab-149	NA		0.408	0.6	0.402	-0.1	0.68	0.3
Lab-150	NA		0.408	0.6	0.48	0.6	0.556	-0.5
Lab-151	NA		0.52	1.9	NA		NA	

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Results given by the laboratories (mg/kg) and their calculated z-score value using FFP RSD 25%

Lab Code	Cadusafos		Carbofuran sum		* Deltamethrin		Diazinon	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.611		0.283		0.157		1.25	
Lab-001	NA		NA		0.166	0.2	0.921	-1.1
Lab-002	0.892	1.8	0.329	0.7	0.247	2.3	2.88	5.2
Lab-003	0.696	0.6	0.287	0.1	0.182	0.6	1.54	0.9
Lab-004	NA		NA		0.187	0.8	1.336	0.3
Lab-005	0.612	0.0	0.214	-1.0	0.197	1.0	1.52	0.9
Lab-006	0.81	1.3	0.245	-0.5	0.138	-0.5	1.14	-0.4
Lab-007	0.803	1.3	0.289	0.1	0.152	-0.1	1.49	0.8
Lab-008	No results reported							
Lab-009	0.861	1.6	0.329	0.7	0.141	-0.4	1.25	0.0
Lab-010	NA		NA		0.127	-0.8	1.682	1.4
Lab-011	0.54	-0.5	0.143	-2.0	0.18	0.6	1.35	0.3
Lab-012	NA		0.393	1.6	NA		1.068	-0.6
Lab-013	0.371	-1.6	NA		0.131	-0.7	0.777	-1.5
Lab-014	NA		0.3	0.2	0.2	1.1	1.13	-0.4
Lab-015	0.562	-0.3	0.326	0.6	0.167	0.3	1.08	-0.5
Lab-016	NA		0.215	-1.0	0.139	-0.5	0.813	-1.4
Lab-017	0.83	1.4	0.387	1.5	0.157	0.0	1.037	-0.7
Lab-018	0.692	0.5	0.303	0.3	0.189	0.8	1.56	1.0
Lab-019	0.444	-1.1	0.2	-1.2	0.049	-2.8	1.331	0.3
Lab-020	NA		0.24	-0.6	0.12	-0.9	1.02	-0.7
Lab-021	0.465	-1.0	0.103	-2.5	NA		0.879	-1.2
Lab-022	NA		NA		0.139	-0.5	0.469	-2.5
Lab-023	0.598	-0.1	0.275	-0.1	0.144	-0.3	1.119	-0.4
Lab-024	NA		0.32	0.5	0.16	0.1	0.9	-1.1
Lab-025	0.611	0.0	0.24	-0.6	0.19	0.8	0.905	-1.1
Lab-026	0.725	0.7	0.262	-0.3	0.217	1.5	1.42	0.5
Lab-027	0.144	-3.1	0.143	-2.0	0.102	-1.4	1.28	0.1
Lab-028	0.494	-0.8	0.286	0.0	0.155	-0.1	1.045	-0.7
Lab-029	0.38	-1.5	0.27	-0.2	0.25	2.4	1.27	0.1
Lab-030	ND		0.337	0.8	0.123	-0.9	1.27	0.1
Lab-031	0.434	-1.2	0.279	-0.1	0.173	0.4	1.002	-0.8
Lab-032	0.538	-0.5	0.222	-0.9	0.161	0.1	1.31	0.2
Lab-033	0.462	-1.0	0.227	-0.8	0.133	-0.6	1.18	-0.2
Lab-034	NA		0.181	-1.4	NA		0.882	-1.2
Lab-035	0.708	0.6	0.307	0.3	0.19	0.8	1.74	1.6
Lab-036	0.6	-0.1	0.271	-0.2	0.147	-0.3	1.4	0.5
Lab-037	0.536	-0.5	0.308	0.4	0.123	-0.9	1.44	0.6
Lab-038	0.632	0.1	0.336	0.7	0.158	0.0	1.434	0.6
Lab-039	0.755	0.9	0.433	2.1	0.273	3.0	2.51	4.0
Lab-040	NA		0.217	-0.9	0.151	-0.2	1.3	0.2
Lab-041	0.658	0.3	0.293	0.1	0.123	-0.9	1.280	0.1
Lab-042	No results reported							
Lab-043	NA		NA		NA		0.71	-1.7
Lab-044	0.633	0.1	0.217	-0.9	0.22	1.6	1.21	-0.1
Lab-045	0.372	-1.6	0.222	-0.9	0.156	0.0	0.894	-1.1
Lab-046	NA		0.144	-2.0	0.137	-0.5	0.611	-2.0

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	Cadusafos		Carbofuran sum		* Deltamethrin		Diazinon	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.611		0.283		0.157		1.25	
Lab-047	0.786	1.1	0.254	-0.4	0.186	0.7	1.375	0.4
Lab-048	NA		0.293	0.1	0.169	0.3	1.288	0.1
Lab-049	0.313	-2.0	0.245	-0.5	0.182	0.6	1.09	-0.5
Lab-050	0.666	0.4	0.178	-1.5	0.025	-3.4	1.31	0.2
Lab-051	0.901	1.9	0.297	0.2	0.156	0.0	1.52	0.9
Lab-052	0.64	0.2	0.273	-0.1	0.18	0.6	1.56	1.0
Lab-053	NA		NA		0.1	-1.5	0.79	-1.5
Lab-054	0.616	0.0	0.231	-0.7	0.153	-0.1	1.773	1.7
Lab-055	NA		NA		0.154	-0.1	1.74	1.6
Lab-056	0.573	-0.2	0.235	-0.7	0.111	-1.2	1.251	0.0
Lab-057	0.53	-0.5	0.317	0.5	0.192	0.9	1.32	0.2
Lab-058	0.467	-0.9	0.219	-0.9	0.116	-1.0	0.979	-0.9
Lab-059	0.693	0.5	0.237	-0.7	0.21	1.4	1.345	0.3
Lab-060	NA		0.32	0.5	0.176	0.5	1.6	1.1
Lab-061	0.624	0.1	0.263	-0.3	0.157	0.0	1.658	1.3
Lab-062	0.564	-0.3	0.241	-0.6	0.111	-1.2	1.34	0.3
Lab-063	0.734	0.8	0.338	0.8	0.189	0.8	1.52	0.9
Lab-064	NA		0.2	-1.2	0.156	0.0	1.4	0.5
Lab-065	NA		NA		0.088	-1.8	0.703	-1.8
Lab-066	0.14	-3.1	0.19	-1.3	0.137	-0.5	0.425	-2.6
Lab-067	NA		NA		0.2	1.1	1.45	0.6
Lab-068	0.611	0.0	0.223	-0.8	0.17	0.3	1.342	0.3
Lab-069	0.525	-0.6	0.286	0.0	0.163	0.2	1.56	1.0
Lab-070	0.665	0.4	0.245	-0.5	ND	-3.7	2.12	2.8
Lab-071	0.66	0.3	0.27	-0.2	0.11	-1.2	1.66	1.3
Lab-072	0.696	0.6	0.235	-0.7	0.128	-0.7	1.2	-0.2
Lab-073	0.275	-2.2	0.207	-1.1	0.31	3.9	0.707	-1.7
Lab-074	NA		0.664	5.4	0.111	-1.2	1.37	0.4
Lab-075	NA		0.314	0.4	0.062	-2.4	1.183	-0.2
Lab-076	0.57	-0.3	0.31	0.4	0.09	-1.7	1.58	1.1
Lab-077	NA		0.24	-0.6	0.27	2.9	0.93	-1.0
Lab-078	NA		NA		NA		1.51	0.8
Lab-079	0.669	0.4	0.316	0.5	0.191	0.9	1.35	0.3
Lab-080	0.377	-1.5	0.335	0.7	0.174	0.4	1.2	-0.2
Lab-081	NA		0.523	3.4	NA		2.36	3.6
Lab-082	0.455	-1.0	0.295	0.2	0.211	1.4	1.19	-0.2
Lab-083	NA		NA		0.161	0.1	1.52	0.9
Lab-084	NA		NA		0.174	0.4	NA	
Lab-085	0.753	0.9	0.225	-0.8	0.106	-1.3	1.69	1.4
Lab-086	NA		NA		NA		1.44	0.6
Lab-087	0.7	0.6	0.331	0.7	0.15	-0.2	1.4	0.5
Lab-088	NA		NA		0.054	-2.6	1.256	0.0
Lab-089	0.5	-0.7	0.235	-0.7	0.178	0.5	1.39	0.4
Lab-090	0.556	-0.4	0.22	-0.9	0.195	1.0	1.173	-0.2
Lab-091	0.811	1.3	0.251	-0.5	0.143	-0.4	1.36	0.4
Lab-092	0.611	0.0	0.351	1.0	0.23	1.9	2.04	2.5
Lab-093	0.491	-0.8	0.251	-0.5	0.174	0.4	1.12	-0.4

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Lab Code	Cadusafos		Carbofuran sum		* Deltamethrin		Diazinon	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.611		0.283		0.157		1.25	
Lab-094	0.642	0.2	0.294	0.2	0.076	-2.1	1.097	-0.5
Lab-095	NA		0.475	2.7	ND	-3.7	1.2504	0.0
Lab-096	0.732	0.8	0.359	1.1	0.3	3.6	1.77	1.7
Lab-097	0.484	-0.8	NA		0.103	-1.4	1.32	0.2
Lab-098	NA		0.316	0.5	0.167	0.3	1.302	0.2
Lab-099	NA		NA		NA		0.198	-3.4
Lab-100	NA		NA		0.109	-1.2	1.37	0.4
Lab-101	NA		NA		0.142	-0.4	0.79	-1.5
Lab-102	NA		0.2	-1.2	0.19	0.8	1.1	-0.5
Lab-103	0.507	-0.7	NA		NA		1.15	-0.3
Lab-104	NA		0.261	-0.3	0.121	-0.9	0.582	-2.1
Lab-105	NA		0.13	-2.2	0.24	2.1	1.35	0.3
Lab-106	0.749	0.9	0.234	-0.7	0.223	1.7	1.82	1.8
Lab-107	NA		0.261	-0.3	0.118	-1.0	0.855	-1.3
Lab-108	NA		0.28	0.0	0.202	1.1	0.868	-1.2
Lab-109	0.543	-0.4	0.252	-0.4	ND	-3.7	1.01	-0.8
Lab-110	NA		NA		0.141	-0.4	1.228	-0.1
Lab-111	NA		NA		0.15	-0.2	1	-0.8
Lab-112	NA		NA		NA		1.519	0.9
Lab-113	NA		0.238	-0.6	0.199	1.1	1.126	-0.4
Lab-114	NA		NA		0.142	-0.4	0.518	-2.3
Lab-115	NA		NA		NA		1.47	0.7
Lab-116	NA		NA		0.15	-0.2	1.095	-0.5
Lab-117	NA		NA		0.153	-0.1	1.48	0.7
Lab-118	NA		NA		0.22	1.6	1.358	0.3
Lab-119	0.5	-0.7	0.25	-0.5	0.15	-0.2	1.06	-0.6
Lab-120	0.425	-1.2	0.307	0.3	0.156	0.0	1.04	-0.7
Lab-121	0.849	1.6	0.216	-0.9	0.121	-0.9	1.38	0.4
Lab-122	NA		NA		0.334	4.5	0.92	-1.1
Lab-123	NA		NA		0.14	-0.4	1.183	-0.2
Lab-124	NA		0.295	0.2	0.151	-0.2	1.15	-0.3
Lab-125	NA		0.255	-0.4	0.193	0.9	1.523	0.9
Lab-126	NA		0.27	-0.2	0.13	-0.7	1.13	-0.4
Lab-127	NA		NA		NA		NA	
Lab-128	NA		NA		0.151	-0.2	0.955	-0.9
Lab-129	NA		NA		NA		NA	
Lab-130	NA		NA		0.153	-0.1	0.96	-0.9
Lab-131	0.658	0.3	0.298	0.2	0.143	-0.4	1.46	0.7
Lab-132	NA		NA		0.108	-1.2	1.17	-0.3
Lab-133	0.535	-0.5	0.241	-0.6	0.164	0.2	0.932	-1.0
Lab-134	NA		NA		NA		NA	
Lab-135	0.506	-0.7	0.241	-0.6	0.191	0.9	1.1	-0.5
Lab-136	0.481	-0.9	0.248	-0.5	0.168	0.3	1	-0.8
Lab-137	NA		0.175	-1.5	0.395	6.1	1.08	-0.5
Lab-138	NA		0.191	-1.3	NA		1.14	-0.4
Lab-139	NA		NA		0.13	-0.7	1.2	-0.2
Lab-140	NA		0.23	-0.7	0.2189	1.6	1.64	1.2

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	Cadusafos		Carbofuran sum		* Deltamethrin		Diazinon	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.611		0.283		0.157		1.25	
Lab-141	0.668	0.4	0.311	0.4	0.171	0.4	1.47	0.7
Lab-142	NA		NA		0.2	1.1	0.66	-1.9
Lab-143	0.655	0.3	0.229	-0.8	0.161	0.1	1.32	0.2
Lab-144	NA		NA		0.125	-0.8	1.14	-0.4
Lab-145	NA		0.283	0.0	0.081	-1.9	0.508	-2.4
Lab-146	NA		NA		0.179	0.6	0.868	-1.2
Lab-147	No results reported							
Lab-148	NA		0.467	2.6	0.152	-0.1	1.425	0.6
Lab-149	NA		0.261	-0.3	0.19	0.8	1	-0.8
Lab-150	NA		0.281	0.0	0.159	0.1	1.287	0.1
Lab-151	NA		NA		0.19	0.8	1.8	1.8

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Results given by the laboratories (mg/kg) and their calculated z-score value using FFP RSD 25%

Lab Code	Isofenphos-methyl		* Lambda-cyhalothrin		* Metalaxyl and Metalaxyl-M		* Methamidophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.540		0.266		0.450		0.405	
Lab-001	NA		0.237	-0.4	NA		0.316	-0.9
Lab-002	0.891	2.6	0.38	1.7	0.599	1.3	0.299	-1.0
Lab-003	0.591	0.4	0.319	0.8	0.49	0.4	0.482	0.8
Lab-004	NA		0.358	1.4	0.234	-1.9	0.548	1.4
Lab-005	0.518	-0.2	0.262	-0.1	0.403	-0.4	0.329	-0.7
Lab-006	0.498	-0.3	0.211	-0.8	0.445	0.0	0.341	-0.6
Lab-007	0.715	1.3	0.241	-0.4	0.481	0.3	0.407	0.0
Lab-008	No results reported							
Lab-009	0.481	-0.4	0.192	-1.1	0.393	-0.5	0.343	-0.6
Lab-010	0.555	0.1	0.263	0.0	0.324	-1.1	NA	
Lab-011	0.65	0.8	0.34	1.1	0.58	1.2	0.45	0.4
Lab-012	NA		NA		NA		NA	
Lab-013	NA		0.303	0.6	0.46	0.1	0.17	-2.3
Lab-014	NA		0.29	0.4	0.52	0.6	0.15	-2.5
Lab-015	0.532	-0.1	0.321	0.8	0.402	-0.4	0.401	0.0
Lab-016	0.415	-0.9	0.233	-0.5	0.316	-1.2	0.278	-1.3
Lab-017	0.883	2.5	0.269	0.0	0.572	1.1	0.325	-0.8
Lab-018	0.641	0.7	0.247	-0.3	0.54	0.8	0.463	0.6
Lab-019	0.377	-1.2	0.173	-1.4	0.593	1.3	0.49	0.8
Lab-020	0.38	-1.2	0.21	-0.8	0.52	0.6	0.32	-0.8
Lab-021	0.551	0.1	0.207	-0.9	0.131	-2.8	0.441	0.4
Lab-022	NA		0.207	-0.9	0.479	0.3	ND	-3.9
Lab-023	0.411	-1.0	0.213	-0.8	0.519	0.6	0.416	0.1
Lab-024	0.52	-0.1	0.25	-0.2	0.55	0.9	0.35	-0.5
Lab-025	0.54	0.0	0.305	0.6	0.43	-0.2	0.13	-2.7
Lab-026	0.712	1.3	0.328	0.9	0.614	1.5	0.5	0.9
Lab-027	NA		0.187	-1.2	0.25	-1.8	0.25	-1.5
Lab-028	0.361	-1.3	0.278	0.2	0.488	0.3	0.312	-0.9
Lab-029	0.3	-1.8	0.267	0.0	0.44	-0.1	0.391	-0.1
Lab-030	0.607	0.5	0.253	-0.2	0.514	0.6	0.455	0.5
Lab-031	0.367	-1.3	0.239	-0.4	0.425	-0.2	0.424	0.2
Lab-032	0.676	1.0	0.269	0.0	0.445	0.0	0.422	0.2
Lab-033	0.414	-0.9	0.134	-2.0	0.388	-0.6	0.186	-2.2
Lab-034	0.461	-0.6	NA		0.442	-0.1	NA	
Lab-035	0.654	0.8	0.312	0.7	0.508	0.5	0.539	1.3
Lab-036	0.578	0.3	0.282	0.2	0.416	-0.3	0.452	0.5
Lab-037	0.386	-1.1	0.248	-0.3	0.451	0.0	0.582	1.8
Lab-038	0.607	0.5	0.262	-0.1	0.506	0.5	0.566	1.6
Lab-039	0.755	1.6	0.29	0.4	0.685	2.1	0.505	1.0
Lab-040	0.51	-0.2	0.241	-0.4	0.416	-0.3	0.399	-0.1
Lab-041	0.455	-0.6	0.302	0.5	0.5	0.4	0.442	0.4
Lab-042	No results reported							

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	Isofenphos-methyl		* Lambda-cyhalothrin		* Metalaxyl and Metalaxyl-M		* Methamidophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.540		0.266		0.450		0.405	
Lab-043	NA		NA		0.5	0.4	0.18	-2.2
Lab-044	0.607	0.5	0.298	0.5	0.31	-1.2	ND	-3.9
Lab-045	0.333	-1.5	0.206	-0.9	0.363	-0.8	0.349	-0.5
Lab-046	NA		NA		ND	-3.9	ND	-3.9
Lab-047	0.535	0.0	0.277	0.2	0.571	1.1	0.433	0.3
Lab-048	NA		0.289	0.3	NA		0.45	0.4
Lab-049	0.521	-0.1	0.222	-0.7	0.472	0.2	0.221	-1.8
Lab-050	NA		0.052	-3.2	0.422	-0.2	0.324	-0.8
Lab-051	0.61	0.5	0.21	-0.8	0.555	0.9	0.446	0.4
Lab-052	0.478	-0.5	0.653	5.8	0.514	0.6	0.493	0.9
Lab-053	NA		0.17	-1.4	NA		NA	
Lab-054	0.557	0.1	0.283	0.3	0.472	0.2	0.119	-2.8
Lab-055	NA		0.295	0.4	0.474	0.2	NA	
Lab-056	0.24	-2.2	0.229	-0.6	0.416	-0.3	0.439	0.3
Lab-057	0.507	-0.2	0.266	0.0	0.459	0.1	0.329	-0.7
Lab-058	0.34	-1.5	0.182	-1.3	0.368	-0.7	0.39	-0.1
Lab-059	0.647	0.8	0.34	1.1	0.45	0.0	0.331	-0.7
Lab-060	0.716	1.3	0.317	0.8	0.487	0.3	0.521	1.2
Lab-061	0.556	0.1	0.274	0.1	0.44	-0.1	0.462	0.6
Lab-062	0.397	-1.1	0.245	-0.3	0.345	-0.9	0.486	0.8
Lab-063	0.619	0.6	0.298	0.5	0.566	1.0	0.421	0.2
Lab-064	NA		0.295	0.4	0.408	-0.4	0.265	-1.4
Lab-065	NA		0.12	-2.2	0.339	-1.0	0.126	-2.8
Lab-066	0.261	-2.1	ND	-3.8	0.348	-0.9	0.309	-0.9
Lab-067	0.6	0.4	0.4	2.0	NA		NA	
Lab-068	0.493	-0.3	0.335	1.0	0.566	1.0	0.465	0.6
Lab-069	0.467	-0.5	0.287	0.3	0.522	0.6	0.26	-1.4
Lab-070	NA		0.321	0.8	0.521	0.6	0.773	3.6
Lab-071	0.57	0.2	0.22	-0.7	0.44	-0.1	0.18	-2.2
Lab-072	0.596	0.4	0.376	1.7	0.489	0.3	ND	-3.9
Lab-073	NA		0.309	0.6	0.502	0.5	0.129	-2.7
Lab-074	NA		0.22	-0.7	1.31	5.0	NA	
Lab-075	NA		0.148	-1.8	0.332	-1.0	0.289	-1.1
Lab-076	0.59	0.4	0.2	-1.0	0.455	0.0	0.42	0.2
Lab-077	NA		0.26	-0.1	0.47	0.2	0.44	0.4
Lab-078	NA		0.27	0.1	NA		NA	
Lab-079	0.553	0.1	0.243	-0.3	0.495	0.4	0.581	1.7
Lab-080	0.51	-0.2	0.448	2.7	NA		NA	
Lab-081	NA		0.406	2.1	0.917	4.2	0.532	1.3
Lab-082	0.472	-0.5	0.272	0.1	0.409	-0.4	0.397	-0.1
Lab-083	NA		0.268	0.0	0.393	-0.5	NA	
Lab-084	NA		NA		NA		NA	
Lab-085	0.583	0.3	0.266	0.0	0.445	0.0	0.411	0.1

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Lab Code	Isofenphos-methyl		* Lambda-cyhalothrin		* Metalaxyl and Metalaxyl-M		* Methamidophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.540		0.266		0.450		0.405	
Lab-086	NA		0.248	-0.3	0.395	-0.5	NA	
Lab-087	0.6	0.4	0.24	-0.4	0.4	-0.4	0.55	1.4
Lab-088	NA		0.188	-1.2	NA		NA	
Lab-089	0.599	0.4	0.271	0.1	0.421	-0.3	0.0445	-3.6
Lab-090	NA		0.277	0.2	0.4	-0.4	0.482	0.8
Lab-091	0.575	0.3	0.23	-0.5	0.445	0.0	0.407	0.0
Lab-092	0.715	1.3	0.369	1.5	0.569	1.1	0.597	1.9
Lab-093	0.448	-0.7	0.262	-0.1	0.442	-0.1	0.407	0.0
Lab-094	0.353	-1.4	0.175	-1.4	0.43	-0.2	0.658	2.5
Lab-095	NA		0.205	-0.9	0.835	3.4	0.487	0.8
Lab-096	0.632	0.7	0.354	1.3	0.41	-0.4	0.437	0.3
Lab-097	0.388	-1.1	0.186	-1.2	0.33	-1.1	0.295	-1.1
Lab-098	NA		0.376	1.7	0.411	-0.3	NA	
Lab-099	NA		0.0247	-3.6	0.166	-2.5	NA	
Lab-100	NA		0.674	6.1	2.23	15.8	0.192	-2.1
Lab-101	NA		0.236	-0.5	NA		NA	
Lab-102	NA		0.27	0.1	0.5	0.4	NA	
Lab-103	NA		ND	-3.8	0.401	-0.4	NA	
Lab-104	0.235	-2.3	0.181	-1.3	0.3	-1.3	0.162	-2.4
Lab-105	NA		0.37	1.6	0.46	0.1	ND	-3.9
Lab-106	0.731	1.4	0.452	2.8	0.338	-1.0	0.309	-0.9
Lab-107	0.278	-1.9	0.238	-0.4	0.411	-0.3	0.202	-2.0
Lab-108	NA		0.272	0.1	0.404	-0.4	0.461	0.6
Lab-109	0.335	-1.5	0.234	-0.5	0.47	0.2	0.479	0.7
Lab-110	NA		0.155	-1.7	NA		0.316	-0.9
Lab-111	NA		0.34	1.1	0.38	-0.6	NA	
Lab-112	NA		0.237	-0.4	0.559	1.0	ND	-3.9
Lab-113	NA		0.22	-0.7	0.485	0.3	0.498	0.9
Lab-114	NA		0.23	-0.5	NA		0.215	-1.9
Lab-115	NA		0.329	0.9	NA		NA	
Lab-116	NA		0.249	-0.3	NA		ND	-3.9
Lab-117	NA		0.302	0.5	NA		NA	
Lab-118	NA		0.312	0.7	NA		NA	
Lab-119	0.43	-0.8	0.27	0.1	0.38	-0.6	0.4	0.0
Lab-120	0.355	-1.4	0.251	-0.2	0.4	-0.4	0.402	0.0
Lab-121	0.626	0.6	0.191	-1.1	0.47	0.2	0.614	2.1
Lab-122	NA		0.502	3.5	0.496	0.4	NA	
Lab-123	NA		0.188	-1.2	0.586	1.2	NA	
Lab-124	ND	-3.9	0.291	0.4	0.508	0.5	0.358	-0.5
Lab-125	0.582	0.3	0.338	1.1	0.493	0.4	0.388	-0.2
Lab-126	NA		0.28	0.2	NA		0.77	3.6
Lab-127	NA		NA		NA		NA	
Lab-128	NA		0.299	0.5	NA		NA	

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	Isofenphos-methyl		* Lambda-cyhalothrin		* Metalaxyl and Metalaxyl-M		* Methamidophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.540		0.266		0.450		0.405	
Lab-129	NA		NA		NA		0.506	1.0
Lab-130	NA		0.269	0.0	0.329	-1.1	0.262	-1.4
Lab-131	0.492	-0.4	0.251	-0.2	0.441	-0.1	0.447	0.4
Lab-132	NA		0.122	-2.2	NA		NA	
Lab-133	NA		0.285	0.3	0.461	0.1	0.189	-2.1
Lab-134	NA		0.223	-0.6	NA		NA	
Lab-135	0.426	-0.8	0.305	0.6	0.332	-1.0	0.489	0.8
Lab-136	0.366	-1.3	0.289	0.3	0.416	-0.3	0.282	-1.2
Lab-137	0.832	2.2	0.46	2.9	0.362	-0.8	0.316	-0.9
Lab-138	NA		NA		0.366	-0.7	0.334	-0.7
Lab-139	NA		0.227	-0.6	NA		NA	
Lab-140	0.5466	0.0	0.3904	1.9	0.44	-0.1	NA	
Lab-141	0.578	0.3	0.249	-0.3	0.485	0.3	0.754	3.5
Lab-142	NA		0.24	-0.4	NA		0.38	-0.2
Lab-143	0.578	0.3	0.24	-0.4	0.466	0.1	0.355	-0.5
Lab-144	NA		0.21	-0.8	0.25	-1.8	0.156	-2.5
Lab-145	0.367	-1.3	0.171	-1.4	0.596	1.3	0.356	-0.5
Lab-146	NA		0.261	-0.1	NA		0.458	0.5
Lab-147	No results reported							
Lab-148	0.442	-0.7	0.187	-1.2	0.307	-1.3	0.554	1.5
Lab-149	0.571	0.2	0.315	0.7	0.423	-0.2	NA	
Lab-150	0.616	0.6	0.196	-1.1	0.445	0.0	0.341	-0.6
Lab-151	NA		0.31	0.7	0.57	1.1	NA	

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Results given by the laboratories (mg/kg) and their calculated z-score value using FFP RSD 25%

Lab Code	* Methidathion	z-Score (FFP RSD 25%)	Methomyl Sum	z-Score (FFP RSD 25%)	* Monocrotophos	z-Score (FFP RSD 25%)	* Oxamyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/kg)	0.472		0.277		0.438		0.249	
Lab-001	0.372	-0.8	NA		NA		NA	
Lab-002	0.521	0.4	0.326	0.7	0.364	-0.7	0.279	0.5
Lab-003	0.524	0.4	0.277	0.0	0.448	0.1	0.24	-0.1
Lab-004	0.464	-0.1	NA		0.454	0.2	0.237	-0.2
Lab-005	0.49	0.2	0.226	-0.7	0.376	-0.6	0.197	-0.8
Lab-006	0.453	-0.2	0.19	-1.3	0.322	-1.1	0.23	-0.3
Lab-007	0.61	1.2	0.292	0.2	0.418	-0.2	0.271	0.4
Lab-008	No results reported							
Lab-009	0.582	0.9	0.279	0.0	0.196	-2.2	0.243	-0.1
Lab-010	0.249	-1.9	NA		NA		0.177	-1.2
Lab-011	0.59	1.0	0.3	0.3	0.35	-0.8	0.25	0.0
Lab-012	NA		NA		NA		0.356	1.7
Lab-013	0.55	0.7	NA		0.372	-0.6	NA	
Lab-014	0.73	2.2	NA		NA		NA	
Lab-015	0.527	0.5	0.256	-0.3	0.338	-0.9	0.258	0.2
Lab-016	0.409	-0.5	0.178	-1.4	0.306	-1.2	0.158	-1.5
Lab-017	0.437	-0.3	0.845	8.2	NA		0.292	0.7
Lab-018	0.541	0.6	0.277	0.0	0.422	-0.1	0.312	1.0
Lab-019	0.335	-1.2	0.289	0.2	0.391	-0.4	0.24	-0.1
Lab-020	0.2	-2.3	0.23	-0.7	0.17	-2.4	0.19	-0.9
Lab-021	0.225	-2.1	NA		NA		NA	
Lab-022	0.280	-1.6	NA		NA		NA	
Lab-023	0.446	-0.2	0.267	-0.1	0.516	0.7	0.238	-0.2
Lab-024	0.45	-0.2	0.3	0.3	0.52	0.8	0.3	0.8
Lab-025	0.58	0.9	NA		0.583	1.3	NA	
Lab-026	NA		0.279	0.0	0.46	0.2	0.297	0.8
Lab-027	ND	-3.9	NA		0.288	-1.4	0.139	-1.8
Lab-028	0.429	-0.4	0.295	0.3	0.458	0.2	0.272	0.4
Lab-029	0.46	-0.1	0.234	-0.6	0.381	-0.5	0.222	-0.4
Lab-030	0.432	-0.3	0.348	1.0	ND	-3.9	0.289	0.7
Lab-031	0.425	-0.4	0.279	0.0	0.416	-0.2	0.196	-0.8
Lab-032	0.534	0.5	0.234	-0.6	0.394	-0.4	0.229	-0.3
Lab-033	0.403	-0.6	NA		0.143	-2.7	0.263	0.2
Lab-034	0.471	0.0	0.212	-0.9	NA		NA	
Lab-035	0.576	0.9	0.314	0.5	0.455	0.2	0.291	0.7
Lab-036	0.467	0.0	0.282	0.1	0.426	-0.1	0.195	-0.9
Lab-037	0.47	0.0	0.293	0.2	0.472	0.3	0.256	0.1
Lab-038	0.547	0.6	0.324	0.7	0.525	0.8	0.274	0.4
Lab-039	0.537	0.6	0.33	0.8	0.605	1.5	0.28	0.5
Lab-040	0.362	-0.9	0.295	0.3	0.467	0.3	0.296	0.8
Lab-041	0.482	0.1	0.271	-0.1	0.441	0.0	0.238	-0.2
Lab-042	No results reported							
Lab-043	0.68	1.8	NA		NA		NA	
Lab-044	0.565	0.8	0.218	-0.9	0.292	-1.3	0.155	-1.5
Lab-045	0.394	-0.7	0.235	-0.6	0.35	-0.8	0.177	-1.2
Lab-046	0.304	-1.4	NA		0.115	-2.9	NA	

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	* Methidathion	z-Score (FFP RSD 25%)	Methomyl Sum	z-Score (FFP RSD 25%)	* Monocrotophos	z-Score (FFP RSD 25%)	* Oxamyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/kg)	0.472		0.277		0.438		0.249	
Lab-047	0.51	0.3	0.313	0.5	0.494	0.5	0.267	0.3
Lab-048	0.658	1.6	0.291	0.2	0.456	0.2	0.235	-0.2
Lab-049	0.491	0.2	0.22	-0.8	0.367	-0.6	0.388	2.2
Lab-050	0.304	-1.4	0.267	-0.1	0.397	-0.4	0.216	-0.5
Lab-051	0.522	0.4	0.329	0.8	0.451	0.1	0.215	-0.5
Lab-052	0.461	-0.1	0.3	0.3	0.505	0.6	0.27	0.3
Lab-053	0.51	0.3	NA		NA		NA	
Lab-054	0.602	1.1	0.338	0.9	0.481	0.4	0.224	-0.4
Lab-055	0.535	0.5	NA		NA		NA	
Lab-056	0.455	-0.1	0.241	-0.5	0.363	-0.7	0.281	0.5
Lab-057	0.478	0.1	0.262	-0.2	0.395	-0.4	0.226	-0.4
Lab-058	0.347	-1.1	0.276	0.0	0.392	-0.4	0.244	-0.1
Lab-059	0.5	0.2	0.275	0.0	0.407	-0.3	0.259	0.2
Lab-060	0.641	1.4	0.297	0.3	0.442	0.0	0.253	0.1
Lab-061	0.487	0.1	0.229	-0.7	0.438	0.0	0.203	-0.7
Lab-062	0.342	-1.1	0.252	-0.4	0.339	-0.9	0.201	-0.8
Lab-063	0.57	0.8	0.289	0.2	0.473	0.3	0.242	-0.1
Lab-064	0.48	0.1	0.234	-0.6	0.437	0.0	0.234	-0.2
Lab-065	0.283	-1.6	NA		0.218	-2.0	NA	
Lab-066	0.231	-2.0	0.248	-0.4	0.483	0.4	0.271	0.4
Lab-067	0.7	1.9	NA		NA		NA	
Lab-068	0.51	0.3	NA		0.541	0.9	0.259	0.2
Lab-069	0.836	3.1	0.269	-0.1	0.391	-0.4	0.237	-0.2
Lab-070	0.593	1.0	ND	-3.9	ND	-3.9	NA	
Lab-071	0.47	0.0	0.21	-1.0	0.14	-2.7	0.17	-1.3
Lab-072	0.485	0.1	NA		0.18	-2.4	NA	
Lab-073	0.312	-1.4	NA		0.507	0.6	0.253	0.1
Lab-074	0.365	-0.9	NA		NA		NA	
Lab-075	0.392	-0.7	0.324	0.7	0.961	4.8	0.336	1.4
Lab-076	0.5	0.2	ND	-3.9	0.45	0.1	0.32	1.2
Lab-077	0.4	-0.6	0.4	1.8	0.47	0.3	NA	
Lab-078	ND	-3.9	0.2	-1.1	NA		0.18	-1.1
Lab-079	0.526	0.5	0.274	0.0	0.525	0.8	0.29	0.7
Lab-080	0.674	1.7	NA		NA		NA	
Lab-081	1.19	6.1	0.486	3.0	0.523	0.8	NA	
Lab-082	0.518	0.4	0.207	-1.0	0.358	-0.7	0.247	0.0
Lab-083	0.614	1.2	NA		NA		NA	
Lab-084	NA		NA		NA		NA	
Lab-085	0.713	2.0	0.225	-0.8	0.484	0.4	0.168	-1.3
Lab-086	0.458	-0.1	NA		NA		NA	
Lab-087	0.57	0.8	0.26	-0.2	0.57	1.2	0.27	0.3
Lab-088	0.473	0.0	NA		NA		NA	
Lab-089	0.333	-1.2	ND	-3.9	0.546	1.0	0.288	0.6
Lab-090	0.432	-0.3	0.282	0.1	0.43	-0.1	0.242	-0.1
Lab-091	0.498	0.2	ND	-3.9	0.433	0.0	0.255	0.1
Lab-092	0.56	0.7	0.264	-0.2	0.404	-0.3	0.223	-0.4
Lab-093	0.511	0.3	0.252	-0.4	0.374	-0.6	0.238	-0.2
Lab-094	0.439	-0.3	NA		ND	-3.9	ND	-3.8

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Lab Code	* Methidathion	z-Score (FFP RSD 25%)	Methomyl Sum	z-Score (FFP RSD 25%)	* Monocrotophos	z-Score (FFP RSD 25%)	* Oxamyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/kg)	0.472		0.277		0.438		0.249	
Lab-095	0.4585	-0.1	NA		0.1789	-2.4	NA	
Lab-096	0.536	0.5	0.255	-0.3	0.369	-0.6	0.698	7.2
Lab-097	0.353	-1.0	0.227	-0.7	NA		0.274	0.4
Lab-098	0.476	0.0	NA		NA		NA	
Lab-099	ND	-3.9	NA		NA		NA	
Lab-100	0.371	-0.9	NA		0.573	1.2	NA	
Lab-101	0.316	-1.3	NA		NA		NA	
Lab-102	0.51	0.3	NA		NA		NA	
Lab-103	NA		NA		NA		NA	
Lab-104	0.29	-1.5	ND	-3.9	0.36	-0.7	0.275	0.4
Lab-105	0.62	1.3	ND	-3.9	ND	-3.9	NA	
Lab-106	0.66	1.6	ND	-3.9	0.312	-1.1	0.198	-0.8
Lab-107	0.333	-1.2	0.237	-0.6	NA		0.218	-0.5
Lab-108	0.294	-1.5	ND	-3.9	0.558	1.1	0.235	-0.2
Lab-109	0.397	-0.6	0.279	0.0	0.418	-0.2	0.241	-0.1
Lab-110	0.472	0.0	NA		NA		NA	
Lab-111	NA		NA		NA		NA	
Lab-112	0.446	-0.2	NA		NA		NA	
Lab-113	0.497	0.2	NA		0.462	0.2	NA	
Lab-114	0.333	-1.2	NA		NA		NA	
Lab-115	NA		NA		NA		NA	
Lab-116	0.36	-0.9	NA		NA		NA	
Lab-117	0.389	-0.7	NA		NA		NA	
Lab-118	0.429	-0.4	NA		NA		NA	
Lab-119	0.58	0.9	0.22	-0.8	0.49	0.5	0.22	-0.5
Lab-120	0.485	0.1	0.21	-1.0	0.355	-0.8	0.245	-0.1
Lab-121	0.492	0.2	0.318	0.6	0.483	0.4	0.279	0.5
Lab-122	0.425	-0.4	NA		NA		ND	-3.8
Lab-123	0.427	-0.4	NA		0.251	-1.7	NA	
Lab-124	0.438	-0.3	0.318	0.6	NA		NA	
Lab-125	0.344	-1.1	0.248	-0.4	0.467	0.3	0.266	0.3
Lab-126	0.55	0.7	NA		0.45	0.1	NA	
Lab-127	NA		NA		NA		NA	
Lab-128	0.404	-0.6	NA		NA		NA	
Lab-129	0.381	-0.8	NA		0.464	0.2	NA	
Lab-130	0.388	-0.7	NA		NA		NA	
Lab-131	0.492	0.2	0.326	0.7	0.487	0.5	0.253	0.1
Lab-132	0.49	0.2	NA		NA		NA	
Lab-133	0.459	-0.1	0.261	-0.2	0.512	0.7	0.254	0.1
Lab-134	NA		NA		NA		NA	
Lab-135	0.551	0.7	0.28	0.0	0.423	-0.1	0.24	-0.1
Lab-136	0.426	-0.4	0.288	0.2	0.344	-0.9	0.236	-0.2
Lab-137	0.542	0.6	0.346	1.0	0.227	-1.9	0.285	0.6
Lab-138	0.601	1.1	NA		NA		NA	
Lab-139	0.376	-0.8	NA		NA		NA	
Lab-140	0.5636	0.8	NA		NA		NA	
Lab-141	0.495	0.2	0.343	1.0	0.489	0.5	0.265	0.3
Lab-142	0.32	-1.3	NA		NA		NA	

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

Lab Code	* Methidathion	z-Score (FFP RSD 25%)	Methomyl Sum	z-Score (FFP RSD 25%)	* Monocrotophos	z-Score (FFP RSD 25%)	* Oxamyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/kg)	0.472		0.277		0.438		0.249	
Lab-143	0.561	0.8	0.226	-0.7	0.331	-1.0	0.194	-0.9
Lab-144	0.37	-0.9	0.171	-1.5	NA		1.56	21.1
Lab-145	0.293	-1.5	0.315	0.5	0.458	0.2	0.285	0.6
Lab-146	0.457	-0.1	NA		NA		NA	
Lab-147	No results reported							
Lab-148	0.06	-3.5	0.542	3.8	0.493	0.5	0.179	-1.1
Lab-149	0.474	0.0	NA		0.465	0.3	NA	
Lab-150	0.46	-0.1	NA		NA		NA	
Lab-151	NA		NA		ND	-3.9	NA	

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

Results given by the laboratories (mg/kg) and their calculated z-score value using FFP RSD 25%

Lab Code	* Parathion-methyl sum		* Phosalone		* Procymidone		* Thiacloprid		Triazophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.320		0.368		0.780		0.879		0.538	
Lab-001	NA		0.322	-0.5	0.523	-1.3	NA		0.482	-0.4
Lab-002	0.43	1.4	0.529	1.8	0.942	0.8	1.13	1.1	0.721	1.4
Lab-003	0.357	0.5	0.424	0.6	0.898	0.6	0.915	0.2	0.639	0.8
Lab-004	0.17	-1.9	0.396	0.3	0.983	1.0	0.846	-0.2	NA	
Lab-005	0.225	-1.2	0.368	0.0	0.746	-0.2	0.453	-1.9	0.532	0.0
Lab-006	0.277	-0.5	0.383	0.2	0.75	-0.2	0.961	0.4	0.612	0.6
Lab-007	0.399	1.0	0.46	1.0	0.823	0.2	0.889	0.0	0.631	0.7
Lab-008	No results reported									
Lab-009	0.209	-1.4	0.391	0.3	0.681	-0.5	0.917	0.2	0.326	-1.6
Lab-010	0.076	-3.1	0.3	-0.7	0.662	-0.6	NA		NA	
Lab-011	0.32	0.0	0.46	1.0	0.9	0.6	1.36	2.2	0.525	-0.1
Lab-012	NA		NA		0.0119	-3.9	NA		NA	
Lab-013	0.332	0.2	0.24	-1.4	0.601	-0.9	NA		0.375	-1.2
Lab-014	0.59	3.4	0.4	0.3	0.73	-0.3	NA		0.91	2.8
Lab-015	0.264	-0.7	0.391	0.3	0.81	0.2	0.809	-0.3	0.611	0.5
Lab-016	0.104	-2.7	0.366	0.0	0.983	1.0	NA		0.568	0.2
Lab-017	0.144	-2.2	0.382	0.2	0.821	0.2	0.959	0.4	0.618	0.6
Lab-018	0.352	0.4	0.418	0.5	0.911	0.7	0.973	0.4	0.681	1.1
Lab-019	0.265	-0.7	0.295	-0.8	0.557	-1.1	0.76	-0.5	0.461	-0.6
Lab-020	0.24	-1.0	0.2	-1.8	0.57	-1.1	0.8	-0.4	0.23	-2.3
Lab-021	0.232	-1.1	0.417	0.5	0.307	-2.4	NA		0.362	-1.3
Lab-022	0.109	-2.6	0.285	-0.9	0.874	0.5	NA		0.360	-1.3
Lab-023	0.358	0.5	0.285	-0.9	0.676	-0.5	0.737	-0.6	0.45	-0.7
Lab-024	0.3	-0.3	0.25	-1.3	0.56	-1.1	1	0.6	0.38	-1.2
Lab-025	0.373	0.7	0.461	1.0	0.762	-0.1	NA		0.62	0.6
Lab-026	0.115	-2.6	0.622	2.8	0.968	1.0	0.971	0.4	0.802	2.0
Lab-027	ND	-3.9	0.212	-1.7	0.31	-2.4	0.3	-2.6	0.37	-1.2
Lab-028	0.313	-0.1	0.242	-1.4	0.649	-0.7	0.914	0.2	0.358	-1.3
Lab-029	0.251	-0.9	0.371	0.0	0.51	-1.4	0.789	-0.4	0.41	-1.0
Lab-030	0.257	-0.8	0.353	-0.2	0.692	-0.5	0.987	0.5	0.525	-0.1
Lab-031	0.366	0.6	0.275	-1.0	0.749	-0.2	0.683	-0.9	0.391	-1.1
Lab-032	0.335	0.2	0.396	0.3	0.81	0.2	0.836	-0.2	0.646	0.8
Lab-033	0.093	-2.8	0.291	-0.8	1.06	1.4	1.91	4.7	0.711	1.3
Lab-034	NA		0.311	-0.6	0.761	-0.1	0.612	-1.2	NA	
Lab-035	0.341	0.3	0.406	0.4	0.961	0.9	0.893	0.1	0.65	0.8
Lab-036	0.252	-0.9	0.427	0.6	0.788	0.0	0.894	0.1	0.591	0.4
Lab-037	0.386	0.8	0.371	0.0	0.683	-0.5	0.778	-0.5	0.567	0.2
Lab-038	0.364	0.6	0.34	-0.3	0.813	0.2	0.962	0.4	0.631	0.7
Lab-039	0.507	2.3	0.415	0.5	0.875	0.5	1.115	1.1	0.565	0.2

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

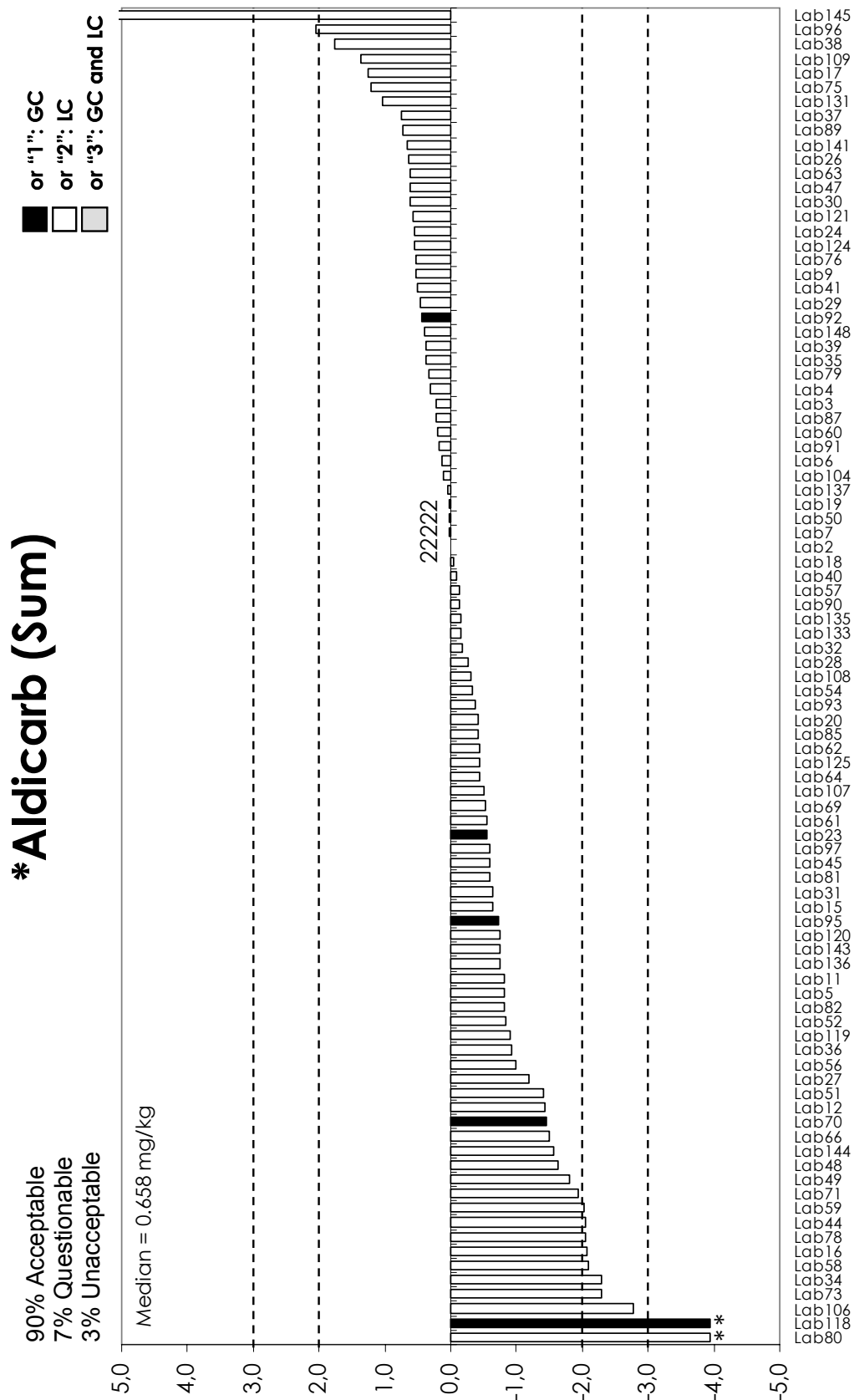
Lab Code	* Parathion- methyl sum		* Phosalone		* Procymidone		* Thiocloprid		Triazophos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/kg)	0.320		0.368		0.780		0.879		0.538	
Lab-040	0.18	-1.8	0.339	-0.3	0.759	-0.1	0.972	0.4	0.37	-1.2
Lab-041	0.283	-0.5	0.361	-0.1	0.735	-0.2	0.851	-0.1	0.644	0.8
Lab-042	No results reported									
Lab-043	0.14	-2.3	0.38	0.1	0.71	-0.4	NA		0.63	0.7
Lab-044	0.351	0.4	0.423	0.6	0.702	-0.4	0.924	0.2	0.587	0.4
Lab-045	0.303	-0.2	0.245	-1.3	0.711	-0.4	0.692	-0.9	0.344	-1.4
Lab-046	0.0476	-3.4	0.349	-0.2	0.537	-1.2	NA		0.623	0.6
Lab-047	0.27	-0.6	0.38	0.1	0.927	0.8	1.044	0.8	0.568	0.2
Lab-048	0.324	0.1	0.362	-0.1	0.975	1.0	NA		0.676	1.0
Lab-049	0.288	-0.4	0.316	-0.6	0.83	0.3	0.781	-0.4	0.489	-0.4
Lab-050	0.235	-1.1	0.172	-2.1	0.757	-0.1	0.932	0.2	0.518	-0.1
Lab-051	0.392	0.9	0.451	0.9	0.962	0.9	0.966	0.4	0.628	0.7
Lab-052	0.353	0.4	0.411	0.5	0.795	0.1	0.861	-0.1	0.508	-0.2
Lab-053	0.12	-2.5	NA		NA		NA		NA	
Lab-054	0.364	0.6	0.62	2.7	0.814	0.2	0.82	-0.3	0.628	0.7
Lab-055	ND	-3.9	0.338	-0.3	1.04	1.3	NA		NA	
Lab-056	0.287	-0.4	0.285	-0.9	0.637	-0.7	0.648	-1.1	0.399	-1.0
Lab-057	0.362	0.5	0.38	0.1	0.786	0.0	0.751	-0.6	0.528	-0.1
Lab-058	0.225	-1.2	0.272	-1.0	0.482	-1.5	0.801	-0.4	0.383	-1.2
Lab-059	0.345	0.3	0.567	2.2	0.94	0.8	0.854	-0.1	0.852	2.3
Lab-060	0.403	1.0	0.582	2.3	ND	-3.9	0.926	0.2	0.697	1.2
Lab-061	0.27	-0.6	0.39	0.2	0.884	0.5	0.823	-0.3	0.514	-0.2
Lab-062	0.322	0.0	0.241	-1.4	0.715	-0.3	0.804	-0.3	0.368	-1.3
Lab-063	0.342	0.3	0.426	0.6	0.888	0.6	0.89	0.1	0.638	0.7
Lab-064	0.197	-1.5	0.366	0.0	0.826	0.2	0.898	0.1	0.544	0.0
Lab-065	0.048	-3.4	0.168	-2.2	0.517	-1.3	NA		0.271	-2.0
Lab-066	0.232	-1.1	0.19	-1.9	0.525	-1.3	0.65	-1.0	0.316	-1.7
Lab-067	0.16	-2.0	0.5	1.4	0.84	0.3	NA		0.6	0.5
Lab-068	0.125	-2.4	0.479	1.2	0.792	0.1	0.801	-0.4	0.616	0.6
Lab-069	0.321	0.0	0.28	-1.0	0.777	0.0	1	0.6	0.449	-0.7
Lab-070	0.125	-2.4	0.477	1.2	0.888	0.6	0.996	0.5	1.03	3.7
Lab-071	0.35	0.4	0.38	0.1	0.93	0.8	0.78	-0.5	0.59	0.4
Lab-072	0.353	0.4	0.443	0.8	0.73	-0.3	NA		0.626	0.7
Lab-073	0.304	-0.2	0.432	0.7	0.571	-1.1	NA		0.317	-1.6
Lab-074	0.121	-2.5	0.397	0.3	0.511	-1.4	NA		0.413	-0.9
Lab-075	0.103	-2.7	0.33	-0.4	0.75	-0.2	ND	-4.0	NA	
Lab-076	0.194	-1.6	0.378	0.1	0.78	0.0	0.93	0.2	0.53	-0.1
Lab-077	0.61	3.6	0.27	-1.1	0.54	-1.2	NA		0.36	-1.3
Lab-078	0.35	0.4	ND	-3.9	0.86	0.4	NA		NA	
Lab-079	0.34	0.3	0.42	0.6	0.788	0.0	0.912	0.2	0.616	0.6
Lab-080	0.647	4.1	0.288	-0.9	NA		NA		1.29	5.6
Lab-081	0.553	2.9	0.788	4.6	1.62	4.3	NA		1.77	9.2
Lab-082	0.105	-2.7	0.455	0.9	0.819	0.2	0.836	-0.2	0.644	0.8

APPENDIX 3. Results (mg/kg) and z-scores for FFP RSD (25%).

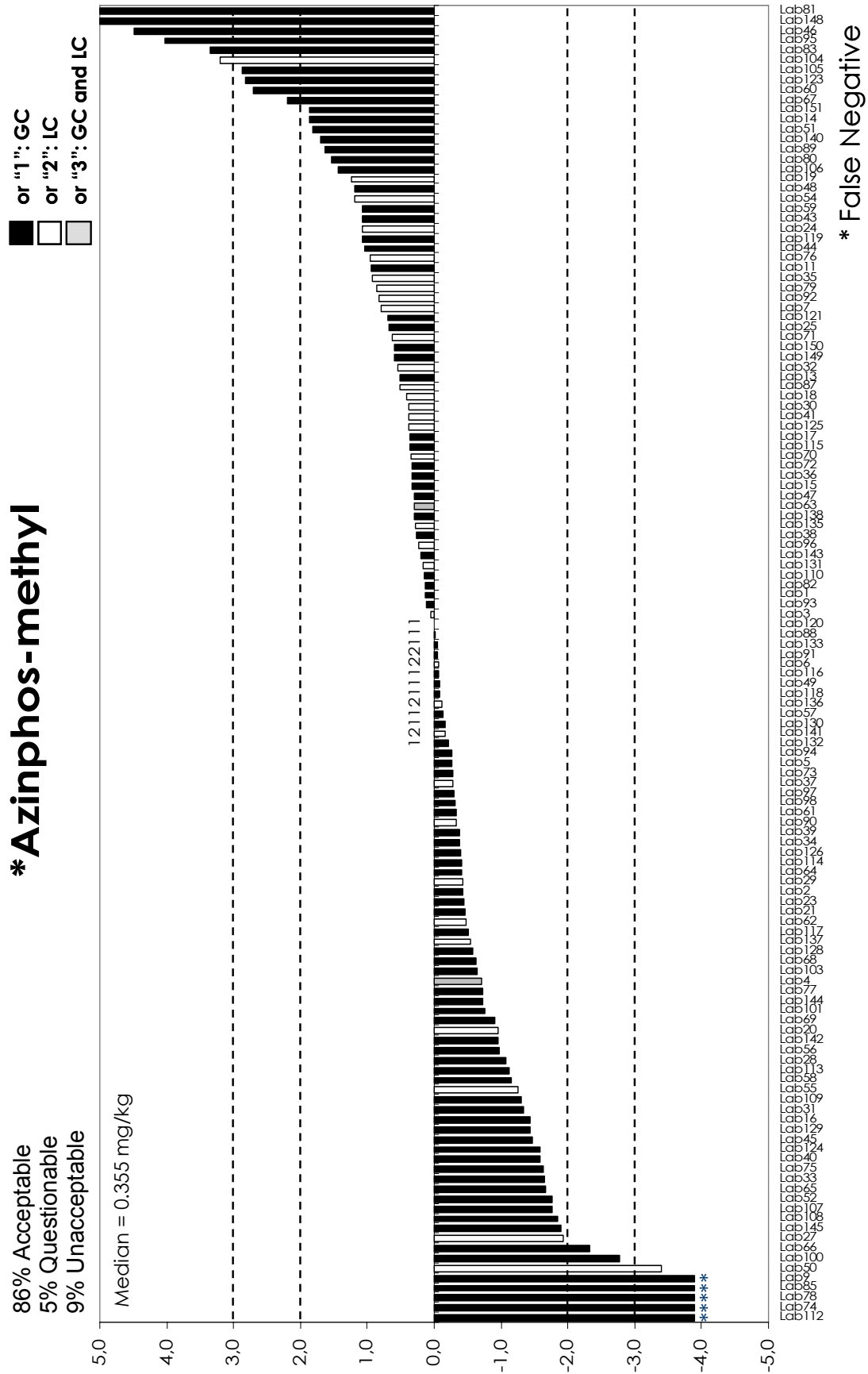
Lab Code	* Parathion- methyl sum									
MRRL	0.01	z-Score (FFP RSD 25%)	* Phosalone	z-Score (FFP RSD 25%)	* Procymidone	z-Score (FFP RSD 25%)	* Thiocloprid	z-Score (FFP RSD 25%)	Triazophos	z-Score (FFP RSD 25%)
Median (mg/kg)	0.320									
Lab-083	0.151	-2.1	0.298	-0.8	0.741	-0.2	NA		0.668	1.0
Lab-084	NA		NA		0.662	-0.6	NA		NA	
Lab-085	0.256	-0.8	0.524	1.7	0.79	0.1	0.794	-0.4	0.585	0.3
Lab-086	NA		0.392	0.3	0.799	0.1	NA		0.372	-1.2
Lab-087	0.323	0.0	0.45	0.9	0.76	-0.1	0.85	-0.1	0.71	1.3
Lab-088	0.112	-2.6	0.343	-0.3	0.651	-0.7	NA		0.495	-0.3
Lab-089	0.0297	-3.6	0.178	-2.1	0.79	0.1	0.618	-1.2	0.439	-0.7
Lab-090	0.263	-0.7	0.972	6.6	0.844	0.3	0.892	0.1	0.506	-0.2
Lab-091	0.415	1.2	0.377	0.1	0.814	0.2	0.775	-0.5	0.633	0.7
Lab-092	0.47	1.9	0.744	4.1	0.934	0.8	1.12	1.1	0.888	2.6
Lab-093	0.123	-2.5	0.409	0.4	0.8	0.1	0.844	-0.2	0.642	0.8
Lab-094	0.412	1.2	0.184	-2.0	0.569	-1.1	NA		0.309	-1.7
Lab-095	0.308	-0.2	0.5665	2.2	1.825	5.4	0.1	-3.5	0.538	0.0
Lab-096	0.276	-0.6	0.49	1.3	1.1	1.6	0.854	-0.1	0.663	0.9
Lab-097	0.0822	-3.0	0.255	-1.2	0.799	0.1	NA		0.372	-1.2
Lab-098	0.117	-2.5	0.415	0.5	0.706	-0.4	NA		0.766	1.7
Lab-099	NA		NA		ND	-3.9	NA		NA	
Lab-100	0.398	1.0	0.714	3.8	3.19	12.4	NA		0.539	0.0
Lab-101	0.259	-0.8	0.255	-1.2	0.606	-0.9	NA		0.571	0.2
Lab-102	0.15	-2.1	0.45	0.9	0.7	-0.4	NA		0.62	0.6
Lab-103	0.075	-3.1	0.371	0.0	0.889	0.6	NA		0.501	-0.3
Lab-104	0.055	-3.3	0.183	-2.0	0.348	-2.2	0.835	-0.2	0.272	-2.0
Lab-105	0.14	-2.3	0.57	2.2	0.71	-0.4	NA		0.71	1.3
Lab-106	0.383	0.8	0.62	2.7	0.923	0.7	0.879	0.0	0.927	2.9
Lab-107	0.07	-3.1	0.193	-1.9	0.522	-1.3	NA		0.237	-2.2
Lab-108	0.212	-1.4	0.221	-1.6	1.34	2.9	1.01	0.6	0.364	-1.3
Lab-109	0.231	-1.1	0.198	-1.8	0.677	-0.5	0.798	-0.4	0.377	-1.2
Lab-110	ND	-3.9	0.118	-2.7	NA		NA		0.724	1.4
Lab-111	NA		0.22	-1.6	NA		NA		0.56	0.2
Lab-112	NA		NA		0.773	0.0	NA		NA	
Lab-113	0.283	-0.5	0.243	-1.4	0.739	-0.2	NA		0.455	-0.6
Lab-114	0.0735	-3.1	0.279	-1.0	1.02	1.2	NA		0.286	-1.9
Lab-115	NA		NA		NA		NA		NA	
Lab-116	NA		0.3	-0.7	0.6	-0.9	NA		0.399	-1.0
Lab-117	0.091	-2.9	0.368	0.0	0.788	0.0	NA		0.458	-0.6
Lab-118	0.091	-2.9	NA		0.47	-1.6	NA		0.477	-0.5
Lab-119	0.16	-2.0	0.47	1.1	0.78	0.0	0.9	0.1	0.69	1.1
Lab-120	0.125	-2.4	ND	-3.9	0.746	-0.2	0.775	-0.5	0.475	-0.5
Lab-121	0.236	-1.1	0.442	0.8	0.826	0.2	1.17	1.3	0.494	-0.3
Lab-122	0.099	-2.8	0.314	-0.6	0.735	-0.2	NA		NA	
Lab-123	0.329	0.1	0.342	-0.3	0.669	-0.6	NA		0.549	0.1
Lab-124	0.092	-2.9	0.29	-0.8	0.932	0.8	0.992	0.5	0.461	-0.6
Lab-125	0.097	-2.8	0.364	0.0	0.878	0.5	NA		0.623	0.6

APPENDIX 3. Results (mg/Kg) and z-scores for FFP RSD (25%).

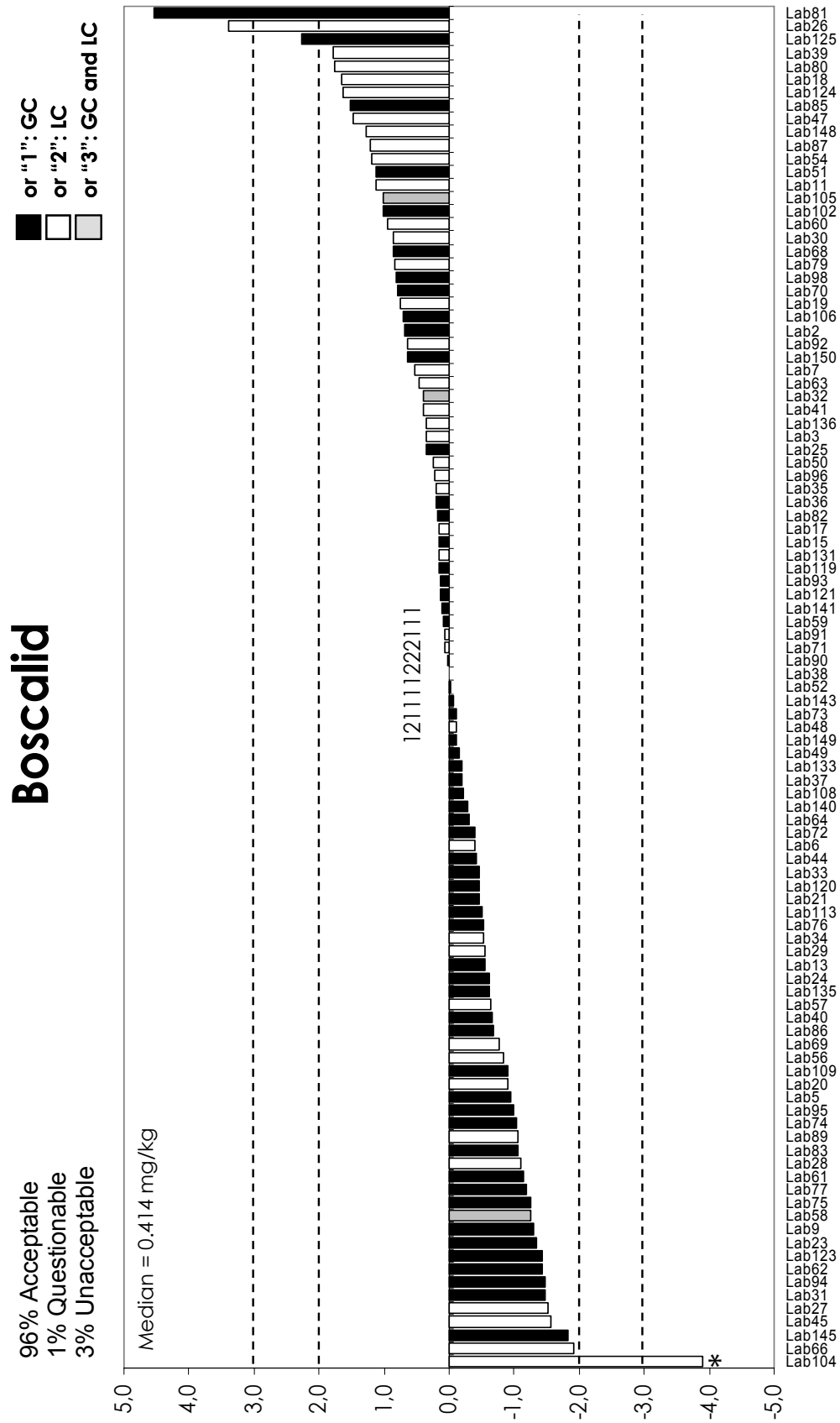
Lab Code	* Parathion- methyl sum									
MRRL	0.01	z-Score (FFP RSD 25%)	* Phosalone	z-Score (FFP RSD 25%)	* Procymidone	z-Score (FFP RSD 25%)	* Thiacloprid	z-Score (FFP RSD 25%)	Triazophos	z-Score (FFP RSD 25%)
Median (mg/kg)	0.320									
Lab-126	0.07	-3.1	0.22	-1.6	1.13	1.8	NA		0.51	-0.2
Lab-127	NA		NA		NA		NA		NA	
Lab-128	NA		0.308	-0.7	NA		NA		0.389	-1.1
Lab-129	ND	-3.9	0.222	-1.6	NA		NA		0.355	-1.4
Lab-130	0.283	-0.5	NA		0.634	-0.7	NA		0.408	-1.0
Lab-131	0.288	-0.4	0.368	0.0	0.793	0.1	1.02	0.6	0.667	1.0
Lab-132	NA		0.219	-1.6	NA		NA		0.572	0.3
Lab-133	0.419	1.2	0.366	0.0	0.785	0.0	0.928	0.2	0.39	-1.1
Lab-134	NA		NA		NA		NA		NA	
Lab-135	0.128	-2.4	0.519	1.6	0.781	0.0	0.831	-0.2	0.58	0.3
Lab-136	0.234	-1.1	0.205	-1.8	0.649	-0.7	0.903	0.1	0.494	-0.3
Lab-137	0.244	-1.0	0.502	1.5	1.4	3.2	0.755	-0.6	0.754	1.6
Lab-138	0.128	-2.4	0.328	-0.4	0.688	-0.5	NA		NA	
Lab-139	0.094	-2.8	0.321	-0.5	0.607	-0.9	NA		0.429	-0.8
Lab-140	0.1213	-2.5	0.5046	1.5	0.815	0.2	NA		0.5356	0.0
Lab-141	0.346	0.3	0.359	-0.1	0.762	-0.1	0.965	0.4	0.232	-2.3
Lab-142	0.09	-2.9	0.39	0.2	0.54	-1.2	NA		0.29	-1.8
Lab-143	0.24	-1.0	0.394	0.3	0.78	0.0	0.662	-1.0	0.715	1.3
Lab-144	0.092	-2.9	0.3	-0.7	0.59	-1.0	NA		0.438	-0.7
Lab-145	0.186	-1.7	0.225	-1.6	0.651	-0.7	0.915	0.2	0.343	-1.4
Lab-146	NA		0.265	-1.1	0.627	-0.8	NA		0.398	-1.0
Lab-147	No results reported									
Lab-148	0.198	-1.5	0.46	1.0	0.819	0.2	0.612	-1.2	0.529	-0.1
Lab-149	0.326	0.1	0.35	-0.2	0.806	0.1	NA		0.461	-0.6
Lab-150	0.32	0.0	0.311	-0.6	1	1.1	NA		0.627	0.7
Lab-151	0.15	-2.1	0.51	1.5	1	1.1	NA		0.88	2.5



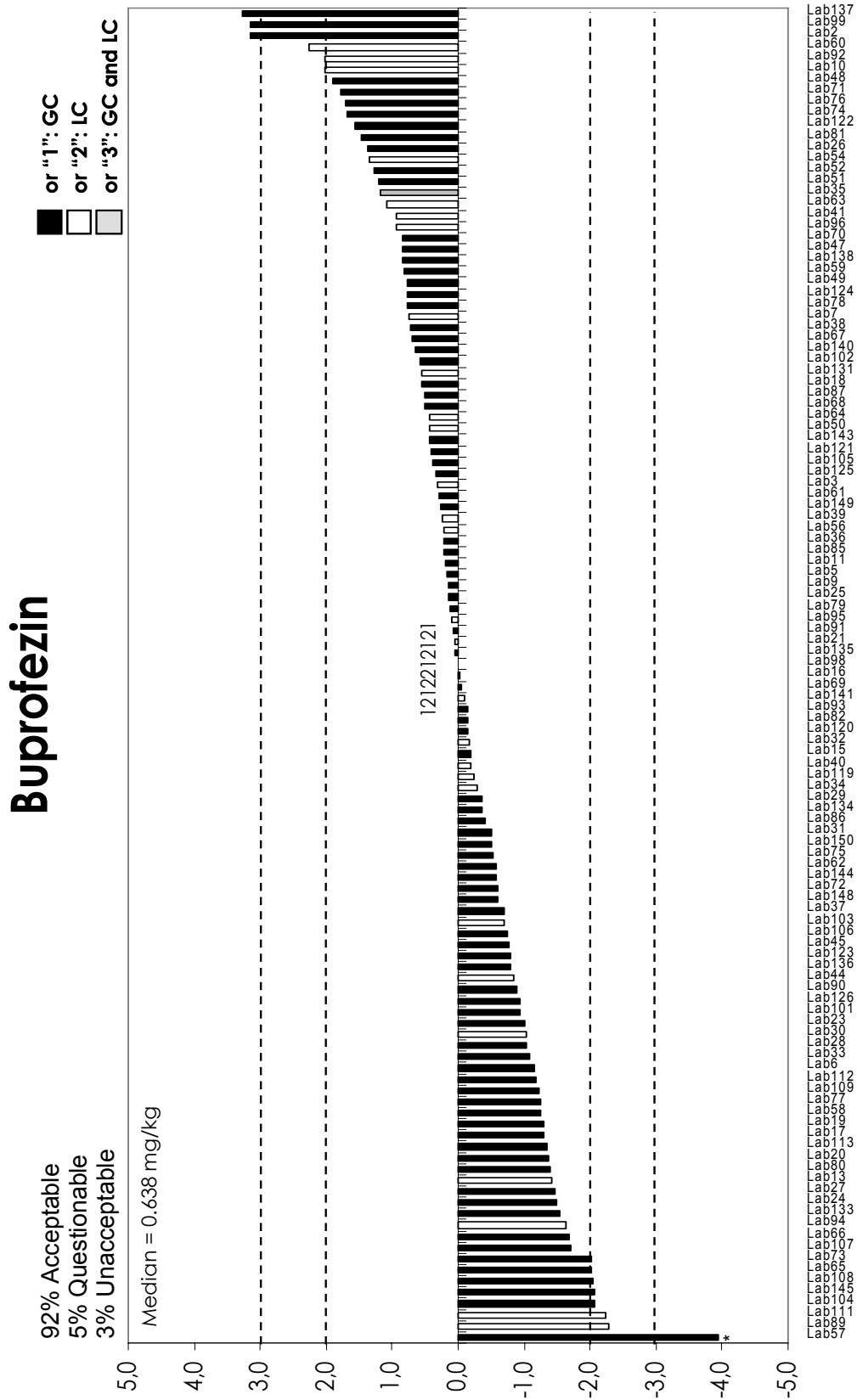
APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).

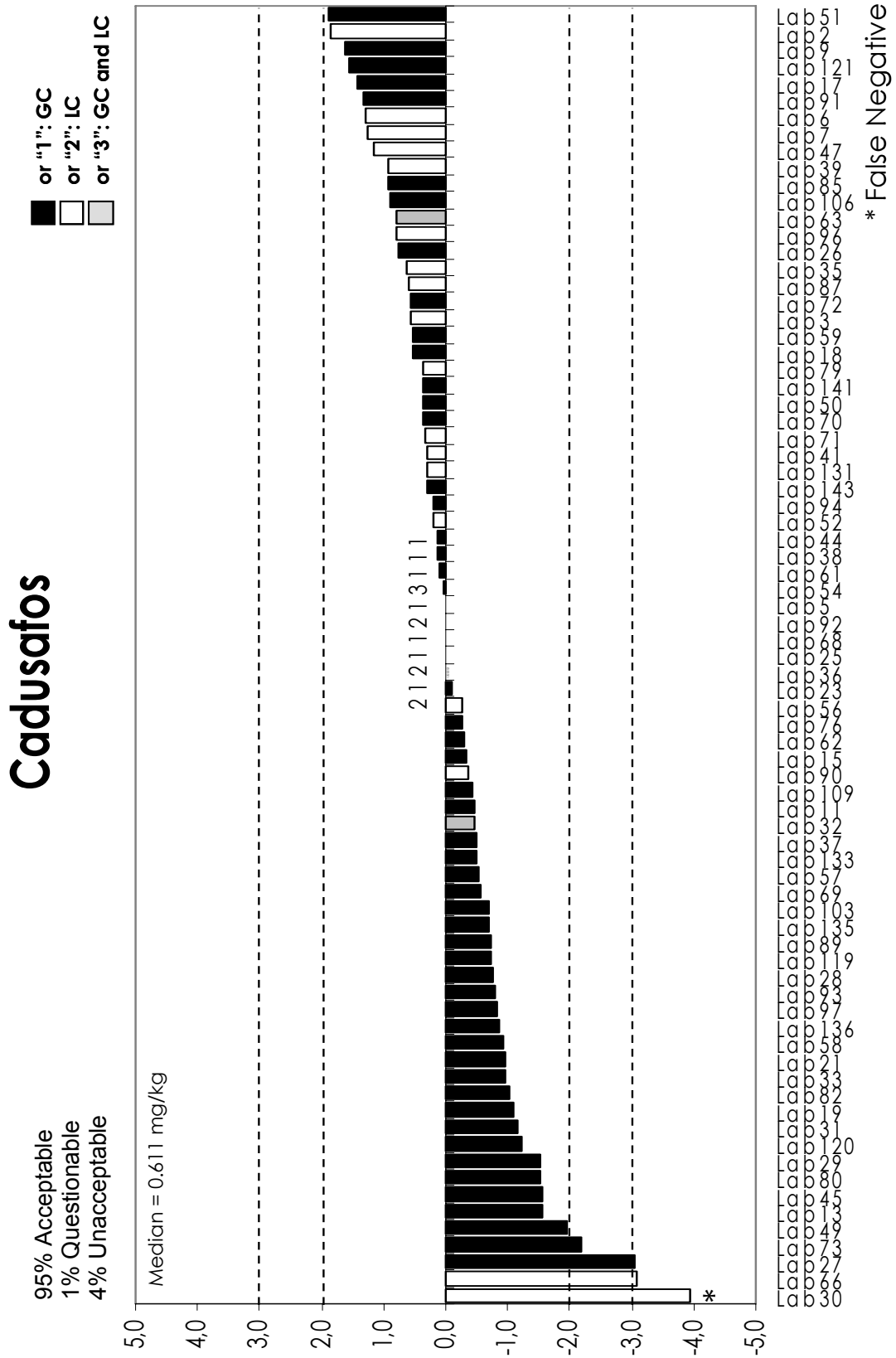


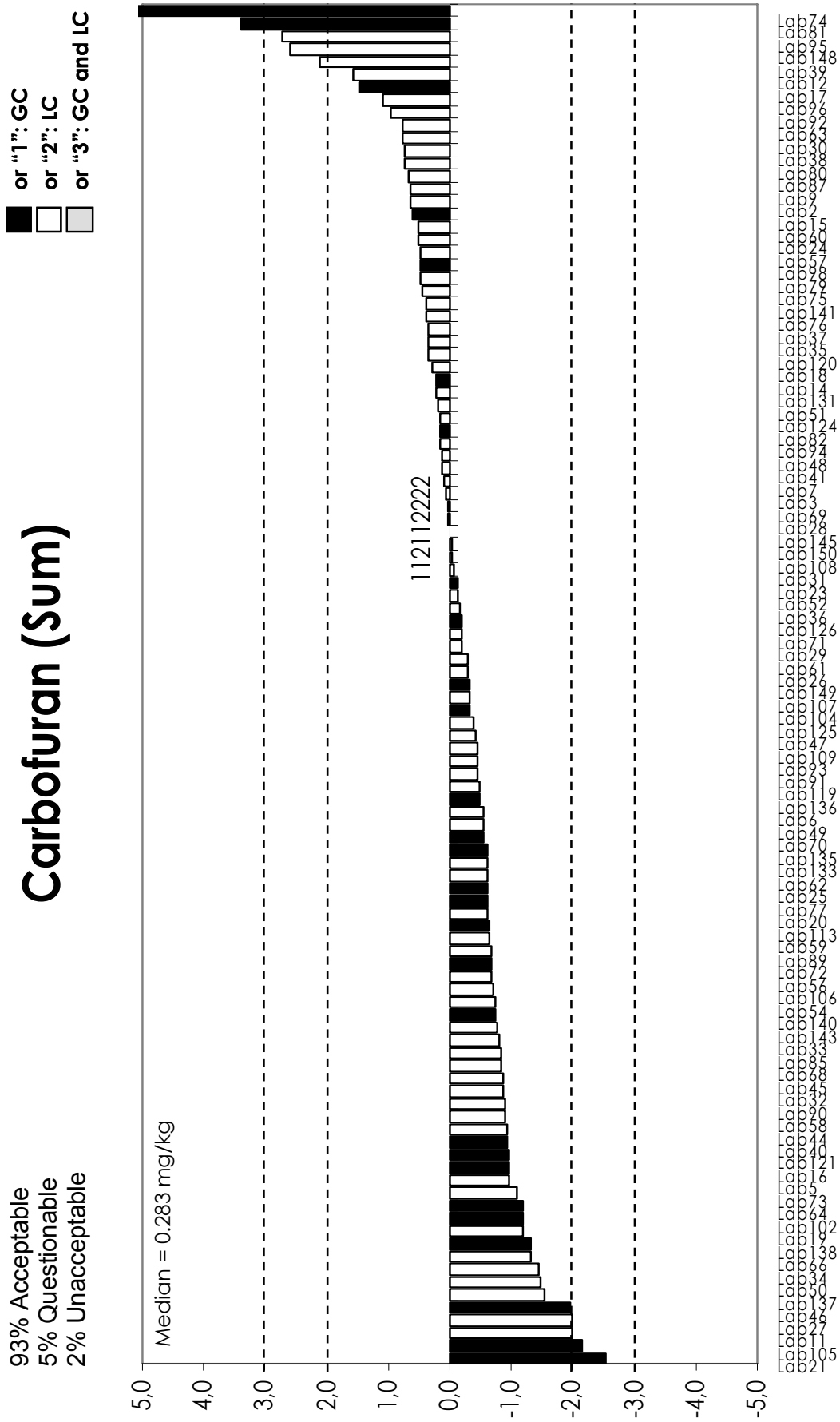
APPENDIX 4. Graphical representation of z-scores for FFP RSD (25%).



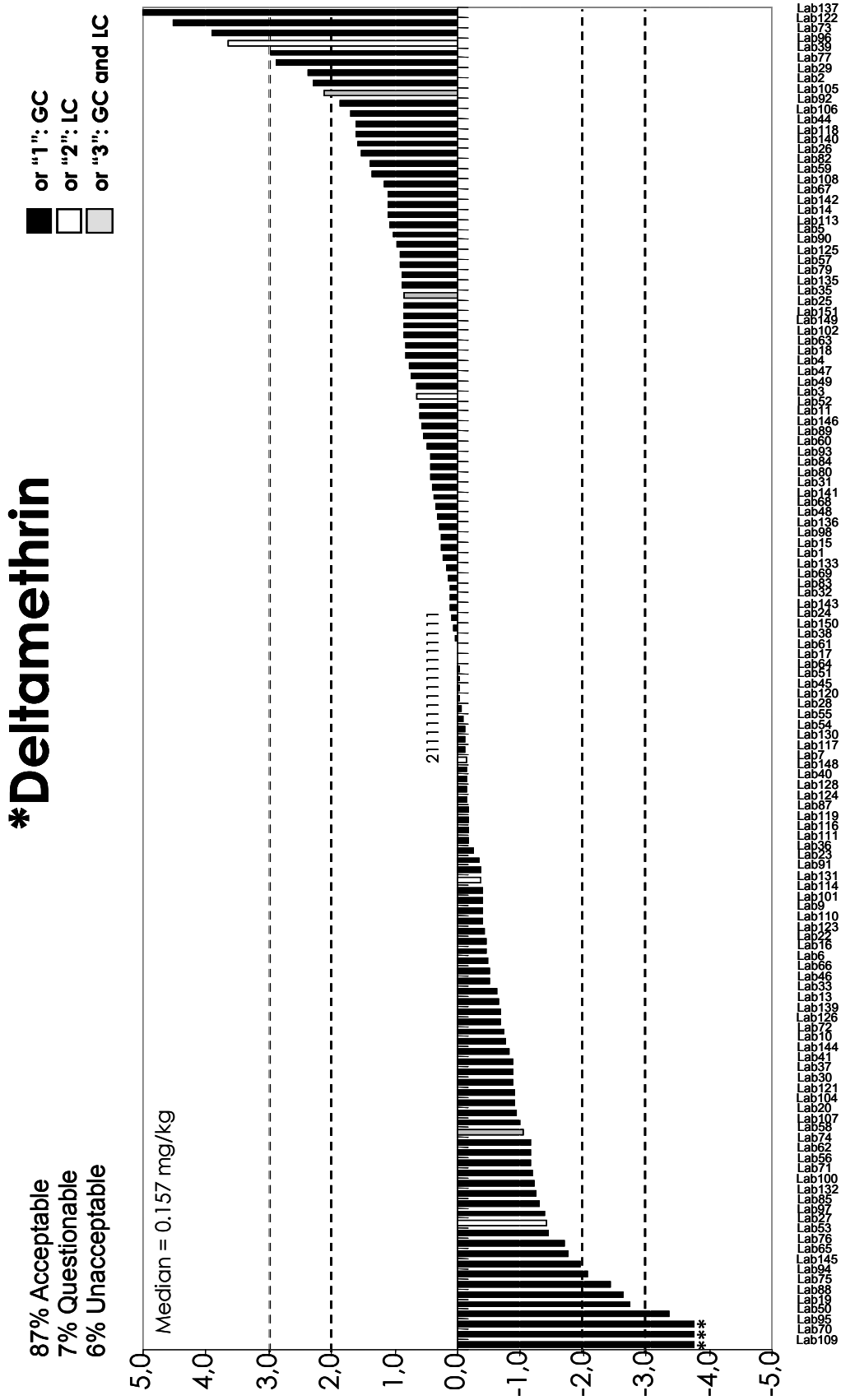
APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).



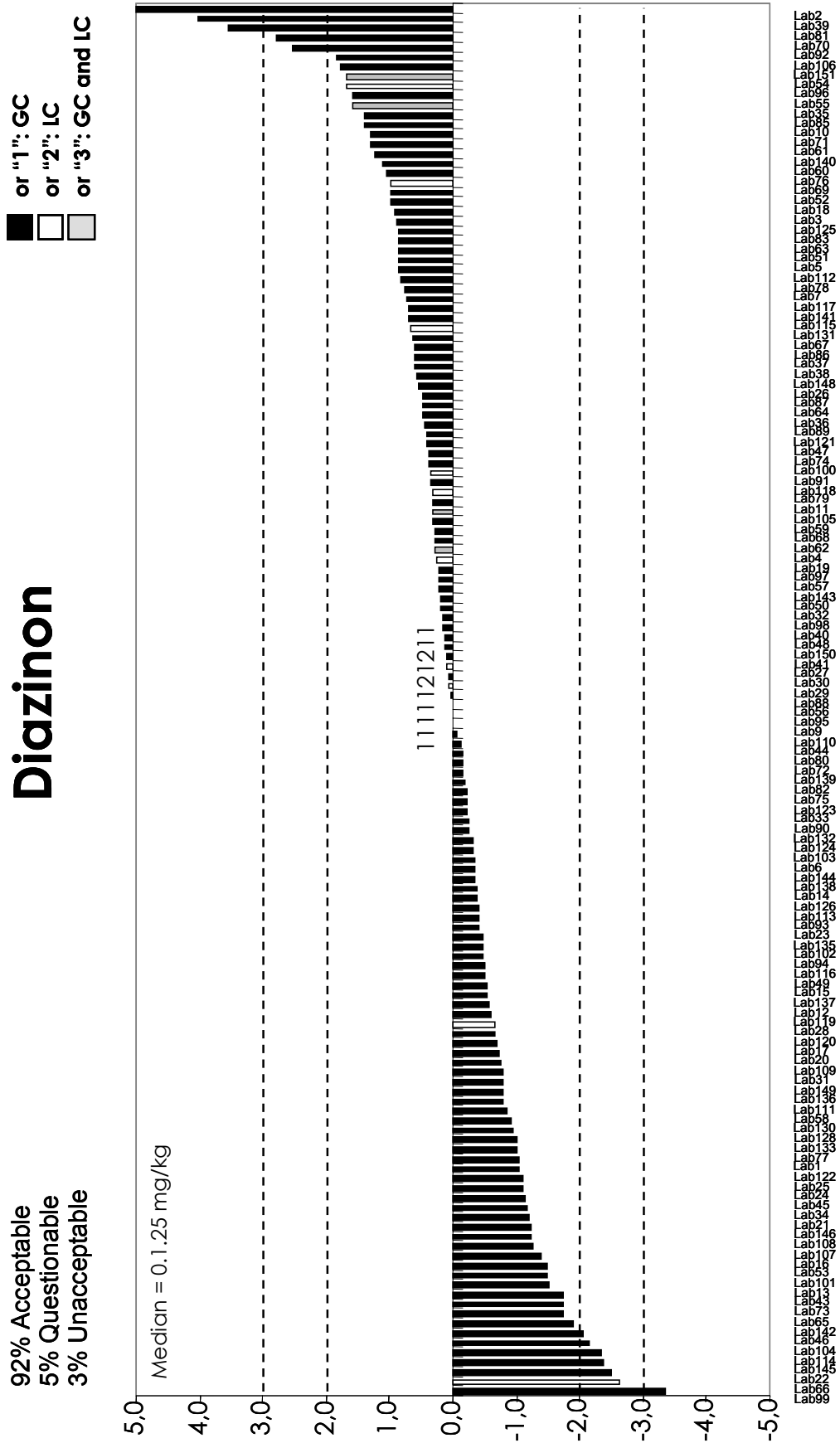




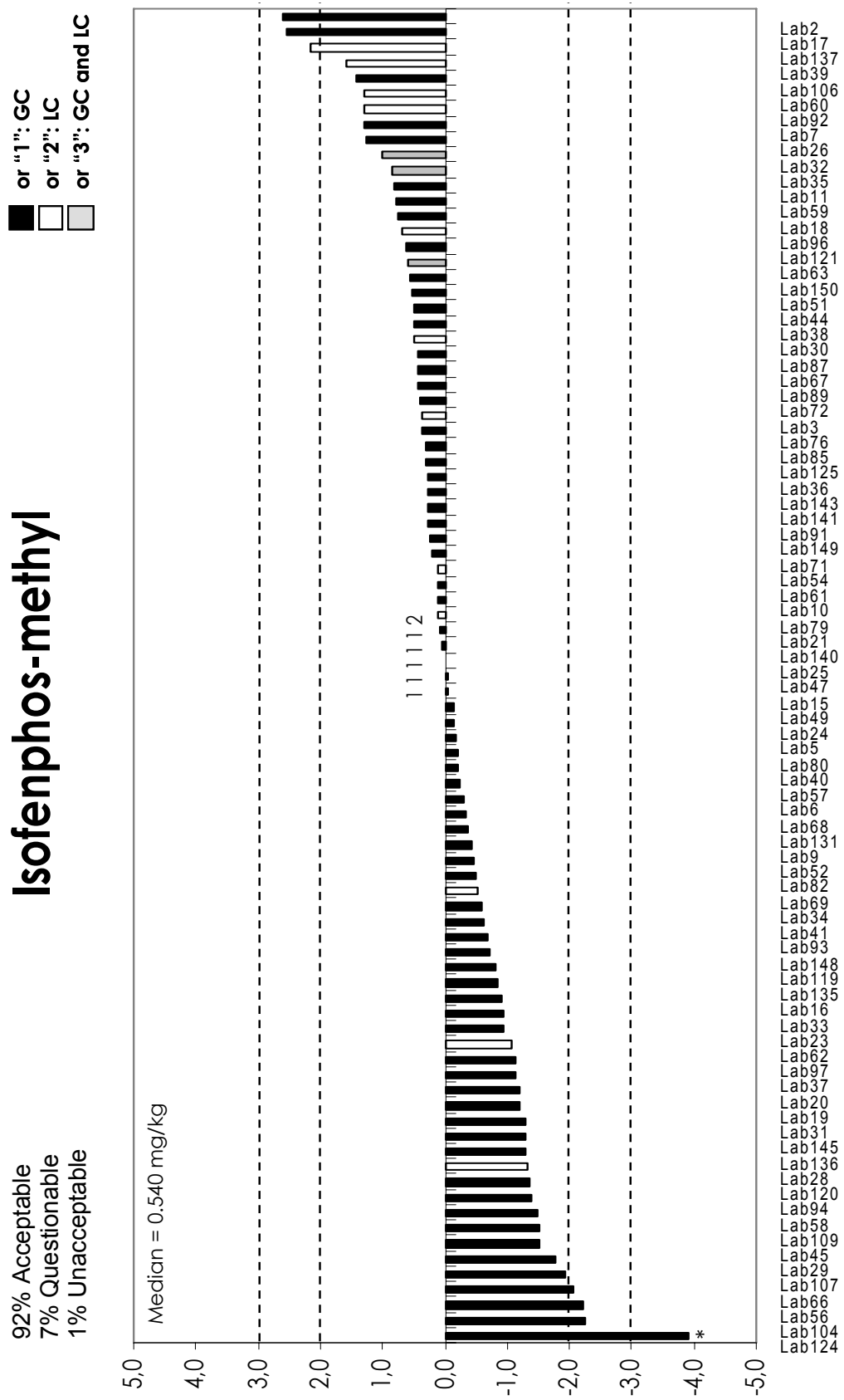
APPENDIX 4. Graphical representation of z-scores for FFP RSD (25%).



APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).

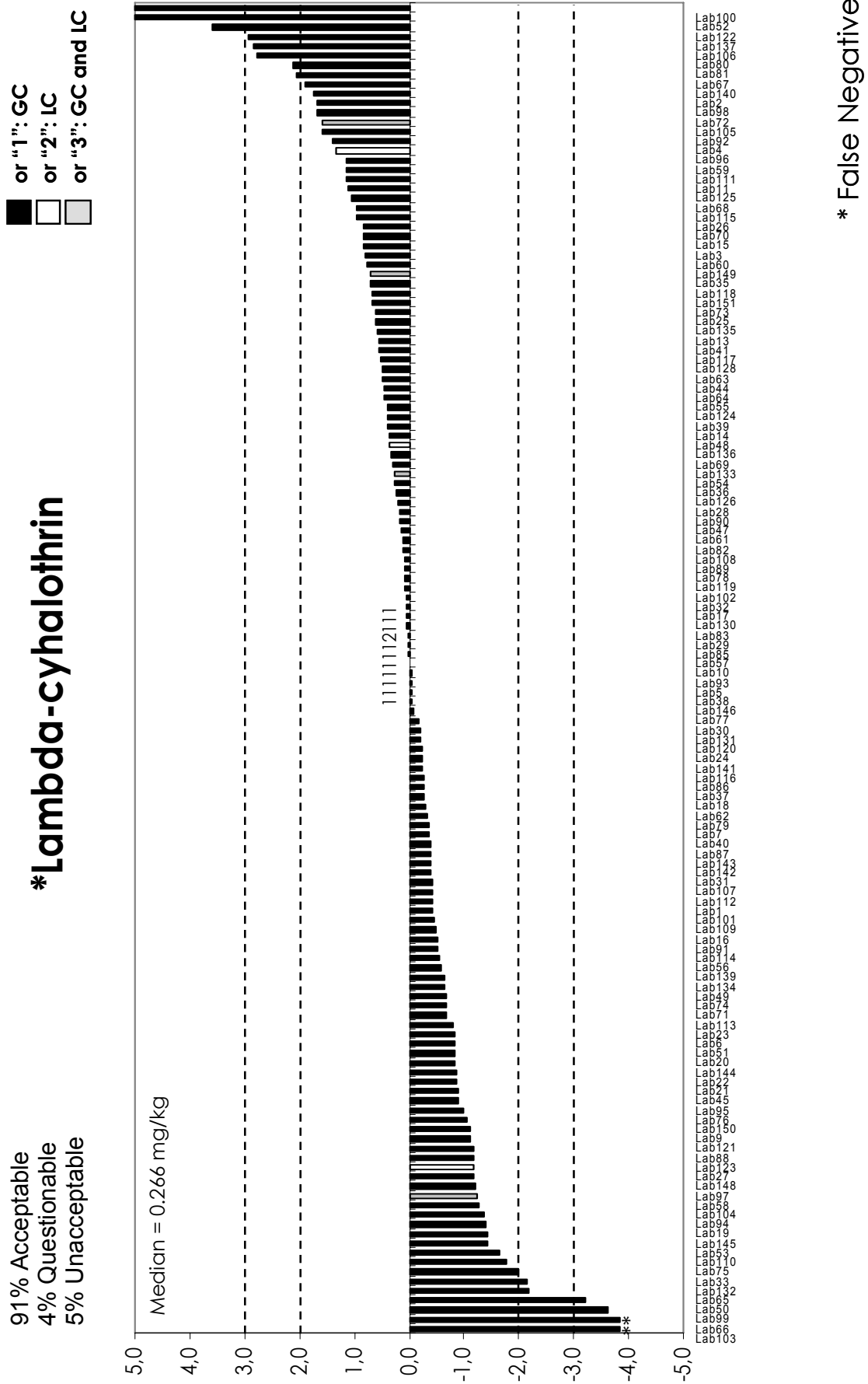


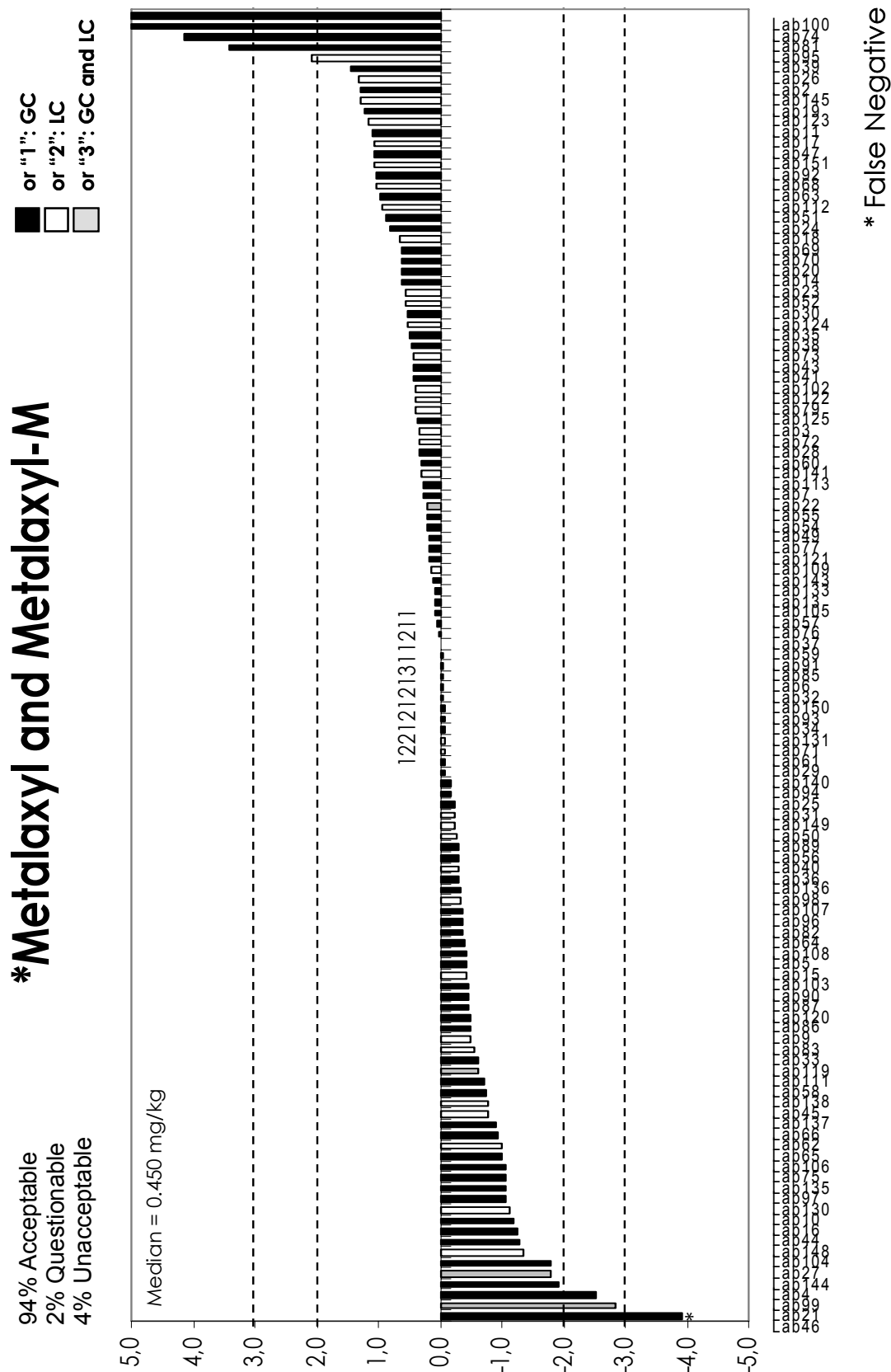
APPENDIX 4. Graphical representation of z-scores for FFP RSD (25%).

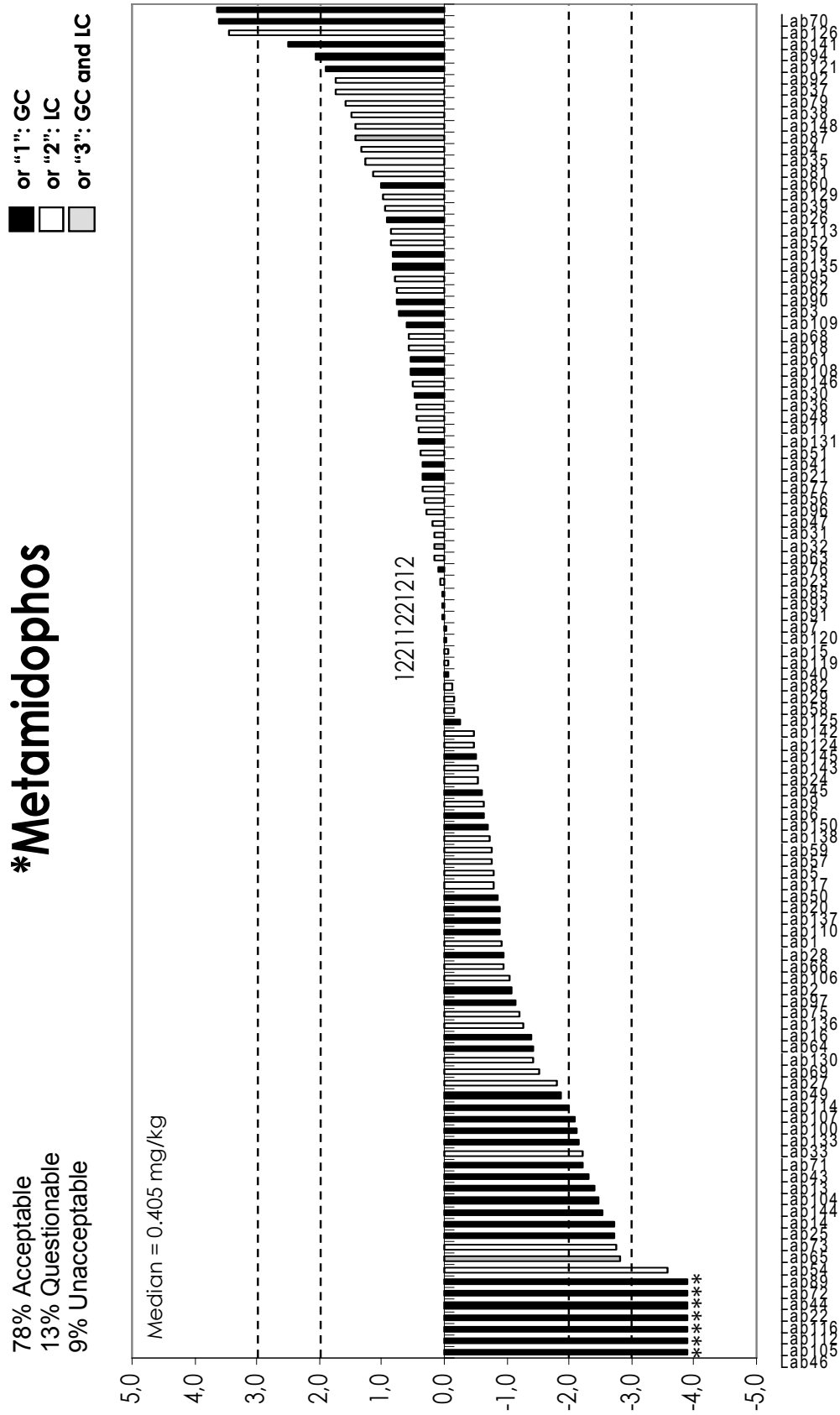


* False Negative

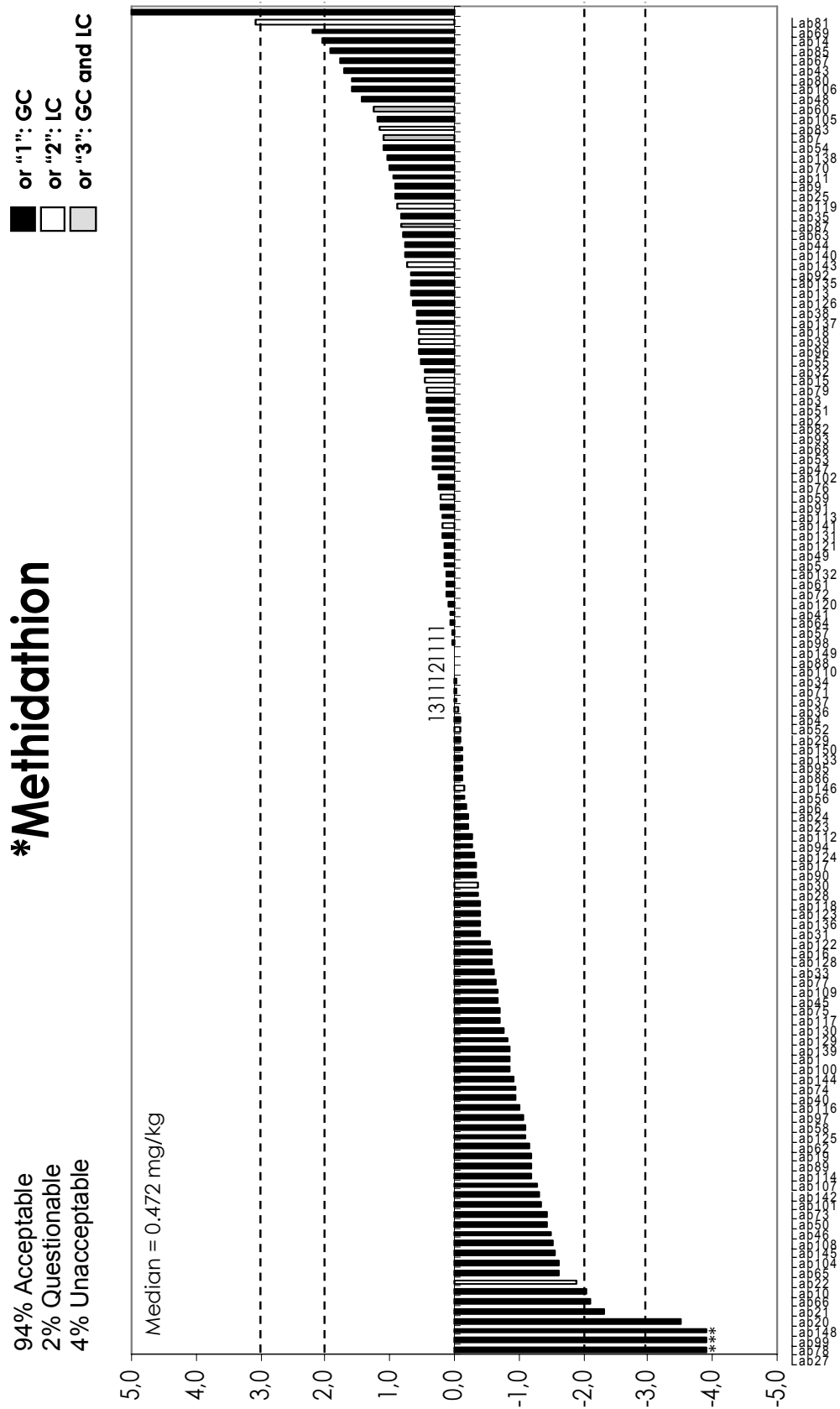
APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).





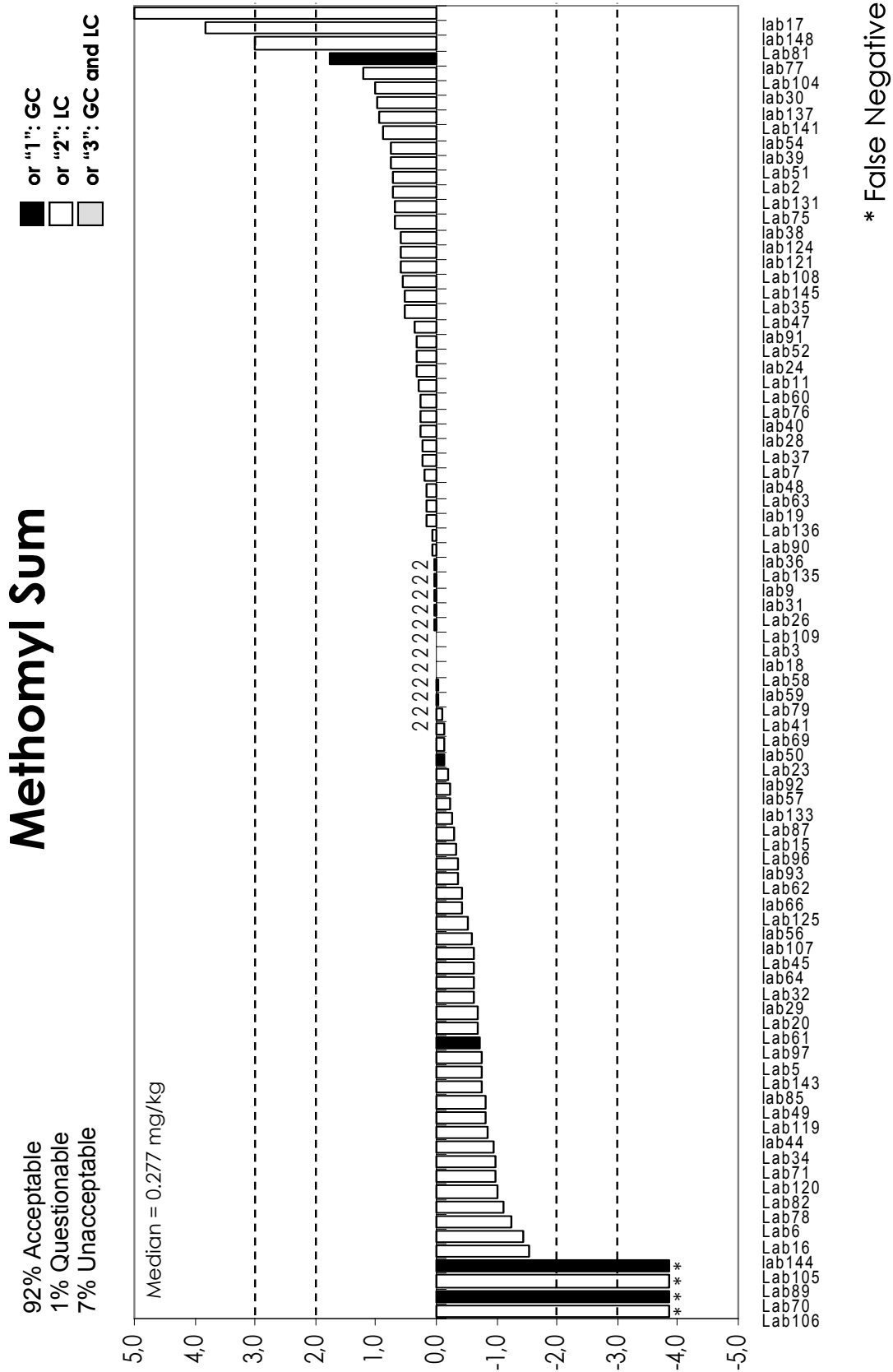


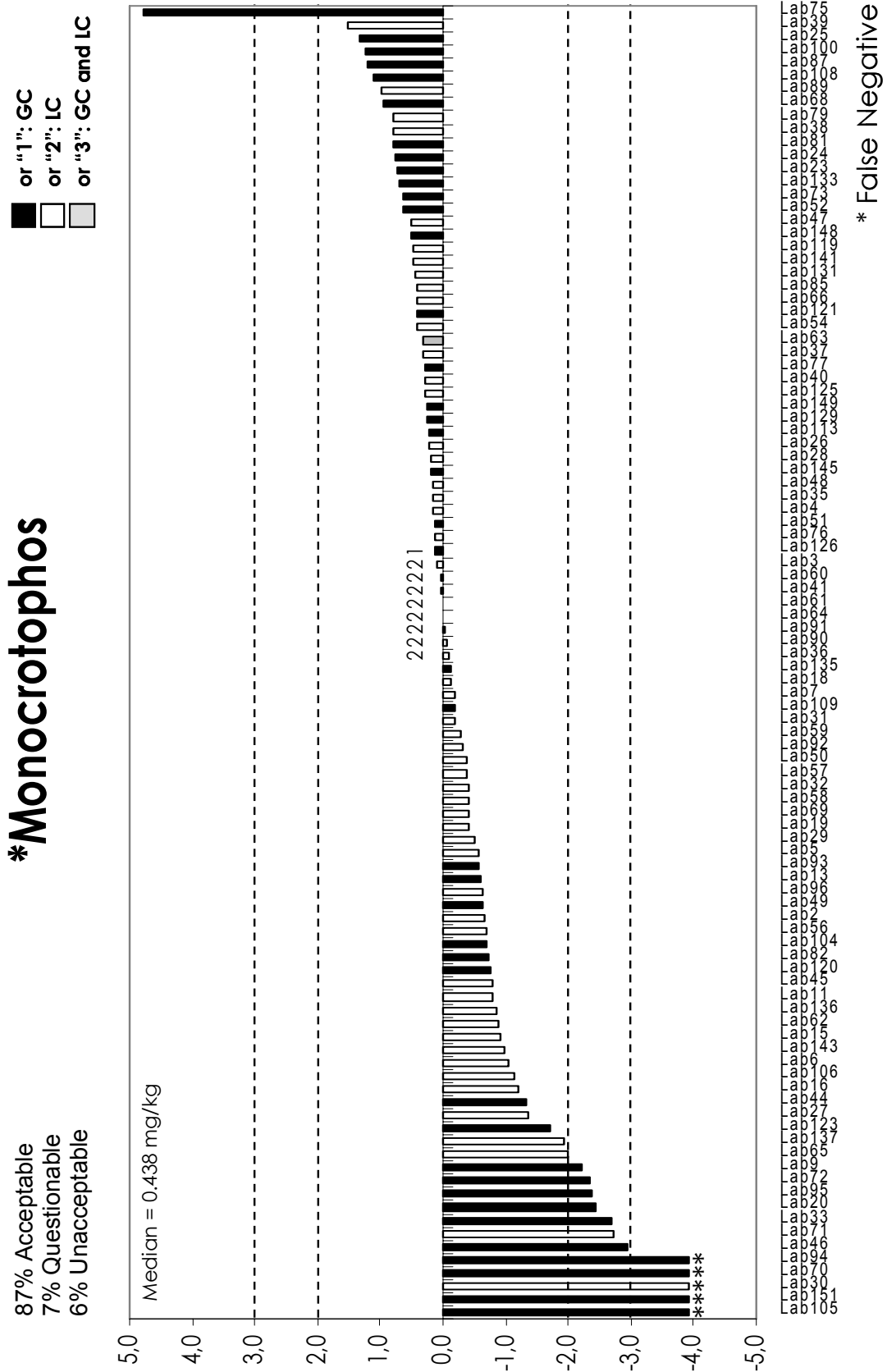
* False Negative



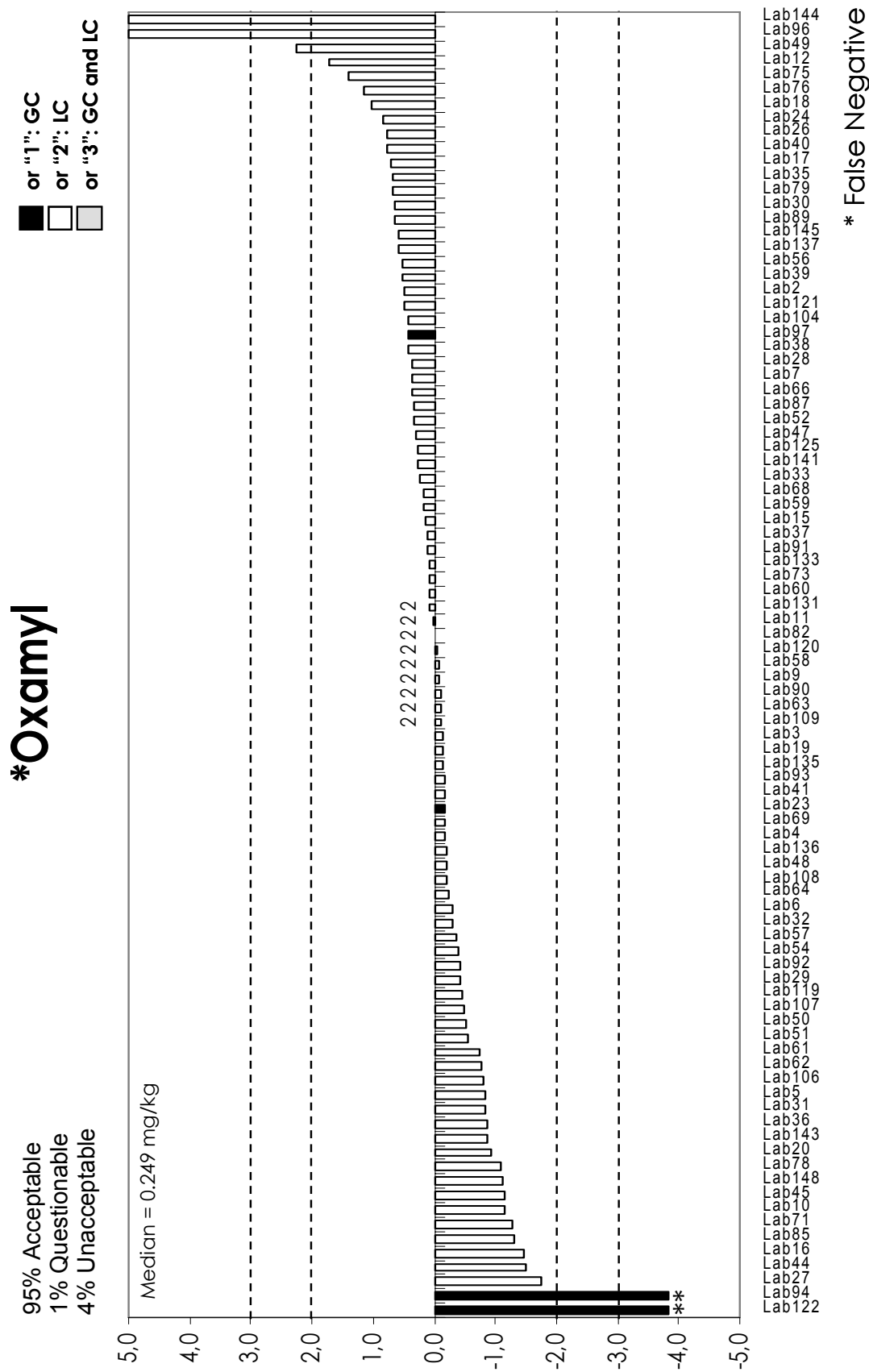
* False Negative

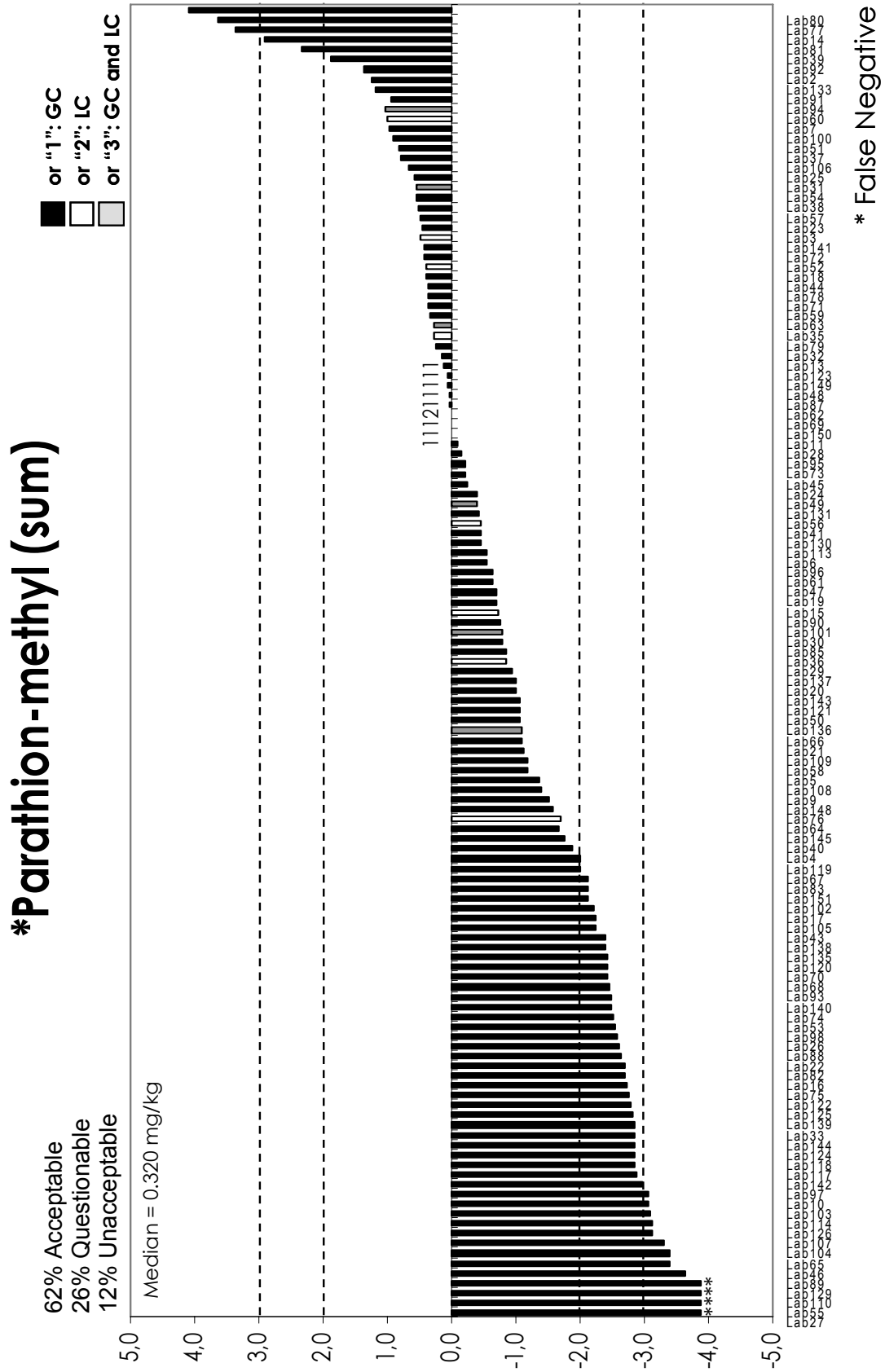
APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).



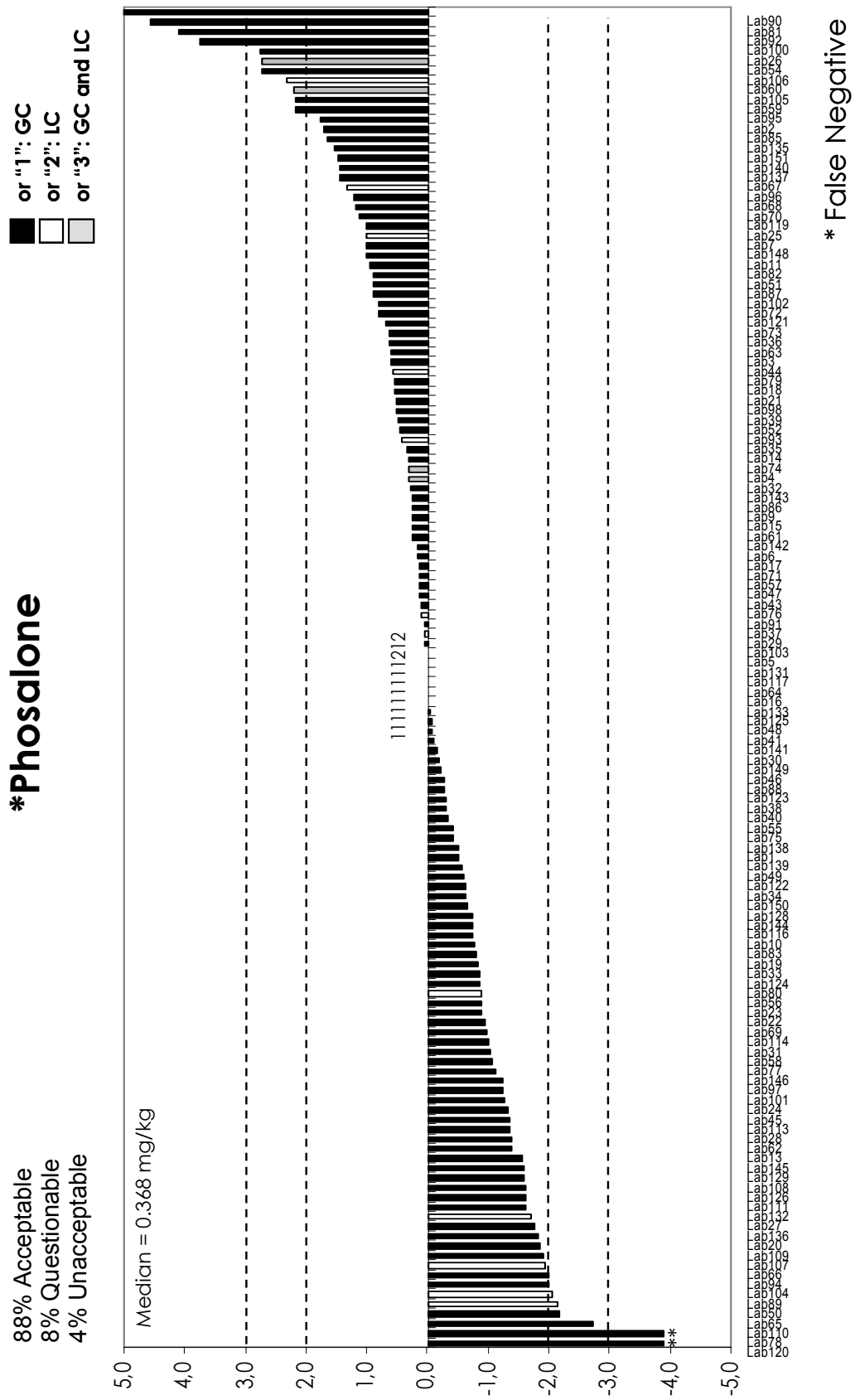


APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).

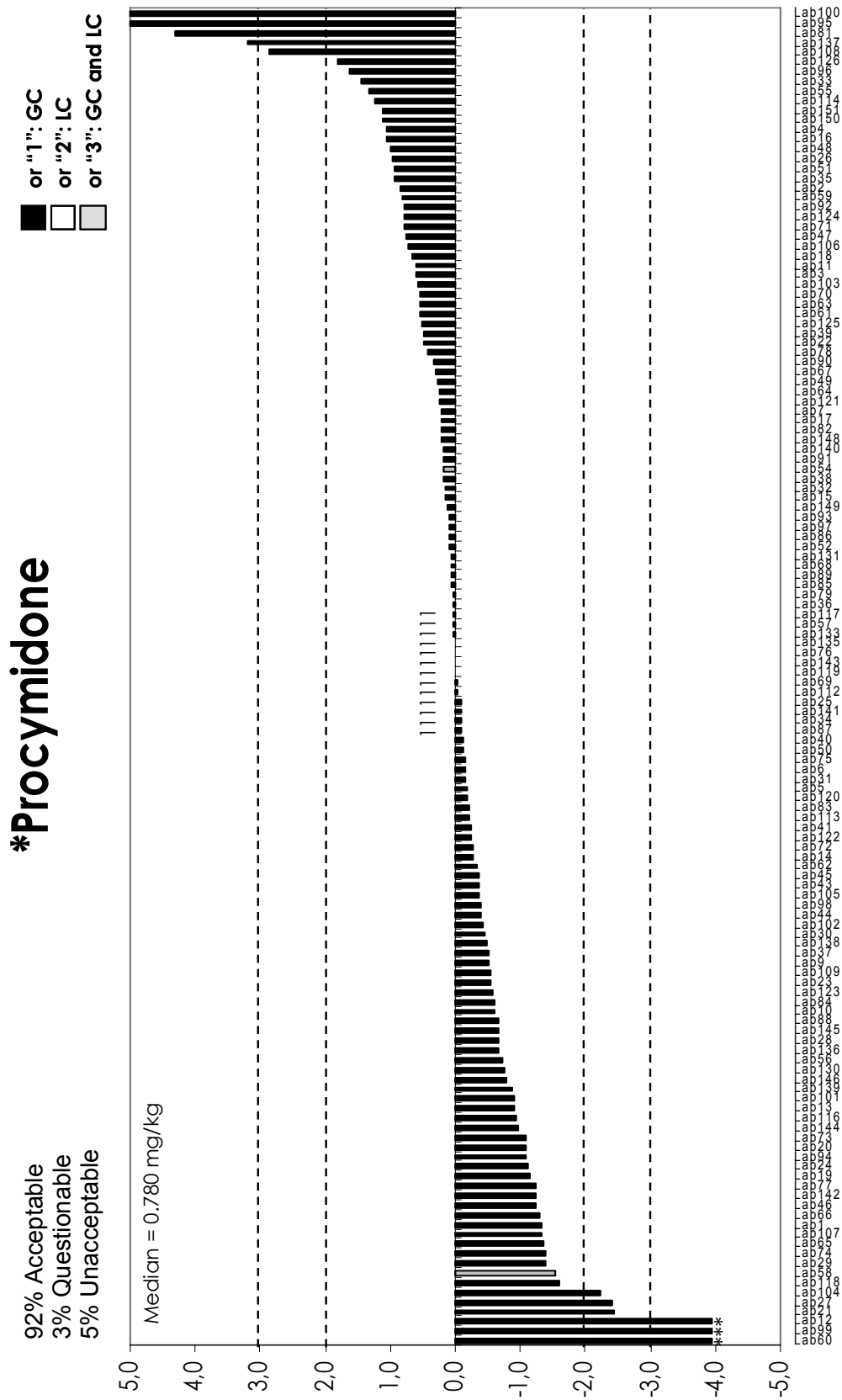




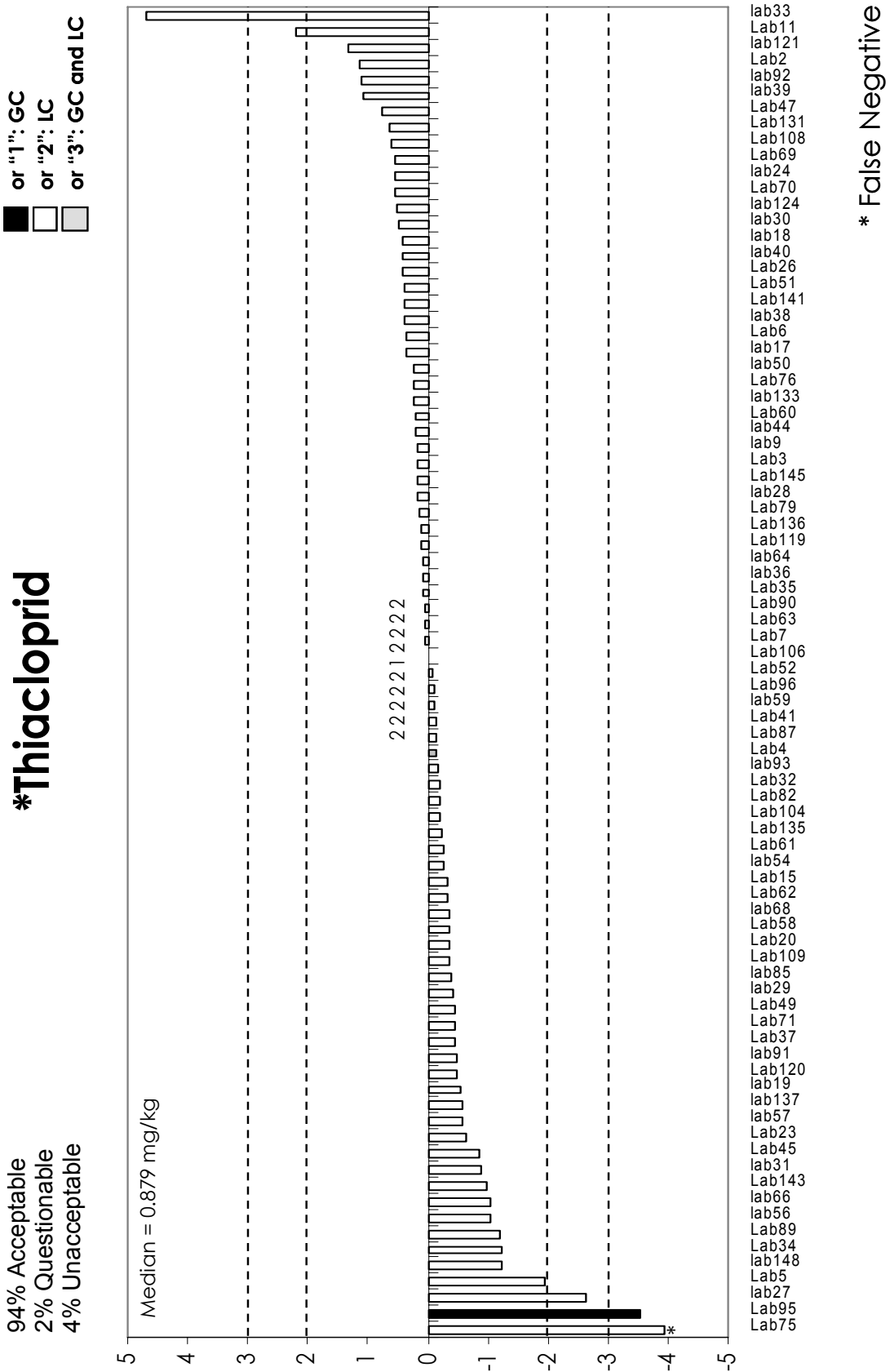
APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).

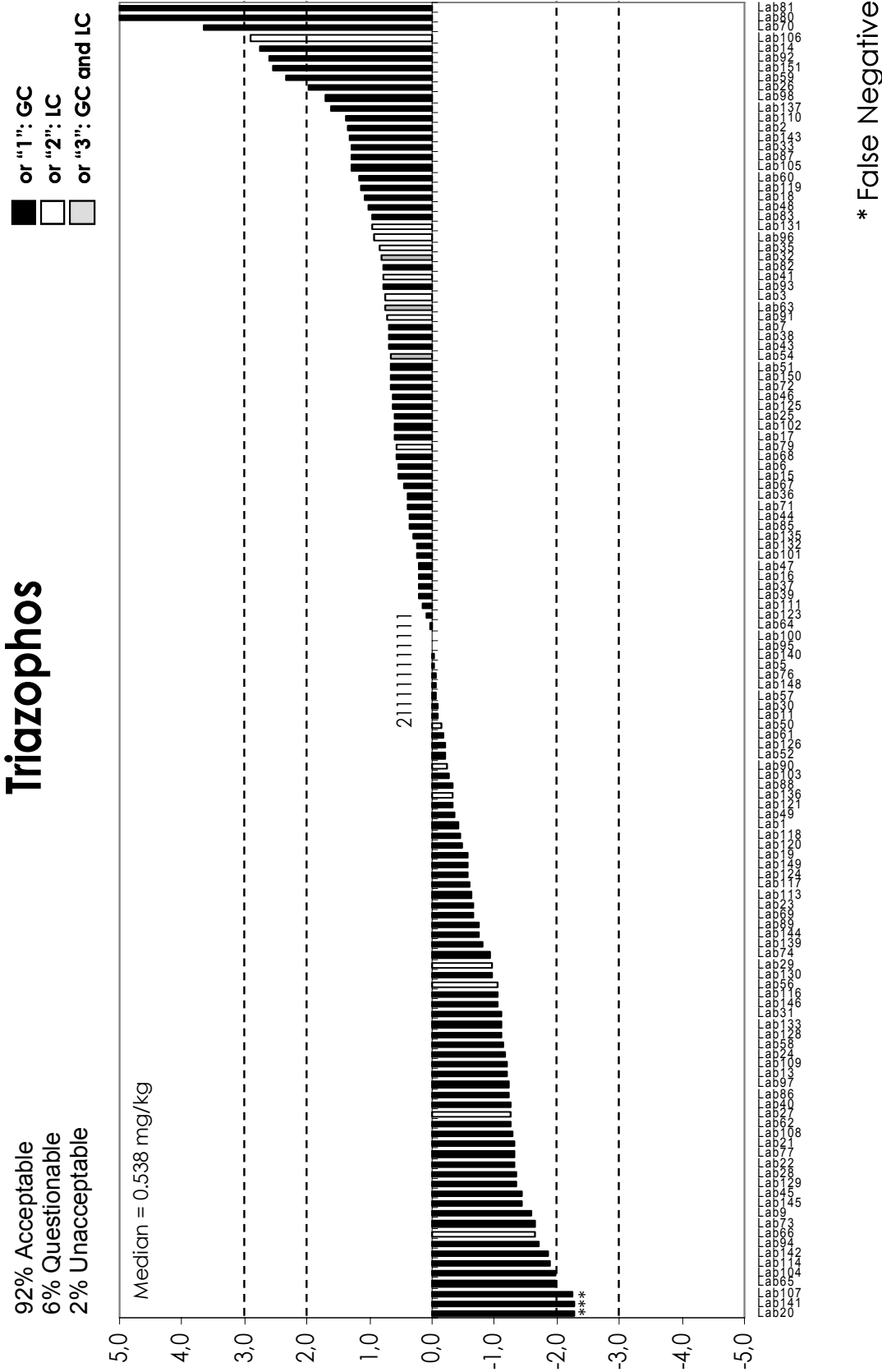


APPENDIX 4. Graphical representation of z-scores for FFP RSD (25%).



APPENDIX 4. Graphical Representation of z-scores for FFP RSD (25%).





APPENDIX 5. 'Sum of Weighted z-Scores' (SWZ) for laboratories in Category A.

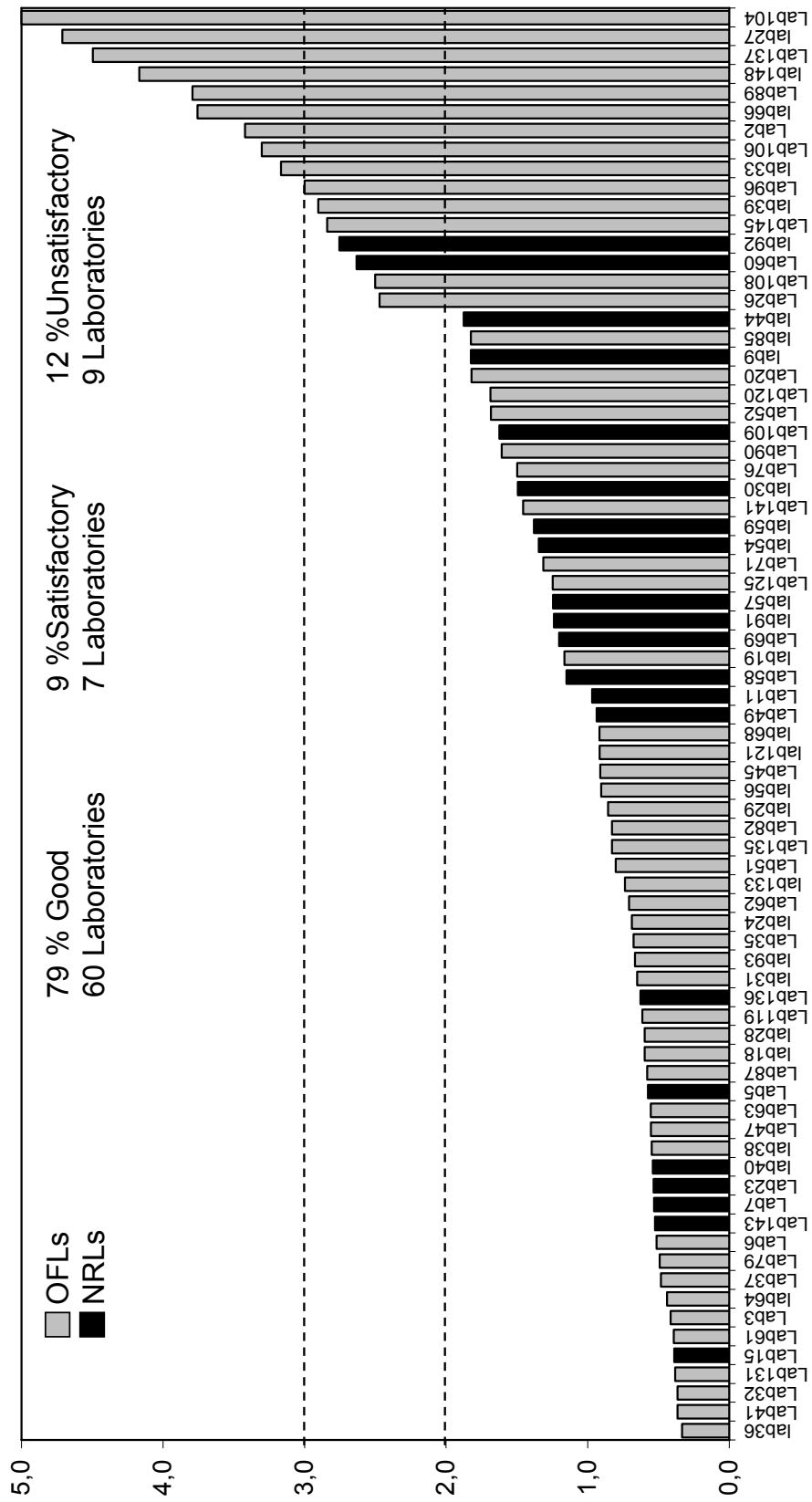
z-Scores Results

Lab Code	* Aldicarb (sum)	* Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Carbofuran (sum)	* Deltamethrin	Diazinon	Isolenphos-methyl	* Lambda-Cyhalothrin	* Metaxyl & Metaxyl-M	* Methamidophos	* Methidathion	Methomyl (sum)	* Monocrotophos	* Oxamyl	* Parathion-methyl (sum)	* Phosalone	* Procyimdone	* Thiocloprid	Triazophos	No. of Pesticides	SWZ
2	0.0	-0.4	0.7	3.1	1.8	0.7	2.3	5.0	2.6	1.7	1.3	-1.0	0.4	0.7	-0.7	0.5	1.4	1.8	0.8	1.1	1.4	21	3.4
3	0.2	0.1	0.3	0.3	0.6	0.1	0.6	0.9	0.4	0.8	0.4	0.8	0.4	0.0	0.1	-0.1	0.5	0.6	0.6	0.2	0.8	21	0.4
5	-0.8	-0.3	-1.0	0.2	0.0	-1.0	1.0	0.9	-0.2	-0.1	-0.4	-0.7	0.2	-0.7	-0.6	-0.8	-1.2	0.0	-0.2	-1.9	0.0	21	0.6
6	0.1	-0.1	-0.4	-1.2	1.3	-0.5	-0.5	-0.4	-0.3	-0.8	0.0	-0.6	-0.2	-1.3	-1.1	-0.3	-0.5	0.2	-0.2	0.4	0.6	21	0.5
7	0.0	0.8	0.5	0.7	1.3	0.1	-0.1	0.8	1.3	-0.4	0.3	0.0	1.2	0.2	-0.2	0.4	1.0	1.0	0.2	0.0	0.7	21	0.5
9	0.5	-3.9	-1.3	0.2	1.6	0.7	-0.4	0.0	-0.4	-1.1	-0.5	-0.6	0.9	0.0	-2.2	-0.1	-1.4	0.3	-0.5	0.2	-1.6	21	1.8
11	-0.8	0.9	1.1	0.2	-0.5	-2.0	0.6	0.3	0.8	1.1	1.2	0.4	1.0	0.3	-0.8	0.0	0.0	1.0	0.6	2.2	-0.1	21	1.0
15	-0.6	0.3	0.2	-0.2	-0.3	0.6	0.3	-0.5	-0.1	0.8	-0.4	0.0	0.5	-0.3	-0.9	0.2	-0.7	0.3	0.2	-0.3	0.5	21	0.4
18	-0.1	0.4	1.7	0.6	0.5	0.3	0.8	1.0	0.7	-0.3	0.8	0.6	0.6	0.0	-0.1	1.0	0.4	0.5	0.7	0.4	1.1	21	0.6
19	0.0	1.2	0.8	-1.3	-1.1	-1.2	-2.8	0.3	-1.2	-1.4	1.3	0.8	-1.2	0.2	-0.4	-0.1	-0.7	-0.8	-1.1	-0.5	-0.6	21	1.2
20	-0.4	-1.0	-0.9	-1.4		-0.6	-0.9	-0.7	-1.2	-0.8	0.6	-0.8	-2.3	-0.7	-2.4	-0.9	-1.0	-1.8	-1.1	-0.4	-2.3	20	1.8
23	-0.6	-0.4	-1.3	-1.0	-0.1	-0.1	-0.3	-0.4	-1.0	-0.8	0.6	0.1	-0.2	-0.1	0.7	-0.2	0.5	-0.9	-0.5	-0.6	-0.7	21	0.5
24	0.6	1.1	-0.6	-1.5		0.5	0.1	-1.1	-0.1	-0.2	0.9	-0.5	-0.2	0.3	0.8	0.8	-0.3	-1.3	-1.1	0.6	-1.2	20	0.7
26	0.6		3.4	1.4	0.7	-0.3	1.5	0.5	1.3	0.9	1.5	0.9		0.0	0.2	0.8	-2.6	2.8	1.0	0.4	2.0	19	2.5
27	-1.2	-1.9	-1.5	-1.5	-3.1	-2.0	-1.4	0.1		-1.2	-1.8	-1.5	-3.9		-1.4	-1.8	-3.9	-1.7	-2.4	-2.6	-1.2	19	4.7
28	-0.3	-1.1	-1.1	-1.0	-0.8	0.0	-0.1	-0.7	-1.3	0.2	0.3	-0.9	-0.4	0.3	0.2	0.4	-0.1	-1.4	-0.7	0.2	-1.3	21	0.6
29	0.5	-0.4	-0.5	-0.4	-1.5	-0.2	2.4	0.1	-1.8	0.0	-0.1	-0.1	-0.1	-0.6	-0.5	-0.4	-0.9	0.0	-1.4	-0.4	-1.0	21	0.9
30	0.6	0.4	0.9	-1.0		0.8	-0.9	0.1	0.5	-0.2	0.6	0.5	-0.3	1.0	-3.9	0.7	-0.8	-0.2	-0.5	0.5	-0.1	20	1.5
31	-0.6	-1.3	-1.5	-0.5	-1.2	-0.1	0.4	-0.8	-1.3	-0.4	-0.2	0.2	-0.4	0.0	-0.2	-0.8	0.6	-1.0	-0.2	-0.9	-1.1	21	0.7
32	-0.2	0.6	0.4	-0.2	-0.5	-0.9	0.1	0.2	1.0	0.0	0.0	0.2	0.5	-0.6	-0.4	-0.3	0.2	0.3	0.2	-0.2	0.8	21	0.4
33		-1.6	-0.5	-1.1	-1.0	-0.8	-0.6	-0.2	-0.9	-2.0	-0.6	-2.2	-0.6		-2.7	0.2	-2.8	-0.8	1.4	4.7	1.3	19	3.2
35	0.4	0.9	0.2	1.2	0.6	0.3	0.8	1.6	0.8	0.7	0.5	1.3	0.9	0.5	0.2	0.7	0.3	0.4	0.9	0.1	0.8	21	0.7
36	-0.9	0.3	0.2	0.2	-0.1	-0.2	-0.3	0.5	0.3	0.2	-0.3	0.5	0.0	0.1	-0.1	-0.9	-0.9	0.6	0.0	0.1	0.4	21	0.3
37	0.7	-0.3	-0.2	-0.7	-0.5	0.4	-0.9	0.6	-1.1	-0.3	0.0	1.8	0.0	0.2	0.3	0.1	0.8	0.0	-0.5	-0.5	0.2	21	0.5
38	1.8	0.3	0.0	0.7	0.1	0.7	0.0	0.6	0.5	-0.1	0.5	1.6	0.6	0.7	0.8	0.4	0.6	-0.3	0.2	0.4	0.7	21	0.5
39	0.4	-0.4	1.8	0.3	0.9	2.1	3.0	4.0	1.6	0.4	2.1	1.0	0.6	0.8	1.5	0.5	2.3	0.5	0.5	1.1	0.2	21	2.9
40	-0.1	-1.6	-0.7	-0.2		-0.9	-0.2	0.2	-0.2	-0.4	-0.3	-0.1	-0.9	0.3	0.3	0.8	-1.8	-0.3	-0.1	0.4	-1.2	20	0.5
41	0.5	0.4	0.4	0.9	0.3	0.1	-0.9	0.1	-0.6	0.5	0.4	0.4	0.1	-0.1	0.0	-0.2	-0.5	-0.1	-0.2	-0.1	0.8	21	0.4
44	-2.0	1.0	-0.4	-0.8	0.1	-0.9	1.6	-0.1	0.5	0.5	-1.2	-3.9	0.8	-0.9	-1.3	-1.5	0.4	0.6	-0.4	0.2	0.4	21	1.9
45	-0.6	-1.5	-1.6	-0.8	-1.6	-0.9	0.0	-1.1	-1.5	-0.9	-0.8	-0.5	-0.7	-0.6	-0.8	-1.2	-0.2	-1.3	-0.4	-0.9	-1.4	21	0.9
47	0.6	0.3	1.5	0.8	1.1	-0.4	0.7	0.4	0.0	0.2	1.1	0.3	0.3	0.5	0.5	0.3	-0.6	0.1	0.8	0.8	0.2	21	0.6
49	-1.8	-0.1	-0.2	0.8	-2.0	-0.5	0.6	-0.5	-0.1	-0.7	0.2	-1.8	0.2	-0.8	-0.6	2.2	-0.4	-0.6	0.3	-0.4	-0.4	21	0.9
51	-1.4	1.8	1.1	1.2	1.9	0.2	0.0	0.9	0.5	-0.8	0.9	0.4	0.4	0.8	0.1	-0.5	0.9	0.9	0.9	0.4	0.7	21	0.8
52	-0.8	-1.8	0.0	1.3	0.2	-0.1	0.6	1.0	-0.5	5.0	0.6	0.9	-0.1	0.3	0.6	0.3	0.4	0.5	0.1	-0.1	-0.2	21	1.7
54	-0.3	1.2	1.2	1.3	0.0	-0.7	-0.1	1.7	0.1	0.3	0.2	-2.8	1.1	0.9	0.4	-0.4	0.6	2.7	0.2	-0.3	0.7	21	1.3
56	-1.0	-1.0	-0.8	0.2	-0.2	-0.7	-1.2	0.0	-2.2	-0.6	-0.3	0.3	-0.1	-0.5	-0.7	0.5	-0.4	-0.9	-0.7	-1.1	-1.0	21	0.9
57	-0.1	-0.1	-0.6	-3.9	-0.5	0.5	0.9	0.2	-0.2	0.0	0.1	-0.7	0.1	-0.2	-0.4	-0.4	0.5	0.1	0.0	-0.6	-0.1	21	1.2
58	-2.1	-1.2	-1.3	-1.3	-0.9	-0.9	-1.0	-0.9	-1.5	-1.3	-0.7	-0.1	-1.1	0.0	-0.4	-0.1	-1.2	-1.0	-1.5	-0.4	-1.2	21	1.1
59	-2.0	1.1	0.1	0.8	0.5	-0.7	1.4	0.3	0.8	1.1	0.0	-0.7	0.2	0.0	-0.3	0.2	0.3	2.2	0.8	-0.1	2.3	21	1.4
60	0.2	2.7	0.9	2.3		0.5	0.5	1.1	1.3	0.8	0.3	1.2	1.4	0.3	0.0	0.1	1.0	2.3	-3.9	0.2	1.2	20	2.6
61	-0.5	-0.3	-1.1	0.3	0.1	-0.3	0.0	1.3	0.1	0.1	-0.1	0.6	0.1	-0.7	0.0	-0.7	-0.6	0.2	0.5	-0.3	-0.2	21	0.4
62	-0.4	-0.5	-1.4	-0.6	-0.3	-0.6	-1.2	0.3	-1.1	-0.3	-0.9	0.8	-1.1	-0.4	-0.9	-0.8	0.0	-1.4	-0.3	-0.3	-1.3	21	0.7
63	0.6	0.3	0.5	1.1	0.8	0.8	0.8	0.9	0.6	0.5	1.0	0.2	0.8	0.2	0.3	-0.1	0.3	0.6	0.6	0.1	0.7	21	0.6
64	-0.4	-0.4	-0.3	0.4		-1.2	0.0	0.5		0.4	-0.4	-1.4	0.1	-0.6	0.0	-0.2	-1.5	0.0	0.2	0.1	0.0	19	0.4
66	-1.5	-2.3	-1.9	-1.7	-3.1	-1.3	-0.5	-2.6	-2.1	-3.8	-0.9	-0.9	-2.0	-0.4	0.4	0.4	-1.1	-1.9	-1.3	-1.0	-1.7	21	3.8
68		-0.6	0.9	0.5	0.0	-0.8	0.3	0.3	-0.3	1.0	1.0	0.6	0.3		0.9	0.2	-2.4	1.2	0.1	-0.4	0.6	19	0.9
69	-0.5	-0.9	-0.8	0.0	-0.6	0.0	0.2	1.0	-0.5	0.3	0.6	-1.4	3.1	-0.1	-0.4	-0.2	0.0	-1.0	0.0	0.6	-0.7	21	1.2

APPENDIX 5. 'Sum of Weighted z-Scores' (WSZ) for Laboratories in Category A.

Lab Code	* Aldicarb (sum)	* Azinphos-methyl	Boscalid	Buprofezin	Cadusafos	Carbofuran (sum)	* Deltamethrin	Diazinon	Isofenphos-methyl	* Lambda-Cyhalothrin	* Metaxyl & Metaxyl-M	* Methamidophos	* Methidathion	Methomyl (sum)	* Monocrotophos	* Oxamyl	* Parathion-methyl (sum)	* Phosalone	* Procymidone	* Thiacloprid	Triazophos	No. of Pesticides	SWZ
71	-1.9	0.6	0.1	1.8	0.3	-0.2	-1.2	1.3	0.2	-0.7	-0.1	-2.2	0.0	-1.0	-2.7	-1.3	0.4	0.1	0.8	-0.5	0.4	21	1.3
76	0.5	1.0	-0.5	1.7	-0.3	0.4	-1.7	1.1	0.4	-1.0	0.0	0.2	0.2	-3.9	0.1	1.2	-1.6	0.1	0.0	0.2	-0.1	21	1.5
79	0.3	0.9	0.8	0.1	0.4	0.5	0.9	0.3	0.1	-0.3	0.4	1.7	0.5	0.0	0.8	0.7	0.3	0.6	0.0	0.2	0.6	21	0.5
82	-0.8	0.1	0.2	-0.1	-1.0	0.2	1.4	-0.2	-0.5	0.1	-0.4	-0.1	0.4	-1.0	-0.7	0.0	-2.7	0.9	0.2	-0.2	0.8	21	0.8
85	-0.4	-3.9	1.5	0.2	0.9	-0.8	-1.3	1.4	0.3	0.0	0.0	0.1	2.0	-0.8	0.4	-1.3	-0.8	1.7	0.1	-0.4	0.3	21	1.8
87	0.2	0.5	1.2	0.5	0.6	0.7	-0.2	0.5	0.4	-0.4	-0.4	1.4	0.8	-0.2	1.2	0.3	0.0	0.9	-0.1	-0.1	1.3	21	0.6
89	0.7	1.6	-1.1	-2.3	-0.7	-0.7	0.5	0.4	0.4	0.1	-0.3	-3.6	-1.2	-3.9	1.0	0.6	-3.6	-2.1	0.1	-1.2	-0.7	21	3.8
90	-0.1	-0.3	0.0	-0.9	-0.4	-0.9	1.0	-0.2		0.2	-0.4	0.8	-0.3	0.1	-0.1	-0.1	-0.7	5.0	0.3	0.1	-0.2	20	1.6
91	0.2	-0.1	0.1	0.1	1.3	-0.5	-0.4	0.4	0.3	-0.5	0.0	0.0	0.2	-3.9	0.0	0.1	1.2	0.1	0.2	-0.5	0.7	21	1.2
92	0.4	0.8	0.6	2.0	0.0	1.0	1.9	2.5	1.3	1.5	1.1	1.9	0.7	-0.2	-0.3	-0.4	1.9	4.1	0.8	1.1	2.6	21	2.8
93	-0.4	0.1	0.1	-0.1	-0.8	-0.5	0.4	-0.4	-0.7	-0.1	-0.1	0.0	0.3	-0.4	-0.6	-0.2	-2.5	0.4	0.1	-0.2	0.8	21	0.7
96	2.0	0.2	0.2	0.9	0.8	1.1	3.6	1.7	0.7	1.3	-0.4	0.3	0.5	-0.3	-0.6	5.0	-0.6	1.3	1.6	-0.1	0.9	21	3.0
104	0.1	3.2	-3.9	-2.1		-0.3	-0.9	-2.1	-2.3	-1.3	-1.3	-2.4	-1.5	-3.9	-0.7	0.4	-3.3	-2.0	-2.2	-0.2	-2.0	20	6.0
106	-2.8	1.4	0.7	-0.8	0.9	-0.7	1.7	1.8	1.4	2.8	-1.0	-0.9	1.6	-3.9	-1.1	-0.8	0.8	2.7	0.7	0.0	2.9	21	3.3
108	-0.3	-1.8	-0.2	-2.1		0.0	1.1	-1.2		0.1	-0.4	0.6	-1.5	-3.9	1.1	-0.2	-1.4	-1.6	2.9	0.6	-1.3	19	2.5
109	1.4	-1.3	-0.9	-1.2	-0.4	-0.4	-3.7	-0.8	-1.5	-0.5	0.2	0.7	-0.6	0.0	-0.2	-0.1	-1.1	-1.8	-0.5	-0.4	-1.2	21	1.6
119	-0.9	1.1	0.2	-0.2	-0.7	-0.5	-0.2	-0.6	-0.8	0.1	-0.6	0.0	0.9	-0.8	0.5	-0.5	-2.0	1.1	0.0	0.1	1.1	21	0.6
120	-0.7	0.0	-0.5	-0.2	-1.2	0.3	0.0	-0.7	-1.4	-0.2	-0.4	0.0	0.1	-1.0	-0.8	-0.1	-2.4	-3.9	-0.2	-0.5	-0.5	21	1.7
121	0.6	0.7	0.1	0.4	1.6	-0.9	-0.9	0.4	0.6	-1.1	0.2	2.1	0.2	0.6	0.4	0.5	-1.1	0.8	0.2	1.3	-0.3	21	0.9
125	-0.4	0.4	2.3	0.3		-0.4	0.9	0.9	0.3	1.1	0.4	-0.2	-1.1	-0.4	0.3	0.3	-2.8	0.0	0.5		0.6	19	1.2
131	1.0	0.2	0.2	0.6	0.3	0.2	-0.4	0.7	-0.4	-0.2	-0.1	0.4	0.2	0.7	0.5	0.1	-0.4	0.0	0.1	0.6	1.0	21	0.4
133	-0.2	0.0	-0.2	-1.5	-0.5	-0.6	0.2	-1.0		0.3	0.1	-2.1	-0.1	-0.2	0.7	0.1	1.2	0.0	0.0	0.2	-1.1	20	0.7
135	-0.2	0.3	-0.6	0.0	-0.7	-0.6	0.9	-0.5	-0.8	0.6	-1.0	0.8	0.7	0.0	-0.1	-0.1	-2.4	1.6	0.0	-0.2	0.3	21	0.8
136	-0.7	-0.1	0.4	-0.8	-0.9	-0.5	0.3	-0.8	-1.3	0.3	-0.3	-1.2	-0.4	0.2	-0.9	-0.2	-1.1	-1.8	-0.7	0.1	-0.3	21	0.6
137	0.0	-0.5		3.3		-1.5	5.0	-0.5	2.2	2.9	-0.8	-0.9	0.6	1.0	-1.9	0.6	-1.0	1.5	3.2	-0.6	1.6	19	4.5
141	0.7	-0.2	0.1	-0.1	0.4	0.4	0.4	0.7	0.3	-0.3	0.3	3.5	0.2	1.0	0.5	0.3	0.3	-0.1	-0.1	0.4	-2.3	21	1.5
143	-0.7	0.2	-0.1	0.4	0.3	-0.8	0.1	0.2	0.3	-0.4	0.1	-0.5	0.8	-0.7	-1.0	-0.9	-1.0	0.3	0.0	-1.0	1.3	21	0.5
145	5.0	-1.9	-1.8	-2.1		0.0	-1.9	-2.4	-1.3	-1.4	1.3	-0.5	-1.5	0.5	0.2	0.6	-1.7	-1.6	-0.7	0.2	-1.4	20	2.8
148	0.4	5.1	1.3	-0.6		2.6	-0.1	0.6	-0.7	-1.2	-1.3	1.5	-3.5	3.8	0.5	-1.1	-1.5	1.0	0.2	-1.2	-0.1	20	4.2

EUPT-FV-11 - Graphical Representation for Laboratories in Category A



APPENDIX 7. Methods used by participants for determining pesticides.

These are the explanations to fill in the tables.

PARAMETER	EXPLANATION
Pesticide	Pesticide Name
Scope of your Method	NA, ND, D
Residue Level	(mg/kg)
Reference Number	Number assigned by the laboratory
Analytical Procedure Used	Table F1
Sample Weight	(g)
Extraction Solvent/s	Table F2
Clean-up step	Table F3
Quantification Using Standards	S or M S: Standard/calibration in pure solvent M: Standard/calibration in matrix extract
Internal Standard	YES or NO
Injection Volume	(μ L)
Injection Type	1.-None; 2.-Split/Splitless; 3.-Split; 4.-PTV, 5.-On-Column
Determination Technique	GC-ECD,GC-NPD, GC-FPD,GC-Q-MS, GC-QQQ-MS/MS,GC-ITD-MS/MS,GC-TOF/MS, HPLC-FL,HPLC-UV,HPLC-DAD,LC-MS,LC-MS/MS, LC-TOF/MS, ...
Confirmation Method	Give the confirmation technique used if any. e.g. GC-ECD,GC-NPD, GC-FPD,GC-Q-MS, GC-QQQ-MS/MS,GC-ITD-MS/MS,GC-TOF/MS, HPLC-FL,HPLC-UV,HPLC-DAD,LC-MS,LC-MS/MS, LC-TOF/MS
RL	(mg/Kg) RL: Reporting Level must be given for all pesticides. For pesticides with metabolites/degradation products, give it for the full residue definition of the pesticide as well as for individual compounds when required.
Was your result adjusted for recovery?	YES or NO In general, results are not adjusted for recovery, when the mean recovery is in the range 70-110%. If your results have been adjusted for recovery, then please report the Recovery Factor that you used.. Reference: METHOD VALIDATION AND QUALITY CONTROL PROCEDURES FOR PESTICIDE RESIDUES ANALYSIS IN FOOD AND FEED Document No. SANCO/2007/3131
Recovery	%
Recovery	Write "1" if recoveries reported originated from experiments performed at the same time as the test and write "2" if recoveries reported have been originated from validation data

APPENDIX 7. Methods used by participants for determining pesticides.

Table F1.- Reference Methods

Number	Reference
1	§ 64 LFGB Nr. L 00.00-34 (DFG-Method) S 19, former § 35 LMVG Nr. L 00.00-34
2	Analytical Methods for Pesticide Residues in Foodstuffs. Ministry of Welfare, health and cultural affairs, Netherlands, Multiresidue Method 1, 3.1.2, 6th Ed, 1996
3	Fillion et al. Journal of AOAC International 78-5-1995
4	Specht W, Pelz S, Gilsbach W. Fresenius J Anal Chem. (1995) 353: 183 - 190
5	Gilvydis Dm Walters SM (1990) JAOA Chem. 73
6	Janson et al. Journal of Chromatography A 1023 (2004,9, 93-104
7	Klein, J., Alder, L. JAOAC 86, 1015 (2003); prEN 15637, ChemElut-method
8	Leothay, S. Et al. JAOAC 88 (2005)
9	LUKE, M.A., FROBERG, J.E., DOOSE, G.M., MASUMOTO, H.T. (1981): J. Assoc. Off. Anal. Chem. 64(5): 1187-1195
10	M. Anastassiades et al JAOAC 86 (2003) original QuEChERS-method
11	prEN 15662, citrate-buffered QuEChERS-method
12	Official Method of Analysis (1990) 15th Ed., 985.22 AOAC Arlington VA
13	Internal Method (specify the reference) OBLIGATORY

Table F2.- Extraction Solvents

Number	Denoted as
1	ethyl acetate
2	acetone followed by cyclohexane and ethyl acetate
3	acetone followed by dichloromethane
4	acetone followed by dichloromethane and petroleum ether
5	acetonitrile
6	methanol
7	dichloromethane
8	other (specify which)

Table F3.- Clean Up Steps

Clean Up Steps	
GPC	Gel permeation chromatography
SPE	Solid phase extraction
DSPE	Dispersive Solid Phase Extraction
LL	Liquid-liquid partition
NO	No clean-up
O	Other

APPENDIX 7. Methods used by participants for determining pesticides.

This year the laboratories were asked to define firstly their analytical methods. When reporting the pesticides sought for they were asked to refer to which method they had used. The first table describes the methods used by the laboratories. Then the second table describes specific information for each one of the pesticides sought for.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
001	1	100	3	gel permeation chromatography + spc	S	-	10	4	ECD + NPD	GC-Q-MS	2	PN-EN 12393-1,2,3:2000
	2	75	1	LL	S	-	20	5	HPLC-UV	HPLC-UV	2	PN-EN 14333-3:2005
002	1	50	2	GPC	M	No	1	2	GC-ECD	GC-Q-MS	1	1
	2	50	2	GPC	M	No	1	2	GC-NPD/FPD	GC-Q-MS	1	1
	3	10	5	DSPE	M	No	1	5	LC-MS/MS	LC-MS/MS	2	10
	4	50	2	GPC	M	No	1	3	GC-QQQ-MS/MS	GC-QQQ-MS/MS	2	1
003	1	10	5	DSPE	M	TPP	1	2	GC-Q-MS	NO	1	1
	2	10	5	NO	M	TPP	5	5	LC-MS/MS	NO	1	1
004	1	10	5	DSPE	M	No	50	2	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	DSPE	M	No	1	1	GC-Q-MS	GC-Q-MS	1	11
005	1	15	4	GPC	M	No	2	3	GC-Q-MS	LC-MS/MS	1	9
	2	10	5	DSPE	M	No	5	5	LC-MS/MS	NO	1	11
006	1	10	5	DSPE	M	No	10	5	LC-MS/MS	LC-MS/MS	1	11
	2	10	1	NO	M	No	10	5	LC-MS/MS	LC-MS/MS	1	11
	3	15	4	NO	M	No	2	2	GC-ITD-MS/MS	GC-Q-MS	1	9
	4	15	4	NO	M	No	2	2	GC-ECD	GC-ECD	1	9

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1:YES or 2:NO)	Analytical Procedure
007	1	10	5	DSPE	S	TPP	3	3	GC-Q-MS	GC-QQQ-MS/MS	1	11
	2	10	5	DSPE	S	No	1	2	GC-NPD	GC-QQQ-MS/MS	1	11
	3	10	5	DSPE	S	No	5	5	LC-MS/MS	LC-MS/MS	1	11
009	1	20	methanol, followed by dichloromethane	liquid-liquid partition, followed by solid phase extraction	S	No	20	5	HPLC-DAD	NO	1	J. Agric. Food Chem.2002.50(16), pp 4464-4467
	2	25	3	liquid-liquid partition, followed by solid phase extraction	S	No	10	5	HPLC FL, post column derivatization	NO	1	1
	3	10	5	DSPE	M	TRIS	2	2	GC-Q-MS	GC-ITD-MS/MS	1	11
	4	25	1	LL	S	No	100	5	HPLC-FL	NO	1	DFG, Manual of pesticide residue analysis, Volume II, 1992
	5	25	3	SPE	S	No	10	5	HPLC-DAD	NO	1	METHODE DE DOSAGE DU LINURON DANS LES POMMES DE TERRE GIR/MET/LINURON/01 V1
010	1	10	5	DSPE	M	No	5	4	GC-ITD-MS/MS	GC-ITD-MS/MS	1	11
	2	10	7	DSPE	M	No	35	1	LC-MS/MS	LC-MS/MS	1	11
011	1	15	4	NO	M	No	1	2	GC-ECD	GC-Q-MS	1	2
	2	15	4	NO	M	No	1	2	GC-NPD	GC-ECD	1	1
	3	15	4	NO	M	No	10	5	LC-MS/MS	LC-MS/MS	1	1
012	1	50	7	SPE	S	No	10	2	HPLC-FL	NO	1	531.1 REV.3.1.1995 National Exposure research laboratory US EPA CINCINNATI OHIO 45268
	2	15	4	NO	S	No	1.5	2	GC-ITD-MS/MS	NO	1	2
013	2	10	7	DSPE	S	endosulfan sulfate	2	2	GC-ECD	GC-Q-MS	1	ISTISAN 67/23
	1	10	7	DSPE	S	ethion	2	2	GC-NPD	GC-Q-MS	1	ISTISAN 97/23

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1:YES or 2:NO)	Analytical Procedure
014	1	10	5	DSPE	S	TPP	3	2	GC-NPD	GC-Q-MS	2	11
	2	10	5	DSPE	S	EIION	3	2	GC-ECD	GC-Q-MS	2	11
015	1	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	GC-ECD	2	11
	2	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	GC-FPD	2	11
	3	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	LC-MS/MS	2	11
	4	10	5	DSPE	M	TPP	20	5	LC-MS/MS	NO	2	11
	5	10	5	DSPE	M	TPP	20	5	LC-MS/MS	GC-QQQ-MS/MS	2	11
	6	10	5	DSPE	M	PCB 209	1	3	GC-ECD	GC-QQQ-MS/MS	2	11
	7	10	5	DSPE	M	TPP	1	3	GC-FPD	GC-QQQ-MS/MS	2	11
	8	10	5	DSPE	S	TPP	20	5	LC-MS/MS	NO	1	11
	9	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	GC-FPD	1	11
	10	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	GC-ECD	1	11
	11	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	NO	2	11
	12	10	5	DSPE	M	TPP	20	5	LC-MS/MS	GC-QQQ-MS/MS	1	11
	13	10	5	DSPE	M	TPP	1	3	GC-FPD	GC-QQQ-MS/MS	1	11
	14	10	5	DSPE	M	TPP	3	4	GC-QQQ-MS/MS	LC-MS/MS	1	11
15	10	5	DSPE	M	PCB 209	1	3	GC-ECD	GC-ECD	2	11	
16	10	5	DSPE	M	TPP	1	3	GC-FPD	NO	2	11	

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
016	1	25	2	GPC	M	No	1	2	GC-ITD-MS/MS	GC-ITD-MS/MS	2	FP017 GCITD National Food Institute Technical University of Denmark
	2	10	6	Filter	M	No	6	1	LC-MS/MS	LC-MS/MS	2	FP086 National Food Institute Technical University of Denmark
	3	25	2	GPC	M	No	2	2	GC-ECD	GC-ECD	2	FP017 ECD National Food Institute Technical University of Denmark
	4	25	2	GPC	M	No	2	2	GC-NPD	GC-NPD	2	FP017 NPD National Food Institute Technical University of Denmark
017	1	25	2	GPC	M	No	4	4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	FP017
	2	10	6	NO	M	carbaryl-C13	10	2	LC-MS/MS	LC-MS/MS	1	FP086
	3	15	5	DSPE	M	No	4	4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	11
	4	15	5	DSPE	M	carbaryl-C13	10	2	LC-MS/MS	LC-MS/MS	1	11
018	1	10	6	LL	S	carbendazim-d4	25	5	LC-MS/MS	NO	1	7
	2	15	4	NO	M	phenanthrene-d10	2	2	GC-Q-MS	NO	1	2
	3	15	4	NO	M	PCB97	2	2	GC-ECD	GC-Q-MS	1	2
019	1	10	4	NO	S	TPP	5	5	LC-MS/MS	LC-MS/MS	1	LMS
	2	10	6	NO	S	TPP	5	5	LC-MS/MS	LC-MS/MS	1	LMS5
	3	5	hexane/ acetone/ ethylacetate	NO	M	TPP	1	2	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	GMS
	4	10	6	NO	S	nicarbazin	5	5	LC-MS/MS	LC-MS/MS	1	LMS2
	5	20	hexane/ diisopropylether/ iso-octan	NO	S	nitrofen	2	2	GC-ECD	GC-ECD	1	CL1B
020	1	15	1	NO	M	100	10	1	GC-ITD-MS/MS	GC-ITD-MS/MS	1	A
	2	15	1	NO	M	100	7	2	LC-MS/MS	LC-MS/MS	1	B

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
021	1	15	4	NO	M	No	1	2	GC-NPD	GC-ECD	1	2
022	1	15	4	NO	M	No	10	3	GC-ITD-ECD	GC-MS-MS	1	9
	2	15	4	NO	S	No	50	1	HPLC-DAD	HPLC-DAD	1	9
023	2	15	acetic acid, acetonitrile	GPC	S	ethiophos	10	2	GC-ECD	GC-Q-MS	1	8
	1	15	4	GPC	M	TPP	2	2	GC-Q-MS	GC-Q-MS	1	9
024	1	10	Acetonitrile +1%HAC	DSPE	M	No	2	3	GC-ECD+ GC-NPD	GC-ITD-MS/MS	1	11
	2	10	Acetonitrile +1%HAC	DSPE	M	No	3	5	LC-MS/MS	LC-MS/MS	1	11
	3	10	Acetonitrile +1%HAC	DSPE	M	Yes	1	2	GC-ITD-MS/MS	GC-ECD+NPD	1	11
025	1	10	5	DSPE	S	Ethion	3	3	GC-NPD	GC-ITD-MS/MS	2	11
	2	10	5	DSPE	S	Ethion	3	3	GC-ITD-MS/MS	GC-ITD-MS/MS	2	11
026	1	10	5	SPE	M	No	20	5	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	SPE	M	Yes	2	2	GC-Q-MS	GC-Q-MS	1	11
027	1	15	5	NO	M	No	1	2	GC-Q-MS	GC-Q-MS	1	8
	2	15	5	NO	M	No	15	5	LC-MS/MS	LC-MS/MS	1	8
028	1	75	1	NO	M	Phimicarb-D6	3	2	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	SLV M200
	2	75	1	NO	M	Phimicarb-D6	5	5	LC-MS/MS	LC-MS/MS	1	SLV M200
029	1	10	5	DSPE	M	No	25	1	LC-MS/MS	NO	2	11
	2	10	5	DSPE	M	No	1	1	GC-Q-MS	GC-ECD	2	11
030	1	50	ACETONE	LL	M	No	2	2	GC-ECD	GC-QQQ-MS/MS	1	9
	3	10	6	NO	M	Yes	5	5	LC-MS/MS	LC-MS/MS	1	Granby K., Andersen J.H., Christensen H.B.: Analytica Chimica Acta 520 (2004) 165-176

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
031	1	10	1	SPE	M	Yes	2	2	GC-TOF/MS	GC-TOF/MS	1	8038
	2	10	1	SPE	M	Yes	20	5	LC-MS/MS	LC-MS/MS	1	8055
	3	10	5	NO	M	Yes	20	5	LC-MS/MS	LC-MS/MS	1	10
032	1	15	6	DSPE	M	Yes	10	5	LC-MS/MS	LC-MS/MS	1	11
	2	15	6	DSPE	M	Yes	0.8	1	GC-Q-MS	GC-Q-MS	1	11
033	1	15	1	NO	M	No	10	4	GC-ITD-MS/MS	GC-ITD-MS/MS	2	PNT-ANA-02
	2	15	5	DSPE	M	No	10	5	LC-MS/MS	LC-MS/MS	1	PNT-ANA-04
034	2	15	7	GPC	S	Ehion	2	2	GC-Q-MS	GC-Q-MS	1	ISTISAN 97/23, 1997, 18-20
	1	10	5	DSPE	S	TFF	5	2	LC-MS/MS	LC-MS/MS	1	11
035	1	10	5	DSPE	M	Yes	3	3	GC-QQ-MS/MS	NO	1	11
	2	10	5	NO	M	Yes	3	2	LC-MS/MS	LC-TOF/MS	1	11
	3	10	5	DSPE	M	Yes	3	3	GC-Q-MS	NO	1	11
036	2	5	5	NO	M	No	10	1	LC-MS/MS	LC-MS/MS	1	11
	1	10	5	SPE	M	alpha-HCH-d6	10	4	GC-Q-MS	GC-Q-MS	1	Journal of Chromatography A, 1190 (2008) 316-326
037	1	10	5	DSPE	M	No	2	2	GC-Q-MS	NO	1	PRES/069
	2	10	5	DSPE	M	No	10	5	LC-MS/MS	NO	1	PRES/069
038	1	50	2	GPC	M	No	1	2	GC-ECD	GC-Q-MS	1	1
	2	50	2	GPC	M	No	1	5	GC-NPD	GC-Q-MS	1	1
	3	50	2	GPC	M	No	1	2	GC-Q-MS	GC-Q-MS	1	1
	4	25	6	LL	M	No	10	5	LC-MS/MS	LC-MS/MS	1	7

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
039	1	10	5	DSPE	M	Desmethyln	5	4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	11
	2	10	5	DSPE	M	Desmethyln	1	1	LC-MS/MS	LC-MS/MS	1	11
040	2	10	acetone	SPE	M	Yes	1	2	GC-Q-MS	GC-QQQ-MS/MS	1	1
	1	20	6	SPE	M	No	25	5	LC-MS/MS	NO	1	7
041	1	10	5	LL	M	No	1	2	LC-MS/MS	GC-Q-MS	2	10
	2	10	5	LL	M	No	1	5	LC-MS/MS	NO	2	10
	3	10	5	LL	M	No	1	2	GC-Q-MS	NO	2	10
	4	10	5	LL	M	No	1	2	GC-Q-MS	GC-ECD	2	10
043	2	10	7	GPC	S	No	1	2	GC-NPD	GC-Q-MS	2	Modified Method from ISS publication (2003)
044	5	15	acetone/ petroleum ether/ dichloromethane	GPC	S	Yes	10	4	LC-MS/MS	LC-MS/MS	1	2
	1	50	1	NO	S	No	1	5	GC-FPD	GC-Q-MS	1	NFEN 12393 method P
	2	50	1	NO	S	No	1	2	GC-NPD	GC-Q-MS	1	NFEN 12393 method P
	3	50	1	SPE	S	No	1	3	GC-ECD	GC-Q-MS	1	NFEN 12393 method P
045	4	50	1	NO	S	Yes	1	2	GC-Q-MS	NO	1	NFEN 12393 method P
	2	10	1	GPC	M	Yes	1.5	5	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	CHEM-014
046	1	10	1	NO	M	Yes	3	5	UPLC-MS/MS	UPLC-MS/MS	1	CHEM-054
	1	80.85	6	SPE	S	Yes 500µg/l	1	2	GC-Q-MS	GC-Q-MS	1	EN ISO 14181: Animal feeding stuffs. EN 12393: Non fatty foods.

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1:YES or 2:NO)	Analytical Procedure
047	1	10	5	DSPE	M	Yes	4	1	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	DSPE	M	Yes	3	3	GC-TOF/MS	GC-Q-MS	1	11
048	2	25	1	LL	M	No	5	2	GC-NPD	LC-MS/MS	1	2
	1	25	toluol	LL	M	No	2	2	GC-ECD	GC-ECD	1	2
	3	10	5	QUECHERS	M	No	10	5	LC-MS/MS	LC-MS/MS	1	10
049	1	10	5	DSPE	M	No	1	2	GC-ECD	GC-Q-MS	1	11
	2	10	5	DSPE	M	No	1	5	GC-NPD	GC-Q-MS	1	11
	3	10	5	DSPE	M	No	1	5	GC-PPD	GC-ITD-MS/MS	1	11
	4	10	5	DSPE	M	Yes	5	5	GC-ITD-MS/MS	GC-ITD-MS/MS	1	11
	5	10	5	NO	S	No	10	1	LC-MS/MS	LC-MS/MS	1	11
	6	10	5	DSPE	M	No	20	1	HPLC-DAD	HPLC-DAD	1	11
050	1	15	5	DSPE	M	diethylatylethyl	7.5	4	GC-Q-MS	GC-Q-MS	2	8
	2	15	5	DSPE	M	diethylatylethyl	3	5	LC-MS/MS	LC-MS/MS	2	8
051	1	50	2	GPC	M	No	1	1	GC-NPD	GC-ITD-MS/MS	1	1
	2	50	3	GPC	M	No	1	1	GC-NPD	GC-ITD-MS/MS	1	1
	3	50	2	GPC	M	No	1	1	GC-ECD	GC-ITD-MS/MS	1	1
	4	5.0	6	LL	M	No	20	5	LC-MS/MS	LC-MS/MS	1	7
052	1	75	1	GPC	M	No	1	2	GC-NPD	GC-QQQ-MS/MS	1	1
	2	75	1	GPC	M	No	1	2	GC-ECD	GC-QQQ-MS/MS	1	1
	3	10	6	LL	M	No	20	2	LC-MS/MS	LC-MS/MS	1	7

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
053	1	15	5	DSPE	M	Yes	1	3	GC-FPD	GC-Q-MS	1	11
	2	15	5	DSPE	M	Yes	1	3	GC-ECD	GC-Q-MS	1	11
	3	15	5	DSPE	S	No	20	5	HPLC-DAD	GC-Q-MS	1	10
054	1	10	5	DSPE	M	500	10	2	LC-MS/MS	LC-MS/MS	1	10
	2	50	2	GPC	M	50µg/kg	1	2	GC-ECD	GC-Q-MS	1	1
	3	10	6	SPE	M	500ng/mL	10	1	LC-MS/MS	LC-MS/MS	1	7
055	1	10	5	DSPE	M	Ditalimphos	1	2	GC-Q-MS	GC-Q-MS	1	10
056	1	10	6	LL	M	No	10	2	LC-MS/MS	NO	1	7
	2	100	2	GPC	S	tr-HCEO	1	1	GC-ECD	LC-MS/MS	1	1
	3	100	2	GPC	S	TPP	1	1	GC-NPD	LC-MS/MS	1	1
057	1	10	5	DSPE	M	No	5	3	GC-Q-MS	LC-MS/MS	1	10
	2	10	5	NO	M	No	55	2	LC-MS/MS	GC-Q-MS	1	10
	3	10	5	DSPE	M	No	5	3	GC-Q-MS	NO	1	10
	4	10.0	5	NO	M	No	55	2	LC-MS/MS	NO	1	10
058	1	50	1	GPC	M	No	1-2	2	GC-FPD, ECD,ITD-MS	LC-MS/MS, GC-MS/ITD	1	2
	2	50	1	NO	M	No	2-5	2	GC-ECD,LC-MS/MS	LC-MS/MS, GC-MS/ITD	1	2
	3	50	1	NO	M	No	5	5	LC-MS/MS	LC-MS/MS	1	2
059	1	10	5	NO	M	No	4	5	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	DSPE	M	No	2	2	GC-ECD/NPD	GC-Q-MS	1	11

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
060	1	10	5	DSPE	M	TRIS	8	1	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	DSPE	M	TRIS	3	3	GC-Q-MS	GC-Q-MS	1	11
	3	10	5	DSPE	M	TPM	3	3	GC-Q-MS	GC-Q-MS	1	11
061	1	10	5	DSPE	M	TPP, TBP	2	3	GC-Q-MS	GC-NPD	1	11
	2	10	5	DSPE	M	TPP, Dimethoat D6	10	5	LC-MS/MS	NO	1	11
	3	10	5	DSPE	M	TPP, TBP	2	3	GC-Q-MS	GC-NPD	2	11
	4	10	5	DSPE	M	TPP, Dimethoat D6	10	5	LC-MS/MS	NO	2	11
062	1	50	2	GPC	M	No	5	3	GC-Q-MS	GC-Q-MS	1	1
	2	10	5	NO	M	No	10	3	GC-Q-MS	GC-Q-MS	1	11
	3	10	5	NO	M	No	5	5	LC-MS/MS	NO	1	11
063	1	10	5	DSPE	M	Linuron-D6	10	5	LC-MS/MS	NO	2	11
	2	10	5	DSPE	M	Linuron-D6	10	5	LC-MS/MS	GC-Q-MS	2	11
	3	10	5	DSPE	M	Triphenylmethane	2	3	GC-Q-MS	GC-Q-MS	2	11
	4	10	5	DSPE	M	Tris-(1,3-dichlorisopropyl)-phosphate	2	3	GC-FPD	GC-Q-MS	2	11
064	1	20	4	GPC	M	No	10	5	LC-MS/MS	LC-MS/MS	1	1
	2	20	4	GPC	M	No	1	2	GC-Q-MS	GC-Q-MS	1	1
065	1	20	1	GPC	M	No	2	2	GC-Q-MS	GC-Q-MS	1	6
	2	20	1	GPC	M	No	10	1	LC-MS/MS	LC-MS/MS	2	6
066	1	15	1	DSPE	M	No	5	3	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	8
	2	15	1	NO	M	No	20	1	LC-MS/MS	LC-MS/MS	1	8

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
067	1	5	Dichloromethane/ acetone	MSPD (silica gel/alumina)	S	No	1	2	GC-NPD	GC-ECD	1	MSPD-GC
	2	5	hexane/ diethyl ether	MSPD (silica gel/alumina)	S	No	1	2	GC-ECD	GC-ECD	1	MSPD-GC
	3	5	Dichloromethane/ acetone	MSPD (silica gel/alumina)	S	No	1	2	GC-ECD	GC-ECD	1	MSPD-GC
	4	10	methanol/HCl	dichloromethane	S	No	10	5	HPLC-DAD	HPLC-DAD	1	HPLC-DAD
068	1	10	5	DSPE	M	Yes	5	3	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	www.quechers.com
	2	10	5	DSPE	M	Yes	5	2	LC-MS/MS	LC-MS/MS	1	www.quechers.com
	3	20	3	GPC	M	No	4	2	GC-ECD-NPD	GC-QQQ-MS/MS	1	PN-EN 12393-1-2-3
069	2	75	1	NO	M	No	5	1	LC-MS/MS	LC-MS/MS	1	T. Phlström Anal Bioanal Chem (2007) 389: 1773-1789
	1	75	1	NO	M	No	2	1	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	T. Phlström et al. Anal Bioanal Chem (2007) 389:1773-1789
070	2	5	5	dispersive silica gel	M	No	20	5	HPLC-DAD	UV-VIS spectra data base	1	Internal method (based on Fillion et al. JAOAC 78-5-1995
	1	1	5	NO	M	No	50	2	Automatic TDS sampler GC-Q-MS	Mass spectra database	1	internal method (based on Fillion et al. JAOAC 78-5-1995
071	1	10	5	SPE	M	TPP	3	3	GC-Q-MS	GC-Q-MS	1	11
	2	10	5	SPE	M	TPP	10	1	LC-MS/MS	LC-MS/MS	2	11
072	1	25	acetate diethyl/ cyclohexane/ acetona (50/40/10)	NO	S	0.1 mg/kg	1	5	GC-ion trap	GC-ion Trap	1	EN 12393 1,2,3
	2	10	4	SPE	S	No	100	5	HPLC-UV	HPLC-UV	1	En 14333-1
073	1	15	7	GPC	S	No	4	2	CG-NPD / CG-ECD	GC-Q-MS	2	ISTISAN 97/23
	2	15	7	GPC	S	No	100	2	HPLC-DAD	HPLC-DAD	2	ISTISAN 97/23
074	1	5	3	SPE	M	No	1	2	GC-ECD	GC-Q-MS	2	Kadenczki Et. al. JAOAC 75(1992)
	2	5	3	SPE	M	No	1	2	GC-NPD	GC-Q-MS	2	Kadenczki Et.al. JAOAC 75(1992)

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
075	1	20	1	LL	S	No	20	1	HPLC-DAD	HPLC-DAD	2	Publication
	2	20	7	GPC	S	No	20	1	HPLC-FL	HPLC-FL	2	Publication
	3	50	Acetone followed by methanol	SPE	S	1.008 mg/kg	3	3	GC-Q-MS	GC-Q-MS	2	Publication
	4	50	Acetone followed by methanol	SPE	S	1.008 mg/kg	3	3	GC-ITD-MS	GC-ITD-MS	2	Publication
	5	20	7	GPC	S	No	25	1	LC-MS/MS	LC-MS/MS	2	Publication
076	1	10	5	NO	M	TPP	1	3	GC-Q-MS	GC-Q-MS	1	11
	2	10	5	QUECHERS	M	No	1	1	LC-MS/MS	LC-MS/MS	1	11
077	1	10	1	DSPE	S	No	1	2	GC-Q-MS	GC-Q-MS	2	1
	1	10	5	NO	S	PCB 52	1	3	GC-ECD	GC-ITD-MS/MS	1	11
	2	25	acetone	LL	S	No	10	5	HPLC-UV	HPLC-FL	2	Wyd. Metod. PZH, Warsaw 2002 (in Polish)
	3	15	4	SPE	S	3,4,5-trimethocarb	100	5	HPLC-FL	NO	2	EN 14185-1:2003
079	4	10	5	NO	S	PCB 52	1	3	GC-ITD-MS/MS	GC-ITD-MS/MS	2	11
	1	10	5	DSPE	M	No	10	5	LC-MS/MS	NO	2	11
	2	10	5	DSPE	M	No	10	5	LC-MS/MS	GC-NPD	2	11
	3	50	6	GPC	M	0.5µg/mL	1	2	GC-ECD	GC-Q-MS	2	1
	4	50	6	GPC	M	0.5µg/mL	1	2	GC-NPD	GC-ECD	2	1
080	5	50	6	GPC	M	0.5µg/mL	1	2	GC-ECD	NO	2	1
	1	10	5	SPE	M	Yes	1	2	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	10
081	2	10	5	LL	M	Yes	1	2	LC-MS/MS	LC-MS/MS	1	10
	1	15	4	NO	M	HCB	1	2	GC-ITD/MS	GC-TOF/MS	1	2
	2	7.5	4	NO	M	No	3	5	LC-MS/MS	NO	1	2

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
082	1	15	5	Al2O3	M	No	2	3	GC-IPD	GC-ITD-MS/MS	1	10
	2	15	5	Al2O3	S	No	10	5	HPLC-UV	HPLC-DAD	1	10
	3	15	5	Al2O3	M	No	2	3	GC-ECD	GC-ITD-MS/MS	1	10
	4	15	5	Al2O3	M	No	2	3	GC-ITD-MS/MS	NO	1	10
083	1	10	5	DSPE	M	TPP	1	2	GC-Q-MS	GC-Q-MS	1	11
084	1	50	1	GPC	S	No	1	2	GC-ECD	GC-ECD	1	EN12393-Method-P
085	1	10	5	DSPE	M	TPP	20	3	GC-Q-MS	GC-Q-MS	1	11
	2	10	5	DSPE	S	No	5	5	LC-MS/MS	LC-MS/MS	1	11
086	1	5	5	DSPE	M	Yes	2	2	GC-MS	NO	1	10
	1	10	6	ChemElut (Diatomeen-Erde)	M	TPP	5	2	GC-TOF/MS	GC-Q-MS	2	7
087	2	10	6	ChemElut (Diatomeen-Erde)	M	TPP	20	5	LC-MS/MS	LC-MS/MS	2	7
	1	7.5	4	NO	M	No	1	5	GC-NPD	GC-ECD, NPD DIFFERENT COLUMNS	1	2
088	2	7.5	4	NO	M	No	1	2	GC-ECD	GC-ECD, NPD DIFFERENT COLUMNS	1	2
	1	25	hexane	LL	S	No	1	2	GC-ITD/MS	GC-ITD/MS	1	anyone
089	2	5	6	LL	S	No	10	1	LC-MS/MS	LC-MS/MS	1	6
	3	20	1	LL	S	No	10	1	LC-MS/MS	LC-MS/MS	1	7
	1	10	4	NO	S	No	1	2	GC-ECD	GC-ITD-MS/MS	1	9
090	3	10	4	NO	M	No	20	1	LC-MS/MS	LC-MS/MS	1	1
	2	10	1	NO	S	No	2	2	GC-IPD	GC-ITD-MS/MS	1	2

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
091	1	15	4	NO	M	No	5	4	GC-ITD-MS/MS	LC-MS/MS	1	2
	2	15	4	NO	M	No	4	2	GC-ECD	GC-ITD-MS/MS	1	2
	3	7.5	4	NO	M	No	5	5	LC-MS/MS	LC-MS/MS	1	2
092	1	10	acetone/nitrite	NO	M	Yes	2		LC-MS/MS	LC-MS/MS	1	QUCHERES
	2	10	acetone/nitrite	NO	M	Yes	10	PTV	GC-TOF/MS	GC-TOF/MS	1	QUCHERES
093	1	10	5	DSPE	S	No	1	5	GC-NPD	GC-ECD	1	11
	2	10	5	DSPE	S	No	1	5	GC-ECD	GC-NPD	1	11
	3	10	5	DSPE	S	No	2	2	GC-PFPD	GC-NPD	1	11
	4	10	5	DSPE	S	No	10	5	LC-MS/MS	NO	1	11
	5	10	5	DSPE	S	No	1	2	GC-ECD	GC-ITD-MS/MS	2	11
	6	10	5	DSPE	S	No	1	5	GC-NPD	GC-PFPD	1	11
	7	10	5	DSPE	S	No	2	2	GC-NPD	GC-ITD-MS/MS	2	11
	8	10	5	DSPE	S	No	10	5	LC-MS/MS	NO	2	11
	9	10	5	DSPE	S	No	1	5	GC-ECD	GC-ITD-MS/MS	1	1
	10	10	5	DSPE	S	No	2	2	GC-PFPD	GC-ITD-MS/MS	2	11
094	2	15	1	SPE	S	No	20	5	HPLC-DAD	HPLC-DAD	2	no reference
	1	15	7	GPC	M	Ethion 0.3mg/l	1	2	GC-ITD-MS/MS	GC-ITD-MS/MS	2	rAPPORTI istion 97/23
095	1	10	3	LL	M	Hexachlorbenzene	1	2	GC-ECD/NPD	NO	1	1

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
096	1	10	5	DSPE	M	No	1	2	LC-MS/MS	NO	2	11
	2	10	5	DSPE	M	No	1	2	GC-Q-MS	GC-ECD	2	11
	3	10	5	DSPE	M	No	1	2	GC-Q-MS	GC-NPD	2	11
097	1	15	1	LL	M	TPP	10	4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	1	2
	2	15	1	LL	M	TPP	10	3	LC-MS/MS	LC-MS/MS		
098	1	100	4	florisil column	M	No	2	2	GC-ECD	GC-NPD	2	9
	2	100	4	florisil column	M	No	2	2	GC-NPD	GC-NPD	2	9
	3	100	4	florisil column	M	No	2	2	GC-ECD	GC-ECD	2	9
099	1	10	5	LL	S	PCB 0.1 g/ml	2	2	GC-Q-MS	GC-Q-MS	2	10
100	1	15	4	LL	M	No	10	3	GC-ITD-MS/MS	GC-ITD-MS/MS	2	9
101	1	50	3	GPC	S	No	4	3	GC-ECD	GC-ITD-MS/MS	1	PN-EN 12393-1,2,3
	2	50	3	GPC	S	No	4	3	GC-NPD	GC-ITD-MS/MS	1	PN-EN 12393-1,2,3
	3	75	1	NO	S	No	20	5	HPLC-UV	HPLC-DAD	1	PN-EN 14333-3
102	1	5	3	SPE	M	No	1	2	GC-ECD	GC-NPD	2	Kodenczki - ET. al. JAOC 75(1992)
	2	5	3	SPE	M	No	1	2	GC-NPD	GC-ECD	2	Kodenczki Et.al. JAOC 75 (1992)
103	1	10	5	DSPE	M	TPP	7	4	GC-EPD	GC-ITD-MS/MS	1	10
	2	10	n-hexane	LL	S	No	2	2	GC-ECD	GC-ECD	2	STN
	3	10	5	DSPE	M	TPP	7	4	GC-ITD-MS/MS	GC-ITD-MS/MS	1	10
104	1	10	1	NO	M	No	10	3	GC-ITD-MS/MS	GC-ITD-MS/MS	1	1
	2	15	5	SPE	M	No	15	5	LC-MS/MS	LC-MS/MS	1	8

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1:YES or 2:NO)	Analytical Procedure
105	1	50	acetone	SPE	S	No	2	2	GC-ECD	GC-Q-MS	1	1
	2	50	acetone	SPE	S	No	2	2	GC-Q-MS	GC-Q-MS	1	quadem ISS 3/97
106	1	10	5	DSPE	M	No	1	2	GC-ECD	GC-Q-MS	1	11
	2	10	5	DSPE	M	No	15	4	LC-MS/MS	NO	1	11
	3	10	5	DSPE	M	No	1	2	GC-ECD	LC-MS/MS	1	11
	4	10	5	DSPE	M	No	1	2	GC-Q-MS	LC-MS/MS	1	11
	5	10	5	DSPE	M	No	1	2	GC-ECD	GC-FPD	1	11
107	1	50	1	GPC	S	2,3,5-trimethylacarb	200	5	HPLC-FL	different gradient	1	EN 12393-2 (Method P)
	2	50	1	GPC	S	No	10	5	HPLC-DAD	different wave length	1	EN 12393-2 (Method P)
	3	50	1	GPC	M	TPP	1	2	GC-TOF/MS	NO	1	EN 12393-2 (Method)
	4	50	1	GPC	S	No	1	2	GC-ECD	GC-TOF/MS	2	EN 12393-2 (Method P)
	5	50	1	GPC	M	TPP	1	2	GC-NPD/FPD	GC-NPD/FPD	1	EN 12393-2 (Method P)
	6	50	1	GPC	M	No	1	2	GC-FPD	GC-NPD	2	Based on EN12393-2 with additional oxidation step
108	1	25	4	NO	M	No	3	2	GC-NPD	GC-TOF/MS	1	SAR-1-04
	2	25	4	NO	S	No	1	2	GC-ECD	GC-TOF/MS	1	SAR-2-04oc
	3	25	4	NO	S	No	1	2	GC-ECD	GC-ECD	1	SAR-2-04p
	4	25	4	NO	S	No	100	1	HPLC-FL	HPLC-FL	1	SAR-1-00
	5	25	1	LL	S	No	100	1	HPLC-UV	HPLC-FL	1	SAR-1-02

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
109	1	25	1	NO	M	No	1	2	GC-Q-MS, GC/FPD	GC-Q-MS	1	Rapporto ISTISAN 97/23
	2	50	3	DSPE	M	No	5-20 rheodyne	5	LC/MS/MS, LC-pickering	LC-MS/MS	1	Rapporto ISTISAN 97/23
	1	10	1	GPC	M	No	4	2	GC-ECD-NPD	GC-MS	1	2
111	1	10	5	SPE	M	PCB 198	4	2	GC-Q-MS	NO	2	10
	1	300	1	DSPE	M	Yes -10 (µg/ml)	2	2	GC/MSD	GC-ECD	2	10
	1	5.00	7	NO	M	0.5 mg/l	1	2	GC-Q-MS	GC-Q-MS	1	L.Dagna, E. Sesia et al., Boll. Chim. Igien. - vol.44 (1993)
114	1	50	1	GPC	M	No	5	2	GC-NPD	GC-NPD	1	PN-EN 12393-2
	2	50	3	GPC	M	No	1	1	GC-ECD	GC-ECD	1	PN-EN 12393-2
	3	50	hexane and acetone	SPE	S	No	1	1	GC-ECD	GC-ECD	1	PN-EN 12393-2
115	1	15	4	NO	M	No	1	2	GC-ECD	GC-ECD	1	2
	1	100	3	GPC	S	No	1	2	GC-ECD	GC-Q-MS	2	PN-EN 12393:2008
	2	100	3	GPC	S	No	1	2	GC-NPD	GC-Q-MS	2	PN-EN 12393:2008
116	3	50	1	NO	S	No	40	5	HPLC-PDA	NO	2	Wyd. Met. PZH 2002
	1	100	3	GPC	S	No	1	2	GC-ECD	GC-MS	1	PN-EN 12393-1, PN-EN 12393-2, PN-EN 12393-3
	2	75	1	LL	S	No	10	2	HPLC-FL	HPLC-DAD	1	PN-EN 14333-3
117	3	100	3	GPC	M	No	2	3	GC-NPD	GC-ECD, GC-MS	1	PN-EN 12393-1, PN-EN 12393-2, PN-EN 12393-3
	1	100	3	GPC	M	No	1	2	GC/ECD GC/NPD	GC/MS	1	PN-EN 12393 :2000
	2	75	1	LL	S	No	50	5	HPLC-FL	HPLC-UV	1	PN EN 14333-3:2005
119	1	10	5	DSPE	S	No	1	2	GC-NPD	LC-MS	1	11
	2	10	5	DSPE	S	No	20	1	LC-MS	NO	1	11
	3	10	5	DSPE	S	No	1	2	GC-ECD	NO	1	11
	4	10	5	DSPE	S	No	2	2	GC-ITD/MS	NO	2	11

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
120	1	10	5	SPE	S	No	1	2	GC-ECD	GC-ECD	1	11
	2	10	5	NO	S	No	1	2	GC-NPD	GC-ITD-MS/MS	1	11
	3	10	5	NO	S	No	20	2	HPLC-UV	HPLC-DAD	1	11
	4	10	5	NO	S	No	1	2	GC-ITD-MS/MS	NO	1	11
	5	10	5	NO	S	No	20	1	HPLC-DAD	NO	1	11
121	1	10	5	LL	M	Yes	10	1	LC-MS/MS	LC-MS/MS	1	11
	2	10	5	LL	M	Yes	5	3	GC-Q-MS	GC-ECD	1	11
122	1	10	5	DSPE	S	TPP	5	3	GC-Q-MS	NO	2	11
	2	10	5	DSPE	S	TPP	5	1	LC-MS/MS	NO	2	11
123	1	10	acetone, dichloromethane, ethyl acetate	GPC	M	No	2	2	GC-ECD	NO	1	PN-EN 12393-1,2,3:2008
	2	10	acetone, dichloromethane, ethyl acetate	GPC	M	No	2	2	GC-NPD	NO	1	P-EN 12393-1,2,3:2008
	3	30	ethyl acetate, methanol	NO	M	No	20	5	HPLC-FL	HPLC-DAD	1	PN-EN 14333-3:2005
124	1	10	5	DSPE	M	TPP	8	4	GC-Q-MS	NO	2	11
	2	10	5	DSPE	M	No	5	5	LC-MS/MS	HPLC-DAD	2	11
125	1	10	5	DSPE	S	0.05	5	4	GC-ITD-MS/MS	NO	2	11
	2	10	5	DSPE	S	0.05	5	4	GC-ITD-MS/MS	LC-MS/MS	2	11
	3	10	5	DSPE	S	No	5	1	LC-MS/MS	NO	2	11
	4	10	5	DSPE	S	No	5	1	LC-MS/MS	GC-ITD-MS/MS	2	11

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
	1	25	ethyl acetate, toluene	SPE	M	No	2	2	GC-ECD	GC-ECD	1	SPE cleanup of NPD extract. First Mediterranean workshop, programme and abstracts, Athens, Greece 10-12 May 2000. E.J. Avramides et al. A simple cleanup method for the gas chromatographic determination of residues of electron captive compounds in fruits g. ...
126	2	25	1	NO	M	No	2	2	GC-NPD	GC-NPD	1	2
	3	25	1	NO	S	No	no	1	UV	NO	1	F.Gnaegi et al. 1974. Dosage des residus de fongicides a noyau benzimidazole et des thiophanates dans les raisins, les jus de raisin et les vins et, en general, dans les fruites et legumes. Travaux de la Societe de Pharmacie de Montpellier, 34, 91-100. R.
127	1	50	1	LL	S	No	20	5	HPLC-FL	NO	2	PN - EN 14333-3 lipiec 2005 and SC/IR - 08.15.10.2007 wyd.1
128	1	50	1	NO	M	No	1	3	GC-NPD	GC-Q-MS	1	PN-EN 12393-01:2000; PN-EN 12393-02:2000; PN-EN 12393-03:2000;
	2	50	3	GPC	M	No	1	2	GC-ECD	GC-Q-MS	2	PN-EN 12393-01:2000; PN-EN 12393-02:2000; PN-EN 12393-03:2000;
129	1	50	1	NO	M	No	1	2	GC-NPD	GC-NPD	2	2
130	1	50	3	SPE	S	100 ng/ml	2	1	GC-ECD	GC-NPD	1	PN-EN 12393:2000
	2	100	3	GPC	M	1000 ng/ml	2	1	GC-NPD	GC-Q-MS	1	PN-EN 12393:2000
	3	25	acetone	LL	S	No	50	5	HPLC	NO	1	Wydawnictwo Metodyczne PZH, 2002
131	1	20	6	LL	M	No	2	5	LC-MS/MS	NO	1	7
	2	20	6	LL	M	No	2	3	GC-Q-MS	NO	1	7
132	1	100	3	GPC	S	No	1	5	GC-FPD	NO	2	9

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
133	1	10	7	NO	S	No	1	2	GC-ECD	GC-Q-MS	1	ISTISAN 97/23
	2	10	7	NO	S	No	1	2	GC-Q-MS	GC-Q-MS	1	ISTISAN 97/23
	3	10	7	NO	S	No	20	1	LC-MS/MS	LC-MS/MS	1	ISTISAN 97/23
134	1	10	5	DSPE	M	100 ppb	2	2	GC-MS	NO	2	10
	2	100	3	LL	S	No	1	2	GC-MS	NO	2	9
135	1	15	5	DSPE	S	No	1	2	GC-ECD	GC-ECD	1	10
	2	15	5	NO	S	No	1	5	GC-NPD	GC-NPD	1	10
	3	15	5	GPC	S	No	20	5	HPLC-DAD	HPLC-DAD	1	10
136	1	30	1	GPC	M	Yes	2	2	GC-Q-MS	GC-Q-MS	1	Roos AH, et al, 1987, Anal Chim Acta, 196: 95-102
	2	10	5	NO	M	Yes	30	1	LC-MS/MS	LC-MS/MS	1	8
137	1	15	5	DSPE	M	TPP	10	4	GC-ITD-MS/MS	GC-ITD-MS/MS	1	11
	2	15	5	DSPE	M	TPP	10	1	LC-MS/MS	LC-MS/MS	1	11
138	1	50	1	NO	M	No	1	2	GC-MS	GC-MS	2	3
139	1	100	3	gel permeation chromatography and solid phase extraction	M	No	ECD-1 NPD-3	2	GC-ECD and GC-NPD	GC-ECD	2	PN-EN 12393
140	1	2	acetone	SPE	M	No	2	2	GC-ECD	GC-NPD	1	MSPD
	2	2	acetone	SPE	M	No	2	2	GC-NPD	GC-ECD	1	MSPD
141	1	10	5	DSPE	M	Atrazin D3	20	2	LC-MS/MS	LC-MS/MS	1	1
	2	10	5	DSPE	M	No	5	3	GC-Q-MS	GC-Q-MS	2	1

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2: NO)	Analytical Procedure
142	1	100	2	GPC	S	No	1	2	GC-ECD	GC-ECD	2	PN-EN 12393-1.2.3:2000
	2	100	2	GPC	S	No	5	3	GC-NPD	GC-NPD	2	PN-EN 12393-1.2.3:2000
	3	25	6	HPLC FILTER – PTFE MEMBRANE	S	No	30	5	HPLC-UV	HPLC-UV	2	Wyd. Met. PZH - Warsaw 2002, Poland
	4	75	1	HPLC FILTER – PTFE MEMBRANE	S	No	50	5	HPLC-UV	HPLC-UV	1	PN-EN 14333-3:2005
143	1	10	4	NO	M	No	2	2	GC-ECD	GC-Q-MS	1	9
	2	10	1	pH	M	No	25	1	LC-MS	LC-MS/MS	1	1
144	1	50	2	GPC	S	No	1	2	GC-NPD	GC-ECD	2	PN-EN 12393-1.2.3:2008
	2	10	2	GPC	S	No	1	2	GC-ECD	GC-NPD	2	PN-EN 12393-1.2.3:2008
	3	50	3	GPC	S	No	1	2	GC-ECD	NO	2	PN-En 12393-1.2.3:2008
	4	50	1	GPC	S	No	20	5	HPLC-UV	NO	2	Wydawnictwo Metodyczne PZH, 2002
	5	1,5	4	SPE	S	Yes	120	5	HPLC-FL	NO	2	PN-EN 14185-1:2004
145	1	25	1	GPC	M	No	2	2	GC-Q-MS	GC-Q-MS	1	1
	2	25	1	GPC	S	No	5	5	LC-MS/MS	LC-MS/MS	1	1
146	1	20	1	GPC	S	No	3	2	GC-NPD	HPLC-DAD	1	PN-EN 12393; 2008
	2	20	acetone	SPE	S	No	1	2	GC-ECD	HPLC-DAD	1	PN-EN 12393; 2008
	3	15	orthophosphoric acid and methanol	SPE	M	No	50	5	HPLC-FL	HPLC-DAD	1	PN-EN 14333-1; 2005
147	1	10	5	DSPE	S	No	1	2	GC-Q-MS	GC-Q-MS	1	11
148	1	50	3	NO	S	0.5	1	2	GC-Q-MS	GC-Q-MS	2	1
	2	10	5	DSPE	S	No	10	5	LC-MS/MS	LC-MS/MS	2	11

APPENDIX 7. Methods used by participants for determining pesticides.

Method Descriptions												
Lab	Method Number	Sample Weight (g)	Extraction Solvent/s	Clean Up Steps	Quantification Using Standards	Internal Standard	Injection Volume (µl)	Injection Type	Determination Technique	Confirmation Method	Recovery (1: YES or 2:NO)	Analytical Procedure
149	1	10	5	DSPE	M	Yes	2	1	GC-ITD-MS/MS	GC-NPD	1	11
	1	25	1	SPE	S	Yes	2	5	GC-ECD	GC-Q-MS	1	NF EN 12393
150	2	25	1	NO	S	Yes	2	2	GC-FPD	GC-Q-MS	1	NF EN 12393
	1	25	1	NO	S	Yes	2	3	GC-Q-MS	GC-Q-MS	1	NF EN 12393
	1	15	4	NO	M	TPP	10	4	GC-ITD-MS/MS	GC-ITD-MS/MS	1	MT-RES-006 (MiniLUKE)
151	2	15	4	NO	M	No	2	2	GC-ECD	GC-ITD-MS/MS	1	MT-RES-001 (MiniLUKE)
	3	15	4	NO	S	No	10	1	LC-MS/MS	LC-MS/MS	1	MT-RES-005 (MiniLUKE)

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin					
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method
001	NA		0.024	0.366	67	1	NA				NA					NA					NA					D	0.01	0.166	65	1
002	D	0.01	0.658	97	3	D	0.01	0.317	97	2	D	0.01	0.485	99	1	D	0.01	1.14	99	1	D	0.01	0.892	100	3	D	0.01	0.329	108	3
003	D	0.01	0.696	79	2	D	0.002	0.36	82	2	D	0.002	0.45	92	2	D	0.002	0.689	91	2	D	0.002	0.696	86	2	D	0.002	0.287	81	2
004	D	0.01	0.708	103.2	1	D	0.01	0.292	115.2	1,2	NA					NA					NA					D	0.010	0.187	94.3	2
005	D	0.01	0.524	86	2	D	0.01	0.332	93	1	D	0.01	0.315	95	1	D	0.01	0.663	77	1	D	0.01	0.612	87	1	D	0.010	0.214	85	2
006	D	0.01	0.679	87	1	D	0.01	0.349	95	1	D	0.01	0.373	96	1	D	0.01	0.453	90	3	D	0.01	0.81	96	1	D	0.01	0.245	79	1
007	D	0.01	0.66		3	D	0.01	0.425	127	3	D	0.01	0.469	109	3	D	0.01	0.756	109	3	D	0.01	0.803	100	3	D	0.01	0.289		3
009	D	0.01	0.745	75	2	ND	0.02		80	3	D	0.01	0.28	93	3	D	0.01	0.662	90	3	D	0.02	0.861	81	3	D	0.01	0.329	85	2
010	NA					NA					NA					D	0.01	0.96	95.1	2	NA					D	0.01	0.127	94.7	1
011	D	0.01	0.525	70.3	3	D	0.01	0.438	118	2	D	0.01	0.53	107	3	D	0.01	0.67	101	1	D	0.01	0.54	89	2	D	0.01	0.143	103	3
012	D	0.01	0.421	32	1	NA					NA				NA						NA					D	0.01	0.393	22	1
013	NA					D	0.05	0.401	86	1	D	0.05	0.356	82	2	D	0.05	0.411	82	1	D	0.05	0.371	88	1	D	0.05	0.131	90	2
014	NA					D	0.01	0.52	88	1	NA					NA					NA					D	0.01	0.2	70	2
015	D	0.01	0.554	93.2	8	D	0.01	0.384	91.2	9	D	0.01	0.43	99.1	10	D	0.01	0.608	81.3	12	D	0.01	0.562	97.7	13	D	0.1	0.326	96.8	14
016	D	0.01	0.316	76	2	D	0.011	0.227	95	4	NA					D	0.01	0.634	122	2	NA				D	0.006	0.215	79	1	
017	D	0.01	0.863	97	2	D	0.01	0.387	66	1	D	0.02	0.431	104	2	D	0.01	0.432	82	1	D	0.01	0.83	102	3	D	0.01	0.387	114	1
018	D	0.01	0.649		1	D	0.01	0.391	95	1	D	0.01	0.585	107	1	D	0.01	0.726	93	2	D	0.1	0.692	82	2	D	0.01	0.303		1
019	D	0.01	0.663	82.9	1	D	0.01	0.465	92.3	1	D	0.02	0.492	91.8	1	D	0.02	0.432	73.9	3	D	0.01	0.444	74.1	3	D	0.01	0.2	95.5	1
020	D	0.01	0.59	70	2	D	0.01	0.27	70	2	D	0.01	0.32	70	2	D	0.01	0.42	70	1	NA					D	0.02	0.24	70	2
021	NA					D	0.1	0.314	92	1	D	0.05	0.366	78	1	D	0.05	0.647	98	1	D	0.05	0.465	83	1	D	0.05	0.103	73	1
022	NA					NA					NA					NA					NA					D	0.05	0.139	96	1

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method										
023	D	0.02	0.566	177	2	D	0.05	0.316	102.7	1	D	0.01	0.275	99.5	2	D	0.02	0.477	94	1	D	0.02	0.598	92.4	1	D	0.02	0.275	101.6	1	D	0.05	0.144	97.9	1
024	D	0.05	0.75	99.5	2	D	0.01	0.45	105.6	2	D	0.01	0.35	95.7	1	NA					D	0.02	0.32	109	2	D	0.01	0.16	104	1	D	0.01	0.16	104	1
025	NA					D	0.01	0.415	92	1	D	0.01	0.45	91	2	D	0.01	0.66	78	2	D	0.01	0.611	79	1	D	0.01	0.24	83	2	D	0.01	0.19	85	2
026	D	0.03	0.762	95	1	NA					D	0.01	0.764	106	1	D	0.01	0.856	120	2	D	0.01	0.725	107	2	D	0.02	0.262	83	1	D	0.01	0.217	125	2
027	D	0.02	0.464	88	2	D	0.02	0.183	86.2	2	D	0.025	0.256	70.8	2	D	0.02	0.404	74.1	2	D	0.05	0.144	86	1	D	0.01	0.143	69	2	D	0.01	0.102	73	2
028	D	0.01	0.614	94	2	D	0.01	0.26	82	1	D	0.01	0.299	93	2	D	0.01	0.474	99	2	D	0.01	0.494	93	1	D	0.01	0.286	95	2	D	0.01	0.155	88	1
029	D	0.01	0.733	104	1	D	0.01	0.317	113	1	D	0.01	0.358	104	1	D	0.01	0.581	95	1	D	0.01	0.38	88	2	D	0.01	0.27	115	1	D	0.01	0.25	117	2
030	D	0.01	0.759	93	3	D	0.01	0.389	92	3	D	0.01	0.504	81	3	D	0.04	0.475	65	1	ND	0.01			3	D	0.01	0.337	93	3	D	0.02	0.123	61	1
031	D	0.01	0.554	97	2	D	0.01	0.236	67	1	D	0.01	0.262	63	1	D	0.01	0.559	67	1	D	0.01	0.434	68	1	D	0.01	0.279	81	1	D	0.01	0.173	91	1
032	D	0.010	0.63	85	1	D	0.01	0.404	99	1	D	0.010	0.456	75	1,2	D	0.03	0.612	94	2	D	0.010	0.538	94	1,2	D	0.01	0.222	82	1,2	D	0.020	0.161	98	2
033	NA					D	0.02	0.209	66	1	D	0.01	0.367	85	1	D	0.01	0.464	89	1	D	0.01	0.462	87	1	D	0.01	0.227	93	2	D	0.01	0.133	81	1
034	D	0.01	0.281	93	1	D	0.01	0.322	88	2	D	0.01	0.36	107	1	D	0.01	0.592	95	1	NA					D	0.01	0.181	83	1	NA				
035	D	0.01	0.720	100	2	D	0.01	0.437	103	2	D	0.01	0.435	102	2	D	0.01	0.826	98	1,2,3	D	0.01	0.708	99	2	D	0.01	0.307	99	2	D	0.01	0.19	98	1,2,3
036	D	0.01	0.505		2	D	0.01	0.384	98	1	D	0.01	0.434	95	1	D	0.01	0.673	93	1	D	0.01	0.6	76	2	D	0.01	0.271		2	D	0.01	0.147	88	1
037	D	0.01	0.781	94	2	D	0.01	0.33	118	2	D	0.01	0.393	97	1	D	0.01	0.528	96	1	D	0.01	0.536	88	1	D	0.01	0.308	99	2	D	0.01	0.123	87	1
038	D	0.005	0.948	87	4	D	0.01	0.378	115	1,2,3	D	0.01	0.414	103	1,2,3	D	0.01	0.754	97	2,3	D	0.01	0.632	92	2,3	D	0.005	0.336	91	4	D	0.01	0.158	86	1,3
039	D	0.01	0.721	100	2	D	0.02	0.322	100	1	D	0.01	0.598	100	2	D	0.01	0.678	100	2	D	0.01	0.755	100	2	D	0.01	0.433	100	2	D	0.02	0.273	100	1
040	D	0.01	0.642	96	1	D	0.01	0.214	115	2	D	0.01	0.346	93	2	D	0.01	0.607	88	2	NA					D	0.01	0.217	75	2	D	0.01	0.151	85	2
041	D	0.01	0.743	98	2	D	0.01	0.388	120	2	D	0.01	0.454	97	2	D	0.01	0.789	94	2	D	0.01	0.658	107	2	D	0.01	0.293	98	2	D	0.01	0.123	96	4
043	NA					D	0.06	0.45	80	2	NA					NA					NA					NA									
044	D	0.02	0.322	74	5	D	0.02	0.447	78	1	D	0.01	0.37	81	3	D	0.01	0.503	77	2	D	0.010	0.633	95	1	D	0.01	0.217	81	5	D	0.010	0.22	82	3
045	D	0.005	0.560	85	1	D	0.005	0.225	79	2	D	0.005	0.253	65	1	D	0.005	0.516	102	2	D	0.005	0.372	85	2	D	0.005	0.222	86	1	D	0.005	0.156	76	2

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
046	NA				1	D	0.01	0.754	70	1	NA				1	NA				1	D	0.01	0.137	70	1	D	0.01	0.144	70	1	D	0.01	0.137	70	1
047	D	0.01	0.76	0	1	D	0.01	0.382	107	2	D	0.01	0.566	91	1	D	0.01	0.771	109	2	D	0.01	0.786	120	1	D	0.01	0.254	0	1	D	0.01	0.186	120	2
048	D	0.01	0.389	83.0	3	D	0.02	0.461	56	1,2	D	0.01	0.402	77.0	3	D	0.01	0.94	97.0	1	NA					D	0.01	0.293	84	3	D	0.02	0.169	102.0	1
049	D	0.01	0.36	85	5	D	0.05	0.348	94	2	D	0.02	0.398	100	4	D	0.02	0.762	110	4	D	0.02	0.313	80	3	D	0.005	0.245	72	5	D	0.02	0.182	99	1
050	D	0.01	0.562	95	2	D	0.005	0.054	102	2	D	0.005	0.44	102	2	D	0.005	0.708	97	2	D	0.005	0.666	91	1	D	0.005	0.178	85	2	D	0.010	0.025	114	1
051	D	0.005	0.427	76.7	4	D	0.005	0.516	101.4	1	D	0.005	0.53	92.8	3	D	0.015	0.828	86.1	1	D	0.002	0.901	93.2	1	D	0.002	0.297	75.5	4	D	0.005	0.156	78.6	3
052	D	0.01	0.52	calc	3	D	0.01	0.199	99	1	D	0.01	0.411	87	1	D	0.01	0.84	90	1	D	0.01	0.64	91	3	D	0.01	0.273	calc	3	D	0.01	0.18	98	2
053	NA					NA					NA					NA					NA					D	0.01	0.1	108	2	D	0.01	0.1	108	2
054	D	0.01	0.605	75	1,3	D	0.01	0.46	74	1	D	0.01	0.537	100	3	D	0.01	0.853	84	1	D	0.01	0.616	82	1,2	D	0.01	0.231	113	1,3	D	0.01	0.153	83	2
055	NA					D	0.01	0.244	21	1	NA					NA					NA					D	0.02	0.154	54	1	D	0.02	0.154	54	1
056	D	0.01	0.495	100	1	D	0.01	0.268	96	2	D	0.01	0.328	100	1	D	0.01	0.674	100	1	D	0.01	0.573	100	1	D	0.01	0.235	100	1	D	0.01	0.111	80	2
057	D	0.01	0.638	89	4	D	0.01	0.343	103	1	D	0.01	0.348	88	2	ND	0.01		No	3	D	0.01	0.53	85	1	D	0.01	0.317	SA	4	D	0.02	0.192	116	3
058	D	0.01	0.314	89	3	D	0.01	0.252	95.0	1	D	0.01	0.284	94.0	2	D	0.01	0.438	103	1	D	0.01	0.467	86	1	D	0.01	0.219	94	3	D	0.01	0.116	95	2
059	D	0.01	0.323	89	1	D	0.01	0.45	95	2	D	0.01	0.423	96	2	D	0.01	0.767	104	2	D	0.01	0.693	92	2	D	0.01	0.237	92	1	D	0.01	0.21	100	2
060	D	0.01	0.689		1	D	0.01	0.595	92.7	2	D	0.01	0.512	98	1	D	0.01	0.997	113	1	NA					D	0.01	0.32		1	D	0.01	0.176	93.2	2
061	D	0.005	0.569	90	2	D	0.02	0.326	93	1	D	0.01	0.295	84	1	D	0.02	0.684	84	1	D	0.02	0.624	100	1	D	0.005	0.263	100	2	D	0.05	0.157	78	1
062	D	0.01	0.585	94	3	D	0.01	0.313	109	3	D	0.01	0.265	92	2	D	0.01	0.547	103	2	D	0.01	0.564	107	2	D	0.01	0.241	87	3	D	0.01	0.111	70	1
063	D	0.005	0.76		1	D	0.01	0.381	79	2,4	D	0.005	0.461	84	1	D	0.005	0.812	91	2	D	0.005	0.734	93	2,4	D	0.005	0.338		1	D	0.01	0.189	95	3
064	D	0.03	0.584	100.6	1	D	0.01	0.318	89.4	2	D	0.01	0.383	88.2	2	D	0.01	0.708	101.0	1	NA					D	0.02	0.2	87.6	2	D	0.03	0.156	90.3	2
065	NA					D	0.01	0.207	84	1	NA					D	0.01	0.316	87	1	NA					NA					D	0.01	0.088	93	1
066	D	0.01	0.41	sum	2	D	0.01	0.149	76	1	D	0.01	0.216	124	2	D	0.01	0.37	160	2	D	0.01	0.14	50	2	D	0.01	0.19		2	D	0.01	0.137	98	1
067	NA					D	0.02	0.55	100.0	1	NA					D	0.03	0.75	95.0	1	NA					NA					D	0.03	0.2	81.2	2

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin											
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method						
068	NA				D	0.02	0.3	73	1	D	0.005	0.503	90	1	D	0.02	0.72	104	3	D	0.01	0.611	97	3	D	0.01	0.223	90	2	D	0.005	0.17	97	1		
069	D	0.01	0.57	103	2	D	0.01	0.275	71	1	D	0.01	0.335	82	2	D	0.01	0.632	88	2	D	0.01	0.525	89	1	D	0.01	0.286	87	2	D	0.01	0.163	92	1	
070	D	0.01	0.418	109	1	D	0.01	0.386	97	2	D	0.01	0.496	93	1	D	0.01	0.771	85	1	D	0.01	0.665	76	1	D	0.01	0.245	95	1	ND	0.01	<0.01	107	1	
071	D	0.02	0.34	82.6	2	D	0.01	0.41	92.2	2	D	0.01	0.42	79.0	2	D	0.02	0.92	95.5	1	D	0.01	0.66	101.9	2	D	0.01	0.27	96.1	2	D	0.02	0.11	82	1	
072	NA				D	0.02	0.385	90	1	D	0.02	0.373	85	1	D	0.02	0.541	85	1	D	0.02	0.696	85	1	D	0.02	0.235	85	1	D	0.02	0.128	79	1		
073	D	0.04	0.251	80	2	D	0.01	0.33	85	1	D	0.01	0.402	90	1	D	0.01	0.317	90	1	D	0.03	0.275	80	1	D	0.04	0.207	75	1	D	0.01	0.31	85	1	
074	NA				ND	0.01		70	2	D	0.01	0.307	80	1	D	0.01	0.906	81	1	NA							D	0.01	0.664	77	2	D	0.01	0.111	72	1
075	D	0.004	0.857	102	2	D	0.02	0.21	99.1	3	D	0.01	0.285	80	3	D	0.01	0.555	77.4	4	NA					D	0.004	0.314	99	2	D	0.01	0.062	86.1	3	
076	D	0.005	0.745	89	2	D	0.005	0.44	98	2	D	0.005	0.36	102	1	D	0.005	0.91	105	1	D	0.005	0.57	91	1	D	0.005	0.31	91	2	D	0.01	0.09	91	1	
077	NA				D	0.05	0.29	105	1	D	0.01	0.29	70	1	D	0.01	0.44	70	1	NA						D	0.01	0.24	70	1	D	0.01	0.27	70	1	
078	D	0.05	0.32	70	3	ND	0.01		105	1	NA				D	0.01	0.76	112	1	NA					NA											
079	D	0.01	0.711	91	1	D	0.01	0.431	94	2	D	0.01	0.501	94	2	D	0.01	0.659	91	1	D	0.01	0.669	88	2	D	0.01	0.316	88	1	D	0.01	0.191	110	3	
080	ND	0.01		109	2	D	0.01	0.491	98.6	1	D	0.01	0.596	117	2	D	0.01	0.417	72	1	D	0.01	0.377	72.7	1	D	0.01	0.335	90	2	D	0.01	0.174	71	1	
081	D	0.04	0.559	108	2	D	0.025	0.835	75	1	D	0.025	0.883	77	1	D	0.025	0.871	80	1	NA					D	0.025	0.523	82	1	NA					
082	D	0.01	0.523	88	2	D	0.01	0.367	118	1	D	0.01	0.432	113	3	D	0.01	0.615	88	4	D	0.01	0.455	92	1	D	0.01	0.295	95	4	D	0.01	0.211	80	3	
083	NA				D	0.01	0.652	115	1	D	0.01	0.304	99	1	NA					NA						NA										
084	NA				NA					NA					NA					NA						NA										
085	D	0.01	0.589	86.5	2	ND	0.01			1	D	0.02	0.572	109	1	D	0.01	0.672	120	1	D	0.01	0.753	106	1	D	0.01	0.225	78.9	2	D	0.05	0.106	103	1	
086	NA				NA					NA					D	0.01	0.574	115	1	NA						NA										
087	D	0.01	0.695	97	2	D	0.01	0.4	82	2	D	0.01	0.54	92	2	D	0.01	0.72	91	1	D	0.01	0.7	85	2	D	0.01	0.331	92	2	D	0.01	0.15	77	1	
088	NA				D	0.02	0.353	100	1	NA					NA					NA						NA										
089	D	0.02	0.778	100	3	D	0.01	0.5	60	1	D	0.01	0.305	100	3	D	0.01	0.273	80	3	D	0.02	0.5	90	1	D	0.01	0.235	100	3	D	0.02	0.178	90	1	

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin						
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	
090	D	0.01	0.635	77	3	D	0.01	0.417	80	3	D	0.01	0.495	78	3	D	0.01	0.556	78	3	D	0.01	0.22	70	3	D	0.01	0.195	95	1	
091	D	0.01	0.687		3	D	0.01	0.421	81	3	D	0.01	0.648	82	3	D	0.01	0.811	102	1	D	0.01	0.251		3	D	0.01	0.143	94	2	
092	D	0.008	0.731	99.96	2	D	0.008	0.481	98	2	D	0.002	0.96	102	2	D	0.002	0.611	98	2	D	0.002	0.351	98-95	2	D	0.04	0.23	101	1	
093	D	0.01	0.595		4	D	0.01	0.365	101	9	D	0.01	0.616	97	4	D	0.01	0.491	101	1	D	0.01	0.251		4	D	0.01	0.174	90	9	
094	NA				1	D	0.02	0.262	90	1	D	0.02	0.378	80	1	D	0.02	0.642	70	1	D	0.02	0.294	70	1	D	0.02	0.076	60	1	
095	D	0.01	0.538	70-110	1	D	0.05	0.312	70-110	1	D	0.05	0.6545	70-110	1	NA					D	0.075	0.475	70-110	1	ND	0.025		70-110	1	
096	D	0.01	0.994	100	1	D	0.01	0.437	103	1	D	0.01	0.786	97	1	D	0.01	0.732	99	1	D	0.01	0.359	100	1	D	0.01	0.3	91	1	
097	D	0.05	0.561	97.3	1	D	0.05	0.328	80.33	1	NA				NA	D	0.05	0.484	66.03	1	D	0.02	0.316	83	2	D	0.05	0.103	89.81	1	
098	NA				1	D	0.01	0.327	92	1	D	0.01	0.498	90	3	D	0.01	0.638	89	2	NA					NA	D	0.01	0.167	93	3
099	NA					NA					D	0.0026	1.142	90	1	NA					NA					NA					
100	NA					D	0.02	0.109	85	1	NA					NA					NA					D	0.01	0.109	85	1	
101	NA				2	D	0.05	0.287	109.9	2	NA					D	0.05	0.487	111.1	2	NA					D	0.05	0.142	124.7	1	
102	NA					NA					D	0.03	0.52	82	1	D	0.03	0.73	87	1	NA					D	0.02	0.19	82	1	
103	NA				1	D	0.01	0.298	85	1	NA					D	0.01	0.528	82	3	D	0.01	0.507	117	1	NA					
104	D	0.01	0.675	82	2	D	0.010	0.639	120	2	ND	0.01				D	0.01	0.309	75	1	NA					D	0.010	0.261	95	2	
105	NA				1,2	D	0.05	0.61	80	1,2	D	0.02	0.52	85	1,2	D	0.02	0.7	95	2	NA					D	0.02	0.13	80	2	
106	D	0.02	0.2	103	2	D	0.01	0.482	99	3	D	0.01	0.487	97	1	D	0.01	0.518	109	2	D	0.01	0.234	112	2	D	0.01	0.223	80	1	
107	D	0.03	0.575	109	1	D	0.05	0.198	88	3	NA					D	0.02	0.366	92	3	NA				D	0.02	0.261	88	1		
108	D	0.01	0.609	96.1	4	D	0.05	0.191	75.8	1	D	0.05	0.392	112.3	2	D	0.01	0.311	86.6	1	NA				D	0.01	0.28	92.4	4		
109	D	0.03	0.883		2	D	0.01	0.239	74	1	D	0.01	0.321	94	1	D	0.01	0.441	94	1	D	0.01	0.543	85	1	D	0.02	0.252		2	
110	NA					D	0.05	0.368	97.7%	1	NA					NA					NA					NA					
111	NA					NA					NA					D	0.01	0.28	98	1	NA					NA					

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin					
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method
112	NA			80	1	NA	0.01				D	0.01	0.45	91	1	NA					NA					NA				
113	NA			60	1	D	0.01	0.256	60	1	D	0.01	0.362	90	1	NA					D	0.010	0.199	70	1	D	0.010	0.199	70	1
114	NA			104	1	NA	0.05	0.319	104	1	NA					NA					NA					D	0.050	0.142	76	3
115	NA			97	1	NA	0.01	0.387	97	1	NA					NA					NA					NA				
116	NA			77.95	2	NA	0.151	0.349	77.95	2	NA					NA					NA					D	0.006	0.15	89.78	1
117	NA			93	3	NA	0.05	0.31	93	3	NA					NA					NA					D	0.050	0.153	86	1
118	ND	0.01		71.2	1	NA	0.01	0.348	71.2	1	NA					NA					NA					D	0.01	0.22	79.6	1
119	D	0.01	0.51	92	2	D	0.01	0.45	113	3	D	0.01	0.43	113	3	D	0.01	0.6	55	2	D	0.01	0.5	80	1	D	0.01	0.25	106	2
120	D	0.01	0.536	80	3	D	0.01	0.355	104	2	D	0.01	0.367	93	1	D	0.01	0.614	92	1	D	0.01	0.425	78.5	2	D	0.01	0.307	92	3
121	D	0.01	0.754	>80	1	D	0.01	0.416	>80	2	D	0.01	0.427	>80	2	D	0.01	0.704	>80	2	D	0.01	0.849	>80	2	D	0.01	0.216	>80	2
122	NA					NA					NA					D	0.05	0.888	80	1	NA					NA				
123	NA			104.3	2	D	0.01	0.605	104.3	2	D	0.01	0.266	56.0	1	D	0.01	0.511	77.2	2	NA					NA				
124	D	0.005	0.747	92	2	D	0.01	0.215	95	1	D	0.005	0.582	94	2	D	0.01	0.762	97	1	NA					D	0.005	0.295	98	2
125	D	0.1	0.584	88	3	D	0.02	0.388	88	4	D	0.01	0.649	90	1	D	0.01	0.693	90	2	NA					D	0.01	0.255	90	4
126	NA			95.2	2	NA	0.05	0.32	95.2	2	NA					D	0.05	0.49	103.2	2	NA					D	0.05	0.27	68.4	2
127	NA					NA					NA					NA					NA					NA				
128	NA			85.0	1	NA	0.01	0.304	85.0	1	NA					NA					NA					NA				
129	NA			99.36	1	NA	0.08	0.227	99.36	1	NA					NA					NA					NA				
130	NA			119	1	NA	0.02	0.341	119	1	NA					NA					NA					NA				
131	D	0.005	0.827	>90	1	D	0.005	0.37	97	1	D	0.005	0.43	88	1	D	0.005	0.727	86	1	D	0.005	0.658	89	1	D	0.005	0.298	>90	1
132	NA			75.4	GC	NA	0.02	0.336	75.4	GC	NA					NA					NA					NA				
133	D	0.01	0.632	72	3	D	0.01	0.351	80	2	D	0.01	0.394	82	1	D	0.01	0.391	88	2	D	0.01	0.535	87	2	D	0.01	0.241	78	3

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Aldicarb sum				*Azinphos-methyl				Boscalid				Buprofezin				Cadusafos				Carbofuran sum				*Deltamethrin						
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	
134	NA				NA					NA					D	0.01	0.58	100	1	NA					NA						
135	D	0.02	0.633	97	3	D	0.01	0.38	71.1	3	D	0.03	0.35	99.5	1	D	0.01	0.645	104	3	D	0.01	0.506	112.4	2	D	0.02	0.241	112.4	2	
136	D	0.01	0.535	90	2	D	0.01	0.345	97	2	D	0.01	0.451	107	2	D	0.01	0.51	88	1	D	0.01	0.481	88	1	D	0.01	0.248	100	1	
137	D	0.01	0.664	88	2	D	0.01	0.307	85	2	NA				D	0.01	1.158	86	1	NA					D	0.01	0.175	112	2		
138	NA				1	D	0.02	0.381	70-120	1	NA				D	0.01	0.771	75-95	1	NA					D	0.05	0.191	75-110	1		
139	NA					NA					NA				NA						NA					D	0.01	0.13	85.3	1	
140	NA					D	0.01	0.5057	103	2	D	0.01	0.384	104	1	D	0.01	0.7406	103	2	NA					D	0.01	0.2300	110	2	
141	D	0.05	0.765	0	1	D	0.01	0.34	0	1	D	0.01	0.426	107	2	D	0.01	0.624	0	2	D	0.01	0.668	0	2	D	0.01	0.311	0	1	
142	NA					D	0.01	0.27	74.9	2	NA				NA						NA					D	0.008	0.2	76.5	1	
143	D	0.02	0.535	70	2	D	0.05	0.372	80	1	D	0.04	0.408	100	1	D	0.01	0.706	105	1	D	0.01	0.655	80	1	D	0.02	0.229	80	2	
144	D	0.009	0.401	97	5	D	0.02	0.29	92	1	NA				D	0.01	0.545	80	2	NA					D	0.01	0.125	95	2		
145	D	0.02	1.544	90	2	D	0.01	0.187	103	1	D	0.01	0.224	104	1	D	0.01	0.309	106	1	NA				D	0.01	0.283	116	1		
146	NA					NA					NA				NA						NA					D	0.01	0.179	100	2	
148	D	0.05	0.723	70	2	D	0.01	0.811	60	1	D	0.01	0.546	70	2	D	0.01	0.541	70	1	NA				D	0.05	0.467	70	2		
149	NA					D	0.02	0.408	95	1	D	0.05	0.402	102	1	D	0.05	0.68	106	1	NA				D	0.02	0.261	98	1		
150	NA					D	0.05	0.408	117	2	D	0.01	0.48	85	1	D	0.01	0.556	94	1	NA				D	0.02	0.281	90	1		
151	NA					D	0.05	0.52	109	1	NA				NA						NA					D	0.02	0.19	101	1	

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				* Lambda-Cyhalothrin				* Metalaxyl and Metalaxyl-M				* Methamidophos				* Methidathion				Methomyl Sum																						
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method																			
001	D	0.01	0.921	61	1	NA			D	0.009	0.237	95	1	NA	D	0.01	0.316	61	1	D	0.005	0.372	60	1	NA	D	0.005	0.372	60	1	NA	D	0.005	0.372	60	1	NA	D	0.005	0.372	60	1	NA				
002	D	0.01	2.88	100	2	D	0.01	0.891	89	2	D	0.01	0.38	89	1	D	0.01	0.599	97	3	D	0.01	0.299	79	3	D	0.01	0.521	87	2	D	0.01	0.326	95	3	D	0.01	0.326	95	3	D						
003	D	0.01	1.54	104	1	D	0.002	0.591	87	2	D	0.004	0.319	100	1	D	0.002	0.49	91	2	D	0.010	0.482	83	1	D	0.002	0.524	88	2	D	0.010	0.277	85	2	D	0.010	0.277	85	2	D						
004	D	0.010	1.336	118.2	1, 2	NA			D	0.010	0.358	99.4	2	D	0.010	0.234	67.8	1, 2	D	0.010	0.548	92.1	1, 2	D	0.010	0.464	102.4	1, 2	NA																		
005	D	0.010	1.52	99	1	D	0.010	0.518	93	1	D	0.010	0.262	88	1	D	0.010	0.403	99	1	D	0.010	0.329	80	2	D	0.010	0.49	90	1	D	0.010	0.226	82	2	D	0.010	0.226	82	2	D						
006	D	0.01	1.14	92	3	D	0.01	0.498	101	3	D	0.01	0.211	119	3	D	0.01	0.445	120	3	D	0.01	0.341	58	1	D	0.01	0.453	107	3	D	0.01	0.19	74	1	D	0.01	0.19	74	1	D						
007	D	0.01	1.49	105	1	D	0.01	0.715	114	1	D	0.01	0.241	110	1	D	0.01	0.481	102	3	D	0.01	0.407	80	3	D	0.01	0.61	111	3	D	0.01	0.292														
009	D	0.01	1.25	93	3	D	0.01	0.481	86	3	D	0.03	0.192	78	3	D	0.01	0.393	70	3	D	0.03	0.343	89	3	D	0.02	0.582	100	3	D	0.01	0.279	85	2	D	0.01	0.279	85	2	D						
010	D	0.01	1.682	86.7	1	D	0.01	0.555	92.1	1	D	0.01	0.263	92.7	1	D	0.01	0.324	85.7	1	NA					D	0.01	0.249	61.9	2	NA																
011	D	0.01	1.35	92	1	D	0.01	0.65	99	2	D	0.01	0.34	110	2	D	0.01	0.58	114	3	D	0.01	0.45	33	3	D	0.01	0.59	104	1	D	0.01	0.3	95.5	3	D	0.01	0.3	95.5	3	D						
012	D	0.1	1.068	99	2	NA					NA					NA					NA					NA																					
013	D	0.05	0.777	91	1	NA					D	0.05	0.303	88	2	D	0.05	0.46	88	1	D	0.05	0.17	79	1	D	0.05	0.55	90	1	NA																
014	D	0.01	1.13	84	1	NA					D	0.01	0.29	80	2	D	0.01	0.52	96	1	D	0.01	0.15	85	1	D	0.01	0.73	76.5	1	NA																
015	D	0.01	1.08	112.4	9	D	0.01	0.532	100	9	D	0.01	0.321	96.5	10	D	0.01	0.402	104.8	11	D	0.01	0.401	80.3	11	D	0.01	0.527	98.7	13	D	0.01	0.256	89.7	8	D	0.01	0.256	89.7	8	D						
016	D	0.01	0.813	82	1	D	0.006	0.415	81	1	D	0.005	0.233	80	3	D	0.01	0.316	139	2	D	0.01	0.278	75	2	D	0.047	0.409	78	1	D	0.01	0.178	101	2	D	0.01	0.178	101	2	D						
017	D	0.01	1.037	89	1	D	0.01	0.883	115	3	D	0.01	0.269	81	1	D	0.01	0.572	109	3	D	0.01	0.325	109	4	D	0.01	0.437	79	3	D	0.01	0.845	100	2	D	0.01	0.845	100	2	D						
018	D	0.01	1.56	89	2	D	0.01	0.641	93	2	D	0.01	0.247	90	2	D	0.02	0.54	93	2	D	0.01	0.463	71	1	D	0.02	0.541	70	2	D	0.01	0.277														
019	D	0.01	1.331	97.2	2	D	0.01	0.377	70.9	3	D	0.01	0.173	84.4	3	D	0.01	0.593	106.7	1	D	0.01	0.49	86.3	1	D	0.01	0.335	72.1	3	D	0.01	0.289	115.7	1	D	0.01	0.289	115.7	1	D						
020	D	0.01	1.02	70	1	D	0.01	0.38	70	1	D	0.01	0.21	70	1	D	0.01	0.52	70	1	D	0.01	0.32	70	1	D	0.01	0.2	70	1	D	0.02	0.23	70	2	D	0.02	0.23	70	2	D						
021	D	0.01	0.879	92	1	D	0.02	0.551	80	1	D	0.02	0.207	101	1	D	0.05	0.131	60-140	1	D	0.05	0.441	102	1	D	0.02	0.225	97	1	NA																
022	D	0.01	0.469	84	1	NA					D	0.02	0.207	97	1	D	0.05	0.479	80	1	ND	0.05		60	1	D	0.05	0.280	80	1	NA																

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum					
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method		
023	D	0.02	1.119	93.5	1	D	0.02	0.411	100.4	1	D	0.02	0.213	92.5	1	D	0.05	0.416	137.7	1	D	0.02	0.446	100.7	1	D	0.01	0.267	91.7	2
024	D	0.01	0.9	88	1	D	0.01	0.52	92.6	1	D	0.01	0.25	98.8	3	D	0.01	0.35	81.3	2	D	0.02	0.45	86.6	3	D	0.02	0.3	94	2
025	D	0.01	0.905	91	1	D	0.01	0.54	87	1	D	0.01	0.305	83	2	D	0.01	0.13	103	1	D	0.01	0.58	95	1	NA				
026	D	0.01	1.42	101	2	D	0.01	0.712	113	2	D	0.01	0.328	86	2	D	0.01	0.614	60	2	D	0.01	0.5	107	1	NA				
027	D	0.02	1.28	90.9	2	NA					D	0.01	0.187	65	2	D	0.025	0.25	72	2	ND	0.02		80	1	NA				
028	D	0.01	1.045	98	2	D	0.01	0.361	98	2	D	0.01	0.278	111	1	D	0.01	0.488	98	2	D	0.01	0.312	87	2	D	0.01	0.429	93	2
029	D	0.01	1.27	115	1	D	0.01	0.3	80	2	D	0.01	0.267	108	1	D	0.01	0.44	104	1	D	0.01	0.391	81	1	D	0.01	0.46	110	1
030	D	0.02	1.27	91	1	D	0.01	0.607	100	3	D	0.02	0.253	70	1	D	0.01	0.514	104	3	D	0.01	0.455	87	3	D	0.02	0.432	82	1
031	D	0.01	1.002	60	1	D	0.01	0.367	66	1	D	0.01	0.239	88	1	D	0.01	0.425	91	1	D	0.01	0.424	72	2	D	0.01	0.425	72	1
032	D	0.010	1.31	100	2	D	0.010	0.676	103	1,2	D	0.010	0.269	97	2	D	0.010	0.445	97	1,2	D	0.010	0.422	84	1	D	0.010	0.534	95	2
033	D	0.05	1.18	92	1	D	0.01	0.414	82	1	D	0.01	0.134	82	1	D	0.01	0.388	104	2	D	0.01	0.186	56	1	D	0.01	0.403	77	1
034	D	0.01	0.882	100	2	D	0.01	0.461	91	2	NA					D	0.01	0.442	97	2	NA				D	0.01	0.471	95	1	
035	D	0.01	1.74	102	1,2,3	D	0.01	0.654	101	1,2,3	D	0.01	0.312	95	1,2,3	D	0.01	0.508	101	1,2,3	D	0.01	0.539	95	2	D	0.01	0.576	103	2
036	D	0.01	1.4	94	1	D	0.01	0.578	93	1	D	0.01	0.282	92	1	D	0.01	0.416	94	1	D	0.01	0.452	82	1	D	0.01	0.467	97	1
037	D	0.01	1.44	87	1	D	0.01	0.386	94	1	D	0.01	0.248	99	1	D	0.01	0.451	93	1	D	0.01	0.582	101	2	D	0.01	0.47	99	1
038	D	0.01	1.434	94	2,3	D	0.01	0.607	95	2,3	D	0.01	0.262	101	1	D	0.005	0.506	74	4	D	0.005	0.566	89	4	D	0.01	0.547	97	2,3
039	D	0.02	2.51	100	1	D	0.01	0.755	100	2	D	0.02	0.29	100	1	D	0.01	0.685	100	2	D	0.01	0.505	100	2	D	0.01	0.537	100	2
040	D	0.01	1.3	85	2	D	0.01	0.51	91	2	D	0.01	0.241	80	2	D	0.01	0.416	86	2	D	0.01	0.399	75	1	D	0.01	0.362	95	2
041	D	0.01	1.280	102	4	D	0.01	0.455	92	3	D	0.01	0.302	96	4	D	0.01	0.5	52	2	D	0.01	0.442	100	2	D	0.01	0.482	90	4
043	D	0.04	0.71	60	2	NA					NA					D	0.1	0.5	80	2	D	0.02	0.18	50	2	D	0.1	0.68	70	2
044	D	0.010	1.21	108	1	D	0.010	0.607	98	1	D	0.010	0.298	75	3	D	0.010	0.31	77	4	ND	0.010		72	1	D	0.010	0.565	100	1
045	D	0.005	0.894	82	2	D	0.005	0.333	86	2	D	0.005	0.206	93	2	D	0.005	0.363	79	2	D	0.005	0.349	66	1	D	0.005	0.394	94	2

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum					
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method		
046	D	0.01	0.611	70	1	NA		1	ND	0.01	<0.01	70	1	D	0.01		1	D	0.01	0.304	70	1	NA							
047	D	0.01	1.375	101	2	D	0.01	0.277	83	2	D	0.01	0.571	100	1	D	0.01	0.433	81	1	D	0.01	0.51	112	2	D	0.01	0.313	0	1
048	D	0.01	1.288	83.0	2	NA		1	NA				1	D	0.01	0.45	89.0	3	D	0.02	0.658	94.0	1	D	0.01	0.291	85.0	3		
049	D	0.01	1.09	90	3	D	0.01	0.222	89	1	D	0.01	0.472	106	4	D	0.01	0.221	97	5	D	0.01	0.491	95	3	D	0.01	0.22	70	5
050	D	0.005	1.31	100	1	NA		1	D	0.005	0.422	97	2	D	0.010	0.324	89	2	D	0.005	0.304	94	1	D	0.010	0.267	81	2		
051	D	0.002	1.52	98.4	1	D	0.002	0.21	67.8	3	D	0.002	0.555	94.4	4	D	0.005	0.446	72.4	2	D	0.002	0.522	91.6	1	D	0.01	0.329	101.0	4
052	D	0.01	1.56	86	1	D	0.01	0.653	92	2	D	0.01	0.514	105	3	D	0.01	0.493	78	3	D	0.01	0.461	94	1	D	0.01	0.3		3
053	D	0.01	0.79	68	1	NA		2	D	0.01	0.17	100	2	NA																
054	D	0.01	1.773	86	1,2	D	0.01	0.283	83	2,3	D	0.01	0.472	92	1,2	D	0.01	0.119	77	1,2	D	0.01	0.602	95	1,2	D	0.01	0.338	74	3
055	D	0.01	1.74	103	1	NA		1	D	0.01	0.295	80	1	NA																
056	D	0.01	1.251	99	3	D	0.01	0.229	85	3	D	0.01	0.416	100	1	D	0.01	0.439	100	1	D	0.01	0.455	100	1	D	0.01	0.241	100	1
057	D	0.01	1.32	103	3	D	0.01	0.266	96	3	D	0.01	0.459	102	3	D	0.01	0.329	SA	4	D	0.01	0.478	93	1	D	0.01	0.262	100	4
058	D	0.01	0.979	91	1	D	0.01	0.182	110	2	D	0.01	0.368	96	1	D	0.01	0.39	88	3	D	0.01	0.347	90	1	D	0.01	0.276	97	3
059	D	0.01	1.345	106	2	D	0.01	0.34	109	2	D	0.01	0.45	90	2	D	0.01	0.331	74	1	D	0.01	0.5	95	2	D	0.01	0.275	89	1
060	D	0.01	1.6	115	3	D	0.01	0.317	96.8	2	D	0.01	0.487	105	1	D	0.01	0.521	76	1	D	0.01	0.641	98.3	2	D	0.01	0.297		1
061	D	0.02	1.658	99	1	D	0.02	0.274	88	1	D	0.005	0.44	99	2	D	0.005	0.462	74	2	D	0.04	0.487	95	1	D	0.005	0.229	91	2
062	D	0.01	1.34	109	2	D	0.01	0.245	100	2	D	0.01	0.345	128	2	D	0.01	0.486	100	3	D	0.01	0.342	85	2	D	0.01	0.252	69	3
063	D	0.01	1.52	88	3,4	D	0.005	0.619	88	2,3,4	D	0.01	0.298	110	3	D	0.01	0.421	95	2.4	D	0.005	0.57	76	2.4	D	0.005	0.289		1
064	D	0.01	1.4	87.6	2	NA			90.7	2	D	0.01	0.408	87.0	2	D	0.01	0.265	89.0	2	D	0.03	0.48	88.7	2	D	0.02	0.234	100.5	1
065	D	0.01	0.703	71	1	NA			88	1	D	0.01	0.339	87	1	D	0.01	0.126	65	2	D	0.01	0.283	94	1	NA				
066	D	0.01	0.425	76	2	D	0.01	0.261	105	1	ND	0.01	0.348	104	2	D	0.01	0.309	113	1	D	0.01	0.231	102	1	D	0.01	0.248	103	2
067	D	0.01	1.45	84.7	1	D	0.02	0.4	79.9	2	NA					NA														

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum										
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method		
068	D	0.01	1.342	102	3	D	0.01	0.493	97	3	D	0.005	0.335	106	1	D	0.005	0.566	88	1	D	0.005	0.465	100	1	D	0.01	0.51	104	3	NA				
069	D	0.01	1.56	105	2	D	0.01	0.467	105	2	D	0.01	0.287	96	1	D	0.01	0.522	96	2	D	0.01	0.26	71	2	D	0.01	0.836	57	2	D	0.01	0.269	99	2
070	D	0.01	2.12	105	1	NA					D	0.01	0.321	105	1	D	0.01	0.521	98	1	D	0.03	0.773	78	1	D	0.03	0.593	108	1	ND	0.05	-0.05	94	1
071	D	0.01	1.66	89.5	1	D	0.01	0.57	92.0	1	D	0.02	0.22	81.5	1	D	0.01	0.44	87.5	1	D	0.01	0.18	78	2	D	0.01	0.47	99.5	1	D	0.01	0.21	80.9	2
072	D	0.02	1.2	95	1	D	0.02	0.596	85	1	D	0.02	0.376	70	1	D	0.02	0.489	109	1	ND	0.02		93	1	D	0.02	0.485	83	1	NA				
073	D	0.01	0.707	76	1	NA					D	0.02	0.309	72	1	D	0.03	0.502	76	1	D	0.02	0.129	80	1	D	0.03	0.312	87	1	NA				
074	D	0.01	1.37	75	2	NA					D	0.01	0.22	70	1	D	0.01	1.31	80	2	NA					D	0.01	0.365	71	2	NA				
075	D	0.01	1.183	89.1	4	NA					D	0.01	0.148	86.1	3	D	0.01	0.332	81.1	3	D	0.2	0.289	ND	4	D	0.01	0.392	93.2	4	D	0.004	0.324	91	2
076	D	0.01	1.58	98	1	D	0.01	0.59	94	1	D	0.005	0.2	94	1	D	0.01	0.455	97	1	D	0.01	0.42	86	2	D	0.01	0.5		1	ND	0.01			
077	D	0.01	0.93	89	1	NA					D	0.01	0.26	70	1	D	0.01	0.47	70	1	D	0.01	0.44	70	1	D	0.01	0.4	70	1	D	0.05	0.4	70	1
078	D	0.01	1.51	101	1	NA					D	0.01	0.27	105	1	NA					NA					NA	0.01		89	1	D	0.03	0.2	80	3
079	D	0.01	1.35	90	2	D	0.01	0.553	93	2	D	0.01	0.243	103	3	D	0.01	0.495	95	2	D	0.01	0.581	71	2	D	0.01	0.526	94	2	D	0.01	0.274	107	1
080	D	0.01	1.2	71.8	1	D	0.01	0.51	95.4	1	D	0.01	0.448	84.2	1	NA					NA					D	0.01	0.674	102	1	NA				
081	D	0.025	2.36	80	1	NA					D	0.025	0.406	96	1	D	0.025	0.917	79	1	D	0.04	0.532	78	2	D	0.025	1.19	78	1	D	0.01	0.486	92	2
082	D	0.01	1.19	82	1	D	0.01	0.472	88	1	D	0.01	0.272	89	3	D	0.01	0.409	97	4	D	0.01	0.397	85	1	D	0.01	0.518	100	1	D	0.01	0.207	80	2
083	D	0.01	1.52	87	1	NA					D	0.01	0.268	120	1	D	0.01	0.393	88	1	NA					D	0.01	0.614	113	1	NA				
084	NA					NA					NA					NA					NA					NA									
085	D	0.02	1.69	106	1	D	0.02	0.583	120	1	D	0.01	0.266	133	1	D	0.01	0.445	114	1	D	0.01	0.411	80.8	2	D	0.01	0.713	51	1	D	0.01	0.225	69.4	2
086	D	0.01	1.44	101	1	NA					D	0.01	0.248	105	1	NA		0.395	105	1	NA					D	0.01	0.458	116	1	NA				
087	D	0.01	1.4	87	1	D	0.01	0.6	90	1	D	0.01	0.24	66	1	D	0.01	0.4	99	1	D	0.01	0.55	53	2	D	0.01	0.57	108	1	D	0.01	0.26	103	2
088	D	0.01	1.256	83	1	NA					D	0.01	0.188	71	2	NA					NA					D	0.02	0.473	88	1	NA				
089	D	0.01	1.39	90	1	D	0.01	0.599	70	1	D	0.01	0.271	100	1	D	0.01	0.421	100	3	D	0.01	0.0445	20	3	D	0.01	0.333	50	1	ND	0.02			

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum									
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
090	D	0.01	1.173	69	2	NA			D	0.01	0.277	95	1	D	0.01	0.4	76	3	D	0.01	0.482	110	3	D	0.01	0.432	92	2	D	0.010	0.282	70	3	
091	D	0.01	1.36	84	3	D	0.01	0.23	99	1	D	0.01	0.23	99	D	0.01	0.445	82	3	D	0.01	0.407	69	3	D	0.01	0.498	89	3	ND	0.01			3
092	D	0.008	2.04	109	1	D	0.002	0.715	100	2	D	0.008	0.369	96	D	0.002	0.569	99	2	D	0.008	0.597	80	1	D	0.002	0.56	98	2	D	0.008	0.264	100	2
093	D	0.01	1.12	103	2	D	0.01	0.448	105	3	D	0.01	0.262	99	D	0.01	0.442	104	4	D	0.01	0.407	84	6	D	0.01	0.511	96	2	D	0.01	0.252		4
094	D	0.02	1.097	90	1	D	0.02	0.353	80	1	D	0.02	0.175	60	D	0.02	0.43	60	1	D	0.02	0.658	110	1	D	0.02	0.439	70	1	NA				
095	D	0.01	1.2504	70-110	1	NA				D	0.025	0.205	70-110	D	0.075	0.835	70-120	1	D	0.05	0.487	70-120	1	D	0.025	0.4585	70-120	1	NA					
096	D	0.01	1.77	92	1	D	0.01	0.632	92	1	D	0.01	0.354	110	D	0.01	0.41	100	1	D	0.01	0.437	81	1	D	0.01	0.536	90	1	D	0.01	0.255	104	1
097	D	0.02	1.32	65-79	1	D	0.02	0.388	67-37	1	D	0.02	0.186	91-62	D	0.05	0.33	86-51	1	D	0.02	0.295	56-68	1	D	0.02	0.353	78-10	1	D	0.05	0.227	97-72	1
098	D	0.01	1.302	108	2	NA				D	0.01	0.376	97	3	D	0.02	0.411	113	2	NA					D	0.01	0.476	103	2	NA				
099	D	0.003	0.198	90-2	1	NA				D	0.0027	0.0247	85	1	D	0.0067	0.166	90-45	1	NA					ND	0.0045		70-3	1	NA				
100	D	0.02	1.37	85	1	NA				D	0.02	0.674	80	1	D	0.02	2.23	85	1	D	0.01	0.192	75	1	D	0.02	0.371	80	1	NA				
101	D	0.01	0.79	96-2	1	NA				D	0.05	0.236	98-7	1	NA					NA					D	0.02	0.316	101-1	2	NA				
102	D	0.02	1.1	97	1	NA				D	0.02	0.27	89	1	D	0.05	0.5	88	2	NA					D	0.04	0.51	85	1	NA				
103	D	0.01	1.15	92	1	NA	0.01			ND	0.01		85	1	D	0.01	0.401	91	3	NA	0.01				NA	0.01				NA	0.01			
104	D	0.010	0.582	75	1	D	0.010	0.235	82	1	D	0.010	0.181	104	D	0.010	0.3	79	1	D	0.010	0.162	70	1	D	0.010	0.29	70	1	ND	0.01			2
105	D	0.02	1.35	80	1,2	NA				D	0.05	0.37	90	1,2	D	0.02	0.46	85	2	ND	0.02			2	D	0.02	0.62	85	1,2	ND	0.01			2
106	D	0.01	1.82	98	3	D	0.01	0.731	95	1	D	0.01	0.452	96	D	0.01	0.338	112	2	D	0.01	0.309	86	2	D	0.01	0.66	96	3	ND	0.01			2
107	D	0.02	0.855	85	3	D	0.05	0.278	92	3	D	0.02	0.238	92	D	0.05	0.411	88	3	D	0.01	0.202	76	5	D	0.02	0.333	84	3	D	0.02	0.237	104	1
108	D	0.01	0.868	89-7	1	NA				D	0.01	0.272	129	3	D	0.01	0.404	78-9	1	D	0.01	0.461	130	1	D	0.01	0.294	103-5	1	ND	0.01			4
109	D	0.01	1.01	89	1	D	0.01	0.335	85	1	D	0.01	0.234	95	D	0.01	0.47	95	1	D	0.01	0.479	92	1	D	0.01	0.397	80	1	D	0.02	0.279		2
110	D	0.02	1.228	93	1	NA				D	0.05	0.155	70-2	1	NA					D	0.02	0.316	90-7	1	D	0.02	0.472	92-1	1	NA				
111	D	0.01	1	95	1	NA				D	0.01	0.34	105	1	D	0.01	0.38	99	1	NA					NA					NA				

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum											
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method								
112	D	0.01	1.519	89	1	NA		D	0.01	0.237	82	1	D	0.01	0.589	92	1	ND	0.01		86	1	D	0.01	0.446	84	1	NA								
113	D	0.010	1.126	76	1	NA		D	0.010	0.22	91	1	D	0.010	0.485	94	1	D	0.010	0.498	98	1	D	0.010	0.497	83	1	NA								
114	D	0.010	0.518	91	1	NA		D	0.050	0.23	85	3	NA					D	0.010	0.215	98	1	D	0.020	0.333	99	1	NA								
115	D	0.01	1.47	92	1	NA		D	0.01	0.329	96	1	NA					NA					NA					NA								
116	D	0.001	1.095	83.50	1	NA		D	0.001	0.249	94.52	1	NA					ND	0.011		76.63	2	D	0.007	0.36	76.63	2	NA								
117	D	0.010	1.48	112	3	NA		D	0.010	0.302	93	1	NA					NA					D	0.020	0.389	104	3	NA								
118	D	0.01	1.358	98.6	1	NA		D	0.01	0.312	80	1	NA					NA					D	0.01	0.429	78.6	1	NA								
119	D	0.01	1.06	80	1	D	0.01	0.43	80	1	D	0.01	0.27	113	3	D	0.01	0.38	100	2	D	0.01	0.4	50	2	D	0.01	0.58	86.7	1	D	0.01	0.22	72	2	
120	D	0.01	1.04	92.5	2	D	0.01	0.355	76.8	2	D	0.01	0.251	104	1	D	0.01	0.4	73	2	D	0.01	0.402	84	2	D	0.01	0.485	86.8	2	D	0.01	0.21	94	3	
121	D	0.01	1.38	>80	2	D	0.01	0.626	>80	2	D	0.01	0.191	>80	2	D	0.01	0.47	>80	2	D	0.01	0.614	>80	2	D	0.01	0.492	>80	2	D	0.01	0.318	>80	1	
122	D	0.01	0.92	80	1	NA		D	0.1	0.502	75	1	NA					NA					D	0.02	0.425	75	1	NA								
123	D	0.01	1.183	75.2	1	NA		D	0.01	0.188	62.6	1	NA					NA					D	0.01	0.427	74.6	1	NA								
124	D	0.01	1.15	96	1	ND	0.01		95	1	D	0.01	0.291	95	1	D	0.01	0.508	97	1	D	0.005	0.358	97	2	D	0.01	0.438	103	1	D	0.005	0.318	95	2	
125	D	0.01	1.523	90	1	D	0.01	0.582	90	1	D	0.04	0.338	125	1	D	0.02	0.493	90	4	D	0.01	0.388	90	3	D	0.05	0.344	77	1	D	0.1	0.248	90	3	
126	D	0.02	1.13	102.7	2	NA		D	0.02	0.28	91.9	1	NA					D	0.05	0.77	120.4	2	D	0.02	0.55	102.3	2	NA								
127	NA					NA		NA					NA						NA					NA				NA								
128	D	0.01	0.955	76.0	1	NA		D	0.01	0.299	85.0	2	NA					NA					D	0.01	0.404	70.0	1	NA								
129	NA					NA		NA					NA						D	0.08	0.506	87.11	1	D	0.08	0.381	92.6	1	NA							
130	D	0.01	0.96	80	1	NA		D	0.002	0.269	85	1	D	0.02	0.329	96	1	D	0.003	0.262	79	2	D	0.02	0.388	91	1	NA								
131	D	0.005	1.46	87	1	D	0.005	0.492	84	2	D	0.01	0.251	69	2	D	0.005	0.441	90	1	D	0.005	0.447	67	1	D	0.005	0.492	87	1	D	0.005	0.326	111	1	
132	D	0.01	1.17	88.4	GC	NA		D	0.005	0.122	104	GC	NA					NA					D	0.01	0.49	79.6	GC	NA								
133	D	0.01	0.932	87	2	NA		D	0.01	0.285	87	1	D	0.01	0.461	81	3	D	0.01	0.189	78	2	D	0.01	0.459	87	2	D	0.01	0.261	78	3				

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Diazinon				Isofenphos-methyl				*Lambda-Cyhalothrin				*Metalaxyl and Metalaxyl-M				*Methamidophos				*Methidathion				Methomyl Sum											
	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method	Scope of method	Concentration (mg/kg)	Recovery %	Method								
134	NA				NA			D	0.010	0.223	100	1	NA				NA			NA				NA												
135	D	0.01	1.1	99.2	2	D	0.01	0.426	95	2	D	0.01	0.305	103	1	D	0.01	0.489	115.0	2	D	0.02	0.551	75.8	2	D	0.02	0.28	83	3						
136	D	0.01	1	87	1	D	0.01	0.366	88	1	D	0.01	0.289	93	2	D	0.01	0.282	81	2	D	0.01	0.426	94	1	D	0.01	0.288	86	2						
137	D	0.01	1.08	85	1	D	0.01	0.832	128	2	D	0.01	0.46	117	1	D	0.01	0.362	72	1	D	0.01	0.542	89	1	D	0.01	0.346	112	2						
138	D	0.02	1.14	70-110	1	NA					NA		D	0.01	0.366	75-110	1	D	0.02	0.334	60-120	1	D	0.02	0.601	70-120	1	NA								
139	D	0.01	1.2	100.9	1	NA					D	0.01	0.227	88.0	1	NA						D	0.01	0.376	118.5	1	NA									
140	D	0.01	1.6357	102	2	D	0.01	0.5466	98	2	D	0.01	0.3904	91	1	D	0.01	0.44	94	2	NA			D	0.01	0.5636	105	2	NA							
141	D	0.01	1.47	0	2	D	0.01	0.578	104	2	D	0.01	0.249	0	2	D	0.01	0.485	98	2	D	0.01	0.754	66	1	D	0.01	0.495	0	2	D	0.01	0.343	0	1	
142	D	0.01	0.66	76.3	2	NA					D	0.01	0.24	83.7	1	NA						D	0.01	0.38	75.7	2	D	0.01	0.32	73.4	2	NA				
143	D	0.01	1.32	80	1	D	0.01	0.578	75	1	D	0.02	0.24	75	1	D	0.04	0.466	85	1	D	0.01	0.355	60	1	D	0.02	0.561	105	1	D	0.02	0.226	85	2	
144	D	0.01	1.14	85	1	NA					D	0.01	0.21	95	2	D	0.02	0.25	85	1	D	0.02	0.156	80	1	D	0.02	0.37	98	1	D	0.006	0.171	94	5	
145	D	0.01	0.508	107	1	D	0.01	0.367	108	1	D	0.01	0.171	101	1	D	0.01	0.596	106	1	D	0.01	0.356	72	2	D	0.01	0.293	105	1	D	0.01	0.315	89	2	
146	D	0.002	0.868	80	1	NA					D	0.01	0.261	100	2	NA						D	0.002	0.458	100	1	D	0.004	0.457	100	1	NA				
148	D	0.05	1.425	60	1	D	0.05	0.442	80	1	D	0.02	0.187	70	1	D	0.05	0.307	70	1	D	0.01	0.554	70	2	D	0.02	0.06	60	1	D	0.05	0.542	70	2	
149	D	0.01	1	98	1	D	0.05	0.571	110	1	D	0.02	0.315	107	1	D	0.05	0.423	105	1	NA			D	0.02	0.474	103	1	NA							
150	D	0.01	1.287	77	2	D	0.01	0.616	71	1	D	0.01	0.196	90	1	D	0.01	0.445	96	1	D	0.05	0.341	70	2	D	0.01	0.46	90	2	NA					
151		0.01	1.8	115	1	NA					D	0.01	0.31	100	1	D	0.02	0.57	113	1	NA			D	0.01	0.46	90	2	NA							

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos					
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method
001	NA					NA					NA					D	0.012	0.523	60	1	D	0.005	0.482	150	1	D	0.005	0.482	150	1
002	D	0.01	0.364	93	3	D	0.01	0.279	95	3	D	0.01	0.43	76	2	D	0.01	0.529	97	2	D	0.01	0.721	101	2	D	0.01	0.721	101	2
003	D	0.002	0.448	92	2	D	0.005	0.24	87	2	D	0.010	0.357	100	1	D	0.006	0.898	108	1	D	0.002	0.915	90	2	D	0.002	0.639	91	2
004	D	0.010	0.454	106.4	1	D	0.010	0.237	111.2	1	D	0.010	0.17	102.6	2	D	0.010	0.983	102.3	2	D	0.010	0.846	142.3	1, 2	NA				
005	D	0.010	0.376	78	2	D	0.010	0.197	85	2	D	0.010	0.225	88	1	D	0.010	0.746	98	1	D	0.010	0.453	91	2	D	0.010	0.532	98	1
006	D	0.01	0.322	90	1	D	0.01	0.23	71	1	D	0.01	0.277	92	3	D	0.01	0.383	111	3	D	0.01	0.961	67	1	D	0.01	0.612	109	3
007	D	0.01	0.418	97	3	D	0.01	0.271	98	3	D	0.01	0.399	-	3	D	0.01	0.46	109	3	D	0.01	0.823	104	1	D	0.01	0.631	99	2
009	D	0.03	0.196	88	3	D	0.01	0.243	90	2	D	0.02	0.209	72	3	D	0.01	0.391	120	3	D	0.01	0.917	78	1	D	0.02	0.326	97	3
010	NA					D	0.01	0.177	80.6	2	D	0.01	0.076	76.4	1	D	0.01	0.3	90.3	1	D	0.01	0.662	69.1	1	NA				
011	D	0.01	0.35	75	3	D	0.01	0.25	100	3	D	0.01	0.32	90	1	D	0.01	0.46	110	2	D	0.01	1.36	112	3	D	0.01	0.525	102	2
012	NA					D	0.01	0.356	30	1	NA					D	0.01	0.0119	107	2	NA					NA				
013	D	0.05	0.372	85	1	NA					D	0.05	0.332	86	1	D	0.02	0.601	87	2	NA					D	0.05	0.375	88	1
014	NA					NA					D	0.02	0.59	90	1	D	0.01	0.4	84	1	D	0.01	0.73	75	2	NA				
015	D	0.01	0.338	92.5	12	D	0.01	0.258	89.5	4	D	0.01	0.264	91.6	9, 13	D	0.01	0.391	97.4	9	D	0.01	0.81	111	10	D	0.01	0.809	102.0	8
016	D	0.01	0.306	91	2	D	0.01	0.158	93	2	D	0.025	0.104	80	1	D	0.02	0.983	68	3	NA					D	0.009	0.568	94	4
017	NA					D	0.01	0.292	100	2	D	0.01	0.144	86	1	D	0.01	0.821	90	1	D	0.04	0.959	123	2	D	0.01	0.618	100	3
018	D	0.01	0.422	83	1	D	0.01	0.312	100	1	D	0.01	0.352		1, 2	D	0.01	0.911	96	2	D	0.01	0.973	104	1	D	0.02	0.681	78	2

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
019	D	0.01	0.391	79.4	1	D	0.01	0.24	86	1	D	0.01	0.265	71.2	3	D	0.01	0.295	80.3	3	D	0.01	0.557	70	3	D	0.01	0.76	94.5	1	D	0.01	0.461	81.4	3
020	D	0.01	0.17	70	1	D	0.01	0.19	70	2	D	0.02	0.24	70	1	D	0.01	0.2	70	1	D	0.01	0.57	70	1	D	0.01	0.8	70	2	D	0.02	0.23	70	1
021	NA					NA					D	0.02	0.232	107	1	D	0.02	0.417	94	1	D	0.02	0.307	102	1	NA					D	0.05	0.362	99	1
022	NA					NA					D	0.02	0.109	77	1	D	0.05	0.285	80	1	D	0.02	0.874	89	1	NA					D	0.05	0.360	80	1
023	D	0.02	0.516	96.7	1	D	0.01	0.238	75.5	2	D	0.02	0.358	112.7	1	D	0.02	0.285	100.8	1	D	0.02	0.676	92.3	1	D	0.02	0.737	104.6	2	D	0.02	0.45	114.0	1
024	D	0.02	0.52	97.5	3	D	0.05	0.3	69.2	2	D	0.02	0.3	91.3	3	D	0.01	0.25	108	3	D	0.01	0.56	107	3	D	0.01	1	102	2	D	0.01	0.38	97.8	3
025	D	0.01	0.583	77	1	NA					D	0.01	0.373	90	1	D	0.01	0.461	99	1	D	0.01	0.762	96	2	NA					D	0.01	0.62	84	1
026	D	0.01	0.46	96	1	D	0.01	0.297	95	1	D	0.01	0.115	112	2	D	0.01	0.622	72	2	D	0.01	0.968	113	2	D	0.01	0.971	101	1	D	0.01	0.802	115	2
027	D	0.02	0.288	80.2	2	D	0.05	0.139	87.5	2	ND	0.03		81	1	D	0.02	0.212	70	2	D	0.125	0.31	85	1	D	0.015	0.3	70	2	D	0.025	0.37	114	2
028	D	0.01	0.458	101	2	D	0.01	0.272	102	2	D	0.01	0.313	96	1	D	0.01	0.242	105	1	D	0.01	0.649	88	1	D	0.01	0.914	99	2	D	0.01	0.358	79	1
029	D	0.01	0.381	107	1	D	0.01	0.222	96	1	D	0.01	0.251	81	1	D	0.01	0.371	103	1	D	0.01	0.51	82	2	D	0.01	0.789	100	1	D	0.01	0.41	103	1
030	ND	0.01			3	D	0.01	0.289	109	3	D	0.01	0.257	?	1,3	D	0.05	0.353	93	1	D	0.01	0.692	92	1	D	0.01	0.987	113	3	D	0.02	0.525	92	1
031	D	0.01	0.416	100	2	D	0.01	0.196	130	2	D	0.01	0.366	84	1	D	0.01	0.275	76	1	D	0.01	0.749	67	1	D	0.01	0.683	60	2	D	0.01	0.391	71	1
032	D	0.010	0.394	92	1	D	0.010	0.229	93	1	D	0.010	0.335	94	2	D	0.010	0.396	92	1,2	D	0.010	0.81	80	2	D	0.010	0.836	99	1	D	0.010	0.646	96	1,2
033	D	0.01	0.143	62	1	D	0.01	0.263	118	2	D	0.01	0.093	85	1	D	0.01	0.291	90	1	D	0.01	1.06	100	1	D	0.01	1.91	99	2	D	0.01	0.711	86	1
034	NA					NA					NA					D	0.01	0.311	91	2	D	0.01	0.761	101	2	D	0.01	0.612	88	1	NA				
035	D	0.01	0.455	93	2	D	0.01	0.291	98	2	D	0.01	0.341	100	1,2	D	0.01	0.406	101	2	D	0.01	0.961	104	1,3	D	0.01	0.893	100	2	D	0.01	0.65	106	2
036	D	0.01	0.426	100	2	D	0.01	0.195	100	2	D	0.01	0.252		1	D	0.01	0.427	95	1	D	0.01	0.788	95	1	D	0.01	0.894	97	2	D	0.01	0.591	95	1

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
037	D	0.01	0.472	98	2	D	0.01	0.256	97	2	D	0.01	0.386	93	1	D	0.01	0.371	98	1	D	0.01	0.683	95	1	D	0.01	0.778	95	2	D	0.01	0.567	96	1
038	D	0.005	0.525	100	4	D	0.005	0.274	81	4	D	0.01	0.364	87	2,3	D	0.01	0.34	110	1,2,3	D	0.005	0.962	94	4	D	0.01	0.631	98	2,3	D	0.01	0.631	98	2,3
039	D	0.01	0.605	100	2	D	0.01	0.28	100	2	D	0.02	0.507	100	1	D	0.02	0.415	100	1	D	0.02	0.875	100	1	D	0.01	1.115	100	2	D	0.02	0.565	100	1
040	D	0.01	0.467	101	1	D	0.01	0.296	101	1	D	0.01	0.18	93	2	D	0.01	0.339	90	2	D	0.01	0.759	90	2	D	0.01	0.972	97	1	D	0.01	0.37	75	2
041	D	0.01	0.441	93	2	D	0.01	0.238	96	2	D	0.01	0.283	85	1	D	0.01	0.361	82	4	D	0.01	0.735	97	4	D	0.01	0.851	99	2	D	0.01	0.644	103	2
043	NA					NA					D	0.1	0.14	80	2	D	0.05	0.38	70	2	D	0.06	0.71	70	2	NA					D	0.1	0.63	80	2
044	D	0.020	0.292	70	1	D	0.010	0.155	80	5	D	0.010	0.351	92	1	D	0.010	0.423	88	1	D	0.010	0.702	71	3	D	0.010	0.924	78	5	D	0.010	0.587	83	1
045	D	0.005	0.35	83	1	D	0.005	0.177	120	1	D	0.005	0.303	75	2	D	0.005	0.245	97	2	D	0.005	0.711	99	2	D	0.005	0.692	93	1	D	0.005	0.344	89	2
046	D	0.01	0.115	70	1	NA				1	D	0.01	0.0476	70	1	D	0.01	0.349	70	1	D	0.01	0.537	70	1	NA					D	0.01	0.623	70	1
047	D	0.01	0.494	98	1	D	0.01	0.267	108	1	D	0.01	0.27	0	2	D	0.01	0.380	113	2	D	0.01	0.927	102	2	D	0.01	1.044	95	1	D	0.01	0.568	126	2
048	D	0.01	0.456	92	3	D	0.01	0.235	75.0	3	D	0.02	0.324	82	1	D	0.01	0.362	74.0	1	D	0.01	0.975	101.0	1	NA					D	0.02	0.676	91.0	2
049	D	0.02	0.367	87	3	D	0.01	0.388	105	5	D	0.01	0.288	90	3	D	0.01	0.316	106	2	D	0.02	0.83	105	1	D	0.005	0.781	76	5	D	0.02	0.489	88	3
050	D	0.010	0.397	104	2	D	0.010	0.216	86	2	D	0.005	0.235	102	1	D	0.005	0.172	98	2	D	0.005	0.757	71	1	D	0.010	0.932	110	2	D	0.005	0.518	96	2
051	D	0.005	0.451	101.2	2	D	0.005	0.215	87.8	4	D	0.002	0.392	89.4	1	D	0.005	0.451	91.5	2	D	0.005	0.962	92.4	3	D	0.01	0.966	106.5	4	D	0.002	0.628	92.7	1
052	D	0.01	0.505	93	1	D	0.01	0.27	91	3	D	0.01	0.353		1	D	0.01	0.411	86	1	D	0.01	0.795	91	2	D	0.01	0.861	81	3	D	0.01	0.508	84	1
053	NA					NA					D	0.01	0.12	80	1	NA					NA						NA					NA			
054	D	0.01	0.481	84	1	D	0.01	0.224	66	1	D	0.01	0.364	91	1,2	D	0.01	0.620	86	1,2	D	0.01	0.814	97	1,2	D	0.01	0.82	98	3	D	0.01	0.628	97	1,2
055	NA					NA					ND	0.01		94	1	D	0.01	0.338	71	1	D	0.01	1.04	107	1	NA					NA				

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
056	D	0.01	0.363	100	1	D	0.01	0.281	100	1	D	0.01	0.287	97	2	D	0.01	0.285	100	1	D	0.01	0.637	80	2	D	0.01	0.648	100	1	D	0.01	0.399	100	1
057	D	0.01	0.395	89	2	D	0.01	0.226	97	4	D	0.01	0.362	109	1	D	0.01	0.38	119	3	D	0.01	0.786	103	3	D	0.01	0.751	103	4	D	0.01	0.528	95	3
058	D	0.01	0.392	97	3	D	0.01	0.244	97	3	D	0.01	0.225	90	1	D	0.01	0.272	102	1	D	0.01	0.482	91	2	D	0.01	0.801	97	3	D	0.01	0.383	94	1
059	D	0.01	0.407	92	1	D	0.01	0.259	89	1	D	0.01	0.345	100	2	D	0.01	0.567	90	2	D	0.01	0.94	107	2	D	0.01	0.854	96	1	D	0.01	0.852	95	2
060	D	0.01	0.442	89	1	D	0.01	0.253	93	1	D	0.01	0.403	1, 3	1, 3	D	0.01	0.582	104	1	ND	0.01			2	D	0.01	0.926	105	1	D	0.01	0.697	99.9	2
061	D	0.005	0.438	96	2	D	0.005	0.203	96	2	D	0.05	0.27	97	1	D	0.02	0.39	93	1	D	0.02	0.884	92	1	D	0.005	0.823	100	2	D	0.05	0.514	97	1
062	D	0.01	0.339	76	3	D	0.01	0.201	69	3	D	0.01	0.322	99	2	D	0.01	0.241	99	2	D	0.01	0.715	101	2	D	0.01	0.804	80	3	D	0.01	0.368	95	2
063	D	0.005	0.473	93	2, 4	D	0.005	0.242	106	2	D	0.01	0.342	3, 4	3, 4	D	0.01	0.426	114	3, 4	D	0.01	0.888	102	3	D	0.005	0.89	97	1	D	0.005	0.638	93	2, 4
064	D	0.01	0.437	99.3	1	D	0.01	0.234	103.8	1	D	0.01	0.197	101	1	D	0.01	0.366	91.0	2	D	0.01	0.826	88.3	2	D	0.01	0.898	103.8	1	D	0.01	0.544	92.1	2
065	D	0.01	0.218	60	2	NA					D	0.01	0.048	82	1	D	0.01	0.168	118	1	D	0.01	0.517	89	1	NA					D	0.01	0.271	117	1
066	D	0.01	0.483	90	2	D	0.01	0.271	99	2	D	0.01	0.232	90-100	1+2	D	0.01	0.19	125	2	D	0.01	0.525	100	1	D	0.01	0.65	95	2	D	0.01	0.316	88	2
067	NA					NA					D	0.01	0.16	105.7	1	D	0.02	0.5	95.5	1	D	0.05	0.84	92.8	1	NA					D	0.01	0.6	123.1	1
068	D	0.005	0.541	86	1	D	0.01	0.259	101	2	D	0.01	0.125	99	3	D	0.005	0.479	103	1	D	0.01	0.792	89	3	D	0.01	0.801	88	2	D	0.01	0.616	100	3
069	D	0.01	0.391	92	2	D	0.01	0.237	96	2	D	0.01	0.321	91	2	D	0.01	0.28	93	1	D	0.01	0.777	88	1	D	0.01	1.00	94	2	D	0.01	0.449	89	1
070	ND	0.01	<0.01	92	1	NA					D	0.01	0.125	98	1	D	0.01	0.477	95	1	D	0.01	0.888	106	1	D	0.03	0.996	94	2	D	0.01	1.03	113	1
071	D	0.01	0.14	70.2	2	D	0.01	0.17	83.6	2	D	0.02	0.35	102	1	D	0.01	0.38	96.5	1	D	0.02	0.93	91	1	D	0.01	0.78	95.4	2	D	0.01	0.59	93.5	1
072	D	0.02	0.18	82	1	NA					D	0.02	0.353	85	1	D	0.02	0.443	81	1	D	0.02	0.730	83	1	NA					D	0.02	0.626	95	1
073	D	0.04	0.507	75	1	D	0.04	0.253	85	2	D	0.01	0.304	85	1	D	0.04	0.432	90	1	D	0.01	0.571	90	1	NA					D	0.03	0.317	90	1

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos				
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %
074	NA				NA	D	0.01	0.121	71	2	D	0.01	0.397	79	1	D	0.01	0.511	86	1	NA				D	0.01	0.413	78	2
075	D	0.2	0.961	ND	4	D	0.004	0.336	97	2	D	0.02	0.103	89.1	3	D	0.01	0.75	95.2	3	ND	0.01			NA				
076	D	0.005	0.45	92	2	D	0.005	0.32	89	2	D	0.01	0.378	92	1	D	0.01	0.78	104	1	D	0.005	0.93	92	D	0.01	0.53	106	1
077	D	0.02	0.47	70	1	NA				1	D	0.01	0.27	70	1	D	0.01	0.54	70	1	NA				D	0.01	0.36	70	1
078	NA					D	0.02	0.18	74	3	D	0.02	0.35	100	1	ND	0.01	0.86	100	1	NA				NA				
079	D	0.01	0.525	78	2	D	0.01	0.29	96	1	D	0.01	0.42	95	2	D	0.01	0.788	98	3	D	0.01	0.912	89	D	0.01	0.616	95	2
080	NA					NA				1	D	0.01	0.647	86.5	1	NA					NA				D	0.01	1.29	105	1
081	D	0.025	0.523	80	1	NA				1	D	0.025	0.553	80	1	D	0.025	1.62	85	1	NA				D	0.025	1.77	76	1
082	D	0.01	0.358	87	1	D	0.01	0.247	86	2	D	0.01	0.105	82	1	D	0.01	0.819	92	3	D	0.01	0.836	84	D	0.01	0.644	106	1
083	NA					NA				1	D	0.01	0.298	90	1	D	0.01	0.741	94	1	NA				D	0.01	0.668	107	1
084	NA					NA					NA					D	0.03	0.662	102	1	NA				NA				
085	D	0.01	0.484	109	2	D	0.01	0.168	62.9	2	D	0.02	0.256	105	1	D	0.02	0.79	109	1	D	0.01	0.794	81.8	D	0.01	0.585	93	1
086	NA					NA					NA					D	0.01	0.799	80	1	NA				D	0.01	0.372	110	1
087	D	0.01	0.57	87	1	D	0.01	0.27	93	2	D	0.01	0.323	100	1	D	0.01	0.760	99	1	D	0.01	0.85	92	D	0.01	0.71	107	1
088	NA					NA					D	0.02	0.112	88	1	D	0.02	0.651	94	2	NA				D	0.02	0.495	78	1
089	D	0.01	0.546	100	3	D	0.02	0.288	50	2	D	0.01	0.0297	50	1	D	0.01	0.79	70	1	D	0.01	0.618	100	D	0.01	0.439	60	1
090	D	0.01	0.43	110	3	D	0.01	0.242	70	3	D	0.01	0.263	70	3	D	0.01	0.844	90	1	D	0.01	0.892	78	D	0.01	0.506	70	3
091	D	0.01	0.433	79	3	D	0.01	0.255	82	3	D	0.01	0.415		1	D	0.01	0.814	87	1	D	0.01	0.775	84	D	0.01	0.633	87	3

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos										
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method					
092	D	0.04	0.404	103	2	D	0.002	0.223	95	2	D	0.008	0.47	109-115	1	D	0.008	0.744	107	1	D	0.002	0.934	102	1	D	0.002	1.12	100	2	D	0.002	0.888	111	1
093	D	0.01	0.374	93	6	D	0.01	0.238	98	4	D	0.01	0.123		3	D	0.01	0.409	114	2	D	0.01	0.8	92	2	D	0.01	0.844	82	4	D	0.01	0.642	110	6
094	ND	0.02		110	1	ND	0.05		70	1	D	0.02	0.412	80	1	D	0.02	0.184	80	1	D	0.02	0.569	90	1	NA					D	0.02	0.309	70	1
095	D	0.05	0.1789	70-120	1	NA				1	D	0.05	0.308	70-110	1	D	0.05	0.5665	70-120	1	D	0.025	1.825	70-120	1	D	0.05	0.1	70-120	1	D	0.05	0.538	70-120	1
096	D	0.01	0.369	95	1	D	0.01	0.698	96	1	D	0.01	0.276	87	3	D	0.01	0.49	100	1	D	0.01	1.1	105	2	D	0.01	0.854	98	1	D	0.01	0.663	95	1
097	NA					D	0.05	0.274	91.88	1	D	0.02	0.0822	67.00	1	D	0.05	0.255	73.05	1	D	0.02	0.799	72.94	1	NA					D	0.01	0.372	68.68	1
098	NA					NA				2	D	0.01	0.117	110	2	D	0.01	0.415	87	3	D	0.01	0.706	96	1	NA					D	0.01	0.766	83	2
099	NA					NA					NA					NA					ND	0.0022		80.7	1	NA					NA				
100	D	0.02	0.573	85	1	NA				1	D	0.02	0.398	85	1	D	0.02	0.714	85	1	D	0.01	3.19	90	1	NA					D	0.02	0.539	85	1
101	NA					NA				2	D	0.02	0.259	130.7	2	D	0.05	0.255	91.6	2	D	0.02	0.606	71.2	1	NA					D	0.01	0.571	89	2
102	NA					NA				1	D	0.05	0.15	88	1	D	0.05	0.45	87	2	D	0.02	0.7	87	1	NA					D	0.05	0.62	73	2
103	NA					NA				3	D	0.01	0.075	79	3	D	0.01	0.371	113	1	D	0.01	0.889	94	3	NA					D	0.01	0.501	121	1
104	D	0.010	0.36	71	1	D	0.010	0.275	78	2	D	0.01	0.055	89	1	D	0.010	0.183	75	1	D	0.010	0.348	89	1	D	0.010	0.835	86	2	D	0.010	0.272	75	1
105	ND	0.02				NA				1,2	D	0.01	0.14	90	1,2	D	0.02	0.57	90	1,2	D	0.01	0.71	95	1	NA					D	0.02	0.71	80	1
106	D	0.01	0.312	92	2	D	0.01	0.198	80	2	D	0.01	0.383	101	5	D	0.01	0.62	97	3	D	0.01	0.923	98	1	D	0.01	0.879	103	3	D	0.01	0.927	120	2
107	NA					D	0.01	0.218	112	1	D	0.02	0.07	92	3	D	0.05	0.193	90	3	D	0.02	0.522	89	4	NA					D	0.02	0.237	88	3
108	D	0.05	0.558	128.7	1	D	0.01	0.235	74.3	4	D	0.01	0.212	76.6	1	D	0.01	0.221	99.1	1	D	0.01	1.34	94.6	2	D	0.01	1.01	99.9	4	D	0.01	0.364	91.5	1
109	D	0.01	0.418	88	1	D	0.01	0.241	89	2	D	0.02	0.231		1	D	0.01	0.198	80	1	D	0.01	0.677	94	1	D	0.01	0.798	85	2	D	0.01	0.377	80	1

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos					
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method
110	NA				1	ND	0.02				D	0.1	0.118	88%	1	NA					NA	D	0.01	0.724	93.8	D	0.01	0.724	93.8	1
111	NA					NA					D	0.01	0.22	95	1	NA					NA	D	0.01	0.56	98	D	0.01	0.56	98	1
112	NA					NA					NA					D	0.01	0.773	86	1	NA									
113	D	0.010	0.462	97	1	D	0.020	0.283	80	1	D	0.010	0.243	70	1	D	0.010	0.739	77	1	NA					D	0.010	0.455	73	1
114	NA					D	0.020	0.0735	102	1	D	0.050	0.279	102	2	D	0.020	1.02	92	2	NA					D	0.010	0.286	108	1
115	NA					NA					NA					NA					NA					NA				
116	NA					NA					D	0.041	0.3	86.67	2	D	0.01	0.6	70.00	1	NA					D	0.007	0.399	95.50	2
117	NA					D	0.020	0.091	93	3	D	0.026	0.368	127	3	D	0.020	0.788	132	1	NA					D	0.010	0.458	125	3
118	NA					D	0.01	0.091	85	1	NA					D	0.01	0.47	89.9	1	NA					D	0.01	0.477	88.2	1
119	D	0.01	0.49	80	2	D	0.01	0.16	80	1	D	0.01	0.47	86.7	1	D	0.01	0.78	125	3	D	0.01	0.9	88	D	0.01	0.69	80	1	
120	D	0.01	0.355	87	2	D	0.01	0.125		2	ND	0.01		100	2	D	0.01	0.746	102	1	D	0.01	0.775	87	D	0.01	0.475	106	2	
121	D	0.01	0.483	>80	2	D	0.01	0.236	>80	2	D	0.01	0.442	>80	2	D	0.01	0.826	>80	2	D	0.01	1.17	>80	D	0.01	0.494	>80	2	
122	NA					D	0.01	0.099	78	1	D	0.05	0.314	80	1	D	0.02	0.735	74	1	NA					NA				
123	D	0.01	0.251	57.2	2	D	0.01	0.329	75.2	2	D	0.01	0.342	99.4	2	D	0.01	0.669	78.0	1	NA					D	0.01	0.549	102.4	2
124	NA					NA					D	0.01	0.29	96	1	D	0.01	0.932	95	1	D	0.005	0.992	93	D	0.01	0.461	94	1	
125	D	0.02	0.467	90	3	D	0.01	0.266	90	3	D	0.02	0.364	95	1	D	0.05	0.878	95	1	NA					D	0.02	0.623	90	1
126	D	0.05	0.45	75.5	2	D	0.02	0.07	80.4	2	D	0.02	0.22	97.2	2	D	0.02	1.13	134.1	1	NA					D	0.04	0.51	97.0	2
127	NA					NA					NA					NA					NA					NA				

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos															
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method										
128	NA				ND	0.08		92.14	1	D	0.01	0.308	85.0	1	NA					NA					D	0.01	0.389	70.0	1											
129	D	0.08	0.464	80.53	1	NA				D	0.08	0.222	82.5	1	NA					NA					D	0.08	0.355	80.4	1											
130	NA				D	0.02	0.283	52	1	NA					D	0.02	0.634	92	1	NA					D	0.01	0.408	77	1											
131	D	0.005	0.487	92	1	D	0.005	0.288	84	1,2	D	0.005	0.368	81	2	D	0.005	0.793	88	2	D	0.005	1.02	102	1	D	0.01	0.667	87	1										
132	NA				NA					D	0.02	0.219	94.2	GC	NA					NA					D	0.01	0.572	89.1	GC											
133	D	0.01	0.512	87	2	D	0.01	0.419	87	2	D	0.01	0.366	85	2	D	0.01	0.785	89	1	D	0.01	0.928	82	3	D	0.01	0.39	80	2										
134	NA				NA					NA					NA					NA					NA															
135	D	0.01	0.423	88	2	D	0.01	0.24	81	3	D	0.01	0.128	70.3	2	D	0.01	0.519	76	2	D	0.01	0.205	84	1	D	0.01	0.781	104.2	1	D	0.01	0.831	85.4	3	D	0.01	0.58	87.6	2
136	D	0.01	0.344	91	2	D	0.01	0.236	104	2	D	0.01	0.234	95	1	D	0.01	0.205	84	1	D	0.01	0.502	100	1	D	0.01	0.649	90	1	D	0.01	0.903	102	2	D	0.01	0.494	106	2
137	D	0.01	0.227	61	2	D	0.01	0.285	74	2	D	0.01	0.244	75	1	D	0.01	0.502	100	1	D	0.01	0.502	100	1	D	0.01	1.4	105	1	D	0.01	0.755	85	2	D	0.01	0.754	102	1
138	NA				NA					D	0.03	0.128	70-100	1	D	0.025	0.328	70-120	1	D	0.02	0.688	70-100	1	NA															
139	NA				NA					D	0.01	0.094	104.9	1	D	0.01	0.321	107.4	1	D	0.01	0.607	97.2	1	NA															
140	NA				NA					D	0.01	0.1213	99	2	D	0.01	0.5046	110	1	D	0.01	0.815	99	2	NA															
141	D	0.01	0.489	90	1	D	0.01	0.265	92	1	D	0.01	0.346		D	0.01	0.359	0	2	D	0.01	0.762	115	2	D	0.01	0.965	96	1	D	0.01	0.232	94	2	D	0.01	0.29	75.2	2	
142	NA				NA					D	0.01	0.09	77.5	2	D	0.006	0.39	79.8	1	D	0.003	0.54	78.3	1	NA															
143	D	0.02	0.331	80	2	D	0.02	0.194	90	2	D	0.02	0.240	95	1	D	0.03	0.394	80	1	D	0.02	0.780	70	1	D	0.02	0.662	80	2	D	0.01	0.715	110	1	D	0.01	0.438	92	1
144	NA				NA					D	0.006	1.56	92	5	D	0.01	0.092	88	1	D	0.01	0.59	84	2	NA															
145	D	0.01	0.458	110	1	D	0.01	0.285	78	2	D	0.01	0.186	110	1	D	0.01	0.225	193	1	D	0.01	0.651	106	1	D	0.01	0.915	84	2	D	0.01	0.343	106	1	D	0.01	0.343	106	1

APPENDIX 7. Methods used by participants for determining pesticides.

Lab	*Monocrotophos				*Oxamyl				*Parathion-Methyl Sum				*Phosalone				*Procymidone				*Thiacloprid				*Triazophos						
	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	Scope of method	RL (mg/kg)	Concentration (mg/kg)	Recovery %	Method	
146	NA					NA				2	D	0.01	0.265	100	2	D	0.004	0.627	100	2	NA					D	0.002	0.398	80	1	Method
148	D	0.05	0.493	60	1	D	0.05	0.198	70	1	D	0.05	0.46	70	1	D	0.02	0.819	80	1	D	0.01	0.912	70	2	ND	0.05	0.529	70	1	Method
149	D	0.1	0.465	105	1	D	0.02	0.326	99	1	D	0.05	0.35	95	1	D	0.02	0.806	105	1	D	0.02	0.806	105		D	0.01	0.461	106	1	Method
150	NA				2	D	0.01	0.32	109	2	D	0.02	0.311	95	2	D	0.01	1.000	88	1	NA					D	0.02	0.627	85	1	Method
151	ND	0.01			1	D	0.01	0.15	113	1	D	0.01	0.51	107	1	D	0.01	1.0	112	1	NA					D	0.01	0.88	114	1	Method

GENERAL PROTOCOL FOR EU PROFICIENCY TESTS FOR PESTICIDE RESIDUES IN FOOD AND FEED

Introduction

This protocol contains general procedures valid for all European Union proficiency tests (EUPTs) organised on behalf of the European Commission, Health & Consumer Protection Directorate-General (DG-SANCO) by the four Community Reference Laboratories (CRLs) for pesticide residues in food and feed. These EUPTs are directed at all National Reference Laboratories (NRLs) and Official Laboratories (OfLs) in the EU Member States. Laboratories outside this CRL/NRL/OfL-Network⁴ may be permitted to participate on a case-by-case basis after consultation with DG SANCO.

The following four CRLs for pesticides were appointed by DG-SANCO based on regulation 882/2004/EC⁵:

- **CRL for Fruits and Vegetables (CRL-FV),**
- **CRL for Cereals and Feedingstuff (CRL-CF),**
- **CRL for Food of Animal Origin and Commodities with high Fat Content (CRL-AO) and**
- **CRL for Single Residue Methods (CRL-SRM)**

NRLs are appointed by the National Food or Feed Authorities based on the provisions of Regulation 882/2004/EC, whereas OfLs are laboratories that are actively involved in providing residue data for the national control programme and/or the co-ordinated multiannual Community control programme.

According to Regulation 396/2005/EC⁶ all laboratories analysing samples for the official controls on pesticide residues shall participate in the Community proficiency test(s) organised by the Commission. The aim of these EUPTs is to obtain information regarding the quality, accuracy and comparability of the pesticide residue data in food and feed sent to the European Commission within the framework of the national control programmes and the co-ordinated multiannual community control programme. Participating laboratories will be provided with an assessment of their analytical performance and the reliability of their data - compared to the other participating laboratories.

EUPF-organisation

EUPTs are organised by individual CRLs or by more than one CRL in cooperation with one another.

For each EUPF an Organising Team is appointed by the CRL(s) that is responsible for the EUPF. This team is then responsible for all administrative and technical matters concerning the organisation of the PT, e.g. PT-announcement, production of the test material, undertaking the homogeneity and stability tests, packing and shipment of test material, and the handling and first assessment of participant's results.

A common Scientific Committee entailing the following two subgroups:

- a) An Advisory Group (AG) and
- b) An independent Quality Control Group (QCG)

⁴ For more information about the CRL/NRL/OfL-Network please refer to the CRL-Web-portal under: <http://www.crl-pesticides.eu>

⁵ Regulation (EC) No 882/2004 of the European Parliament and of the Council on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules. Published at OJ of the EU L191 of 28.05.2004

⁶ Regulation (EC) No 396/2005, published at OJ of the EU L70 of 16.03.2005, as last amended by Regulation 839/2008 published at OJ of the EU L234 of 30.08.2008.

consisting of expert scientists with long experience in pesticide residue analysis that have been appointed by the CRLs and approved by the DG-SANCO.

The role of the AG is to help the organisers in making decisions concerning the design of the EUPT: selection of pesticides to be included in the Target Pesticide List (see below), the establishment of the minimum required reporting levels (MRRs), the evaluation and statistical treatment of the results and the drafting of the protocol and final report. The QCG has the additional function of supervising the quality of the EUPT and to assisting the CRLs with confidential aspects such as the choice of the pesticides, and levels to be present in the test material.

The EUPT-Organising Team, AG and QCG together form the **EUPT-Panel**.

Confidentiality:

In each EUPT the laboratories are given a unique code only known to themselves, the Organisers, and DG-SANCO. In the final EUPT-Report the list of participating laboratories will not be linked to their laboratory codes. It should be noted that the organisers, at the request of the Commission may present the results to the Standing Committee on the Food Chain and Animal Health on a country-to-country basis. It is therefore possible that a link between codes and National Reference Laboratories could be made, especially for those Member States where only one laboratory has participated. The owner of all EUPT data is DG SANCO.

Communication

The official language used in all EUPTs is English.

Communication between participating laboratories during the test on matters concerning this PT exercise is not permitted.

Announcement

The announcement of the individual EUPT will be issued at least 3 months before the test material is distributed to the laboratories. The announcement will be published on the CRL portal and distributed via mail to the NRL/OfL mailing list available to the CRLs. The announcement will contain an invitation letter, details on how to register and where to locate additional related documents, and some preliminary information on the specific protocol such as the tentative calendar, the name of the commodity expected to be used, and the tentative Target Pesticide List.

Specific Protocol

For each PT a Specific Protocol will be published at least 2 weeks before the test material is distributed to the laboratories. This protocol will contain all information included in the invitation in its final version, information on payment for delivery service and/or participation. Furthermore, it will also include instructions on how to handle the test material upon receipt, on how to submit results, and other relevant information.

General procedures for reporting results

Laboratories are responsible for reporting their results to the Organiser within the stipulated deadlines. Each laboratory must only report one result for each of the pesticides present in the test material, using the analytical procedure(s) that they would routinely use for each compound for monitoring purposes. More than

one method may be used to cover all the compounds to be sought. The results (residue levels of the pesticides detected) must be, expressed in mg/kg.

Correction of results for recovery

According to the Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed, (Document SANCO in force each year) residues data should not normally be adjusted for recovery, when the mean recovery is within the range of 70-120%. If residues data are adjusted for recovery, then this must be clearly stated. Therefore laboratories are required to report whether their results were adjusted for recovery and if this was the case, the recovery factor used. No recovery factors are required where recovery adjustments resulted from using the 'standard addition(s)' approach, or from the use of isotopically labelled internal standards (with spiking of the test material at the beginning of the extraction procedures). In this case, the laboratories should report the technique used for calculation of the results instead of the recovery factor.

Evaluation of the Results

The procedures used for the treatment and assessment of results are described below.

- False Positives

These are the results that show the apparent presence of pesticides that were listed in the Target Pesticide List, but which were (i) not used in the sample treatment, (ii) and not detected by the organiser, even after a repeat analysis. However, if a number of participants do detect the same additional pesticide, or if the concentration is above the MRRL, then a decision as to whether, or not, this should be considered to be a false positive result will be made on a case-by-case basis. Any results reported that are lower than the MRRL will not be considered as false positives, even though these results should not have been reported.

- False Negatives

These are results for pesticides reported by the laboratories as "analysed" but that no numerical values were given, although they were used by the Organiser to treat the test material and were detected by the majority of participants at or above the MRRL.

- Estimation of the true concentration (μ)

The "true" concentration will be typically estimated using the median of all the results. Therefore a **median value** for every compound present will be calculated and used as the assigned value. In special justifiable cases, the EUPF Panel may decide to use only part of the population of results to establish the median (e.g. using only results with z-scores ≤ 5.0).

- Establishing the standard deviation of the assigned value (target standard deviation)

The target standard deviation (δ) of the median will be calculated using a Fit-For-Purpose Relative Standard Deviation (FFP-RSD) approach, as follows:

$$\delta = b_i * \mu_i \quad \text{with } b_i = \text{FFP-RSD} (= 0.25)$$

The percentage FFP-RSD is typically set at 25% based on experience from previous EUPTs. The EUPT-Panel reserves the right to also employ other approaches on a case-by-case basis considering analytical difficulties, and experience gained from previous proficiency tests.

– **z-scores**

This parameter is calculated using the following formula:

$$z_i = (x_i - \mu_i) / \delta_i$$

Where x_i is the value reported by the laboratory, μ_i the assigned value, and δ_i the standard deviation at that level for each pesticide (i).

Any z-scores of > 5 will be reported as "+5" particularly where summed z-scores of many pesticides are calculated (see SWZ below).

z-scores will be interpreted in the following way:

- /z/ ≤ 2 Acceptable
- 2 < /z/ ≤ 3 Questionable
- /z/ > 3 Unacceptable

For results that are considered to be false negatives, z-scores will be calculated using the MRRL or RL (the laboratory's Reporting Limit), if the RL < MRRL.

The EUPT-Panel will consider whether, or not, these values should appear in the z-score histograms.

However, a z-score will not be calculated for any false positive result.

– **Category A and B classification**

The EUPT-Panel will decide whether to classify the laboratories in two groups, A and B. Laboratories that detected a sufficiently high percentage of the pesticides present in the test material (e.g. at least 90%), reported no false positives, and sought all the pesticides on the Target Pesticide List marked with an asterisk that were present in the test material, will have demonstrated 'sufficient scope' and will therefore be classified in Category A.

– **Combined z-scores**

For evaluation of the overall performance of the laboratories within Category A, a ranking according to the sum of weighted z-scores (SWZ) will be calculated.

The sum of weighted z-scores formula uses the z-scores with a fixed maximum value of 5 for individual z-scores, using the following formula:

$$\text{'Sum of weighted z-scores' (Z)} = \frac{\sum_{i=0}^{i \leq 2} |z| \cdot 1 + \sum_{i > 2}^{i \leq 3} |z| \cdot 3 + \sum_{i > 3}^{\infty} |z| \cdot 5}{n}$$

n = number of reported results

So for each laboratory:

- The first summation is the sum of all their /z-scores/ between zero to two, multiplied by 1.

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.



- The second summation is the sum of all their /z-scores/ greater than two but less than or equal to, three, multiplied by 3.
- The third summation is the sum of all their z-scores greater than three, multiplied by 5.

This SWZ has the following classification similar to the z-score:

$Z \leq 2$ Good
 $2 < Z \leq 3$ Satisfactory
 $Z > 3$ Unsatisfactory

The sum of weighted z-scores is considered to be of lesser importance than the individual z-scores. Therefore the organiser, in agreement with the EUPT-Panel, retains the right not to use them if they are considered to be unhelpful.

Publication of results

The preliminary results from the EUPTs will be published within 2 months from the deadline for result submission.

The final report will be published shortly after the organiser and the EUPT-Panel have discussed the results. Taking into account that the EUPT-Panel normally only meets once a year, the final report may be published up to 8 months after the deadline for results submission.

Disclaimer

The EUPT-Panel retains the right to change any parts of this EUPT - General Protocol based on new scientific or technical information. Any changes will be communicated in due course.

EUPT-FV11 SPECIFIC PROTOCOL

For EU Proficiency Test for Pesticide Residues in Fruit and Vegetables

(2009)

Introduction

This protocol is complementary to the General protocol for EU proficiency test for pesticide residues in fruits and vegetables. This Proficiency Test is organised by the CRL for Pesticide Residues in Fruits and Vegetables and covers multi-residue method analysis.

Test material

This proficiency test is based on the pesticide residues analysis of cauliflower. The cauliflowers are grown in Almeria, Spain.

The pesticide treatments will be carried out post-harvest using either commercial formulation in micro-spray solutions or using standard solutions. The test material will be frozen (using liquid nitrogen), chopped, homogenized and sub-sampled into polyethylene bottles that have previously been coded.

Ten of these bottles containing the test material, will be chosen randomly, and analysed to check for homogeneity.

The test material will be stored frozen (-20°C) prior to shipment to participants.

Two bottles, again chosen randomly, will be analysed over a period of time to confirm the stability of the pesticides in the test material (firstly when the test materials are shipped, and then a few days after the deadline for receipt of participants' results). There will be an extra analysis during this period maintaining the sample at room temperature for a few days to see if there is any degradation of any of the pesticides present in the sample.

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.



These results will not be included in the statistical analysis of the proficiency test. The aim is solely to check stability during the shipping process and for the duration of the proficiency test.

After the results have been received from the laboratories, the Organiser will send a vial with the standard solution containing the pesticides that were used to treat the test material to those labs that opted to participate in the ring test.

Steps to follow

This Proficiency Test is made up of the following 7 essential steps:

1. To participate, each laboratory must complete the Application Form on-line, available on the CRL-FV Web page, before the deadline stipulated on the Calendar. It is recommended that laboratories download the Target Pesticide List from this web site. Laboratories should carefully read the Target Pesticide List, where important information about the reporting of the results, as well as the MRRLs, is listed. Labs should take note that the pesticide residue definitions within this exercise do not always follow Regulation 396/2005.
2. Laboratories will then receive an e-mail confirming their participation in this exercise, assigning them a Laboratory Code and sending the Specific Protocol. Laboratories will be able to access the restricted area containing the Forms (shown in the following steps) using their login information - consisting of their laboratory code and their password, as chosen on the application form.
3. The payment procedure must have started before the 31st April. An e-mail showing the bank transfer confirmation, or similar, has to be sent beforehand. Payments without a **laboratory code** or **invoice number** to identify them will not be considered paid.
4. When the participant laboratories receive the test material (and not before), they must enter the restricted area and submit Form 1 on-line to inform the Organiser that they have accepted the test material. They will then receive a confirmation message. This Form has a deadline that must be met. If no test material has been received by the 8th May, please contact the Organiser by e-mail (pmedina@ual.es)
5. The participant laboratories must respect the deadline for submitting the results - using Form 2 on-line.
6. After the deadline for results' submission has passed, those laboratories that requested the standard solution will be sent an aliquot. Results for the standard solution ring test must also be submitted on-line, using Form 3. Participation in the analysis of the standard solution is optional.
7. The Organiser will evaluate the results at the end of the proficiency test, once the deadline for receipt of the results has passed. The Organiser will send a hard copy of the Final Report to each participant laboratory. This report will include information regarding the design of the test, the homogeneity and stability test results, a statistical evaluation of the participant's results as well as graphical displays of the results and conclusions. Any other relevant information considered of value will also be included.

Analytical parameters

The test material contains several pesticides from the Target Pesticide List. Laboratories should carefully read the Target Pesticide List, where important information about the reporting of the results, as well as the Minimum Required Reporting Levels (MRRLs) is given. Where the residue definition includes more than one component, the results for the individual components, as well as the respective sum of components, calculated as stated in the residue definition, are to be reported.

For each pesticide and the relevant compounds included in the residue definitions, MRRL values have been set. The MRRL values will be used to help to identify false negative results and for the calculation of z-scores for false negatives.

Amount of Sample

Participants will receive:

- Approximately 300 g of cauliflower test material with incurred pesticides

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.



- Approximately 300 g of 'blank' cauliflower test material.

Shipment of Samples

All samples will be frozen and packed in polyethylene boxes surrounded with dry ice and packed in boxes. The shipment of the test materials will be carried out over a one-week period on the 4th May 2009. The Organiser will try to ensure that all the packages arrive at once. An information message will be sent out by e-mail before shipment. Laboratories must make their own arrangements for the reception of the package. They must inform the Organiser of any public holidays in their country/city during the delivery period given in the calendar, as well as make the necessary arrangements to receive the shipment even if the laboratory is closed.

Advice on Sample Handling

Once received, the test material should be stored deep frozen (-18°C or less) before analysis to avoid any deterioration/spoilage of the test material. The test material should be mixed thoroughly (after defrosting), before taking the analytical portion(s).

All participants should use their own routine standard operating procedures for extraction, clean-up and analytical measurement and their own reference standards for identification and quantification.

Sample Receipt and Form 1

Once the laboratory has received the test materials it must be reported to the organiser via Form1 in <http://www.eupt.es/crl/> by filling in the date of receipt, the condition of the test material, and its acceptance. The deadline for acceptance, or not, is the 8th May 2009. If the laboratory does not respond before this deadline the organiser will assume that it has received and accepted.

If any laboratory has not received the test material by 8th May, it must inform the Organiser immediately by e-mail (pmedina@uqal.es)

Reporting Results and Analytical Methodology: Form 2

Once the laboratory has analysed the test material and is ready to submit their data, they must enter the result using Form 2 on-line in <http://www.eupt.es/crl/>. Most of the fields are OBLIGATORY and have to be filled in otherwise it will not be possible to submit results. **This year, the analytical methods will be described once, and then they will be referred for each of the pesticides or metabolites found.**

Before entering the results please read carefully the Target Pesticide List, since the residue definitions are not given on Form 2. For pesticides where the residue definition is a sum of a parent pesticide and other components, results for both the sum and the individual components must be reported.

It should not be assumed that only pesticides registered for use on cauliflowers are present.

All results must be reported on Form 2 by 1st June 2009, at the latest. Any results reported after the deadline will not be included in the statistical treatment, or in the final report.

The results (residue levels of the pesticides detected) must be, expressed in mg/kg.

Significant Figures:

Residue levels <0.010 mg/kg;

- to be expressed to two significant figures (e.g. 0.0058 mg/kg)

Residue levels ≥ 0.010 mg/Kg

- to be expressed to three significant figures (e.g. 0.0792, 0.156, 1.64, 10.3 mg/kg)

According to SANCO2007/3131 where - additional significant figures may be recorded for the purpose of statistical analysis -

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.



Results should not be reported where a pesticide was not detected, was detected below the RL (Reporting Limit) of the laboratory, or below the MRRL. In this case, it should be recorded as 'ND'. The reporting limit will be used for information purposes only. If it was not sought, it should be recorded as 'NA'.

The results/residue levels must be reported as numbers.

Analytical Methodology

All laboratories are requested to provide information on the analytical method(s) they have used. The organiser may request the laboratory the publication reference from where the method has been taken or a brief description if internal country reference is given.

Standard Solutions: Form 3

After the results from the test material analyses have been received from the laboratories, the Organiser will send a vial with the standard solution mixture (containing the pesticides used to treat the test material) to those laboratories that opted to participate in the standard solution ring test on the Application Form.

The relevant details of this standard solution are:

- (i) An aliquot of the standard solution (5mL) will be transferred into screw vials and stored at -20°C until shipment. Only two days will elapse between preparation and analysis of the solution and the shipment.

(ii) The solvent used to prepare the solution will be acetonitrile.

- (iii) The concentration range of each compound present will be in the range 20-90 mg/L.

Individual stock solutions in acetonitrile will be prepared by weighing out suitable amounts of each of the reference standards that were freshly procured for this test. Aliquots of these stock solutions of the individual compounds will then be taken and combined to make up a mixed standard stock solution within the range 20-90 mg/L. The results from the standard solution analyses will be statistically assessed by the scientific committee. The Qn RSD and FFP RSD will be calculated. The results will be presented in the Final Report.

CALENDAR

ACTIVITY	DATE
- Publishing the Pesticide List and Calendar on the Web page	December 2008
- Receiving Application Form from invited laboratories.	13 th March 2009
- Sample distribution.	4 th - 5 th May 2009
- Deadline for receiving sample acceptance: Form 1	9 th May 2009
- Deadline for receiving results: Form 2	9 th June 2009
OPTIONAL PARTICIPATION - Standard solution distribution	15 th June 2009
- Deadline for receiving standard solution results: Form 3	6 th July 2009
- Preliminary Report: only results, no statistical treatment.	31 st July 2009
- Final Report to the Laboratories	December 2009

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.



Cost for shipment of the test material

All laboratories will be charged **100€** for cost shipment. For the payment procedures, each laboratory can specify their details and requests for invoice matters when applying for the test.

Contact information

The official organising group details are as follows:

Universidad de Almería. Edificio Químicas CITE I

Ctra. Sacramento s/n

04120 Almería - Spain

Fax No.: +34 950015483

Organising team (e-mail and phone no.):

Amadeo R. Fernández-Alba. CRL-FV amadeo@ual.es +34 950015034

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Quality Control Group

Dr. Antonio Valverde, Professor University of Almería, Spain.

Mr. Arne Andersson, Head of Division NFA, Uppsala, Sweden.

Advisory Group

Dr. Miguel Gamón, senior Chemist Laboratorio Agroalimentario, Valencia, Spain.

Dr. Tuija Pihlström, senior Chemist NFA, Uppsala, Sweden.

Dr. André de Kok, senior Chemist VWA, Amsterdam, The Netherlands.

Mr. Stewart Reynolds, senior Chemist FERA, York, United Kingdom.


Dr. Sonja Masselter, senior Chemist AGES, Innsbruck, Austria

Dr. Michelangelo Anastasiades, senior Chemist CVUA, Stuttgart, Germany.


Dr. Mette Erecius Poulsen, senior Chemist National Food Institute, Copenhagen, Denmark.

Dr. Ralf Lippold, senior Chemist CVUA, Freiburg, Germany.

FORM 1



European Proficiency Test FV-11



Private Area. Form 1

CRL European Proficiency Test in Fruits and Vegetables 11 (EUPF-FV-11)

► Go to HOME | x Logout
03/ 17/ 2009 | User: **Octavio Malato**

Please, fill in this form as soon as you have received the test materials, latest **18th April 2008**.
 If the Form1 is not filled-in, it will be assumed that the test materials have been accepted by the laboratory
Required all Fields

Form 1 (Expired 18th April 2009)

Laboratory Code	Date of receipt	
EUPF-FV-11 <input style="width: 90%;" type="text"/>	Mar ▾ 17 ▾ 2009 ▾	
Test Material Code		
EUPF-FV-11-Blank <input style="width: 90%;" type="text"/>	EUPF-FV-11-Treated <input style="width: 90%;" type="text"/>	
Losses	Frozen	Sign
<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No	I accept the test materials. I do not need more <input checked="" type="checkbox"/>

Successfully saved

FORM 2

European Proficiency Test FV-11

Application Form Form 1 **Form 2** Form 3

Private Area. Form 2

CRL European Proficiency Test in Fruits and Vegetables 11 (EUPF-FV-11)

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? STEP 1: Create/Edit/Delete method
STEP 2: Parameter introduction
STEP 3: Store/Delete method

Please, fill in this form as soon as you have received the test materials, latest 18th April 2008.

Download
Protocol

Laboratory Analytical Methods

🔍 + 🔧 -

+ New Method Required All Fields

Laboratory Code: EUPF-FV-11-xxxxxxxx | Blank: xxxxxxxx | Sample: xxxxxxxx | Date: 17 March 2009

Method Nº	Sample Weight (g)	Extraction solvent/s	Clean Up Steps
1	<input type="text"/>	- select -	- select -

Quantification Using Standards Internal Standard Injection Volume (µl) Injection Type

- select - Yes No - select -

Determination Technique Confirmation Method Recovery (1 or 2)

1 2

Analytical Procedure

Clear Save

European Proficiency Test FV-11

Application Form Form 1 **Form 2** Form 3

Private Area. Form 2

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? STEP 1: Pesticide selection
STEP 2: Introduction method and analysis data
STEP 3: Save and send results

Please, fill in this form as soon as you have received the test materials, latest 18th April 2008.

Download
Protocol

Pesticide Analysis Report

✕ 🔍 📄 ?

Laboratory Code: EUPF-FV-11-xxxxxxxx | Blank: xxxxxxxx | Sample: xxxxxxxx | Date: 17 March 2009 Required All Fields

Pesticide Name	Scope of method	Concentration (mg/Kg)	RL (mg/Kg)	Recovery %	Analytical Method Nº
Oxydemeton-methyl -sum of oxydemeton-methyl and demeton-S/-methylsulfone expressed as oxydemeton-methyl	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1
Parathion-methyl -sum of parathion-methyl and paraoxon-methyl expressed as parathion-methyl	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1
...	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1

Clear Preview Save Send

If you have problems filling the forms please contact with Octavio Malato: omalato@ual.es (+34) 950 015 531
If you have any doubt about the required fields please contact with Paula Medina: pmedina@ual.es (+34) 950 015 645

Final Report- CRL-European Commission Proficiency Test FV-11, 2009

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These are the explanations to fill in the tables.

PARAMETER	EXPLANATION
Pesticide	Pesticide Name
Scope of your Method	NA, ND, D
Residue Level	(mg/kg)
Reference Number	Number assigned by the laboratory
Analytical Procedure Used	Table F1
Sample Weight	(g)
Extraction Solvent/s	Table F2
Clean-up step	Table F3
Quantification Using Standards	S or M S: Standard/calibration in pure solvent M: Standard/calibration in matrix extract
Internal Standard	YES or NO
Injection Volume	(μ L)
Injection Type	1.-None; 2.-Split/Splitless; 3.-Split; 4.-PTV, 5.-On-Column
Determination Technique	GC-ECD,GC-NPD, GC-FPD,GC-Q-MS, GC-QQQ-MS/MS,GC-ITD-MS/MS,GC-TOF/MS, HPLC-FL,HPLC-UV,HPLC-DAD,LC-MS,LC-MS/MS, LC-TOF/MS, ...
Confirmation Method	Give the confirmation technique used if any. e.g. GC-ECD,GC-NPD, GC-FPD,GC-Q-MS, GC-QQQ-MS/MS,GC-ITD-MS/MS,GC-TOF/MS, HPLC-FL,HPLC-UV,HPLC-DAD,LC-MS,LC-MS/MS, LC-TOF/MS
RL	(mg/Kg) RL: Reporting Level must be given for all pesticides. For pesticides with metabolites/degradation products, give it for the full residue definition of the pesticide as well as for individual compounds when required.
Was your result adjusted for recovery?	YES or NO In general, results are not adjusted for recovery, when the mean recovery is in the range 70-110%. If your results have been adjusted for recovery, then please report the Recovery Factor that you used.. Reference: METHOD VALIDATION AND QUALITY CONTROL PROCEDURES FOR PESTICIDE RESIDUES ANALYSIS IN FOOD AND FEED Document No. SANCO/2007/3131
Recovery	%
Recovery	Write "1" if recoveries reported originated from experiments performed at the same time as the test and write "2" if recoveries reported have been originated from validation data

Table F1.- Reference Methods

Number	Reference
1	§ 64 LFGB Nr. L 00.00-34 (DFG-Method) S 19, former § 35 LMBG Nr. L 00.00-34
2	Analytical Methods for Pesticide Residues in Foodstuffs. Ministry of Welfare, health and cultural affairs, Netherlands, Multiresidue Method 1, 3.1.2, 6th Ed, 1996
3	Fillion et al. Journal of AOAC International 78-5-1995
4	Specht W, Pelz S, Gilsbach W. Fresenius J Anal Chem. (1995) 353: 183 - 190
5	Gilvydis Dm Walters SM (1990) JAOA Chem. 73
6	Janson et al. Journal of Chromatography A 1023 (2004,9, 93-104
7	Klein, J., Alder, L. JAOAC 86, 1015 (2003); prEN 15637, ChemElut-method
8	Leothay, S. Et al. JAOAC 88 (2005)
9	LUKE, M.A., FROBERG, J.E., DOOSE, G.M., MASUMOTO, H.T. (1981): J. Assoc. Off. Anal. Chem. 64(5): 1187-1195
10	M. Anastasiades et al JAOAC 86 (2003) original QuEChERS-method
11	prEN 15662, citrate-buffered QuEChERS-method
12	Official Method of Analysis (1990) 15th Ed., 985.22 AOAC Arlington VA
13	Internal Method (specify the reference) OBLIGATORY

Table F2.- Extraction Solvents

Number	Denoted as
1	ethyl acetate
2	acetone followed by cyclohexane and ethyl acetate
3	acetone followed by dichloromethane
4	acetone followed by dichloromethane and petroleum ether
5	acetonitrile
6	methanol
7	dichloromethane
8	other (specify which)

Table F3.- Clean Up Steps

Clean Up Steps	
GPC	Gel permeation chromatography
SPE	Solid phase extraction
DSPE	Dispersive Solid Phase Extraction
LL	Liquid-liquid partition
NO	No clean-up
O	Other

FORM 3

STANDARD SOLUTION EUPF-FV-11



European Proficiency Test FV-11



Private Area. Form 3

CRL European Proficiency Test in Fruits and Vegetables 11 (EUPF-FV-11)

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? STEP 1: Create/Edit/Delete method
STEP 2: Parameter introduction
STEP 3: Store/Delete method

Please, fill in this form as soon as you have received the test materials, latest 18th April 2008.

Download

Protocol 

Standard Solution EUPF-FV-11

+ Create
Required All Fields

Laboratory Code: EUPF-FV-11-xxxxxxxx | Vial Number: Date: 17 March 2009

Select Pesticide

- select -

Concentration (mg/L) **?**

Determination Technique **?**

Confirmation Technique **?**

Solvent Exchange (if any)

Injection Volume (µl)

Injection Type (if applicable)

- select -

Have you used the same Standard solution to quantify EUPF-FV matrix than to quantify this standard solution?

Yes No

Successfully stored

If you have problems filling the forms please contact with Octavio Malato: omalato@ual.es (+34) 950 015 531

If you have any doubt about the required fields please contact with Paula Medina: pmedina@ual.es (+34) 950 015 645

TARGET PESTICIDE LIST FOR THE CRL-EUPF-FV 11

The meaning of the asterisk is that to be in Category A, the laboratory must not report a false positive and analyse 90% of the pesticides present in the sample, but also have to analyse 100% of the marked pesticides

Pesticide	MRRL (mg/Kg)
* Acephate	0.01
* Acetamiprid	0.01
Acrinathrin	0.01
* Aldicarb (sum of aldicarb + aldicarb sulfoxide + aldicarb sulfone expressed as aldicarb)	0.01
Aldicarb	
Aldicarb sulfoxide	
Aldicarb sulfone	
* Azinphos-methyl	0.01
* Azoxystrobin	0.01
* Bifenthrin	0.01
Bromopropylate	0.01
Boscalid	0.01
Bupirimate	0.01
Buprofezin	0.01
Cadusafos	0.01
* Captan	0.01
* Carbaryl	0.01
* Carbendazim (sum of benomyl and carbendazim expressed as carbendazim)	0.01
Carbofuran (sum of carbofuran and 3-hydroxy-carbofuran expressed as carbofuran)	0.01
Carbofuran	
3-hydroxy-carbofuran	
Clofentezine	0.01
Chlorfenvinphos	0.01
* Chlorothalonil	0.01
Chlorpropham (only parent compound)	0.01
* Chlorpyrifos	0.01
* Chlorpyrifos-methyl	0.01
Cyfluthrin (Cyfluthrin incl. other mixtures of constituent isomers (sum of isomers))	0.01
* Cypermethrin	0.01
Cyproconazole	0.01
Cyprodinil	0.01
* Deltamethrin	0.01
Fenhexamid	0.01
* Fenitrothion	0.01
Fenoxycarb	0.01
Fenpropathrin	0.01
Fludioxonil	0.01
* Flufenoxuron	0.01
Flusilazole	0.01
* Folpet	0.01
Hexaconazole	0.01
Hexythiazox	0.01
* Imazalil	0.01
* Imidacloprid	0.01
Indoxacarb (Indoxacarb as sum of the isomers S and R)	0.01
* Iprodione	0.01
Iprovalicarb	0.01
Isofenphos-methyl	0.01
Kresoxim-methyl	0.01
* Lambda-Cyhalothrin	0.01
Linuron	0.01
* Malathion (sum of malathion and malaoxon expressed as malathion)	0.01
Malathion	
Malaoxon	
Mepanipyrim (only parent compound)	0.01
* Metalaxyl and metalaxyl-M	0.01
* Methamidophos	0.01
* Methidathion	0.01
* Methiocarb (sum of methiocarb + methiocarb sulfone + methiocarb sulfoxide expressed as methiocarb)	0.01
Methiocarb	
Methiocarb sulfone	
Methiocarb sulfoxide	
Methomyl and Thiodicarb (sum of methomyl and thiodicarb expressed as methomyl)	0.01
Methomyl	

ANNEX 1. Protocol and Instructions. List of pesticides to be sought.


Pesticide	MRRL (mg/Kg)
	Thiodicarb
* Monocrotophos	0.01
Myclobutanil	0.01
* Oxamyl	0.01
* Oxydemeton-methyl (sum of oxydemeton-methyl and demeton-S-methylsulfone expressed as oxydemeton-methyl)	0.01
	Oxydemeton-methyl Demeton-S-methylsulfone
* Parathion	0.01
* Parathion-methyl (sum of parathion-methyl and paraoxon-methyl expressed as parathion-methyl)	0.01
	Parathion-methyl Paraoxon-methyl
Penconazole	0.01
Pendimethalin	0.01
* Phosalone	0.01
Phosmet (phosmet and phosmet-oxon expr. as phosmet)	0.01
	Phosmet Phosmet-oxon
* Pirimicarb (sum of pirimicarb and desmethyl pirimicarb expr. as pirimicarb)	0.01
	Pirimicarb Desmethyl-pirimicarb
* Pirimiphos-methyl	0.01
* Prochloraz (only parent compound)	0.01
* Procymidone	0.01
Profenofos	0.01
Propargite	0.01
* Propiconazole	0.01
* Pyrimethanil	0.01
Pyriproxyfen	0.01
Quinoxifen	0.01
Spinosad (sum of Spinosyn A and Spinosyn D, expr. as Spinosad)	0.01
Spiroxamine	0.01
* Tebuconazole	0.01
Tebufenozide	0.01
Tebufenpyrad	0.01
Teflubenzuron	0.01
Tetraconazole	0.01
* Thiabendazole	0.01
* Thiacloprid	0.01
* Thiophanate-methyl	0.01
Tolclofos-methyl	0.01
* Tolyfluanid (only parent compound)	0.01
* Triadimefon and Triadimenol (sum of triadimefon and triadimenol)	0.01
	Triadimefon Triadimenol
Triazophos	0.01
Trifloxystrobin	0.01
Trifluralin	0.01
* Vinclozolin (only parent compound)	0.01

ANNEX 2. List of laboratories that agreed to participate in PT11.

COUNTRY	LABORATORY NAME	CITY	REPORTED RESULTS
AUSTRIA	Competence Centre for Residue Analysis, Austrian Agency for Health and Food Safety	Wien	YES
AUSTRIA	AGES Competence Center for Residues of Plant Protection Products, Innsbruck, Austria	Innsbruck	YES
BELGIUM	Fytolab	Zwijnaarde	YES
BELGIUM	Scientific Institute of Public Health	Bruxelles	YES
BELGIUM	LOVAP	Geel	YES
BELGIUM	Eurofins Belgium NV	Oostkamp	YES
BULGARIA	Central Laboratory for Chemical Testing and Control	Sofia	YES
BULGARIA	Laboratory Analysis Directorate - Regional Inspectorate for Public Health Protection and Control - Pleven	Pleven	YES
BULGARIA	Regional Inspectorate for Public Health Protection and Control, Directorate Laboratory Analysis	Sofia	YES
BULGARIA	Regional Inspectorate for Public Health Protection and Control - Veliko Tarnovo	Veliko Tarnovo	YES
BULGARIA	RIOKOZ - Plovdiv	Plovdiv	YES
BULGARIA	RIOKOZ - Varna	Varna	YES
CYPRUS	Pesticide Residues Laboratory of the State General Laboratory	Nicosia	YES
CZECH REPUBLIC	Institute of Chemical Technology, Prague	Prague	YES
CZECH REPUBLIC	Czech Agriculture and Food Inspection Authority	Praha	YES
DENMARK	Danish Vet. and Food Adm. Region East	Denmark	YES
DENMARK	National Food Institute, DTU	Soeborg	YES
EGYPT	Central Lab of Residue Analysis of Pesticides and Heavy Metals in Foods	Giza	YES
ESTONIA	Laboratory for Residues and Contaminants, Agricultural Research Centre	Saku	YES
ESTONIA	Tartu Laboratory of Health Protection Inspectorate	Tartu	YES
FINLAND	Finnish Customs Laboratory	Espoo	YES
FINLAND	MetropoliLab	Helsinki	YES
FRANCE	Laboratoire du SCL de Montpellier	Montpellier	YES
FRANCE	SCL - Laboratoire de d'Ile de France Massy	Massy Cedex	YES
FRANCE	Laboratoire Départemental de la Sarthe	Le Mans	YES
FRANCE	SCL - Rennes	Rennes	YES
FRANCE	SCL - Pessac	Pessac	YES
FRANCE	SCL - Strasbourg	Illkirch	YES
GERMANY	Landesamt für Soziales, Gesundheit und Verbraucherschutz	Saarbrücken	NO
GERMANY	Landesuntersuchungsanstalt für das Gesundheits- und Veterinärwesen (LUA) Sachsen	Dresden	YES
GERMANY	CVUA Stuttgart	Fellbach	YES
GERMANY	Landeslabor Berlin-Brandenburg, FB II-3	Berlin	YES

ANNEX 2. List of laboratories that agreed to participate in PT11.

COUNTRY	LABORATORY NAME	CITY	REPORTED RESULTS
GERMANY	Landesbetrieb Hessisches Landeslabor	Kassel	YES
GERMANY	Landesuntersuchungsamt für Chemie, Hygiene und Veterinärmedizin Bremen	Bremen	YES
GERMANY	Niedersaechsisches Landesamt für Verbraucherschutz und Lebensmittelsicherheit	Oldenburg	YES
GERMANY	LAV Sachsen-Anhalt	Halle/Saale	YES
GERMANY	Thueringer Landesamt fuer Lebensmittelsicherheit und Verbraucherschutz	Bad Langensalza	YES
GERMANY	Insfitut für Hygiene und Umwelt	Hamburg	YES
GERMANY	Federal Office of Consumer Protection and Food Safety (BVL)	Berlin	YES
GERMANY	CVUA-RRW-Standort Essen	Essen	YES
GERMANY	Chemisches Landes- und staatliches Veterniaer Untersuchungsamt Muenster	Muenster	YES
GERMANY	Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit	Erlangen	YES
GERMANY	Chemisches u. Lebensmitteluntersuchungsamt der Stadt Dortmund	Dortmund	YES
GERMANY	Chemisches und Veterinäruntersuchungsamt Ostwestfalen-Lippe - CVUA-OWL	Bielefeld	YES
GERMANY	Landesuntersuchungsamt Rheinland-Pfalz	Speyer	YES
GERMANY	Landeslabor Berlin-Brandenburg Fachbereich II-2	Frankfurt(Oder)	YES
GERMANY	Amt für Umwelt, Verbraucherschutz und Lokale Agenda der Stadt Bonn	Bonn	YES
GERMANY	LUFA-ITL GMBH	Kiel	YES
GERMANY	Landeslabor Schleswig Holstein	Neumünster	YES
GERMANY	Amt für Verbraucherschutz Düsseldorf - Abt. 39/2 Chemische und Lebensmitteluntersuchung		YES
GERMANY	Landesamt für Landwirtschaft, Lebensmittelsicherheit und Fischerei Mecklenburg-Vorpommern	Rostock	NO
GREECE	Benaki Phytopathological Institute	Kifissia	YES
GREECE	Ministry of Rural Development & Food, Regional Centre of Plant Protection & Quality Control of Ioannina Laboratory of pesticide analysis	Ioannina	YES
GREECE	Peripheral Center of Plant Protection and Quality Control of Kavala - Ministry of Rural Development and Food	Kavala	YES
GREECE	Regional Center of Plant Protection and Quality Control. Laboratory of Pesticide Residues	Thessaloniki	YES
GREECE	Regional Center of Plant Protection and Quality Control of Magnesia, Laboratory of Pesticides Residue Analysis	Volos	YES
GREECE	General Chemical State Laboratory, Pesticide Residues Laboratory	Athens	YES
GREECE	Laboratory of Pesticide Residues of Nafplio	Nafplio	YES
GREECE	Pesticide Residue Laboratory of Regional Center of Plant Protection & Quality Control of Piraeus	Athens	YES
GREECE	Regional Centre of Plant Protection & Q. Control of Heraklio - Crete - Greece	Heraklio - Crete	YES

ANNEX 2. List of laboratories that agreed to participate in PT11.

COUNTRY	LABORATORY NAME	CITY	REPORTED RESULTS
HUNGARY	Agricultural Office of B.-A.-Z. County Plant Protection and Soil Conservation Directorate Pesticide Residue Analytical Laboratory	Miskolc	YES
HUNGARY	Agricultural Office of Somogy County; Pesticide Residue Analytical Laboratory	Kaposvár	YES
HUNGARY	Agricultural Office of County Fejer, PPSCD Pesticide Residue Analytical Lab	Velence	YES
HUNGARY	Agricultural Office of Vas County, Plant Protection and Soil Conservation Directorate Pesticide Residue Analytical Laboratory	Tanakajd	YES
HUNGARY	Agricultural Office of County Csongr�d, Directorate of Plant Protection and Soil Conservation, Pesticide Residue Analytical Laboratory	Hodmezovasarhely	YES
HUNGARY	Plant Protection and Soil Conservation Directorate of Jasz-Nagykun-Szolnok County	Szolnok	YES
ICELAND	Matis ohf	Akureyri	YES
IRELAND	Pesticide Control Laboratoy	Celbridge, Co. Kildare	YES
ITALY	APPA Trento	Trento	YES
ITALY	ARPA Piemonte Polo Regionale Alimenti	La Loggia	YES
ITALY	Laboratorio Di Sanita Pubblica	Bergamo	YES
ITALY	ARPA Puglia - Dipartimento di Bari -	Bari	YES
ITALY	Arpa Emilia-Romagna RAR Fitofarmaci (Ex. Eccellenza Fitofarmaci)	Ferrara	YES
ITALY	A.S.L. della Provincia di Varese - U.O. Laboratorio Chimico	Varese	YES
ITALY	ARPAL Laboratorio "Centro Regionale Pesticidi"	La Spezia	YES
ITALY	ARPA - VENETO - DIP.REG.LAB. - S.L.	Verona	YES
ITALY	A.R.P.A.T.-Dipartimento di Arezzo	Arezzo	YES
ITALY	ARPA Friuli Venezia Giulia Dipartimento Di Pordenone	Pordenone	YES
ITALY	arpa valle d'aosta	Saint Christophe	YES
ITALY	Agentur f�r Umwelt - Labor f�r Luft- und L�rmanalysen	Bozen	YES
ITALY	Laboratorio specializzato fitofarmaci- Dipartimento Tecnico di Napoli- ARPACampania	Naples	YES
ITALY	Istituto Superiore di Sanit� - Dip. AMPP - Reparto Antiparassitari	Roma	YES
ITALY	Arpa Sardegna - Dipartimento di Cagliari	Cagliari	YES
ITALY	ARPACAL - Dipartimento Di Reggio Calabria	Reggio Calabria	YES
ITALY	auls n.7 ARPA sicilia dap ragusa	Ragusa	YES
ITALY	ARPAM-DIP Macerata	Macerata	YES
LATVIA	National Diagnostic Centre	Riga	YES
LITHUANIA	National Food and Veterinary Risk Assessment Institute	Vilnius	YES
NORWAY	Bioforsk, Plant Health and Plant Protection, Pesticide Chemistry	Aas	YES
POLAND	Wojew�dzka Stacja Sanitarno-Epidemiologiczna - Dział Laboratoryjny	Lublin	YES
POLAND	Wojew�dzka Stacja Sanitarno-Epidemiologiczna w łodzi	łódź	YES

ANNEX 2. List of laboratories that agreed to participate in PT11.

COUNTRY	LABORATORY NAME	CITY	REPORTED RESULTS
POLAND	Laboratory of Warsaw Voivodeship Sanitary-Epidemiological Station	Warsaw	YES
POLAND	Main Inspectorate of Plant Health and Seed Inspection, Central Laboratory	Torun	YES
POLAND	Department of Pesticide Residue Research, Institute of Plant Protection	Poznan	YES
POLAND	Institute of Plant Protection - National Research Institute Sosnicowice Branch	Sosnicowice	YES
POLAND	Laboratory of Department of Environmental Toxicology, National Institute of Public Health-National Institute of Hygiene	Warsaw	YES
POLAND	Institute of Plant Protection - National Research Institute	Rzeszow	YES
POLAND	Voivodeship Epidemiological and Sanitary Station	Gorzów Wielkopolski	YES
POLAND	Instytut Ochrony Roślin Terenowa Stacja Doświadczalna	Trzebnica	YES
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna Olsztyn	Olsztyn	YES
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna w Bydgoszczy	Bydgoszcz	YES
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna w Kielcach	Kielce	YES
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna we Wrocławiu, Dział Laboratoryjny	Wroclaw	YES
POLAND	Wojewodzka Stacja Sanitarno - Epidemiologiczna Lab. Badania Żywności I Przedmiotów Użytku	Poznan	YES
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna w Opolu	Opole	YES
POLAND	Food Safety Laboratory, Research Institute of Pomology & Floriculture	Skiermiewice	YES
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna (WSSE) Katowice Pracownia Chromatografii Cieczowej	Katowice	YES
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna, Pracownia Chromatografii Gazowej	Katowice	YES
POLAND	Wojewódzka Stacja Sanitarno - Epidemiologiczna W Gdańsku Laboratorium Badania Żywności I Żywienia	Gdańsk	YES
POLAND	Powiatowa Stacja Sanitarno-Epidemiologiczna w Częstochowie	Częstochowa	YES
POLAND	WSSE w Białymstoku	Białystok	YES
POLAND	Laboratorium Badania Pozostalosci Srodkow Ochrony Roslin w Białymstoku	Bialystok	YES
POLAND	Poland: Voievodship Sanitary- Epidemiological Station in Szczecin, Laboratory of the Hygiene of Food, Nutrition and Articles of Common Use (WSSE Szczecin)	Szczecin	YES
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna w Rzeszowie	Rzeszow	YES
PORTUGAL	Laboratório de Qualidade Alimentar da DRAPN	Senhora Da Hora	YES
PORTUGAL	L-INIA - Laboratório de Resíduos de Pesticidas	Oeiras	YES
PORTUGAL	Laboratório Regional de Veterinária e Segurança Alimentar - Divisão de Análise de Resíduos	Funchal, Madeira Island	YES
ROMANIA	Central Laboratory for Pesticides Residues Control in Plants and Vegetables - LCCRPPPV	Bucharest	YES
ROMANIA	Sanitary Veterinary and Food Safety Directorate	Bucharest	YES

ANNEX 2. List of laboratories that agreed to participate in PT11.

COUNTRY	LABORATORY NAME	CITY	REPORTED RESULTS
SLOVAKIA	State Veterinary and Food Institute Bratislava	Bratislava	YES
SLOVAKIA	National reference centre for pesticide residues, Public health authority of the Slovak republic	Bratislava	YES
SLOVENIA	Institute of Public Health of Maribor	Maribor	YES
SLOVENIA	Institute of Public Health of Republic of Slovenia	Ljubljana	YES
SLOVENIA	Agricultural Institute of Slovenia	Ljubljana	YES
SLOVENIA	Institute of Public Health of Kranj	Kranj	NO
SPAIN	Laboratorio Provincial de Salud Pública de Almería	Almería	YES
SPAIN	Arbitral Agroalimentario	Madrid	YES
SPAIN	Laboratorio Agroalimentario de la Generalitat Valenciana	Burjassot, Valencia	YES
SPAIN	Laboratorio Regional CCAA La Rioja	Logroño	YES
SPAIN	Laboratorio de Produccion y Sanidad Vegetal de Almería	La Mojonera	YES
SPAIN	Laboratorio Agrario Regional. Junta de Castilla y León	Burgos	YES
SPAIN	Laboratorio Agroalimentario y de Sanidad Animal	El Palmar, Murcia	YES
SPAIN	Laboratori Agroalimentari -DAR	Cabrils, Barcelona	YES
SPAIN	Laboratorio de Producción y Sanidad Vegetal de Huelva	Cartaya, Huelva	YES
SPAIN	INGACAL (Laboratorio Agrario y Fitopatológico de Galicia)	San Tirso de Mabegondo	YES
SPAIN	Laboratorio Produccion y Sanidad Vegetal de Jaén	Jaén	YES
SPAIN	Centro Nacional Alimentacion, AESAN	Majadahonda-Madrid	YES
SPAIN	Laboratorio Agroalimentario. Gobierno de Aragón	Zaragoza	YES
SPAIN	Instituto Tecnológico de Canarias	Santa Lucia de Tirajana	YES
SWEDEN	Eurofins Food - Agro Sweden AB	Lidköping	YES
SWEDEN	National Food Administration - Chemistry Division 1	Uppsala	YES
SWITZERLAND	Kantonales Labor Zurich	Zurich	YES
SWITZERLAND	Service de la Consommation et des Affaires Vétérinaires (SCAV)	Genève	YES
THE NETHERLANDS	VWA - Food and Consumer Product Safety Authority	Amsterdam	YES
TURKEY	The Ministry of Agriculture and Rural Affairs Directorate of Adana Provincial Control Laboratory	Adana	YES
TURKEY	MSM Food Control Laboratories Inc.	Mersin	YES
UNITED KINGDOM	Laboratory of the Government Chemist	Teddington	YES
UNITED KINGDOM	SASA	Edinburgh	YES
UNITED KINGDOM	Eurofins Laboratories Ltd.	Wolverhampton	YES
UNITED KINGDOM	The Food and Environment Research Agency	York	YES
URUGUAY	Pharmacognosy & Natural Products Department	Montevideo	YES

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Introduction

Proficiency Tests can play a very important role in detecting both performance problems and errors in routine analytical procedures. Therefore, their role in analytical quality control is of paramount importance. A comprehensive evaluation of an unsatisfactory result obtained in a Proficiency Test can lead to the detection of an inappropriate analytical standard solution, problems in the extraction procedure, etc. However, the reasons for inaccurate results cannot always be easily identified due to the many possible sources of error and their relative contributions. For this reason, the committee decided to once more organise a separate Ring Test using standard solutions. The objective of this Ring Test was to find out the between laboratory variability associated with their analytical standard solutions and to establish the contribution to the overall variability in EUPT-FV-11.

An additional benefit is to help laboratories to detect any possible inaccuracies with their standards and/or related working solutions.

A vial containing a solution of the pesticides present in the previously dispatched treated cauliflower test material was sent to the laboratories that participated in EUPT-FV-11, and had also agreed to voluntarily take part in this Ring Test. The intention being that laboratories should determine the concentrations of the compounds in the standard solution using their own standard solutions as were used by them in EUPT-FV-11.

Laboratories that agreed to participate in this Ring Test received the standard solutions soon after the deadline for submission of results for EUPT-FV-11 had passed.

The relevant details that were provided to the participants were:

- (i) the volume of standard solution supplied (5mL)
- (ii) the solvent used to prepare the solution (acetonitrile)
- (iii) the concentration range of each compound present (20-90 mg/L).

Laboratories were asked to use the same determination techniques as they used in EUPT-FV-11

The timetable for the Ring Test was as follows:

- | | |
|---|-----------------------------|
| • Deadline for submission of the application form accepting their participation | 13 th March 2009 |
| • Distribution of standard solutions by courier | 15 th June 2009 |
| • Deadline for submission of results on-line (Form 3) | 6 th July 2009 |

Standard Solution Preparation

Individual stock solutions in acetonitrile were prepared by weighing out suitable amounts of each of the reference standards. Aliquots of these stock solutions of the individual compounds were then taken to make up a mixed standard stock solution. This procedure was performed by three analysts, independently. From each mixed solution dilutions were prepared at concentrations within the working range of the appropriate detection system in order to measure the relative responses. The RSD of the average response from the three independent solutions had to be <10% for the standard solutions to be approved. All three mixed stock standard solutions were then mixed.

5 mL aliquots of the mixed standard solution (20-90 mg/L) were transferred into screw cap vials and stored at -20°C until shipment. Only two days had elapsed between the preparation and analysis of the solutions, and their shipment.

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Results and Discussion

The main reason for sending the standard solutions to the EUPT FV-11 participants was to compare the results from the standard solutions with the results from the cauliflower matrix.

Table 1 shows the medians, the results given by the laboratories and the z-scores achieved by the laboratories for each compound.

The median values for all compounds were the same (<10% difference) as the theoretical concentration, except for isofenphos-methyl which was higher.

For most compounds, the same percentage of laboratories reported results for the standard solutions as were reported for the cauliflower test material.

Six laboratories reported false positive result, i.e. a pesticide that was not present in the standard solution:

Laboratory Code	Pesticide	Concentration (mg/kg)	Determination Technique	Solvent Exchange (if any)
Lab5	* Acephate	0.01	GC-ECD	No
Lab66	* Acephate	40.4	GC-QQQ-MS/MS	Matrix
Lab46	* Carbaryl	1.05	GC-Q-MS	no
Lab27	* Carbendazim	0.365	LC-MS/MS	No
Lab4	* Chlorpyrifos	22.6	GC-Q-MS	Cyclohexane
Lab114	Tolclofos-methyl	41.1	GC-ECD	Toluene/ acetone

z-Score calculations were done only for metabolites or individual contribution.

The determination techniques used are presented in Table 2 and the participants list in Table 3. The same laboratory codes as for the cauliflower test material, have been used for this standard solution ring test.

Conclusions

Following on from last year's experience, a ring test for standard solutions was once again organised following the FV-11 Proficiency Test.

One hundred and twenty-two laboratories volunteered to participate from the one hundred and fifty-one that participated in the cauliflower matrix sample. Out of these, ninety-seven reported results.

The aim was to establish those errors actually associated with the analytical standard solutions used, and to estimate the contribution that these errors made to the overall results of the laboratories participating in EUPT FV-11.

No clear correlation was observed between the errors occurring in the standard solution ring test, and the errors in the actual cauliflower test material. For this reason, the Organiser declines to perform this ring test again next year.

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Table 1: Median, individual results (mg/L) and z-scores.

Lab Code	Aldicarb	z-Score (FFP RSD 25%)	Aldicarb sulfoxide	z-Score (FFP RSD 25%)	*Azinphos-methyl	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		Median (mg/L)	
Lab001	No Participation							
Lab002	21.5	0.2	22.3	0.3	40.1	0.2	55.6	-0.2
Lab003	20.9	0.0	23.6	0.6	42	0.4	63	0.3
Lab004	29	1.6	21	0.1	37.6	0.0		
Lab005								
Lab006	22.5	0.3	29.8	1.8	48.7	1.1	86.5	1.9
Lab007	18.6	-0.4	18.3	-0.5	37.9	0.0	55.5	-0.2
Lab008	No results reported							
Lab009	20.7	0.0	20.2	-0.1			42	-1.1
Lab010								
Lab011	22.7	0.4	29.2	1.6	40.6	0.3	67.8	0.6
Lab012	16.5	-0.8	16.5	-0.8				
Lab013					44.3	0.7	55.6	-0.2
Lab014					51.6	1.4		
Lab015	20.8	0.0	21.6	0.2	38.2	0.0	56.6	-0.1
Lab016	28.5	1.5	22.8	0.4	25.7	-1.3		
Lab017	28.9	1.6	23.6	0.6	30.3	-0.8	85.9	1.8
Lab018	No results reported							
Lab019	22.1	0.3	19.9	-0.1	31	-0.7	54.8	-0.3
Lab020	17.4	-0.6	18.6	-0.4	37.8	0.0	68.3	0.6
Lab021	No Participation							
Lab022								
Lab023	23.8	0.6	18.3	-0.5	41.2	0.3	66.3	0.5
Lab024	20	-0.1	20	-0.1	40	0.2	58.7	0.0
Lab025					44	0.6	74	1.0
Lab026	No Participation							
Lab027			1.83	-3.6	4.67	-3.5	7.3	-3.5
Lab028	No results reported							
Lab029	20.9	0.0	23.2	0.5	32.6	-0.6	50.5	-0.6
Lab030	20.5	0.0	17.3	-0.6	42.4	0.5	57.7	-0.1
Lab031	No results reported							
Lab032	20	-0.1	16.8	-0.7	34.7	-0.3	54.1	-0.3
Lab033					42.5	0.5	70.5	0.8
Lab034	18.3	-0.5			37.8	0.0	58.9	0.0
Lab035	21.5	0.2	20.7	0.0	44.1	0.7	64.1	0.4
Lab036	21	0.1	21	0.1	39	0.1	53	-0.4
Lab037	No results reported							
Lab038	No Participation							
Lab039	23	0.4	15	-1.1	37	-0.1	59	0.0
Lab040	19.7	-0.2	19.2	-0.3	11	-2.8	68	0.6
Lab041	No Participation							
Lab042	20.5	0.0	20.6	0.0	34.4	-0.4	58.3	0.0
Lab043	No results reported							
Lab044	17.9	-0.5	14.7	-1.2	42.4	0.5	63.9	0.3
Lab045	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	Aldicarb	z-Score (FFP RSD 25%)	Aldicarb sulfoxide	z-Score (FFP RSD 25%)	*Azinphos-methyl	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	20.7		20.7		37.9		58.8	
Lab046	NA		NA		0.05		NA	
Lab047	22.4	0.3	23	0.5	37.3	-0.1	65.9	0.5
Lab048	No Participation							
Lab049	No Participation							
Lab050	24	0.6	23.7	0.6	8.6	-3.1	86	1.9
Lab051	17	-0.7	20	-0.1	51	1.4	60	0.1
Lab052	21.9	0.2	20.4	0.0	26.4	-1.2	40.4	-1.3
Lab053								
Lab054	27.3	1.3	16.2	-0.9	35.3	-0.3	61.9	0.2
Lab055	No results reported							
Lab056	No results reported							
Lab057	18.8	-0.4	23.2	0.5	39.5	0.2	53.4	-0.4
Lab058	No Participation							
Lab059	22.5	0.3	23.9	0.6	32.1	-0.6	55.8	-0.2
Lab060	18.8	-0.4	20.8	0.0	92.2	5.0	51.8	-0.5
Lab061	No results reported							
Lab062	20	-0.1	20.5	0.0	37.9	0.0	56	-0.2
Lab063	16.6	-0.8	17.4	-0.6	41.2	0.3	56.2	-0.2
Lab064	18.5	-0.4	73.4	10.2	20.6	-1.8	52.7	-0.4
Lab065					27.6	-1.1		
Lab066	15.8	-0.9	21.2	0.1	39.6	0.2	46.3	-0.9
Lab067	No Participation							
Lab068								
Lab069	22.5	0.3	21.1	0.1	51.1	1.4	60.6	0.1
Lab070	No Participation							
Lab071	19.4	-0.3	36	3.0	37.4	-0.1	53.2	-0.4
Lab072					39	0.1	52.6	-0.4
Lab073	No results reported							
Lab074							53	-0.4
Lab075	No Participation							
Lab076	61.7	5.0	31.2	2.0	48.5	1.1	69.8	0.7
Lab077					40.3	0.3	63.7	0.3
Lab078	20.2	-0.1	5.95	-2.8				
Lab079	20.7	0.0	20.2	-0.1	39.3	0.1	58.7	0.0
Lab080	No Participation							
Lab081	No results reported							
Lab082	20.4	-0.1	20	-0.1	36.3	-0.2	62.5	0.3
Lab083	No Participation							
Lab084								
Lab085	20.7	0.0	27.1	1.2				
Lab086							62.4	0.2
Lab087	No Participation							
Lab088					31.4	-0.7		
Lab089	17.8	-0.6	21.7	0.2	36.6	-0.1	46.8	-0.8
Lab090	19.1	-0.3	18.8	-0.4	37.9	0.0	55.2	-0.2
Lab091	25.2	0.9	21.1	0.1	37.6	0.0	63.7	0.3
Lab092	No results reported							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	Aldicarb	z-Score (FFP RSD 25%)	Aldicarb sulfoxide	z-Score (FFP RSD 25%)	*Azinphos-methyl	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	20.7		20.7		37.9		58.8	
Lab093	19.1	-0.3	21.6	0.2	46.1	0.9	59	0.0
Lab094					20.8	-1.8	51.4	-0.5
Lab095	No results reported							
Lab096	22.4	0.3	55.2	6.7	36.4	-0.2	55.2	-0.2
Lab097	No results reported							
Lab098					56.5	2.0	61.9	0.2
Lab099								
Lab100	No results reported							
Lab101					43	0.5		
Lab102							61	0.1
Lab103	No Participation							
Lab104	16	-0.9			26	-1.3		
Lab105	No results reported							
Lab106	24.8	0.8			34.8	-0.3	68.6	0.7
Lab107	20.3	-0.1	19.9	-0.1	19	-2.0		
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111								
Lab112								
Lab113	No results reported							
Lab114					40.1	0.2		
Lab115	No Participation							
Lab116	No results reported							
Lab117	No Participation							
Lab118					91.5	5.7		
Lab119	19.5	-0.2	19.4	-0.2	53.7	1.7	64.2	0.4
Lab120	20	-0.1	20.5	0.0	43.7	0.6	66.1	0.5
Lab121	22.4	0.3	16	-0.9	42.5	0.5	47.4	-0.8
Lab122	No results reported							
Lab123							57.6	-0.1
Lab124	21.2	0.1	22.6	0.4	50.8	1.4	60.4	0.1
Lab125	24.8	0.8	19.7	-0.2	36.9	-0.1	74.1	1.0
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129								
Lab130					41.1	0.3		
Lab131	No Participation							
Lab132					42.2	0.5		
Lab133					37.8	0.0	52.3	-0.4
Lab134	No Participation							
Lab135	20	-0.1	20	-0.1	35.9	-0.2	80.7	1.5
Lab136	21.6	0.2	21	0.1	43.9	0.6	67.7	0.6
Lab137	22.7	0.4	21.6	0.2	25.3	-1.3		
Lab138					7.19	-3.2		
Lab139	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	Aldicarb	z-Score (FFP RSD 25%)	Aldicarb sulfoxide	z-Score (FFP RSD 25%)	* Azinphos-methyl	z-Score (FFP RSD 25%)	Boscalid	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	20.7		20.7		37.9		58.8	
Lab140	No Participation							
Lab141							53	-0.4
Lab142					37	-0.1		
Lab143	No Participation							
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	16	-0.9	20.7	0.0			104	3.1
Lab149	No Participation							
Lab150	NA		NA		22	-1.7	25	-2.3
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	Bupropfezin		Cadusafos		Carbofuran		3-hydroxy-carbofuran	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	19.9		41.8		38.6		12.6	
Lab001	No Participation							
Lab002	24.6	1.0	46.1	0.4	40.8	0.2	15	0.8
Lab003	20.1	0.0	46	0.4	44.2	0.6	14	0.4
Lab004								
Lab005								
Lab006	12.8	-1.4	62.8	2.0	52.8	1.5	12	-0.2
Lab007	19.6	-0.1	43.3	0.1	36.8	-0.2	11.3	-0.4
Lab008	No results reported							
Lab009	15.7	-0.8	43.5	0.2	44.2	0.6	12.7	0.0
Lab010								
Lab011	23.1	0.7	43.4	0.2	11.3	-2.8	18.5	1.9
Lab012					31.7	-0.7	9.38	-1.0
Lab013	20.4	0.1	31.2	-1.0				
Lab014					56.9	1.9		
Lab015	21.2	0.3	45.6	0.4	40.7	0.2	11.9	-0.2
Lab016	24.9	1.0			38.3	0.0		
Lab017	16.9	-0.6	42.3	0.0	44.7	0.6	13.9	0.4
Lab018	No results reported							
Lab019	18.5	-0.3	37.9	-0.4	18.5	-2.1	13.7	0.3
Lab020	16.7	-0.6			38.6	0.0	12.3	-0.1
Lab021	No Participation							
Lab022								
Lab023	24.7	1.0	44.5	0.3	45.3	0.7	13.2	0.2
Lab024	20	0.0			41	0.2		
Lab025	19	-0.2	35	-0.7	34	-0.5		
Lab026	No Participation							
Lab027	9.13	-2.2	14.5	-2.6	9.15	-3.1		
Lab028	No results reported							
Lab029	20.9	0.2	46.8	0.5	37.8	-0.1	10.1	-0.8
Lab030	34.2	2.9			44.2	0.6	14.3	0.5
Lab031	No results reported							
Lab032	14.5	-1.1	23.1	-1.8	34.9	-0.4	10.1	-0.8
Lab033	19.8	0.0	53	1.1	26.2	-1.3	10.3	-0.7
Lab034	18	-0.4			25.1	-1.4		
Lab035	21.4	0.3	43.1	0.1	41.2	0.3	10.9	-0.5
Lab036	19	-0.2			40	0.1	12	-0.2
Lab037	No results reported							
Lab038	No Participation							
Lab039	23	0.6	47	0.5	55	1.7	15	0.8
Lab040	19	-0.2			33	-0.6	10	-0.8
Lab041	No Participation							
Lab042	21.7	0.4	43.2	0.1	43.4	0.5	11.6	-0.3
Lab043	No results reported							
Lab044	18.5	-0.3	44	0.2	43.7	0.5		
Lab045	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	Bupropfezin		Cadusafos		Carbofuran		3-hydroxy-carbofuran	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	19.9		41.8		38.6		12.6	
Lab046	NA		NA		34.3	-0.4	NA	
Lab047	20.3	0.1	44.5	0.3	41.2	0.3	11.7	-0.3
Lab048	No Participation							
Lab049	No Participation							
Lab050	24.5	0.9	37.9	-0.4	45.7	0.7	< RL	
Lab051	23.2	0.7	45.7	0.4	33	-0.6	11.5	-0.3
Lab052	19.6	-0.1	42.2	0.0	38.3	0.0	14.6	0.6
Lab053								
Lab054	24.4	0.9	33.6	-0.8	30.6	-0.8		
Lab055	No results reported							
Lab056	No results reported							
Lab057	20.2	0.1	39.1	-0.3	49.3	1.1	13.9	0.4
Lab058	No Participation							
Lab059	21.7	0.4	42.5	0.1	39	0.0	12.9	0.1
Lab060	17	-0.6			35.5	-0.3	14.5	0.6
Lab061	No results reported							
Lab062	22.1	0.4	49.1	0.7	36.6	-0.2	12.6	0.0
Lab063	17.2	-0.5	39.4	-0.2	25	-1.4	12.8	0.1
Lab064	21.7	0.4			32.5	-0.6		
Lab065	19.3	-0.1						
Lab066	17.5	-0.5	30.2	-1.1	28.5	-1.0	6.2	-2.0
Lab067	No Participation							
Lab068	25.8	1.2	20.9	-2.0				
Lab069	27.8	1.6	39.5	-0.2	51.4	1.3	13.4	0.3
Lab070	No Participation							
Lab071	21.6	0.3	39.4	-0.2	36.1	-0.3	12.4	-0.1
Lab072	18.5	-0.3	45.7	0.4	44.2	0.6		
Lab073	No results reported							
Lab074	27	1.4			58	2.0		
Lab075	No Participation							
Lab076	21.3	0.3	41.4	0.0	51.5	1.3	18.7	1.9
Lab077	19.2	-0.1			44.7	0.6		
Lab078	25.2	1.1	55.7	1.3				
Lab079	21.7	0.4	45.1	0.3	40.3	0.2	11.5	-0.3
Lab080	No results reported							
Lab081	No Participation							
Lab082	24.4	0.9	40.5	-0.1	37.1	-0.2	11	-0.5
Lab083	No Participation							
Lab084								
Lab085					40.1	0.2	14.3	0.5
Lab086	19	-0.2						
Lab087	No Participation							
Lab088								
Lab089	16.9	-0.6	23.3	-1.8	34	-0.5		
Lab090	19.4	-0.1	37.7	-0.4	35.1	-0.4	4.12	-2.7
Lab091	19.4	-0.1	54.4	1.2	41.4	0.3	11.8	-0.3

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	Bupropfezin		Cadusafos		Carbofuran		3-hydroxy-carbofuran	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	19.9		41.8		38.6		12.6	
Lab092	No results reported							
Lab093	19	-0.2	41.2	-0.1	38.6	0.0	11.2	-0.4
Lab094	20.4	0.1	44.2	0.2	35.6	-0.3		
Lab095	No results reported							
Lab096	21.6	0.3	37.1	-0.4	56.2	1.8	14.7	0.7
Lab097	No results reported							
Lab098	27.5	1.5			62	2.4		
Lab099								
Lab100	No results reported							
Lab101	20	0.0						
Lab102	28	1.6			58	2.0		
Lab103	No Participation							
Lab104	25	1.0						
Lab105	No results reported							
Lab106	20	0.0	42.7	0.1	45.1	0.7	20	2.3
Lab107	13.2	-1.3			40.6	0.2	12.8	0.1
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111	0.62	-3.9						
Lab112	66.7	9.4						
Lab113	No results reported							
Lab114								
Lab115	No Participation							
Lab116	No results reported							
Lab117	No Participation							
Lab118								
Lab119	17	-0.6	41.1	-0.1	38.5	0.0	10.8	-0.6
Lab120	21	0.2	40.5	-0.1	37.5	-0.1	10.5	-0.7
Lab121	13.7	-1.2	39	-0.3	30.7	-0.8	13	0.1
Lab122	No results reported							
Lab123								
Lab124	18.3	-0.3			44.4	0.6	12.7	0.0
Lab125	17.9	-0.4			39	0.0		
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129								
Lab130								
Lab131	No Participation							
Lab132								
Lab133	23.3	0.7	33.4	-0.8				
Lab134	No Participation							
Lab135	17.8	-0.4	34.4	-0.7	35.6	-0.3		
Lab136	19.5	-0.1	36.5	-0.5	35.3	-0.3	12.2	-0.1
Lab137	18	-0.4			29.6	-0.9	12.8	0.1

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	Buprofezin		Cadusafos		Carbofuran		3-hydroxy-carbofuran	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	19.9		41.8		38.6		12.6	
Lab138	14.1	-1.2			21.3	-1.8		
Lab139	No Participation							
Lab140	No Participation							
Lab141	19.7	0.0	40.6	-0.1				
Lab142								
Lab143	No Participation							
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	10.6	-1.9			43.9	0.5	12.8	0.1
Lab149	No Participation							
Lab150	13.3	-1.3	NA		10.8	-2.9		
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Deltamethrin		*Diazinon		Isotenphos-methyl		*Lambda-cyhalothrin	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	57.7		60.5		67.1		22.6	
Lab001	No Participation							
Lab002	61.9	0.3	96	2.3	75.8	0.5	20.7	-0.3
Lab003	63.8	0.4	60.3	0.0	66.6	0.0	23	0.1
Lab004	54.5	-0.2	64.6	0.3			63.5	7.2
Lab005								
Lab006	49	-0.6	53.5	-0.5	56.3	-0.6	18.2	-0.8
Lab007	46.9	-0.7	79.1	1.2	83	0.9	25.3	0.5
Lab008	No results reported							
Lab009	42.4	-1.1	74.4	0.9	78.3	0.7	13	-1.7
Lab010	65.1	0.5	67.7	0.5	69.6	0.1	25.3	0.5
Lab011	32.5	-1.7	55	-0.4	74.3	0.4	25.5	0.5
Lab012			39.2	-1.4				
Lab013	53.4	-0.3	67.4	0.5			24	0.2
Lab014	78.9	1.5	63	0.2			24.5	0.3
Lab015	42.5	-1.1	66.1	0.4	74.1	0.4	20.7	-0.3
Lab016	53.7	-0.3	61.1	0.0	64.9	-0.1	21.5	-0.2
Lab017	16	-2.9	49.7	-0.7	64.1	-0.2	11.4	-2.0
Lab018	No results reported							
Lab019	36.4	-1.5	56.7	-0.3	64.9	-0.1	13.6	-1.6
Lab020	43.9	-1.0	54.9	-0.4	54.2	-0.8	16.4	-1.1
Lab021	No Participation							
Lab022	57.7	0.0	52.1	-0.6			17.9	-0.8
Lab023	63	0.4	66.1	0.4	71.3	0.3	23.4	0.1
Lab024	65.3	0.5	62.2	0.1	50	-1.0	24.2	0.3
Lab025	61	0.2	59	-0.1	71	0.2	31	1.5
Lab026	No Participation							
Lab027	0.22	-4.0	41.4	-1.3			0.18	-4.0
Lab028	No results reported							
Lab029	57.8	0.0	56.8	-0.2	61.8	-0.3	21.9	-0.1
Lab030	54	-0.3	74.3	0.9	58.4	-0.5	25.6	0.5
Lab031	No results reported							
Lab032	56	-0.1	49.8	-0.7	88.8	1.3	18.6	-0.7
Lab033	67.5	0.7	81.5	1.4	74.5	0.4		
Lab034			64.8	0.3	68.6	0.1		
Lab035	60.1	0.2	65.8	0.4	73.9	0.4	20.8	-0.3
Lab036	62	0.3	62	0.1	71	0.2	22	-0.1
Lab037	No results reported							
Lab038	No Participation							
Lab039	67	0.6	67	0.4	76	0.5	20	-0.5
Lab040	42	-1.1	63	0.2	72	0.3	22	-0.1
Lab041	No Participation							
Lab042	58.1	0.0	66.1	0.4	64.5	-0.2	26.3	0.7
Lab043	No results reported							
Lab044	61.9	0.3	56.3	-0.3	68.6	0.1	25.5	0.5
Lab045	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Deltamethrin		*Diazinon		Isofenphos-methyl		*Lambda-cyhalothrin	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	57.7		60.5		67.1		22.6	
Lab046	18.9	-2.7	52.4	-0.5	NA		NA	
Lab047	65.7	0.6	59.8	0.0	74.1	0.4	21.7	-0.2
Lab048	No Participation							
Lab049	No Participation							
Lab050	30.8	-1.9	67.8	0.5	ND		12.5	-1.8
Lab051	61	0.2	59.3	-0.1	57.5	-0.6	22	-0.1
Lab052	43.8	-1.0	45.7	-1.0	42	-1.5	36.4	2.4
Lab053	19.2	-2.7	116	3.6			76.8	9.6
Lab054	45	-0.9	56.9	-0.2	148	4.8	26	0.6
Lab055	No results reported							
Lab056	No results reported							
Lab057	47.8	-0.7	60.1	0.0	62.7	-0.3	23.8	0.2
Lab058	No Participation							
Lab059	74.5	1.2	60.5	0.0	67.5	0.0	25.5	0.5
Lab060	52.7	-0.3	32.2	-1.9	65.2	-0.1	31.9	1.6
Lab061	No results reported							
Lab062	49.5	-0.6	64.8	0.3	58.7	-0.5	23.6	0.2
Lab063	55.7	-0.1	66.3	0.4	67.1	0.0	19.3	-0.6
Lab064	61.8	0.3	52.7	-0.5			14.4	-1.5
Lab065	56	-0.1	65.5	0.3			19.5	-0.5
Lab066	68.9	0.8	63	0.2	64.6	-0.1		
Lab067	No Participation							
Lab068			50.2	-0.7	65.6	-0.1		
Lab069	57.6	0.0	75.9	1.0	74.6	0.4	25.8	0.6
Lab070	No Participation							
Lab071	59	0.1	73.4	0.9	68.8	0.1	24.6	0.4
Lab072	62.9	0.4	58.9	-0.1	71.8	0.3	18.9	-0.7
Lab073	No results reported							
Lab074	58	0.0	60	0.0			27	0.8
Lab075	No Participation							
Lab076	57.9	0.0	71.9	0.8	80.6	0.8	26.3	0.7
Lab077	55.5	-0.2	73.3	0.8			18	-0.8
Lab078	65.6	0.5	70.2	0.6			25.4	0.5
Lab079	52.1	-0.4	67.3	0.4	74.9	0.5	29.6	1.2
Lab080	No results reported							
Lab081	No Participation							
Lab082	74.5	1.2	56.4	-0.3	73.5	0.4	19.9	-0.5
Lab083	No Participation							
Lab084	60	0.2						
Lab085								
Lab086			63.2	0.2			21.2	-0.2
Lab087	No Participation							
Lab088	61.2	0.2	60.5	0.0			22.4	0.0
Lab089	48.1	-0.7	49.2	-0.7	64.8	-0.1	16.9	-1.0
Lab090	68.1	0.7	64	0.2			23.1	0.1
Lab091	59.9	0.2	69.3	0.6	77.2	0.6	29.6	1.2

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Deltamethrin		*Diazinon		Isofenphos-methyl		*Lambda-cyhalothrin	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	57.7		60.5		67.1		22.6	
Lab092	No results reported							
Lab093	60	0.2	61.2	0.0	63.5	-0.2	22.4	0.0
Lab094	49.4	-0.6	83.9	1.5	87	1.2	20.7	-0.3
Lab095	No results reported							
Lab096	84.5	1.9	63.7	0.2	60	-0.4	31.6	1.6
Lab097	No results reported							
Lab098	65.7	0.6	56.8	-0.2			33.5	1.9
Lab099							27.2	0.8
Lab100	No results reported							
Lab101	58.6	0.1	69.4	0.6			30.3	1.4
Lab102	64	0.4	59	-0.1			32	1.7
Lab103	No Participation							
Lab104	53	-0.3	67	0.4	62	-0.3	24	0.2
Lab105	No results reported							
Lab106	77.6	1.4	70.6	0.7	63.8	-0.2	27.3	0.8
Lab107	50.1	-0.5	41	-1.3	46	-1.3	13.9	-1.5
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111	0.04	-4.0	0.42	-4.0			0.2	-4.0
Lab112			63.2	0.2			24.7	0.4
Lab113	No results reported							
Lab114	53.6	-0.3	41.6	-1.2			22.5	0.0
Lab115	No Participation							
Lab116	No results reported							
Lab117	No Participation							
Lab118	80.8	1.6	65.1	0.3			25.7	0.5
Lab119	48	-0.7	54.1	-0.4	67.7	0.0	20.2	-0.4
Lab120	63.3	0.4	55.2	-0.4	60.3	-0.4	22.3	-0.1
Lab121	39.1	-1.3	49.2	-0.7	65.2	-0.1	13.1	-1.7
Lab122	No results reported							
Lab123	66	0.6	65	0.3			22.3	-0.1
Lab124	41.3	-1.1	31.9	-1.9			15.2	-1.3
Lab125	60.8	0.2	59.6	-0.1	59.7	-0.4	21.2	-0.2
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129								
Lab130	77	1.3	64	0.2			28.6	1.1
Lab131	No Participation							
Lab132	42.3	-1.1	58.8	-0.1			12.1	-1.9
Lab133	56.6	-0.1	61.4	0.1			24.8	0.4
Lab134	No Participation							
Lab135	72.9	1.1	52.9	-0.5	71.9	0.3	26.8	0.7
Lab136	56.1	-0.1	54.1	-0.4	59.2	-0.5	31	1.5
Lab137	40.4	-1.2	35.3	-1.7	96.7	1.8	15.9	-1.2

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Deltamethrin		*Diazinon		Isofenphos-methyl		*Lambda-cyhalothrin	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	57.7		60.5		67.1		22.6	
Lab138			35.1	-1.7				
Lab139	No Participation							
Lab140	No Participation							
Lab141	57.7	0.0	56.7	-0.3	57.3	-0.6	22.7	0.0
Lab142	72	1.0	60	0.0			24	0.2
Lab143	No Participation							
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	87.3	2.1	23.4	-2.5	33.2	-2.0	17.4	-0.9
Lab149	No Participation							
Lab150	25	-2.3	50.3	-0.7	40	-1.6	9	-2.4
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Metalaxyl sum	z-Score (FFP RSD 25%)	*Methamidophos	z-Score (FFP RSD 25%)	*Methidathion	z-Score (FFP RSD 25%)	Methomyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	23.7		41.1		53.2		61.2	
Lab001	No Participation							
Lab002	24	0.1	34.5	-0.6	53	0.0	61.8	0.0
Lab003	25.8	0.4	43.5	0.2	58.1	0.4	64.4	0.2
Lab004	11.6	-2.0	30.8	-1.0	39.3	-1.0		
Lab005								
Lab006	20.5	-0.5	48	0.7	45.2	-0.6	78.5	1.1
Lab007	22.5	-0.2	36.8	-0.4	55.8	0.2	52	-0.6
Lab008	No results reported							
Lab009	32.6	1.5	40.5	-0.1	55.7	0.2	61.8	0.0
Lab010	21.3	-0.4						
Lab011	31.7	1.4	47.1	0.6	63.1	0.7	77	1.0
Lab012							46.2	-1.0
Lab013	34	1.7	43.1	0.2	53.3	0.0		
Lab014	21	-0.5	44.4	0.3	81.5	2.1		
Lab015	22.6	-0.2	31.8	-0.9	55.2	0.2	65.5	0.3
Lab016	30.3	1.1	44	0.3	38.2	-1.1	68.5	0.5
Lab017	26.1	0.4	46	0.5	48.5	-0.4	86.2	1.6
Lab018	No results reported							
Lab019	23.7	0.0	37.2	-0.4	48.2	-0.4	54	-0.5
Lab020	23.3	-0.1	15.6	-2.5	10.5	-3.2	58.1	-0.2
Lab021	No Participation							
Lab022	26.3	0.4	48.4	0.7	65.5	0.9		
Lab023	26	0.4	41.1	0.0	57.5	0.3	71.5	0.7
Lab024	24.9	0.2	39.5	-0.2	55.6	0.2	70	0.6
Lab025	30	1.1	49	0.8	48	-0.4		
Lab026	No Participation							
Lab027	5.9	-3.0	34.5	-0.6			3.98	-3.7
Lab028	No results reported							
Lab029	21.3	-0.4	36.3	-0.5	48	-0.4	65	0.2
Lab030	24.9	0.2	22	-1.9	46.3	-0.5	61.2	0.0
Lab031	No results reported							
Lab032	21.7	-0.3	37.1	-0.4	41.1	-0.9	56.5	-0.3
Lab033	26	0.4	48	0.7	53	0.0	65.2	0.3
Lab034	28.2	0.8			53.9	0.1	58.4	-0.2
Lab035	26.2	0.4	43.1	0.2	57.4	0.3	66.1	0.3
Lab036	24	0.1	37	-0.4	38	-1.1	64	0.2
Lab037	No results reported							
Lab038	No Participation							
Lab039	26	0.4	40	-0.1	57	0.3	56	-0.3
Lab040	23	-0.1	46.2	0.5	33	-1.5	66.9	0.4
Lab041	No Participation							
Lab042	24.8	0.2	38.6	-0.2	46.8	-0.5	46.5	-1.0
Lab043	No results reported							
Lab044	19.5	-0.7	47.3	0.6	54.9	0.1	49.8	-0.7
Lab045	No Participation							
Lab046	<0.01		<0.01		39.7	-1.0	NA	
Lab047	28.1	0.7	43.6	0.2	57.1	0.3	63.5	0.2

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Metataxyyl sum	z-Score (FFP RSD 25%)	*Methamidophos	z-Score (FFP RSD 25%)	*Methidathion	z-Score (FFP RSD 25%)	Methomyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	23.7		41.1		53.2		61.2	
Lab048	No Participation							
Lab049	No Participation							
Lab050	29.3	0.9	34.6	-0.6	38.1	-1.1	85.6	1.6
Lab051	32	1.4	41	0.0	51	-0.2	56	-0.3
Lab052	25.2	0.3	47.9	0.7	36.4	-1.3	65.9	0.3
Lab053					37.9	-1.2		
Lab054	25.1	0.2	28.6	-1.2	49.5	-0.3	65.1	0.3
Lab055	No results reported							
Lab056	No results reported							
Lab057	22.8	-0.2	41.8	0.1	53.2	0.0	53.4	-0.5
Lab058	No Participation							
Lab059	23.5	0.0	40.9	0.0	46.5	-0.5	65.9	0.3
Lab060	21	-0.5	53.5	1.2	58.8	0.4	55.3	-0.4
Lab061	No results reported							
Lab062	23.1	-0.1	37.8	-0.3	48	-0.4	57.9	-0.2
Lab063	20.1	-0.6	28.2	-1.3	47.1	-0.5	45.4	-1.0
Lab064	20.2	-0.6	33.7	-0.7	40.6	-0.9	56.4	-0.3
Lab065	25.8	0.4	30.8	-1.0	48	-0.4	40.1	-1.4
Lab066	11.7	-2.0	40.4	-0.1	53.1	0.0	49.3	-0.8
Lab067	No Participation							
Lab068					52.7	0.0		
Lab069	30.9	1.2	41.7	0.1	61.4	0.6	64.8	0.2
Lab070	No Participation							
Lab071	22.6	-0.2	38.3	-0.3	52.7	0.0	41.7	-1.3
Lab072	22.7	-0.2			57.4	0.3		
Lab073	No results reported							
Lab074	19	-0.8			59	0.4		
Lab075								
Lab076	28.6	0.8	45.8	0.5	59.2	0.5	82.5	1.4
Lab077	22.2	-0.3	42.9	0.2	68.8	1.2	24	-2.4
Lab078					65.2	0.9	58.8	-0.2
Lab079	26.3	0.4	42.6	0.2	57.1	0.3	61.2	0.0
Lab080	No results reported							
Lab081	No Participation							
Lab082	24.5	0.1	74.4	3.2	62.4	0.7	54.5	-0.4
Lab083	No Participation							
Lab084								
Lab085			33.5	-0.7			61.6	0.0
Lab086	27	0.6			62.1	0.7		
Lab087	No Participation							
Lab088					53.4	0.0		
Lab089	19.6	-0.7	40.3	-0.1	50.5	-0.2	42	-1.3
Lab090	21.4	-0.4	40.8	0.0	49.8	-0.3	59.1	-0.1
Lab091	24.9	0.2	44.7	0.4	57	0.3	62.7	0.1
Lab092	No results reported							
Lab093	21.7	-0.3	42.8	0.2	56	0.2	53.9	-0.5
Lab094	23.7	0.0	22.4	-1.8	50.2	-0.2		
Lab095	No results reported							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Metaxyl sum	z-Score (FFP RSD 25%)	*Methamidophos	z-Score (FFP RSD 25%)	*Methidathion	z-Score (FFP RSD 25%)	Methomyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	23.7		41.1		53.2		61.2	
Lab096	27	0.6	53.6	1.2	54.2	0.1	58.2	-0.2
Lab097	No results reported							
Lab098	24.7	0.2			59.7	0.5		
Lab099								
Lab100	No results reported							
Lab101					65	0.9		
Lab102	23	-0.1			58	0.4		
Lab103	No Participation							
Lab104	28	0.7	40	-0.1	58	0.4	13	-3.2
Lab105	No results reported							
Lab106	24.8	0.2	52.4	1.1	59.5	0.5		
Lab107	15.9	-1.3	32.9	-0.8	34.3	-1.4	64.2	0.2
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111	0.36	-3.9						
Lab112	31.5	1.3			60.3	0.5		
Lab113	No results reported							
Lab114			33	-0.8	46	-0.5		
Lab115								
Lab116	No results reported							
Lab117	No Participation							
Lab118					74.2	1.6		
Lab119	20	-0.6	68.1	2.6	58.9	0.4	53.2	-0.5
Lab120	20.5	-0.5	45.5	0.4	57.5	0.3	52.7	-0.6
Lab121	20.5	-0.5	35	-0.6	38	-1.1	71.2	0.7
Lab122	No results reported							
Lab123					52	-0.1		
Lab124	18.3	-0.9	89.1	4.7	54.9	0.1	62.9	0.1
Lab125	23.3	-0.1	43.6	0.2	53.6	0.0	64.4	0.2
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129								
Lab130	24.3	0.1	43.6	0.2	60.5	0.5		
Lab131	No Participation							
Lab132					58.8	0.4		
Lab133	32.8	1.5	48.1	0.7	52.3	-0.1		
Lab134	No Participation							
Lab135	20.7	-0.5	62.9	2.1	45.9	-0.5	35.5	-1.7
Lab136	24.5	0.1	40.4	-0.1	46.3	-0.5	63.2	0.1
Lab137	22.6	-0.2	7.5	-3.3	13.1	-3.0	66.8	0.4
Lab138								
Lab139	No Participation							
Lab140	No Participation							
Lab141	24.6	0.2			48.6	-0.3		
Lab142			44	0.3	58	0.4		
Lab143	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Metataxyyl sum	z-Score (FFP RSD 25%)	*Methamidophos	z-Score (FFP RSD 25%)	*Methidathion	z-Score (FFP RSD 25%)	Methomyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	23.7		41.1		53.2		61.2	
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	15.6	-1.4	32.7	-0.8	35.9	-1.3	24.9	-2.4
Lab149	No Participation							
Lab150	15	-1.5	45	0.4	40	-1.0		
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Monocrotophos	z-Score (FFP RSD 25%)	*Oxamyl	z-Score (FFP RSD 25%)	Parathion-methyl	z-Score (FFP RSD 25%)	Paraoxon-methyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	43.8		70.7		43.8		38.5	
Lab001	No Participation							
Lab002	35.5	-0.8	91.9	1.2	44	0.0	41.6	0.3
Lab003	46.5	0.3	78.1	0.4	37.3	-0.6	36	-0.3
Lab004	45.5	0.2	73.5	0.2	22.7	-1.9		
Lab005								
Lab006	45	0.1	94	1.3	32.5	-1.0	58.2	2.0
Lab007	39.2	-0.4	66.9	-0.2	51.8	0.7	43.7	0.5
Lab008	No results reported							
Lab009	28.3	-1.4	65.5	-0.3	44.1	0.0	32.8	-0.6
Lab010					42.1	-0.2		
Lab011	49.7	0.5	82.5	0.7	51.5	0.7	43	0.5
Lab012			52.3	-1.0				
Lab013	34.4	-0.9			57	1.2	47.2	0.9
Lab014					50.8	0.6	45.4	0.7
Lab015	46.5	0.3	73.1	0.1	45.6	0.2	27.9	-1.1
Lab016	76.3	3.0	85.5	0.8	36.7	-0.6		
Lab017			88.4	1.0	41.6	-0.2		
Lab018	No results reported							
Lab019	42.7	-0.1	60.3	-0.6	40.4	-0.3	34	-0.5
Lab020	11	-3.0	88.1	1.0	17.2	-2.4	8.88	-3.1
Lab021	No Participation							
Lab022					66	2.0		
Lab023	48	0.4	72.1	0.1	45.2	0.1	44.5	0.6
Lab024	43.8	0.0	55	-0.9	45.5	0.2	34.2	-0.4
Lab025	47	0.3			55	1.0	34	-0.5
Lab026	No Participation							
Lab027	5.35	-3.5	5.47	-3.7	0.18	-4.0		
Lab028	No results reported							
Lab029	36	-0.7	72.8	0.1	40.8	-0.3	34.3	-0.4
Lab030	40.7	-0.3	66.8	-0.2	45.2	0.1	34.6	-0.4
Lab031	No results reported							
Lab032	40.1	-0.3	70.1	0.0	41.7	-0.2	19.1	-2.0
Lab033	44.5	0.1	68.4	-0.1	47.8	0.4		
Lab034								
Lab035	46.8	0.3	71.5	0.0	42.3	-0.1	42.1	0.4
Lab036	46	0.2	76	0.3	34	-0.9	41	0.3
Lab037	No results reported							
Lab038	No Participation							
Lab039	47	0.3	70	0.0	53	0.8	39	0.1
Lab040	43.9	0.0	78.6	0.4	15	-2.6	23	-1.6
Lab041	No Participation							
Lab042	44.6	0.1	73.3	0.1	40.4	-0.3	35.9	-0.3
Lab043	No results reported							
Lab044	67	2.1	60.1	-0.6	42.1	-0.2	49.2	1.1
Lab045	No Participation							
Lab046	28.5	-1.4	NA		22.4	-2.0	NA	
Lab047	46.8	0.3	85.8	0.9	44.3	0.0	40.7	0.2

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Monocrotophos	z-Score (FFP RSD 25%)	*Oxamyl	z-Score (FFP RSD 25%)	Parathion-methyl	z-Score (FFP RSD 25%)	Paraoxon-methyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	43.8		70.7		43.8		38.5	
Lab048	No Participation							
Lab049	No Participation							
Lab050	46.8	0.3	85.1	0.8	28.8	-1.4	43.9	0.6
Lab051	40	-0.3	72.5	0.1	48	0.4	41	0.3
Lab052	38.2	-0.5	77.9	0.4	29.4	-1.3	33.4	-0.5
Lab053					46.3	0.2		
Lab054	31.4	-1.1	66.3	-0.2	23.2	-1.9	28.2	-1.1
Lab055	No results reported							
Lab056	No results reported							
Lab057	46.3	0.2	67.7	-0.2	41.9	-0.2	42.2	0.4
Lab058	No Participation							
Lab059	50.8	0.6	63.5	-0.4	46.5	0.2	50	1.2
Lab060	39.5	-0.4	59.5	-0.6	44.5	0.1	42	0.4
Lab061	No results reported							
Lab062	45.8	0.2	52.3	-1.0	42.1	-0.2	31.1	-0.8
Lab063	31.6	-1.1	50.7	-1.1	45	0.1	35.6	-0.3
Lab064	45.1	0.1	73.4	0.2			39.7	0.1
Lab065	42.1	-0.2			42.8	-0.1		
Lab066	30.8	-1.2	65.8	-0.3	40.8	-0.3	30.9	-0.8
Lab067	No Participation							
Lab068					41.8	-0.2		
Lab069	51.1	0.7	79.7	0.5	47	0.3	44.1	0.6
Lab070	No Participation							
Lab071	39.2	-0.4	59.3	-0.6	43.8	0.0	57.5	2.0
Lab072	37.7	-0.6			34.8	-0.8	35.5	-0.3
Lab073	No results reported							
Lab074					50	0.6		
Lab075	No Participation							
Lab076	59.9	1.5	115	2.5	46.7	0.3	77.3	4.0
Lab077	56.5	1.2			36.7	-0.7	91.7	5.5
Lab078			66.3	-0.3	54.2	1.0	49.2	1.1
Lab079	46.3	0.2	77.5	0.4	45	0.1	42.3	0.4
Lab080	No results reported							
Lab081	No Participation							
Lab082	42.5	-0.1	69.4	-0.1	50.5	0.6		
Lab083	No Participation							
Lab084								
Lab085	42	-0.2	73.5	0.2				
Lab086								
Lab087	No Participation							
Lab088					37.6	-0.6		
Lab089	35.9	-0.7	71	0.0	35.6	-0.8	31.1	-0.8
Lab090	42.5	-0.1	58.4	-0.7	45.3	0.1	37.4	-0.1
Lab091	43.7	0.0	74.8	0.2	54.7	1.0	62	2.4
Lab092	No results reported							
Lab093	43.1	-0.1	64.4	-0.4	51.3	0.7		
Lab094					48.3	0.4	19.6	-2.0
Lab095	No results reported							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Monocrotophos	z-Score (FFP RSD 25%)	*Oxamyl	z-Score (FFP RSD 25%)	Parathion-methyl	z-Score (FFP RSD 25%)	Paraoxon-methyl	z-Score (FFP RSD 25%)
MRRL	0.01		0.01		0.01		0.01	
Median (mg/L)	43.8		70.7		43.8		38.5	
Lab096	43.7	0.0	69.9	0.0	45.8	0.2	39.5	0.1
Lab097	No results reported							
Lab098					47.1	0.3		
Lab099								
Lab100	No results reported							
Lab101					62.1	1.7	38.4	0.0
Lab102					50	0.6		
Lab103	No Participation							
Lab104	47	0.3			44	0.0		
Lab105	No results reported							
Lab106	44.9	0.1	61.1	-0.5	44.8	0.1	47.6	0.9
Lab107			71.6	0.1	31.2	-1.2		
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111					0.05	-4.0		
Lab112								
Lab113	No results reported							
Lab114					37	-0.6		
Lab115	No Participation							
Lab116	No results reported							
Lab117	No Participation							
Lab118					46	0.2		
Lab119	59.6	1.4	70.5	0.0	47.6	0.3		
Lab120	41	-0.3	64.5	-0.4	54.5	1.0	38.5	0.0
Lab121	39.4	-0.4	79.1	0.5	33	-1.0	25.3	-1.4
Lab122	No results reported							
Lab123					46.3	0.2		
Lab124							35	-0.4
Lab125	47.7	0.4	70.9	0.0	43.6	0.0		
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129								
Lab130					52.3	0.8	33.6	-0.5
Lab131	No Participation							
Lab132								
Lab133	47	0.3			41.5	-0.2	41.2	0.3
Lab134	No Participation							
Lab135	41.6	-0.2	48.6	-1.3	35.9	-0.7		
Lab136	44.4	0.1	73.8	0.2	40.6	-0.3	24.8	-1.4
Lab137	39.1	-0.4	59	-0.7	14.9	-2.6	5.12	-3.5
Lab138					28.9	-1.4		
Lab139	No Participation							
Lab140	No Participation							
Lab141					32.3	-1.1		
Lab142					55	1.0		
Lab143	No Participation							

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Monocrotophos		*Oxamyl		Parathion-methyl		Paraoxon-methyl	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	43.8		70.7		43.8		38.5	
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	9.54	-3.1	66.5	-0.2	30.6	-1.2	30.1	-0.9
Lab149	No Participation							
Lab150					35	-0.8		
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Phosalone		*Procymidone		*Thiacloprid		Triazofos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	76.9		21.7		37.8		29.7	
Lab001	No Participation							
Lab002	80	0.2	20.3	-0.3	37.4	0.0	28.1	-0.2
Lab003	86.3	0.5	25	0.6	41.2	0.4	33	0.4
Lab004	75.3	-0.1	21.9	0.0	36.5	-0.1		
Lab005								
Lab006	65.8	-0.6	17.5	-0.8	53.2	1.6	27.8	-0.3
Lab007	79.1	0.1	23.2	0.3	35.1	-0.3	38.7	1.2
Lab008	No results reported							
Lab009	65.8	-0.6	15.9	-1.1	33	-0.5	13	-2.2
Lab010	66	-0.6	21	-0.1				
Lab011	100	1.2	25.9	0.8	58.1	2.2	24.5	-0.7
Lab012			0.48	-3.9				
Lab013	90	0.7	22.1	0.1			34.3	0.6
Lab014	86.7	0.5	20.9	-0.1			40.1	1.4
Lab015	62.9	-0.7	22.4	0.1	42.1	0.5	36.3	0.9
Lab016	56.9	-1.0	19.3	-0.4			32.4	0.4
Lab017	47.6	-1.5	18.7	-0.6	42.5	0.5	24.5	-0.7
Lab018	No results reported							
Lab019	66.4	-0.5	21	-0.1	34.9	-0.3	29.2	-0.1
Lab020	25.1	-2.7	19.7	-0.4	41.6	0.4	12.6	-2.3
Lab021	No Participation							
Lab022	101	1.3	20.1	-0.3			42	1.7
Lab023	85.3	0.4	22.2	0.1	47.8	1.1	32.6	0.4
Lab024	84.2	0.4	26.9	1.0	33.5	-0.5	29.2	-0.1
Lab025	72	-0.3	21	-0.1			33	0.4
Lab026	No Participation							
Lab027	3.36	-3.8	10.1	-2.1	3.58	-3.6	12.6	-2.3
Lab028	No results reported							
Lab029	67.5	-0.5	24.6	0.5	34.1	-0.4	23.7	-0.8
Lab030	76	0.0	25.1	0.6	37.8	0.0	39.9	1.4
Lab031	No results reported							
Lab032	68.9	-0.4	18.3	-0.6	34	-0.4	24.7	-0.7
Lab033	90.3	0.7	23.3	0.3	23.5	-1.5	55	3.4
Lab034	88.8	0.6	29.9	1.5	35.3	-0.3		
Lab035	79.4	0.1	21.5	0.0	40	0.2	34.6	0.7
Lab036	67	-0.5	22	0.1	36	-0.2	28	-0.2
Lab037	No results reported							
Lab038	No Participation							
Lab039	82	0.3	21	-0.1	38	0.0	34	0.6
Lab040	66	-0.6	23	0.2	38.8	0.1	17	-1.7
Lab041	No Participation							
Lab042	78.1	0.1	21.3	-0.1	36	-0.2	28.8	-0.1
Lab043	No results reported							
Lab044	85.9	0.5	26.4	0.9	36.7	-0.1	40.6	1.5
Lab045	No Participation							
Lab046	87.3	0.5	17.2	-0.8	NA		30.6	0.1
Lab047	72.8	-0.2	21.6	0.0	41	0.3	30.9	0.2

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Phosalone		*Procymidone		*Thiacloprid		Triazofos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	76.9		21.7		37.8		29.7	
Lab048	No Participation							
Lab049	No Participation							
Lab050	58.9	-0.9	21.6	0.0	45.7	0.8	22.7	-0.9
Lab051	84	0.4	20	-0.3	32.3	-0.6	27	-0.4
Lab052	68.3	-0.4	22.6	0.2	38.1	0.0	20	-1.3
Lab053								
Lab054	82.2	0.3	33	2.1	37.4	0.0	23	-0.9
Lab055	No results reported							
Lab056	No results reported							
Lab057	69.6	-0.4	22.6	0.2	38.7	0.1	27.5	-0.3
Lab058	No Participation							
Lab059	94.8	0.9	23.7	0.4	38.9	0.1	43.5	1.9
Lab060	79.8	0.2			33	-0.5	29.7	0.0
Lab061	No results reported							
Lab062	72.5	-0.2	21.7	0.0	36.3	-0.2	28.3	-0.2
Lab063	80.3	0.2	19.3	-0.4	35.4	-0.3	29.4	0.0
Lab064	74.2	-0.1	15.9	-1.1	37.3	-0.1	16.6	-1.8
Lab065	72.9	-0.2	19.7	-0.4			27.4	-0.3
Lab066	80	0.2	19.6	-0.4	33.3	-0.5	24.6	-0.7
Lab067	No Participation							
Lab068			19.3	-0.4			29.8	0.0
Lab069	68.7	-0.4	21.9	0.0	47.1	1.0	37.9	1.1
Lab070	No Participation							
Lab071	79.8	0.2	20.3	-0.3			36.2	0.9
Lab072	37.4	-2.1	19.1	-0.5			31.9	0.3
Lab073	No results reported							
Lab074	88	0.6	20	-0.3			30	0.0
Lab075	No Participation							
Lab076	95.6	1.0	23.7	0.4	51.7	1.5	31.2	0.2
Lab077	83	0.3	20.5	-0.2			29.5	0.0
Lab078	83.3	0.3	23.7	0.4				
Lab079	81.4	0.2	20.8	-0.2	39.2	0.1	30.7	0.1
Lab080	No results reported							
Lab081	No Participation							
Lab082	84.5	0.4	24	0.4	42.5	0.5	31.6	0.3
Lab083	No Participation							
Lab084			23	0.2				
Lab085					47	1.0	28.1	-0.2
Lab086	90.2	0.7	21.7	0.0			22.2	-1.0
Lab087	No Participation							
Lab088	79.2	0.1	22.5	0.1			26.2	-0.5
Lab089	67.5	-0.5	21.8	0.0	32.5	-0.6	22.5	-1.0
Lab090			24.3	0.5	38.4	0.1	32.4	0.4
Lab091	88.9	0.6	29.1	1.4	42.1	0.5	32.1	0.3
Lab092	No results reported							
Lab093	76.9	0.0	23.4	0.3	35.1	-0.3	30.2	0.1
Lab094	75.7	-0.1	23.2	0.3			24	-0.8
Lab095	No results reported							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Lab Code	*Phosalone		*Procymidone		*Thiacloprid		Triazofos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	76.9		21.7		37.8		29.7	
Lab096	72.7	-0.2	29	1.3	36.4	-0.1	30.5	0.1
Lab097	No results reported							
Lab098	102	1.3	22.1	0.1			34.1	0.6
Lab099			22.3	0.1				
Lab100	No results reported							
Lab101	84.6	0.4	25.4	0.7			30	0.0
Lab102	100	1.2	21	-0.1			33	0.4
Lab103	No Participation							
Lab104	83	0.3	23	0.2	20	-1.9	38	1.1
Lab105	No results reported							
Lab106	83	0.3	24.6	0.5	44.6	0.7	47.9	2.5
Lab107	48	-1.5	18	-0.7			16	-1.8
Lab108	No results reported							
Lab109	No results reported							
Lab110	No results reported							
Lab111	0.1		0.8	-3.9			0.3	-4.0
Lab112			19.4	-0.4				
Lab113	No results reported							
Lab114	66.5	-0.5	19.8	-0.3			26.2	-0.5
Lab115	No Participation							
Lab116	No results reported							
Lab117	No Participation							
Lab118			25.7	0.7			30.8	0.1
Lab119	76	0.0	23.6	0.4	34.6	-0.3	36.1	0.9
Lab120	80.3	0.2	22.4	0.1	31.6	-0.7	32.3	0.4
Lab121	53.7	-1.2	19	-0.5	52.5	1.6	16	-1.8
Lab122	No results reported							
Lab123			22.8	0.2				
Lab124	89.2	0.6	17.3	-0.8	42.5	0.5	16.3	-1.8
Lab125	85.4	0.4	20.2	-0.3			30.7	0.1
Lab126	No Participation							
Lab127	No Participation							
Lab128	No Participation							
Lab129	80	0.2						
Lab130			23.6	0.4			30.3	0.1
Lab131	No Participation							
Lab132	57.4	-1.0					23.6	-0.8
Lab133	56.9	-1.0	22.7	0.2			43.4	1.8
Lab134	No Participation							
Lab135	66.7	-0.5	20.2	-0.3	32.9	-0.5	20.3	-1.3
Lab136	75.8	-0.1	18.5	-0.6	42.2	0.5	23.7	-0.8
Lab137	27.2	-2.6	19	-0.5	40.1	0.2	14.2	-2.1
Lab138	35.3	-2.2						
Lab139	No Participation							
Lab140	No Participation							
Lab141	62.3	-0.8	20.5	-0.2				

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Lab Code	*Phosalone		*Procymidone		*Thiacloprid		Triazofos	
MRRL	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)	0.01	z-Score (FFP RSD 25%)
Median (mg/L)	76.9		21.7		37.8		29.7	
Lab142	79	0.1	23	0.2			21	-1.2
Lab143	No Participation							
Lab144	No Participation							
Lab145	No results reported							
Lab146	No results reported							
Lab147	No results reported							
Lab148	56	-1.1	23.6	0.3	59.4	2.3	22.6	-1.0
Lab149	No Participation							
Lab150	44	-1.7	15.6	-1.1			33	0.4
Lab151	No Participation							

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Table 2. The techniques used by participating laboratories.

Injection Type	1.-None; 2.-Split/Splitless; 3.-Split; 4.-PTV, 5.-On-Column
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Aldicarb							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
002	21.5	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	20.9	LC-MS/MS	No	No	5	5	Yes
004	29.0	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	22.5	LC-MS/MS	LC-MS/MS	No	10	5	No
007	18.6	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	20.7	HPLC-FL	No	CH3OH	10	5	Yes
011	22.7	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	16.54	HPLC-FL	No	No	10	2	Yes
015	20.8	LC-MS/MS	No	No	20	5	Yes
016	28.5	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	28.9	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	22.1	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	17.43	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	23.8	LC-MS/MS	LC-MS/MS	No	10	2	No
024	20	LC-MS/MS	No	No	3	5	Yes
029	20.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	20.45	LC-MS	LC-MS/MS	No	5	5	Yes
032	19.98	LC-MS/MS	LC-MS/MS	No	3	1	Yes
034	18.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	21.5	LC-MS/MS	No	none	3	1	Yes
036	21	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	23	LC-MS/MS	LC-MS/MS	No	1	5	No
040	19.7	LC-MS/MS	No	/	25	5	Yes
042	20.5	LC-MS/MS	LC-MS/MS	-	20	5	No
044	17.9	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	22.4	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	24.0	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	17.0	LC-MS/MS	LC-MS/MS	No	20	5	No
052	21.9	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	27.3	GC-NPD	LC-MS/MS	solvent exchange	1	2	Yes
057	18.8	LC-MS/MS	No	No	55	5	No

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Aldicarb							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
059	22.5	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	18.8	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	20.0	LC-MS/MS	No	No	5	5	Yes
063	16.6	LC-MS/MS	No	No	10	5	No
064	18.5	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
066	15.8	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	22.5	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	19.4	LC-MS/MS	LC-MS/MS	No	10	1	Yes
076	61.7	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
078	20.2	HPLC-FL	No	acetonitrile	100	5	Yes
079	20.7	LC-MS/MS	LC-MS/MS	No	10	5	No
082	20.4	HPLC-UV	HPLC-DAD	Yes	20	5	Yes
085	20.67	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	17.82	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	19.072	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	25.2	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	19.1	LC-MS/MS	No	No	10	5	Yes
096	22.4	LC-MS/MS	No	No	5	1	Yes
104	16	LC-MS/MS	LC-MS/MS	ACN	15	1	No
106	24.8	LC-MS/MS	No	No	15	4	Yes
107	20.3	HPLC-FL	HPLC-FL	acididied water	200	1	Yes
119	19.50	LC-MS	No	Yes	20	5	Yes
120	20.0	HPLC-DAD	HPLC-DAD	No	20	2	Yes
121	22.380	LC-MS/MS	LC-MS/MS	No	6	2	Yes
125	24.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
135	20.0	HPLC-DAD	HPLC-DAD	No	20	5	Yes
136	21.6	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	22.7	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	15.95	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	NA	GC-ECD	GC-ECD	Isohexane	2	1	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Aldicarb sulfoxide							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	22.3	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	23.6	LC-MS/MS	No	No	5	5	Yes
004	21	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	29.8	LC-MS/MS	LC-MS/MS	No	10	5	No
007	18.3	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	20.2	HPLC-FL	No	CH3OH	10	5	Yes
011	29.15	LC-MS/MS	LC-MS/MS	Yes	10	5	No
012	16.50	HPLC-FL	No	No	10	2	Yes
015	21.6	LC-MS/MS	No	No	20	5	Yes
016	22.8	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	23.6	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	19.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	18.55	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	18.3	LC-MS/MS	LC-MS/MS	No	10	2	No
024	20	LC-MS/MS	No	No	3	5	Yes
027	1.83	LC-MS/MS	LC-MS/MS	No	15	5	No
029	23.2	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	17.34	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	16.83	LC-MS/MS	LC-MS/MS	No	3	1	Yes
035	20.7	LC-MS/MS	No	none	3	1	Yes
036	21	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	15	LC-MS/MS	LC-MS/MS	No	1	5	No
040	19.2	LC-MS/MS	No	/	25	5	Yes
042	20.6	LC-MS/MS	LC-MS	-	20	5	No
044	14.7	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	23.0	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	23.7	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	20.0	LC-MS/MS	LC-MS/MS	No	20	5	No
052	20.4	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	16.2	LC-MS/MS	LC-MS/MS	solvent exchange	1	2	Yes
057	23.2	LC-MS/MS	No	No	55	5	No
059	23.9	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	20.8	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	20.5	LC-MS/MS	No	No	5	5	Yes
063	17.4	LC-MS/MS	No	No	10	5	No
064	73.4	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
066	21.2	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Aldicarb sulfoxide							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
069	21.1	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	36.0	LC-MS/MS	LC-MS/MS	No	10	1	No
076	31.2	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
078	5.95	HPLC-FL	No	acetonitrile	100	5	Yes
079	20.2	LC-MS/MS	LC-MS/MS	No	10	5	No
082	20.0	HPLC-UV	HPLC-DAD	Yes	20	5	Yes
085	27.10	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	21.72	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	18.793	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	21.1	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	21.6	LC-MS/MS	No	No	10	5	Yes
096	55.2	LC-MS/MS	No	No	5	1	Yes
107	19.9	HPLC-FL	HPLC-FL	acidified water	200	1	Yes
119	19.38	LC-MS	No	Yes	20	5	Yes
120	20.5	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	16.010	LC-MS/MS	LC-MS/MS	No	6	1	Yes
124	22.6	LC-MS/MS	HPLC-DAD	No	5	5	Yes
125	19.7	LC-MS/MS	LC-MS/MS	No	5	1	Yes
135	20.0	HPLC-DAD	GC-ECD	No	20	5	Yes
136	21.0	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	21.59	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	20.65	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	NA	GC-ECD	GC-ECD	isohexane	2	1	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Azinphos-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
002	40.1	GC-NPD	GC-Q-MS	No	1	2	Yes
003	42.0	LC-MS/MS	No	No	5	5	Yes
004	37.6	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	48.7	LC-MS/MS	LC-MS/MS	No	10	5	No
007	37.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
011	40.64	LC-MS/MS	LC-MS/MS	Yes	10	5	No
013	44.3	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	51.6	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	38.2	GC-QQQ-MS/MS	No	No	3	4	Yes
016	25.7	GC-NPD	GC-NPD	Yes	2	2	Yes
017	30.3	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	31.0	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	37.84	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	41.2	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	40	GC-ITD-MS/MS	LC-MS/MS	toluene	1	2	Yes
025	44	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	4.67	LC-MS/MS	LC-MS/MS	No	15	5	No
029	32.6	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	42.37	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	34.65	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	42.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	37.8	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	44.1	LC-MS/MS	No	none	3	1	Yes
036	39	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	37	GC-Q-MS	GC-Q-MS	No	5	1	No
040	11	GC-Q-MS	No	/	1	2	Yes
042	34.4	GC-Q-MS	GC-Q-MS	-	4	3	No
044	42.4	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	0.045	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	37.3	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	8.6	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	51.0	GC-NPD	GC-ECD	Ethylacetat	1	1	Yes
052	26.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	1	2	Yes
054	35.3	GC-NPD	GC-NPD	solvent exchange	1	2	Yes
57	39.5	GC-Q-MS	LC-MS/MS	No	5	3	No
59	32.1	GC-Q-MS	ECD/GC.NPD/GC	acetone	2	2	Yes
60	92.2	GC-Q-MS	GC-Q-MS	No	3	3	Yes
62	37.9	LC-MS/MS	No	No	5	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Azinphos-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
63	41.2	LC-MS/MS	GC-Q-MS	No	10	5	No
64	20.6	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
65	27.6	GC-Q-MS	GC-Q-MS	-	2	2	Yes
66	39.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
69	51.1	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Ethylacetate/cyclohexane	2	2	Yes
71	37.4	LC-MS/MS	LC-MS/MS	No	10	1	Yes
72	39	GC-ITD-MS/MS	GC-ITD-MS/MS	No	1	5	Yes
76	48.5	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
77	40.33	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
79	39.3	LC-MS/MS	LC-MS/MS	No	10	5	No
82	36.3	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
88	31.42	GC-NPD	GC-NPD	isooctane/toluene 90/10	1	5	No
89	36.64	GC-IT/MS	GC-IT/MS	No	1	2	Yes
90	37.879	LC-MS/MS	LC-MS/MS	No	20	1	Yes
91	37.6	LC-MS/MS	LC-MS/MS	No	5	5	Yes
93	46.1	GC-ECD	GC-ITD-MS/MS	isooctan	1	5	Yes
94	20.82	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
96	36.4	LC-MS/MS	No	No	5	1	Yes
98	56.5	GC-ECD	GC-ECD	Yes	2	2	No
101	43	GC-ITD-MS/MS	GC-NPD	Ethyle Acetate	1	2	Yes
104	26	LC-MS/MS	LC-MS/MS	ACN	15	1	No
106	34.8	GC-ECD	LC-MS/MS	Isooctan	1	2	Yes
107	19.0	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
114	40.14	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
118	91.5	GC-NPD	No	acn	5	3	No
119	53.70	GC-NPD	No	Yes	1	2	Yes
120	43.7	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	42.480	GC-Q-MS	GC-FPD	No	5	1	Yes
124	50.8	GC-Q-MS	No	No	2	2	Yes
125	36.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
130	41.1	GC-ECD	GC-ECD	heksane/acetone	2	1	Yes
132	42.24	GC-FPD	No	acetone	1	5	Yes
133	37.8	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Azinphos-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
135	35.9	GC-NPD	GC-NPD	acetone	1	1	Yes
136	43.9	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	25.27	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
138	7.19	GC-MS	No	Acetone	1	2	Yes
142	37	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
150	22	GC-FPD	GC-Q-MS	isohexane	2	1	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Boscalid							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	55.6	GC-ECD	GC-Q-MS	No	1	2	Yes
003	63.0	LC-MS/MS	No	No	5	5	Yes
006	86.5	LC-MS/MS	LC-MS/MS	No	10	5	No
007	55.5	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	42	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
011	67.8	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	55.6	GC-ECD	GC-Q-MS	isooctane	1	2	Yes
015	56.6	GC-QQQ-MS/MS	No	No	3	4	Yes
017	85.9	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	54.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	68.28	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	66.3	LC-MS/MS	GC-Q-MS	No	10	2	No
024	58.7	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	74	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	7.3	LC-MS/MS	LC-MS/MS	No	15	5	No
029	50.5	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	57.74	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	54.10	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	70.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	58.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	64.1	LC-MS/MS	No	none	3	1	Yes
036	53	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	59	LC-MS/MS	LC-MS/MS	No	1	5	No
040	68	GC-Q-MS	No	/	1	2	Yes
042	58.3	GC-Q-MS	GC-Q-MS	-	4	3	No
044	63.9	GC-ITD-MS/MS	GC-ECD	ethyl acetate	1	5	Yes
046	NA	GC-Q-MS	GC-ECD	No	1	2	Yes
047	65.9	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	86.0	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	60	GC-ECD	No	Ethylacetat	1	1	Yes
052	40.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	1	2	Yes
054	61.9	LC-MS/MS	LC-MS/MS	solvent exchange	1	2	Yes
057	53.4	LC-MS/MS	GC-Q-MS	No	55	5	Yes
059	55.8	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	51.8	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	56.0	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	56.2	LC-MS/MS	No	No	10	5	No
064	52.7	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Boscalid							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
066	46.3	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	60.6	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	53.2	LC-MS/MS	LC-MS/MS	No	10	1	Yes
072	52.6	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	53	GC-ECD	GC-NPD	No	2	2	No
076	69.8	GC-Q-MS	GC-ECD	Acetonitril	1	2	Yes
077	63.67	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	58.7	LC-MS/MS	LC-MS/MS	No	10	5	No
082	62.5	GC-ECD	GC-ITD-MS/MS	Yes	2	3	Yes
086	62.4	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
089	46.81	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	55.243	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	63.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	59.0	GC-ECD	GC-NPD	isooctan	1	2	Yes
094	51.36	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	55.2	LC-MS/MS	No	No	5	1	Yes
098	61.9	GC-ECD	GC-ECD	Yes	2	2	No
102	61	GC-ECD	GC-ECD	Yes	2	2	No
106	68.6	GC-ECD	GC-Q-MS	Isooctan	1	2	Yes
119	64.20	GC-ECD	No	Yes	1	2	Yes
120	66.1	GC-ECD	GC-ITD-MS/MS	n-hexane	1	2	Yes
121	47.368	GC-Q-MS	GC-Q-MS	No	5	1	Yes
123	57.6	GC-ECD	GC-ECD	Yes	2	2	Yes
124	60.4	LC-MS/MS	HPLC-DAD	No	5	5	Yes
125	74.1	GC-ITD-MS	GC-ITD-MS	No	5	4	No
133	52.3	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	80.7	GC-ECD	GC-ECD	acetone	1	2	Yes
136	67.7	LC-MS/MS	LC-MS/MS	No	20	2	Yes
141	53.0	GC-Q-MS	GC-Q-MS	No	4	3	No
148	104.2	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	25	GC-ECD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Buprofezin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	24.6	GC-ECD	GC-Q-MS	No	1	2	Yes
003	20.1	LC-MS/MS	No	No	5	5	Yes
006	12.8	GC-Q-MS	GC-ITD-MS/MS	cyclohexane	2	2	No
007	19.6	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	15.7	GC-Q-MS	GC-Q-MS	No	2	2	Yes
011	23.11	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	20.4	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
015	21.2	LC-MS/MS	GC-QQQ-MS/MS	No	20	5	Yes
016	24.9	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	16.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	18.5	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	16.72	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
023	24.7	GC-Q-MS	LC-MS/MS	No	2	2	Yes
024	20	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	19	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	9.13	LC-MS/MS	LC-MS/MS	No	15	5	No
029	20.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	34.2	GC-NPD	GC-NPD	Yes	1	2	Yes
032	14.53	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	19.75	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	18.0	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	21.4	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	19	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	23	LC-MS/MS	LC-MS/MS	No	1	5	No
040	19	GC-Q-MS	No	/	1	2	Yes
042	21.7	GC-Q-MS	GC-Q-MS	-	4	3	No
044	18.5	GC-ITD-MS/MS	GC-ITD-MS/MS	ethyl acetate	1	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	20.3	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	24.5	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	23.2	GC-ECD	GC-NPD	Ethylacetat	1	1	Yes
052	19.6	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	24.4	GC-NPD	GC-NPD	solvent exchange	1	2	Yes
057	20.2	GC-Q-MS	No	No	5	3	No
059	21.7	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	17.0	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	22.1	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	17.2	LC-MS/MS	No	No	10	5	No

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Buprofezin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
064	21.7	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
065	19.3	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	17.5	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
068	25.8	GC-NPD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	27.8	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	21.6	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	18.5	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	27	GC-ECD	GC-NPD	No	2	2	No
076	21.3	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	19.17	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	25.21	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	21.7	LC-MS/MS	LC-MS/MS	No	10	5	No
082	24.4	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	2	3	Yes
086	19	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
089	16.93	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	19.380	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	19.4	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	19.0	LC-MS/MS	No	No	10	5	Yes
094	20.44	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	21.6	LC-MS/MS	No	No	5	1	Yes
098	27.5	GC-NPD	GC-NPD	Yes	2	2	No
101	20	GC-NPD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	28	GC-ECD	GC-ECD	Yes	2	2	No
104	25	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	20.0	GC-Q-MS	LC-MS/MS	Aceton	1	2	Yes
107	13.2	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.62	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
112	66.714	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
119	17.00	LC-MS	No	Yes	20	5	Yes
120	21.0	GC-ECD	GC-ITD-MS/MS	Yes	1	2	Yes
121	13.696	GC-Q-MS	GC-Q-MS	No	5	1	Yes
124	18.3	GC-Q-MS	No	No	8	4	Yes
125	17.9	GC-ITD-MS	GC-ITD-MS	No	5	4	No
133	23.3	GC-ECD	GC-ECD	ethyl acetate	1	2	Yes
135	17.8	HPLC-DAD	HPLC-DAD	No	20	5	Yes
136	19.5	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	17.98	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
138	14.07	GC-MS	No	Acetone	1	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Buprofezin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
141	19.7	GC-Q-MS	GC-Q-MS	No	4	3	No
148	10.58	GC/MS scan	GC/MS scan	No	1	2	Yes
150	13.3	GC-Q-MS	GC-Q-MS	isohexane	2	1	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Cadusafos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	46.1	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	46.0	LC-MS/MS	No	No	5	5	Yes
006	62.8	LC-MS/MS	LC-MS/MS	No	10	5	No
007	43.3	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	43.5	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
011	43.4	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	31.2	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
015	45.6	GC-QQQ-MS/MS	No	No	3	4	Yes
017	42.3	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	37.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
023	44.5	GC-Q-MS	GC-Q-MS	No	2	2	Yes
025	35	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	14.5	GC-Q-MS	GC-Q-MS	No	1	2	No
029	46.8	GC-Q-MS	GC-Q-MS	Yes	1	1	Yes
032	23.11	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	53.00	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	43.1	LC-MS/MS	No	none	3	1	Yes
039	47	LC-MS/MS	LC-MS/MS	No	1	5	No
042	43.2	GC-Q-MS	GC-Q-MS	-	4	3	No
044	44.0	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	44.5	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	37.9	GC-Q-MS	GC-Q-MS	No	10	4	Yes
051	45.7	GC-ECD	GC-NPD	Ethylacetat	1	1	Yes
052	42.2	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	33.55	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	39.1	GC-Q-MS	LC-MS/MS	No	5	3	No
059	42.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
062	49.1	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	39.4	LC-MS/MS	GC-Q-MS	No	10	5	No
066	30.2	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
068	20.9	GC-NPD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	39.5	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	39.4	LC-MS/MS	LC-MS/MS	No	10	1	Yes
072	45.7	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
076	41.4	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
078	55.67	GC-ECD	No	ethyl acetate	1	3	No
079	45.1	GC-NPD	LC-MS/MS	No	10	5	No

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Cadusafos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
082	40.5	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
089	23.27	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	37.66	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	54.4	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
093	41.2	GC-ECD	GC-NPD	isooctan	1	5	Yes
094	44.16	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	37.1	LC-MS/MS	No	No	5	1	Yes
106	42.7	GC-ECD	GC-Q-MS	Isooctan	1	2	Yes
119	41.10	GC-NPD	No	Yes	1	2	Yes
120	40.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	39.049	GC-Q-MS	GC-FPD	No	5	1	Yes
133	33.4	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	34.4	GC-NPD	GC-NPD	acetone	1	1	Yes
136	36.5	GC-Q-MS	GC-Q-MS	No	3	2	Yes
141	40.6	GC-Q-MS	GC-Q-MS	No	4	3	No
150	NA	GC-ECD	GC-ECD	isohexane	2	1	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Carbofuran							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	40.8	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	44.2	LC-MS/MS	No	No	5	5	Yes
006	52.8	LC-MS/MS	LC-MS/MS	No	10	5	No
007	36.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	44.2	HPLC-FL	GC-Q-MS	CH3OH	10	5	Yes
011	11.32	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	31.71	HPLC-FL	GC-ITD-MS/MS	No	10	2	Yes
014	56.9	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	40.7	GC-QQQ-MS/MS	LC-MS/MS	No	3	4	Yes
016	38.3	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	44.7	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	18.5	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	38.59	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	45.3	GC-Q-MS	LC-MS/MS	No	2	2	Yes
024	41	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	34	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	9.15	LC-MS/MS	LC-MS/MS	No	15	5	No
029	37.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	44.20	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	34.92	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	26.2	LC-MS/MS	LC-MS/MS	No	10	5	Yes
034	25.1	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	41.2	LC-MS/MS	No	none	3	1	Yes
036	40	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	55	LC-MS/MS	LC-MS/MS	No	1	5	No
040	33	GC-Q-MS	No	/	1	2	Yes
042	43.4	LC-MS/MS	LC-MS/MS	-	20	5	No
044	43.7	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	34.34	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	41.2	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	45.7	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	33.0	LC-MS/MS	LC-MS/MS	No	20	5	No
052	38.3	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	30.6	GC-NPD	LC-MS/MS	solvent exchange	1	2	Yes
057	49.3	LC-MS/MS	No	No	55	5	No
059	39.0	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	35.5	LC-MS/MS	LC-MS/MS	No	8	1	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Carbofuran							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
062	36.6	LC-MS/MS	No	No	5	5	Yes
063	25.0	LC-MS/MS	No	No	10	5	No
064	32.5	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
066	28.5	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	51.4	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	36.1	LC-MS/MS	LC-MS/MS	No	10	1	Yes
072	44.2	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	1	Yes
074	58	GC-NPD	No	No	2	2	No
076	51.5	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
077	44.67	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	40.3	LC-MS/MS	LC-MS/MS	No	10	5	No
082	37.1	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	2	3	Yes
085	40.07	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	33.95	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	35.078	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	41.4	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	38.6	LC-MS/MS	No	No	10	5	Yes
094	35.62	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	56.2	LC-MS/MS	No	No	5	1	Yes
098	62.0	GC-NPD	GC-NPD	Yes	2	2	No
102	58	GC-NPD	GC-ECD	Yes	2	2	No
106	45.1	LC-MS/MS	No	No	15	4	Yes
107	40.6	HPLC-FL	GC-TOF/MS	acidified water	200	1	Yes
119	38.48	LC-MS	No	Yes	20	5	Yes
120	37.5	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	30.667	GC-Q-MS	GC-Q-MS	No	5	1	Yes
124	44.4	LC-MS/MS	HPLC-DAD	No	5	5	Yes
125	39	LC-MS/MS	LC-MS/MS	No	5	1	Yes
135	35.6	GC-NPD	GC-NPD	aceton	1	1	Yes
136	35.3	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	29.63	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
138	21.27	GC-MS	No	Acetone	1	2	Yes
148	43.9	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	10.8	GC-Q-MS	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

3-hydroxy-carbofuran							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	15.0	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	14.0	LC-MS/MS	No	No	5	5	Yes
006	12.0	LC-MS/MS	LC-MS/MS	No	10	5	No
007	11.3	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	12.7	HPLC-FL	No	CH3OH	10	5	Yes
011	18.49	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	9.38	HPLC-FL	No	No	10	2	Yes
015	11.9	GC-QQQ-MS/MS	LC-MS/MS	No	3	4	Yes
017	13.9	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	13.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	12.29	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	13.2	LC-MS/MS	LC-MS/MS	No	10	2	No
029	10.1	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	14.26	LC-MS/MS	LC-MS/MS	No	5	1	Yes
032	10.09	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	10.3	LC-MS/MS	LC-MS/MS	No	10	5	Yes
035	10.9	LC-MS/MS	No	none	3	1	Yes
036	12	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	15	LC-MS/MS	LC-MS/MS	No	1	5	No
040	10	GC-Q-MS	No	/	1	2	Yes
042	11.6	LC-MS/MS	LC-MS/MS	-	20	5	No
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	11.7	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	below the RL	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	11.5	LC-MS/MS	LC-MS/MS	No	20	5	No
052	14.6	LC-MS/MS	LC-MS/MS	No	20	2	Yes
057	13.9	GC-Q-MS	No	No	55	5	No
059	12.9	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	14.5	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	12.6	LC-MS/MS	No	No	5	5	Yes
063	12.8	LC-MS/MS	No	No	10	5	No
066	6.2	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	13.4	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	12.4	LC-MS/MS	LC-MS/MS	No	10	1	Yes
076	18.7	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
079	11.5	LC-MS/MS	LC-MS/MS	No	10	5	No
082	11	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	2	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

3-hydroxy-carbofuran							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
085	14.31	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
090	4.115	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	11.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	11.2	LC-MS/MS	No	No	10	5	Yes
096	14.7	LC-MS/MS	No	No	5	1	Yes
106	20.0	LC-MS/MS	No	No	15	4	Yes
107	12.8	HPLC-FL	GC-TOF/MS	acidified water	200	1	Yes
119	10.80	LC-MS	No	Yes	20	5	Yes
120	10.5	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	13.008	LC-MS/MS	LC-MS/MS	No	6	2	Yes
124	12.7	LC-MS/MS	HPLC-DAD	No	5	5	Yes
136	12.2	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	12.84	GC-ITD-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	12.81	LC-MS/MS	LC-MS/MS	No	10	5	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Deltamethrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	61.9	GC-ECD	GC-Q-MS	No	1	2	Yes
003	63.8	LC-MS/MS	No	No	5	5	Yes
004	54.5	GC-Q-MS	GC-Q-MS	cyclohexane	1	1	Yes
006	49.0	GC-Q-MS	GC-ITD-MS/MS	cyclohexane	2	2	No
007	46.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	42.4	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	65.1	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	32.5	GC-ECD	GC-ECD	Yes	1	2	No
013	53.4	GC-ECD	GC-Q-MS	isooctane	1	2	Yes
014	78.9	GC-ECD	GC-Q-MS	isottano	3	2	Yes
015	42.5	GC-QQQ-MS/MS	No	No	3	4	Yes
016	53.7	GC-ECD	GC-ECD	Yes	2	2	Yes
017	16.0	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	36.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	43.92	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	57.7	GC-Q-MS	GC-Q-MS	acetatoetil-ciclohexano	10	2	Yes
023	63.0	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	65.3	GC-ITD-MS/MS	GC-ECD	toluene	2	3	Yes
025	61	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	0.221	LC-MS/MS	LC-MS/MS	No	15	5	No
029	57.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	54.0	GC-ECD	GC-ECD	Yes	1	2	Yes
032	56.03	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	67.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	60.1	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	62	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	67	GC-Q-MS	GC-Q-MS	No	5	1	No
040	42	GC-Q-MS	No	/	1	2	Yes
042	58.1	GC-Q-MS	GC-Q-MS	-	4	3	No
044	61.9	GC-TOF/MS	GC-ECD	ethyl acetate	1	5	Yes
046	18.85	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	65.7	GC-Q-MS	GC-Q-MS	No	4	3	Yes
050	30.8	GC-Q-MS	GC-Q-MS	No	10	4	Yes
051	61.0	GC-ECD	No	Ethylacetat	1	1	Yes
052	43.8	GC-ECD	GC-QQQ-MS/MS	No	1	2	Yes
054	45.0	GC-ECD	GC-MS	solvent exchange	1	2	Yes
057	47.8	GC-Q-MS	No	No	5	3	No

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Deltamethrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
059	74.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	52.7	GC-Q-MS	GC-Q-MS	No	3	3	Yes
062	49.5	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	55.7	GC-Q-MS	GC-Q-MS	No	2	3	No
064	61.8	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	56.0	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	68.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
069	57.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	59.0	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	62.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	58	GC-ECD	No	No	2	2	No
076	57.9	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	55.50	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	65.58	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	No
079	52.1	GC-ECD	GC-ECD	Isooctan + Acetone	1	2	Yes
082	74.5	GC-ECD	GC-ITD-MS/MS	Yes	2	3	No
084	60	GC-ECD	GC-ECD	Acetato de Etilo	1	2	Yes
088	61.22	GC-ECD	GC-ECD	isooctane/toluene 90/10	1	2	No
089	48.13	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	68.101	GC-ECD	GC-ECD	Ethyl Acetate	1	2	Yes
091	59.9	GC-ECD	GC-ITD-MS/MS	No	4	2	Yes
093	60.0	GC-ECD	GC-ITD-MS/MS	isooctan	1	2	Yes
094	49.4	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	84.5	LC-MS/MS	No	No	5	1	Yes
098	65.7	GC-ECD	GC-ECD	Yes	2	2	No
101	58.6	GC-ECD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	64	GC-ECD	GC-ECD	Yes	2	2	No
104	53	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	77.6	GC-ECD	GC-FPD	Isooctan	1	2	Yes
107	50.1	GC-ECD	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.04	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
114	53.57	GC-ECD	GC-ECD	toluene	1	1	Yes
118	80.8	GC-ECD	No	acn	1	2	No
119	48.00	GC-ECD	No	Yes	1	2	Yes
120	63.3	GC-ECD	GC-ECD	Yes	1	2	Yes
121	39.050	GC-Q-MS	GC-ECD	No	5	1	Yes
123	66.0	GC-ECD	GC-ECD	Yes	2	2	Yes
124	41.3	GC-Q-MS	No	No	8	4	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Deltamethrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
125	60.8	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	77.0	GC-ECD	GC-ECD	heksane/acetone	2	1	Yes
132	42.25	GC-FPD	No	acetone	1	5	Yes
133	56.58	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	72.9	GC-ECD	GC-ECD	aceton	1	2	Yes
136	56.1	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	40.44	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
141	57.7	GC-Q-MS	GC-Q-MS	No	4	3	No
142	72	GC-ECD	GC-ECD	ethyl acetate	1	2	Yes
148	87.3	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	25	GC-ECD	GC-Q-MS	isohexane	2	1	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Diazinon							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	96.0	GC-NPD	GC-Q-MS	No	1	2	Yes
003	60.3	GC-Q-MS	No	toluen	1	2	Yes
004	64.6	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	53.5	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	69.9	GC-Q-MS	GC-QQQ-MS/MS	No	3	3	Yes
009	74.4	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	67.7	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	54.95	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	39.15	GC-ITD-MS/MS	No	No	1.5	2	Yes
013	67.4	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	63.0	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	66.1	GC-QQQ-MS/MS	No	No	3	4	Yes
016	61.1	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	49.7	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	56.7	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	54.88	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	52.1	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	66.1	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	62.2	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	59	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	41.4	LC-MS/MS	LC-MS/MS	No	15	5	No
029	56.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	74.3	GC-NPD	GC-NPD	Yes	1	2	Yes
032	49.79	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	81.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	64.8	LC-MS/MS	LC-MS/MS	Yes	2	2	Yes
035	65.8	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	62	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	67	GC-Q-MS	GC-Q-MS	No	5	1	No
040	63	GC-Q-MS	No	/	1	2	Yes
042	66.1	LC-MS/MS	LC-MS/MS	-	20	5	No
044	56.3	GC-TOF/MS	GC-FPD	ethyl acetate	1	5	Yes
046	52.38	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	59.8	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	67.8	GC-Q-MS	GC-Q-MS	No	10	4	No
051	59.3	GC-NPD	GC-ECD	Ethylacetat	1	1	Yes
052	45.7	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Diazinon							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
054	56.9	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	60.1	GC-Q-MS	No	No	5	3	No
059	60.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	32.2	GC-Q-MS	GC-Q-MS	No	3	3	Yes
062	64.8	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	66.3	GC-FPD	GC-Q-MS	No	2	3	No
064	52.7	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	65.5	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	63.0	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
068	50.2	GC-NPD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	75.9	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	73.4	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	58.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	60	GC-ECD	GC-NPD	No	2	2	No
076	71.9	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	73.33	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	70.15	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	67.3	LC-MS/MS	LC-MS/MS	No	10	5	No
082	56.4	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
086	63.2	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	60.50	GC-NPD	GC-ECD	isooctane/toluene 90/10	1	5	No
089	49.16	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	64.027	GC-FPD	GC-NPD	Ethyl Acetate	1	2	Yes
091	69.3	LC-MS/MS	GC-ITD-MS/MS	No	5	5	Yes
093	61.2	GC-NPD	GC-ECD	isooctan	1	5	Yes
094	83.94	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	63.7	LC-MS/MS	No	No	5	1	Yes
098	56.8	GC-NPD	GC-NPD	Yes	2	2	No
101	69.4	GC-NPD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	59	GC-NPD	GC-ECD	Yes	2	2	No
104	67	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	70.6	GC-ECD	GC-Q-MS	Isooctan	1	2	Yes
107	41.0	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.42	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
112	63.152	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
114	41.63	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
118	65.1	GC-ECD	No	acn	1	2	No
119	54.10	GC-NPD	No	Yes	1	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Diazinon							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
120	55.2	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	49.209	GC-Q-MS	GC-ECD	No	5	1	Yes
123	65.0	GC-ECD	GC-ECD	Yes	2	2	Yes
124	31.9	GC-Q-MS	No	No	8	4	Yes
125	59.6	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	64.0	GC-NPD	GC-ECD	heksane/acetone	2	2	Yes
132	58.8	GC-FPD	No	acetone	1	5	Yes
133	61.4	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	52.9	GC-NPD	GC-NPD	acetone	1	1	Yes
136	54.1	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	35.31	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
138	35.05	GC-MS	No	Acetone	1	2	Yes
141	56.7	GC-Q-MS	GC-Q-MS	No	4	3	No
142	60	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
148	23.43	GC/MS scan	GC/MS scan	No	1	2	Yes
150	50.3	GC-FPD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Isofenphos-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	75.8	GC-NPD	GC-Q-MS	No	1	2	Yes
003	66.6	LC-MS/MS	No	No	5	5	Yes
006	56.3	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	83.0	GC-Q-MS	GC-QQQ-MS/MS	No	3	3	Yes
009	78.3	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	69.6	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	74.32	LC-MS/MS	LC-MS/MS	Yes	10	5	No
015	74.1	GC-QQQ-MS/MS	No	No	3	4	Yes
016	64.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	64.1	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	64.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	54.24	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
023	71.3	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	50	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	71	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
029	61.8	GC-Q-MS	GC-Q-MS	Yes	1	1	Yes
030	58.44	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	88.84	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	74.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	68.6	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	73.9	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	71	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	76	LC-MS/MS	LC-MS/MS	No	1	5	No
040	72	GC-Q-MS	No	/	1	2	Yes
042	64.5	GC-Q-MS	GC-Q-MS	-	4	3	No
044	68.6	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	74.1	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	ND	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	57.5	GC-NPD	GC-ECD	Ethylacetat	1	1	Yes
052	42.0	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	147.8	GC-NPD	GC-NPD	solvent exchange	1	2	Yes
057	62.7	GC-Q-MS	No	No	5	3	No
059	67.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	65.2	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	58.7	LC-MS/MS	No	No	5	5	Yes
063	67.1	LC-MS/MS	GC-Q-MS	No	10	5	No
066	64.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Isofenphos-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
068	65.6	GC-NPD	GC-ECD	Yes	4	2	Yes
069	74.6	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	68.8	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	71.8	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
076	80.6	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
079	74.9	LC-MS/MS	LC-MS/MS	No	10	5	No
082	73.5	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
089	64.80	GC-IT/MS	GC-IT/MS	No	1	2	Yes
091	77.2	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
093	63.5	GC-PFPD	GC-ECD	isooctan	2	2	Yes
094	87.020	GC-ECD	GC-ECD	acetone	1	2	Yes
096	60.0	LC-MS/MS	No	No	5	1	Yes
104	62	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	63.8	GC-ECD	LC-MS/MS	Isooctan	1	2	Yes
107	46.0	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
119	67.70	GC-NPD	No	Yes	1	2	Yes
120	60.3	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	65.237	GC-FPD	GC-FPD	No	5	1	Yes
125	59.7	GC-ITD-MS	GC-ITD-MS	No	5	4	No
135	71.9	GC-NPD	GC-NPD	acetone	1	1	Yes
136	59.2	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	96.74	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
141	57.3	GC-Q-MS	GC-Q-MS	No	4	3	No
148	33.21	GC/MS scan	GC/MS scan	No	1	2	Yes
150	40	GC-Q-MS	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Lambda-cyhalothrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	20.7	GC-ECD	GC-Q-MS	No	1	2	Yes
003	23.0	GC-Q-MS	No	toluen	1	2	Yes
004	63.5	GC-Q-MS	GC-Q-MS	cyclohexane	1	1	Yes
006	18.2	GC-ECD	GC-ITD-MS/MS	cyclohexane	2	2	No
007	25.3	GC-Q-MS	GC-QQQ-MS/MS	No	3	3	Yes
009	13.0	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	25.3	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	25.5	GC-ECD	GC-ECD	Yes	1	2	No
013	24.0	GC-ECD	GC-Q-MS	isooctane	1	2	Yes
014	24.5	GC-ECD	GC-Q-MS	isottano	3	2	Yes
015	20.7	GC-QQQ-MS/MS	No	No	3	4	Yes
016	21.5	GC-ECD	GC-ECD	Yes	2	2	Yes
017	11.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	13.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	16.36	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	17.9	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	23.4	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	24.2	GC-ECD	GC-ITD-MS/MS	toluene	1	2	Yes
025	31	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	0.181	LC-MS/MS	LC-MS/MS	No	15	5	No
029	21.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	25.6	GC-ECD	GC-ECD	Yes	1	2	Yes
032	18.64	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
035	20.8	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	22	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	20	GC-Q-MS	GC-Q-MS	No	5	1	No
040	22	GC-Q-MS	No	/	1	2	Yes
042	26.3	GC-Q-MS	GC-Q-MS	-	4	3	No
044	25.5	GC-ITD-MS/MS	GC-ECD	ethyl acetate	1	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	21.7	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	12.5	GC-Q-MS	GC-Q-MS	No	10	4	No
051	22.0	GC-ECD	No	Ethylacetat	1	1	Yes
052	36.4	GC-ECD	GC-QQQ-MS/MS	No	1	2	Yes
054	26.0	LC-MS/MS	LC-MS/MS	solvent exchange	1	2	Yes
057	23.8	GC-Q-MS	No	No	5	3	No
059	25.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Lambda-cyhalothrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
060	31.9	GC-Q-MS	GC-Q-MS	No	3	3	Yes
062	23.6	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	19.3	GC-Q-MS	GC-Q-MS	No	2	3	No
064	14.4	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	19.5	GC-Q-MS	GC-Q-MS	-	2	2	Yes
069	25.8	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	24.6	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	18.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	27	GC-ECD	No	No	2	2	No
076	26.3	GC-Q-MS	GC-Q-MS	Acetonitril	1	1	Yes
077	18.00	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	25.35	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	29.6	GC-ECD	GC-ECD	Isooctan + Acetone	1	2	Yes
082	19.9	GC-ECD	GC-ITD-MS/MS	Yes	2	3	Yes
086	21.2	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	22.40	GC-ECD	GC-ECD	isooctane/toluene 90/10	1	2	No
089	16.87	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	23.074	GC-ECD	GC-ECD	Ethyl Acetate	1	2	Yes
091	29.6	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
093	22.4	GC-ECD	GC-ITD-MS/MS	isooctan	1	2	Yes
094	20.74	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	31.6	LC-MS/MS	No	No	5	1	Yes
098	33.5	GC-ECD	GC-ECD	Yes	2	2	No
099	27.16	GC-Q-MS	No	No	2	2	Yes
101	30.3	GC-ECD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	32	GC-ECD	GC-ECD	Yes	2	2	No
104	24	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	27.3	GC-ECD	GC-Q-MS	Isooctan	1	2	Yes
107	13.9	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.20	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
112	24.688	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
114	22.51	GC-ECD	GC-ECD	toluene	1	1	Yes
118	25.7	GC-ECD	No	acn	1	2	No
119	20.20	GC-ECD	No	Yes	1	2	Yes
120	22.3	GC-ECD	GC-ITD-MS/MS	Yes	1	2	Yes
121	13.145	GC-Q-MS	GC-ECD	No	5	1	Yes
123	22.3	GC-ECD	GC-ECD	Yes	2	2	Yes
124	15.2	GC-Q-MS	No	No	8	4	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Lambda-cyhalothrin							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
125	21.2	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	28.6	GC-ECD	GC-ECD	heksane/acetone	2	1	Yes
132	12.06	GC-FPD	No	acetone	1	5	Yes
133	24.8	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	26.8	GC-ECD	GC-ECD	aceton	1	2	Yes
136	31.0	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	15.93	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
141	22.7	GC-Q-MS	GC-Q-MS	No	4	3	No
142	24	GC-ECD	GC-ECD	ethyl acetate	1	2	Yes
148	17.44	GC/MS scan	GC/MS scan	No	1	2	Yes
150	9	GC-ECD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Metalaxyl sum							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	24.0	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	25.8	LC-MS/MS	No	No	5	5	Yes
004	11.6	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	20.5	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	22.5	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	32.6	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	21.3	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	31.74	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	34.0	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	21	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	22.6	GC-QQQ-MS/MS	No	No	3	4	Yes
016	30.3	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	26.1	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	23.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	23.32	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	26.3	GC-Q-MS	GC-Q-MS	acetatoetil-ciclohexano	10	2	Yes
023	26.0	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	24.9	GC-ITD-MS/MS	GC-NPD	toluene	2	3	Yes
025	30	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	5.9	LC-MS/MS	LC-MS/MS	No	15	5	No
029	21.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	24.93	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	21.67	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	26	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	28.2	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	26.2	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	24	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	26	LC-MS/MS	LC-MS/MS	No	1	5	No
040	23	GC-Q-MS	No	/	1	2	Yes
042	24.8	LC-MS/MS	LC-MS/MS	-	20	5	No
044	19.5	GC-ITD-MS/MS	GC-ITD-MS/MS	ethyl acetate	1	5	Yes
046	<0.01	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	28.1	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	29.3	GC-Q-MS	LC-MS/MS	No	10	4	Yes
051	32.0	LC-MS/MS	LC-MS/MS	No	20	5	No
052	25.2	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	25.1	GC-NPD	GC-NPD	solvent exchange	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Metalaxyl sum							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
057	22.8	GC-Q-MS	No	No	5	3	No
059	23.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	21.0	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	23.1	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	20.1	LC-MS/MS	GC-Q-MS	No	10	5	No
064	20.2	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	25.8	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	11.7	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	30.9	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	22.6	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	22.7	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	19	GC-NPD	No	No	2	2	No
076	28.6	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	22.17	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	26.3	LC-MS/MS	LC-MS/MS	No	10	5	No
082	24.5	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	2	3	Yes
086	27	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
089	19.58	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	21.449	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	24.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	21.7	LC-MS/MS	No	No	10	5	Yes
094	23.66	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	27.0	LC-MS/MS	No	No	5	1	Yes
098	24.7	GC-NPD	GC-NPD	Yes	2	2	No
102	23	GC-NPD	GC-NPD	Yes	2	2	No
104	28	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	24.8	LC-MS/MS	No	No	15	4	Yes
107	15.9	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.36	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
112	31.535	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
119	20.00	LC-MS	No	Yes	20	5	Yes
120	20.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	20.471	GC-Q-MS	GC-Q-MS	No	5	1	Yes
124	18.3	GC-Q-MS	No	No	8	4	Yes
125	23.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
130	24.3	GC-NPD	No	heksane/acetone	2	2	Yes
133	32.8	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes
135	20.7	GC-ECD	GC-ECD	aceton	1	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Metalaxyl sum							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
136	24.5	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	22.62	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
141	24.6	GC-Q-MS	GC-Q-MS	No	4	3	No
148	15.62	GC/MS scan	GC/MS scan	No	1	2	Yes
150	15	GC-Q-MS	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Methamidophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	34.5	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	43.5	GC-Q-MS	No	toluen	1	2	Yes
004	30.8	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	48.0	LC-MS/MS	LC-MS/MS	No	10	5	No
007	36.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	40.5	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
011	47.08	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	43.1	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	44.4	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	31.8	GC-QQQ-MS/MS	No	No	3	4	Yes
016	44.0	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	46.0	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	37.2	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	15.60	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	48.4	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	41.1	GC-Q-MS	LC-MS/MS	No	2	2	Yes
024	39.5	GC-ITD-MS/MS	No	No	3	5	Yes
025	49	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	34.5	LC-MS/MS	LC-MS/MS	No	15	5	No
029	36.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	21.99	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	37.05	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	48	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	43.1	LC-MS/MS	No	none	3	1	Yes
036	37	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	40	LC-MS/MS	LC-MS/MS	No	1	5	No
040	46.2	LC-MS/MS	No	/	25	5	Yes
042	38.6	LC-MS/MS	LC-MS/MS	-	20	5	No
044	47.3	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	No
046	<0.01	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	43.6	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	34.6	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	41.0	GC-NPD	No	Ethylacetat	1	1	Yes
052	47.9	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	28.55	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	41.8	LC-MS/MS	No	No	55	5	Yes
059	40.9	LC-MS/MS	LC-MS/MS	m	4	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Methamidophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
060	53.5	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	37.8	LC-MS/MS	No	No	5	5	Yes
063	28.2	LC-MS/MS	GC-Q-MS	No	10	5	No
064	33.7	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	30.8	LC-MS/MS	LC-MS/MS	-	10	1	Yes
066	40.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
069	41.7	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	38.3	LC-MS/MS	LC-MS/MS	No	10	1	Yes
076	45.8	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
077	42.90	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	42.6	LC-MS/MS	LC-MS/MS	No	10	5	No
082	74.4	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
085	33.49	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	40.34	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	40.849	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	44.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	42.8	GC-NPD	GC-PFPD	isooctan	2	2	Yes
094	22.41	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	53.6	LC-MS/MS	No	No	5	1	Yes
104	40	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOet	10	3	Yes
106	52.4	GC-FPD	LC-MS/MS	No	1	2	Yes
107	32.9	GC-FPD	GC-TOF/MS	ethyl acetate	1	2	Yes
114	33.01	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
119	68.14	LC-MS	No	Yes	20	5	Yes
120	45.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	34.969	GC-Q-MS	GC-FPD	No	5	1	Yes
124	89.1	GC-Q-MS	No	No	8	4	Yes
125	43.6	LC-MS/MS	LC-MS/MS	No	5	1	Yes
130	43.6	GC-NPD	No	heksane/acetone	2	2	Yes
133	48.1	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes
135	62.9	GC-NPD	GC-NPD	acetone	1	1	Yes
136	40.4	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	7.5	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
142	44	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
148	32.7	LC-MS/MS	LC-MS/MS	No	10	5	Yes
150	45	GC-FPD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Methidathion							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	53.0	GC-NPD	GC-Q-MS	No	1	2	Yes
003	58.1	LC-MS/MS	No	No	5	5	Yes
004	39.3	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	45.2	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	55.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	55.7	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
011	63.12	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	53.3	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	81.5	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	55.2	GC-QQQ-MS/MS	LC-MS/MS	No	3	4	Yes
016	38.2	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	48.5	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	48.2	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	10.52	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	65.5	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	57.5	GC-Q-MS	LC-MS/MS	No	2	2	Yes
024	55.6	GC-NPD	GC-ECD	toluene	2	3	Yes
025	48	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
029	48	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	46.3	GC-NPD	GC-NPD	Yes	1	2	Yes
032	41.09	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	53.00	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	53.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	57.4	LC-MS/MS	No	none	3	1	Yes
036	38	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	57	LC-MS/MS	LC-MS/MS	No	1	5	No
040	33	GC-Q-MS	No	/	1	2	Yes
042	46.8	GC-Q-MS	GC-Q-MS	-	4	3	No
044	54.9	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	39.65	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	57.1	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	38.1	GC-Q-MS	GC-Q-MS	No	10	5	No
051	51.0	GC-NPD	GC-ECD	Ethylacetat	1	1	Yes
052	36.4	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	49.5	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	53.2	GC-Q-MS	LC-MS/MS	No	5	3	No
059	46.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Methidathion							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
060	58.8	GC-Q-MS	GC-Q-MS	No	3	3	Yes
062	48.0	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	47.1	LC-MS/MS	No	No	10	5	No
064	40.6	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	48.0	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	53.1	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
068	52.7	GC-ECD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	61.4	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	52.7	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	57.4	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	59	GC-ECD	GC-NPD	No	2	2	No
076	59.2	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	68.83	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	65.19	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	No
079	57.1	LC-MS/MS	LC-MS/MS	No	10	5	No
082	62.4	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
086	62.1	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	53.39	GC-NPD	GC-ECD	isooctane/toluene 90/10	1	5	No
089	50.53	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	49.807	GC-FPD	GC-NPD	Ethyl Acetate	1	2	Yes
091	57.0	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	56.0	GC-NPD	GC-ECD	isooctan	1	5	Yes
094	50.24	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	54.2	LC-MS/MS	No	No	5	1	Yes
098	59.7	GC-NPD	GC-ECD	Yes	2	2	No
101	65	GC-ECD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	58	GC-NPD	GC-ECD	Yes	2	2	No
104	58	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	59.5	GC-ECD	LC-MS/MS	Isooctan	1	2	Yes
107	34.3	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
112	60.333	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
114	45.95	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
118	74.2	GC-NPD	No	acn	5	3	No
119	58.90	GC-NPD	No	Yes	1	2	Yes
120	57.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	37.998	GC-Q-MS	GC-Q-MS	No	5	1	Yes
123	52.0	GC-ECD	GC-ECD	Yes	2	2	Yes
124	54.9	GC-Q-MS	No	No	8	4	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Methidathion							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
125	53.6	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	60.5	GC-ECD	GC-ECD	heksane/acetone	2	1	Yes
132	58.83	GC-FPD	No	acetone	1	5	Yes
133	52.29	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes
135	45.9	GC-NPD	GC-NPD	aceton	1	1	Yes
136	46.3	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	13.05	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
141	48.6	GC-Q-MS	GC-Q-MS	No	4	3	No
142	58	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
148	35.93	GC/MS scan	GC/MS scan	No	1	2	Yes
150	40	GC-FPD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Methomyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	61.8	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	64.4	LC-MS/MS	No	No	5	5	Yes
006	78.5	LC-MS/MS	LC-MS/MS	No	10	5	No
007	52.0	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	61.8	HPLC-FL	No	CH3OH	10	5	Yes
011	77.00	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	46.24	HPLC-FL	No	No	10	2	Yes
015	65.5	LC-MS/MS	No	No	20	5	Yes
016	68.5	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	86.2	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	54.0	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	58.14	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	71.5	LC-MS/MS	LC-MS/MS	No	10	2	No
024	70	LC-MS/MS	No	No	3	5	Yes
027	3.98	LC-MS/MS	LC-MS/MS	No	15	5	No
030	61.19	LC-MS/MS	LC-MS/MS	No	5	5	Yes
030	61.19	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	56.49	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	65.2	LC-MS/MS	LC-MS/MS	No	10	5	Yes
034	58.4	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	66.1	LC-MS/MS	No	none	3	1	Yes
036	64	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	56	LC-MS/MS	LC-MS/MS	No	1	5	No
040	66.9	LC-MS/MS	No	/	25	5	Yes
042	46.5	LC-MS/MS	LC-MS/MS	-	20	5	No
044	49.8	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	NA	GC-Q-MS	GC-FPD	No	1	2	Yes
047	63.5	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	85.6	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	56.0	LC-MS/MS	LC-MS/MS	No	20	5	No
052	65.9	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	65.1	LC-MS/MS	LC-MS/MS	solvent exchange	1	2	Yes
057	53.4	LC-MS/MS	No	No	55	5	Yes
059	65.9	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	55.3	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	57.9	LC-MS/MS	No	No	5	5	Yes
063	45.4	LC-MS/MS	No	No	10	5	No
064	56.4	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Methomyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
065	40.1	LC-MS/MS	LC-MS/MS	-	10	1	Yes
066	49.3	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	64.8	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	41.7	LC-MS/MS	LC-MS/MS	No	10	1	No
076	82.5	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
077	23.99	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	58.8	HPLC-FL	No	acetonitrile	100	5	Yes
079	61.2	LC-MS/MS	LC-MS/MS	No	10	5	No
082	54.5	HPLC-UV	HPLC-DAD	Yes	20	5	Yes
085	61.64	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	41.99	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	59.125	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	62.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	53.9	LC-MS/MS	No	No	10	5	Yes
096	58.2	LC-MS/MS	No	No	5	1	Yes
104	13	LC-MS/MS	LC-MS/MS	ACN	15	1	No
107	64.2	HPLC-FL	HPLC-FL	acidified water	200	1	Yes
119	53.20	LC-MS	No	Yes	20	5	Yes
120	52.7	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	71.200	LC-MS/MS	LC-MS/MS	No	6	2	Yes
124	62.9	LC-MS/MS	HPLC-DAD	No	5	5	Yes
125	64.4	LC-MS/MS	LC-MS/MS	No	5	1	Yes
135	35.5	HPLC-DAD	HPLC-DAD	No	20	5	Yes
136	63.2	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	66.83	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	24.85	LC-MS/MS	LC-MS/MS	No	10	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Monocrotophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	35.5	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	46.5	LC-MS/MS	No	No	5	5	Yes
004	45.5	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	45.0	LC-MS/MS	LC-MS/MS	No	10	5	No
007	39.2	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	28.3	GC-NPD	GC-ITD-MS/MS	No	2	2	Yes
011	49.73	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	34.4	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
015	46.5	LC-MS/MS	No	No	20	5	Yes
016	76.3	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
019	42.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	11.00	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
023	48.0	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	43.8	GC-NPD	GC-ITD-MS/MS	toluene	2	3	Yes
025	47	GC-NPD	GC-ITD-MS/MS	isoflthane	2	3	Yes
027	5.35	LC-MS/MS	LC-MS/MS	No	15	5	No
029	36	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	40.67	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	40.14	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	44.50	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	46.8	LC-MS/MS	No	none	3	1	Yes
036	46	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	47	LC-MS/MS	LC-MS/MS	No	1	5	No
040	43.9	LC-MS/MS	No	/	25	5	Yes
042	44.6	LC-MS/MS	LC-MS/MS	-	20	5	No
044	67.0	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	28.475	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	46.8	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	46.8	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	40.0	GC-NPD	No	Ethylacetat	1	1	Yes
052	38.2	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	31.4	GC-NPD	GC-NPD	solvent exchange	1	2	Yes
057	46.3	LC-MS/MS	GC-Q-MS	No	55	5	Yes
059	50.8	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	39.5	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	45.8	LC-MS/MS	No	No	5	5	Yes
063	31.6	LC-MS/MS	GC-Q-MS	No	10	5	No

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Monocrotophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
064	45.1	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
065	42.1	LC-MS/MS	LC-MS/MS	-	10	1	Yes
066	30.8	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	51.1	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	39.2	LC-MS/MS	LC-MS/MS	No	10	1	Yes
072	37.7	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
076	59.9	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
077	56.50	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	46.3	LC-MS/MS	LC-MS/MS	No	10	5	No
082	42.5	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
085	41.97	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	35.93	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	42.46	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	43.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	43.1	GC-PFPD	GC-NPD	isooctan	2	2	Yes
096	43.7	LC-MS/MS	No	No	5	1	Yes
104	47	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	44.9	LC-MS/MS	No	No	15	4	Yes
119	59.60	LC-MS	No	Yes	20	5	Yes
120	41.0	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	39.414	GC-Q-MS	GC-FPD	No	5	1	Yes
125	47.7	LC-MS/MS	LC-MS/MS	No	5	1	Yes
133	46.95	GC-NPD	GC-Q-MS	athyl acetaste	1	2	Yes
135	41.6	GC-NPD	GC-NPD	aceton	1	1	Yes
136	44.4	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	39.06	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	9.54	GC/MS scan	GC/MS scan	No	1	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Oxamyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (ul)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	91.9	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	78.1	LC-MS/MS	No	No	5	5	Yes
004	73.5	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	94.0	LC-MS/MS	LC-MS/MS	No	10	5	No
007	66.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	65.5	HPLC-FL	GC-Q-MS	CH3OH	10	5	Yes
011	82.50	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
012	52.25	HPLC-FL	No	No	10	2	Yes
015	73.1	LC-MS/MS	No	No	20	4	Yes
016	85.5	LC-MS/MS	LC-MS/MS	Yes	6	1	Yes
017	88.4	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	60.3	LC-MS/MS	GC-ECD	No	5	5	Yes
020	88.14	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	72.1	LC-MS/MS	LC-MS/MS	No	10	2	No
024	55	LC-MS/MS	No	No	3	5	Yes
027	5.47	LC-MS/MS	LC-MS/MS	No	15	5	No
029	72.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	66.75	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	70.14	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	68.40	LC-MS/MS	LC-MS/MS	No	10	5	Yes
035	71.5	LC-MS/MS	No	none	3	1	Yes
036	76	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	70	LC-MS/MS	LC-MS/MS	No	1	5	No
040	78.6	LC-MS/MS	No	/	25	5	Yes
042	73.3	LC-MS/MS	LC-MS/MS	-	20	5	No
044	60.1	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	85.8	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	85.1	LC-MS/MS	LC-MS/MS	Yes	3	5	No
051	72.5	LC-MS/MS	LC-MS/MS	No	20	5	No
052	77.9	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	66.3	GC-NPD	GC-NPD	solvent exchange	1	2	Yes
057	67.7	LC-MS/MS	No	No	55	5	Yes
059	63.5	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	59.5	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	52.3	LC-MS/MS	No	No	5	5	Yes
063	50.7	LC-MS/MS	No	No	10	5	No
064	73.4	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Oxamyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
066	65.8	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	79.7	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	59.3	LC-MS/MS	LC-MS/MS	No	10	1	No
076	114.5	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
078	66.25	HPLC-FL	No	acetonitrile	100	5	Yes
079	77.5	LC-MS/MS	LC-MS/MS	No	10	5	No
082	69.4	HPLC-UV	HPLC-DAD	Yes	20	5	Yes
085	73.52	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	70.99	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	58.393	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	74.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	64.4	LC-MS/MS	No	No	10	5	Yes
096	69.9	LC-MS/MS	No	No	5	1	Yes
106	61.1	LC-MS/MS	No	No	15	4	Yes
107	71.6	HPLC-FL	HPLC-FL	acidified water	200	1	Yes
119	70.50	LC-MS	No	Yes	20	5	Yes
120	64.5	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	79.083	LC-MS/MS	LC-MS/MS	No	6	2	Yes
125	70.9	LC-MS/MS	LC-MS/MS	No	5	1	Yes
135	48.6	HPLC-DAD	HPLC-DAD	No	20	5	Yes
136	73.8	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	59.03	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	66.5	LC-MS/MS	LC-MS/MS	No	10	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Parathion-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	44.0	GC-NPD	GC-Q-MS	No	1	2	Yes
003	37.3	GC-Q-MS	No	toluen	1	2	Yes
004	22.7	GC-Q-MS	GC-Q-MS	cyclohexane	1	1	Yes
006	32.5	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	51.8	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	3	3	Yes
009	44.1	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
010	42.1	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	51.50	GC-ECD	LC-MS/MS	Yes	1	2	No
013	57.0	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	50.8	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	45.6	GC-QQQ-MS/MS	No	No	3	4	Yes
016	36.7	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	41.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	40.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	17.16	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	66	GC-Q-MS	GC-Q-MS	acetatoetil-ciclohexano	10	2	Yes
023	45.2	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	45.5	GC-ITD-MS/MS	GC-NPD	toluene	1	2	Yes
025	55	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	0.175	GC-Q-MS	GC-Q-MS	No	1	2	No
029	40.8	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	45.2	GC-NPD	GC-NPD	Yes	1	2	Yes
032	41.70	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	47.75	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	42.3	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	34	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	53	GC-Q-MS	GC-Q-MS	No	5	1	No
040	15	GC-Q-MS	No	/	1	2	Yes
042	40.4	GC-Q-MS	GC-Q-MS	-	4	3	No
044	42.1	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	22.435	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	44.3	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	28.8	GC-Q-MS	GC-Q-MS	No	10	4	No
051	48.0	GC-NPD	GC-ECD	Ethylacetat	1	1	Yes
052	29.4	GC-NPD	GC-NPD	No	1	2	Yes
054	23.2	GC-ECD	GC-MS	solvent exchange	1	2	Yes
057	41.9	GC-Q-MS	No	No	5	3	No

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Parathion-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
059	46.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	44.5	GC-Q-MS	GC-Q-MS	No	3	3	Yes
062	42.1	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	45.0	GC-FPD	GC-Q-MS	No	2	3	No
065	42.8	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	40.8	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
068	41.8	GC-NPD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	47.0	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	43.8	GC-Q-MS	GC-Q-MS	isooctan	3	3	Yes
072	34.8	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	50	GC-ECD	GC-NPD	No	2	2	No
076	46.7	GC-Q-MS	GC-Q-MS	46.7	1	2	Yes
077	36.67	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	54.23	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	45.0	LC-MS/MS	LC-MS/MS	No	10	5	No
082	50.5	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
088	37.62	GC-NPD	GC-ECD	isooctane/toluene	1	5	No
089	35.56	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	45.316	GC-FPD	GC-NPD	Ethyl Acetate	1	2	Yes
091	54.7	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
093	51.3	GC-NPD	GC-ECD	isooctan	1	5	Yes
094	48.34	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	45.8	LC-MS/MS	No	No	5	1	Yes
098	47.1	GC-ECD	GC-NPD	Yes	2	2	No
101	62.1	GC-NPD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	50	GC-NPD	GC-ECD	Yes	2	2	No
104	44	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	44.8	GC-ECD	GC-FPD	isooctan	1	2	Yes
107	31.2	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.05	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
114	37.04	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
118	46.0	GC-NPD	No	acn	5	3	No
119	47.60	GC-NPD	No	Yes	1	2	Yes
120	54.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	32.962	GC-Q-MS	GC-FPD	No	5	1	Yes
123	46.3	GC-ECD	GC-ECD	Yes	2	2	Yes
125	43.6	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	52.3	GC-NPD	No	heksane/acetone	2	2	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Parathion-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
133	41.5	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	35.9	GC-NPD	GC-NPD	acetone	1	1	Yes
136	40.6	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	14.85	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
138	28.93	GC-MS	No	Acetone	1	2	Yes
141	32.3	GC-Q-MS	GC-Q-MS	No	4	3	No
142	55	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
148	30.64	GC/MS scan	GC/MS scan	No	1	2	Yes
150	35	GC-FPD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Paraoxon-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	41.6	GC-NPD	GC-Q-MS	No	1	2	Yes
003	36.0	GC-Q-MS	No	Toluene	1	2	Yes
006	58.2	LC-MS/MS	LC-MS/MS	No	10	5	No
007	43.7	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	32.8	GC-Q-MS	GC-ITD-MS/MS	No	2	2	Yes
011	42.95	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	47.2	GC-NPD	GC-Q-MS	Isooctane	1	2	Yes
014	45.4	GC-NPD	GC-Q-MS	Isooctane	3	2	Yes
015	27.9	GC-QQQ-MS/MS	No	No	3	4	Yes
019	34.0	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	8.88	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
023	44.5	GC-Q-MS	GC-Q-MS	No	2	1	Yes
024	34.2	GC-ITD-MS/MS	GC-NPD	toluene	1	2	Yes
025	34	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
029	34.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	34.63	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	19.12	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
035	42.1	LC-MS/MS	No	none	3	1	Yes
036	41	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	39	LC-MS/MS	LC-MS/MS	No	1	5	No
040	23	GC-Q-MS	No	/	1	2	Yes
042	35.9	GC-Q-MS	GC-Q-MS	-	4	3	No
044	49.2	GC-ITD-MS/MS	GC-FPD	Ethyl Acetate	1	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	40.7	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	43.9	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	41.0	GC-NPD	GC-ECD	EthylAcetate	1	1	Yes
052	33.4	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	28.2	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	42.2	GC-Q-MS	LC-MS/MS	No	5	3	No
059	50.0	GC-Q-MS	GC/ECD.GC/NPD	Acetone	2	2	Yes
060	42.0	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	31.1	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	35.6	GC-FPD	GC-Q-MS	No	2	3	No
064	39.7	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
066	30.9	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	44.1	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
071	57.5	GC-Q-MS	GC-Q-MS	Isooctane	3	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Paraoxon-methyl							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
072	35.5	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
076	77.3	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	91.67	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	49.17	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	42.3	LC-MS/MS	LC-MS/MS	No	10	5	No
089	31.05	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	37.351	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	62.0	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
094	19.6	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	39.5	LC-MS/MS	No	No	5	1	Yes
101	38.4	GC-NPD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
106	47.6	GC-ECD	LC-MS/MS	Isooctan	1	2	Yes
120	38.5	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	25.270	GC-Q-MS	GC-FPD	No	5	1	Yes
124	35.0	GC-Q-MS	No	No	8	4	Yes
130	33.6	GC-NPD	GC-ECD	heksane/acetone	2	2	Yes
133	41.2	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes
136	24.8	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	5.12	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
148	30.09	GC/MS scan	GC/MS scan	No	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Phosalone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	80.0	GC-NPD	GC-Q-MS	No	1	2	Yes
003	86.3	LC-MS/MS	No	No	5	5	Yes
004	75.3	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	65.8	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
009	65.8	GC-Q-MS	GC-Q-MS	No	2	2	Yes
010	66.0	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	100.13	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
013	90.0	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	86.7	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	62.9	GC-QQQ-MS/MS	No	No	3	4	Yes
016	56.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	3	Yes
017	47.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	66.4	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	25.08	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	101	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	85.3	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	84.2	GC-ITD-MS/MS	GC-ECD	toluene	1	2	Yes
025	72	GC-NPD	GC-ITD-MS/MS	isottane	2	1	Yes
027	3.36	LC-MS/MS	LC-MS/MS	No	15	5	No
029	67.5	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	76.0	GC-ECD	GC-NPD	Yes	1	2	Yes
032	68.92	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	90.25	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	88.8	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	79.4	LC-MS/MS	No	none	3	1	Yes
036	67	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	82	GC-Q-MS	GC-Q-MS	No	5	1	No
040	66	GC-Q-MS	No	/	1	2	Yes
042	78.1	GC-Q-MS	GC-Q-MS	-	4	3	No
044	85.9	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	87.34	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	72.8	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	58.9	GC-Q-MS	GC-Q-MS	No	10	4	No
051	84.0	GC-ECD	GC-NPD	Ethylacetat	1	1	Yes
052	68.3	GC-NPD	GC-QQQ-MS/MS	No	1	2	Yes
054	82.15	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	69.6	GC-Q-MS	LC-MS/MS	No	5	3	No

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Phosalone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
059	94.8	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	79.8	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	72.5	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	80.3	GC-Q-MS	GC-Q-MS	No	2	3	No
064	74.2	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	72.9	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	80.0	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
069	68.7	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	79.8	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	37.4	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	88	GC-ECD	GC-NPD	No	2	2	No
076	95.6	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	83.00	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	83.34	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	No
079	81.4	LC-MS/MS	LC-MS/MS	No	10	5	No
082	84.5	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
086	90.2	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	79.18	GC-NPD	GC-NPD	isooctane/toluene 90/10	1	5	No
089	67.51	LC-MS/MS	LC-MS/MS	No	10	1	Yes
091	88.9	LC-MS/MS	GC-ITD-MS/MS	No	5	5	Yes
093	76.9	GC-ECD	GC-NPD	isooctan	1	2	Yes
094	75.72	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	72.7	LC-MS/MS	No	No	5	1	Yes
098	102.0	GC-ECD	GC-ECD	Yes	2	2	No
101	84.6	GC-ITD-MS/MS	GC-NPD	Ethyle Acetate	1	2	Yes
102	100	GC-NPD	GC-ECD	Yes	2	2	No
104	83	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	83.0	GC-ECD	LC-MS/MS	Isooctan	1	2	Yes
107	48.0	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.10	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
114	66.47	GC-ECD	GC-ECD	toluene acetone	1	1	Yes
119	76.00	GC-NPD	No	Yes	1	2	Yes
120	80.3	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	53.742	GC-Q-MS	GC-FPD	No	5	1	Yes
124	89.2	GC-Q-MS	No	No	8	4	Yes
125	85.4	GC-ITD-MS	GC-ITD-MS	No	5	4	No
129	80	GC-NPD	GC-NPD	ethyl acetate	1	2	Yes
132	57.35	GC-FPD	No	acetone	1	5	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Phosalone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
133	56.9	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	66.7	GC-NPD	GC-NPD	aceton	1	1	Yes
136	75.8	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	27.15	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
138	35.30	GC-MS	No	Acetone	1	2	Yes
141	62.3	GC-Q-MS	GC-Q-MS	No	4	3	No
142	79	GC-ECD	GC-ECD	ethyl acetate	1	2	Yes
148	55.95	GC/MS scan	GC/MS scan	No	1	2	Yes
150	44	GC-FPD	GC-Q-MS	isohexane	2	1	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Procymidone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	20.3	GC-ECD	GC-Q-MS	No	1	2	Yes
003	25.0	GC-Q-MS	No	toluen	1	2	Yes
004	21.9	GC-Q-MS	GC-Q-MS	cyclohexane	1	1	Yes
006	17.5	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	23.2	GC-Q-MS	GC-QQQ-MS/MS	No	3	3	Yes
009	15.9	GC-Q-MS	GC-Q-MS	No	2	2	Yes
010	21.0	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
011	25.9	GC-ECD	LC-MS/MS	Yes	1	2	No
012	0.482	GC-ITD-MS/MS	No	No	1.5	2	Yes
013	22.1	GC-ECD	GC-Q-MS	isooctane	1	2	Yes
014	20.9	GC-ECD	GC-Q-MS	isottano	3	2	Yes
015	22.4	GC-QQQ-MS/MS	No	No	3	4	Yes
016	19.3	GC-ECD	GC-ECD	Yes	2	2	Yes
017	18.7	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	21.0	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	19.72	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	20.1	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	22.2	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	26.9	GC-ITD-MS/MS	GC-NPD	toluene	1	2	Yes
025	21	GC-ITD-MS/MS	GC-ITD-MS/MS	isottane	2	3	Yes
027	10.1	GC-Q-MS	GC-Q-MS	No	1	2	No
029	24.6	GC-Q-MS	GC-Q-MS	Yes	1	1	Yes
030	25.1	GC-NPD	GC-NPD	Yes	1	2	Yes
032	18.25	GC-Q-MS	GC-Q-MS	Yes	0.8	2	Yes
033	23.25	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
034	29.9	GC-Q-MS	GC-Q-MS	Yes	2	2	Yes
035	21.5	GC-QQQ-MS/MS	LC-MS/MS	none	3	3	Yes
036	22	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	21	GC-Q-MS	LC-MS/MS	No	5	1	No
040	23	GC-Q-MS	No	No	1	2	Yes
042	21.3	GC-Q-MS	GC-Q-MS	-	4	3	No
044	26.4	GC-ITD-MS/MS	GC-ECD	ethyl acetate	1	5	Yes
046	17.215	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	21.6	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	21.6	GC-Q-MS	GC-Q-MS	No	10	4	No
051	20.0	GC-ECD	GC-NPD	Ethylacetat	1	1	Yes
052	22.6	GC-ECD	GC-QQQ-MS/MS	No	1	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Procymidone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
054	33.0	GC-ECD	GC-MS	solvent exchange	1	2	Yes
057	22.6	GC-Q-MS	No	No	5	3	No
059	23.7	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
062	21.7	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	19.3	GC-Q-MS	GC-Q-MS	No	2	3	No
064	15.9	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	19.7	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	19.6	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Salad matrix	5	3	Yes
068	19.3	GC-ECD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	21.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	20.3	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	19.1	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	20	GC-ECD	No	No	2	2	No
076	23.7	GC-Q-MS	GC-Q-MS	Acetonitril	1	2	Yes
077	20.50	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
078	23.71	GC-ECD	GC-ITD-MS/MS	ethyl acetate	1	3	Yes
079	20.8	GC-ECD	GC-ECD	Isooctane + Acetone	1	2	Yes
082	24.0	GC-ECD	GC-ITD-MS/MS	Yes	2	3	Yes
084	23	GC-ECD	GC-ECD	Acetato de Etilo	1	2	Yes
086	21.7	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	22.47	GC-ECD	GC-ECD	isooctane/toluene 90/10	1	2	No
089	21.75	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	24.294	GC-ECD	GC-ECD	Ethyl Acetate	1	2	Yes
091	29.1	GC-ITD-MS/MS	GC-ITD-MS/MS	No	5	4	Yes
093	23.4	GC-ECD	GC-NPD	isooctan	1	5	Yes
094	23.20	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	29.0	LC-MS/MS	No	No	5	1	Yes
098	22.1	GC-ECD	GC-ECD	Yes	2	2	No
099	22.29	GC-Q-MS	No	No	2	2	Yes
101	25.4	GC-ECD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	21	GC-NPD	GC-ECD	Yes	2	2	No
104	23	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	24.6	GC-ECD	GC-Q-MS	Isooctan	1	2	Yes
107	18.0	GC-ECD	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.8	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
112	19.432	GC-Q-MS	GC-Q-MS	Acetonitril	2.0	2	Yes
114	19.84	GC-ECD	GC-ECD	toluene acetone	1	1	Yes
118	25.7	GC-ECD	No	acn	1	2	No

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Procymidone							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
119	23.60	GC-ECD	No	Yes	1	2	Yes
120	22.4	GC-ECD	GC-ITD-MS/MS	Yes	1	2	Yes
121	19.005	GC-Q-MS	GC-Q-MS	No	5	1	Yes
123	22.8	GC-ECD	GC-ECD	Yes	2	2	Yes
124	17.3	GC-Q-MS	No	No	8	4	Yes
125	20.2	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	23.6	GC-ECD	GC-ECD	heksane/acetone	2	1	Yes
133	22.66	GC-ECD	GC-Q-MS	ethyl acetate	1	2	Yes
135	20.2	GC-ECD	GC-ECD	aceton	1	2	Yes
136	18.5	GC-Q-MS	GC-Q-MS	No	3	2	Yes
137	18.99	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
141	20.5	GC-Q-MS	GC-Q-MS	No	4	3	No
142	23	GC-ECD	GC-ECD	ethyl acetate	1	2	Yes
148	23.55	GC/MS scan	GC/MS scan	No	1	2	Yes
150	15.6	GC-ECD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

*Thiacloprid							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	37.4	LC-MS/MS	LC-MS/MS	No	1	5	Yes
003	41.2	LC-MS/MS	No	No	5	5	Yes
004	36.5	LC-MS/MS	LC-MS/MS	No	50	2	Yes
006	53.2	LC-MS/MS	LC-MS/MS	No	10	5	No
007	35.1	LC-MS/MS	LC-MS/MS	No	5	5	Yes
009	33	HPLC-DAD	No	CH3OH	50	5	Yes
011	58.13	LC-MS/MS	LC-MS/MS	MeOH/H2O (30/70)	10	5	No
015	42.1	LC-MS/MS	No	No	20	5	Yes
017	42.5	LC-MS/MS	LC-MS/MS	No	10	2	Yes
019	34.9	LC-MS/MS	LC-MS/MS	No	5	5	Yes
020	41.56	LC-MS/MS	LC-MS/MS	ACN:H2O 1:3	7	1	No
023	47.8	LC-MS/MS	LC-MS/MS	No	10	2	No
024	33.5	LC-MS/MS	No	No	3	5	Yes
027	3.58	LC-MS/MS	LC-MS/MS	No	15	5	No
029	34.1	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	37.8	LC-MS/MS	LC-MS/MS	No	5	5	Yes
032	33.96	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	23.5	LC-MS/MS	LC-MS/MS	No	10	5	Yes
034	35.3	LC-MS/MS	LC-MS/MS	No	5	1	Yes
035	40.0	LC-MS/MS	No	none	3	1	Yes
036	36	LC-MS/MS	LC-MS/MS	No	10	1	Yes
039	38	LC-MS/MS	LC-MS/MS	No	1	5	No
040	38.8	LC-MS/MS	No	/	25	5	Yes
042	36.0	LC-MS/MS	LC-MS/MS	-	20	5	No
044	36.7	LC-MS/MS	LC-MS/MS	water/methanol	10	5	Yes
046	NA	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	41.0	LC-MS/MS	LC-MS/MS	No	3	1	Yes
050	45.7	LC-MS/MS	LC-MS/MS	Yes	3	5	Yes
051	32.3	LC-MS/MS	LC-MS/MS	No	20	5	No
052	38.1	LC-MS/MS	LC-MS/MS	No	20	2	Yes
054	37.4	LC-MS/MS	LC-MS/MS	solvent exchange	1	2	Yes
057	38.7	LC-MS/MS	No	No	55	5	Yes
059	38.9	LC-MS/MS	LC-MS/MS	methanol	4	5	Yes
060	33.0	LC-MS/MS	LC-MS/MS	No	8	1	Yes
062	36.3	LC-MS/MS	No	No	5	5	Yes
063	35.4	LC-MS/MS	No	No	10	5	No
064	37.3	LC-MS/MS	LC-MS/MS	Yes	10	2	Yes
066	33.3	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

*Thiacloprid							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
069	47.1	LC-MS/MS	LC-MS/MS	MeOH	5	1	Yes
076	51.7	LC-MS/MS	LC-MS/MS	Acetonitril	1	1	Yes
079	39.2	LC-MS/MS	LC-MS/MS	No	10	5	No
082	42.5	HPLC-UV	HPLC-DAD	Yes	20	5	Yes
085	46.97	LC-MS/MS	LC-MS/MS	methanol	5	5	Yes
089	32.47	LC-MS/MS	LC-MS/MS	No	10	1	Yes
090	38.425	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	42.1	LC-MS/MS	LC-MS/MS	No	5	5	Yes
093	35.1	LC-MS/MS	No	No	10	5	Yes
096	36.4	LC-MS/MS	No	No	5	1	Yes
104	20	LC-MS/MS	LC-MS/MS	ACN	15	1	No
106	44.6	LC-MS/MS	No	No	15	4	Yes
119	34.60	LC-MS	No	Yes	20	5	Yes
120	31.6	HPLC-DAD	HPLC-DAD	No	20	5	Yes
121	52.500	LC-MS/MS	LC-MS/MS	No	6	2	Yes
124	42.5	LC-MS/MS	HPLC-DAD	No	5	5	Yes
135	32.9	HPLC-DAD	HPLC-DAD	No	20	5	Yes
136	42.2	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	40.06	LC-MS/MS	LC-MS/MS	Acetonitrilo	10	5	Yes
148	59.35	LC-MS/MS	LC-MS/MS	No	10	5	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Triazophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
002	28.1	GC-NPD	GC-Q-MS	No	1	2	Yes
003	33.0	LC-MS/MS	No	No	5	5	Yes
006	27.8	GC-Q-MS	GC-ITD-MS/MS	Cyclohexane	2	2	No
007	38.7	GC-Q-MS	GC-QQQ-MS/MS	No	3	3	Yes
009	13	GC-Q-MS	GC-Q-MS	No	2	2	Yes
011	24.5	GC-NPD	LC-MS/MS	Yes	1	2	No
013	34.3	GC-NPD	GC-Q-MS	isooctane	1	2	Yes
014	40.1	GC-NPD	GC-Q-MS	isottano	3	2	Yes
015	36.3	GC-QQQ-MS/MS	No	No	3	4	Yes
016	32.4	GC-NPD	GC-NPD	Yes	2	2	Yes
017	24.5	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	4	4	Yes
019	29.2	GC-QQQ-MS/MS	GC-QQQ-MS/MS	Yes	1	2	Yes
020	12.56	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt:C6H12 1:9	10	4	No
022	42	GC-Q-MS	GC-Q-MS	acetatoetilo-ciclohexano	10	2	Yes
023	32.6	GC-Q-MS	GC-Q-MS	No	2	2	Yes
024	29.2	GC-NPD	GC-ITD-MS/MS	toluene	2	3	Yes
025	33	GC-NPD	GC-ITD-MS/MS	isottane	2	3	Yes
027	12.6	LC-MS/MS	LC-MS/MS	No	15	5	No
029	23.7	LC-MS/MS	LC-MS/MS	No	5	1	Yes
030	39.9	GC-NPD	GC-NPD	Yes	1	2	Yes
032	24.66	LC-MS/MS	LC-MS/MS	No	3	1	Yes
033	55.00	GC-ITD-MS/MS	GC-ITD-MS/MS	ciclohexane	10	4	Yes
035	34.6	LC-MS/MS	No	none	3	1	Yes
036	28	GC-Q-MS	GC-Q-MS	Yes	10	4	Yes
039	34	GC-Q-MS	GC-Q-MS	No	5	1	No
040	17	GC-Q-MS	No	/	1	2	Yes
042	28.8	GC-Q-MS	GC-Q-MS	-	4	3	No
044	40.6	GC-ITD-MS/MS	GC-FPD	ethyl acetate	1	5	Yes
046	30.64	GC-Q-MS	GC-Q-MS	No	1	2	Yes
047	30.9	GC-TOF/MS	GC-TOF/MS	No	3	3	Yes
050	22.7	GC-Q-MS	GC-Q-MS	No	10	4	No
051	27.0	GC-NPD	No	Ethylacetat	1	1	Yes
052	20.0	GC-QQQ-MS/MS	GC-QQQ-MS/MS	No	1	2	Yes
054	23.0	GC-NPD	GC-MS	solvent exchange	1	2	Yes
057	27.5	GC-Q-MS	No	No	5	3	No
059	43.5	GC-Q-MS	GC/ECD.GC/NPD	acetone	2	2	Yes
060	29.7	GC-Q-MS	GC-Q-MS	No	3	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Triazophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standard solution?
062	28.3	GC-Q-MS	GC-Q-MS	No	10	3	Yes
063	29.4	LC-MS/MS	GC-Q-MS	No	10	5	No
064	16.6	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
065	27.4	GC-Q-MS	GC-Q-MS	-	2	2	Yes
066	24.6	LC-MS/MS	LC-MS/MS	10 % Methanol	20	5	Yes
068	29.8	GC-NPD	GC-QQQ-MS/MS	Yes	4	2	Yes
069	37.9	GC-QQQ-MS/MS	GC-QQQ-MS/MS	EtOAc/ch	2	2	Yes
071	36.2	GC-Q-MS	GC-Q-MS	Isooctan	3	3	Yes
072	31.9	GC-ITD-MS/MS	GC-ITD-MS/MS	Yes	1	5	Yes
074	30	GC-ECD	No	No	2	2	No
076	31.2	GC-Q-MS	GC-ECD	Acetonitril	1	2	Yes
077	29.50	GC-Q-MS	GC-Q-MS	Yes	1	2	Yes
079	30.7	LC-MS/MS	LC-MS/MS	No	10	5	No
082	31.6	GC-FPD	GC-ITD-MS/MS	Yes	2	3	Yes
085	28.09	GC-MS	LC-MS/MS	methanol	5	5	Yes
086	22.2	GC-Q-MS	GC-Q-MS	Acetonitril	2	2	No
088	26.20	GC-NPD	GC-NPD	isooctane/toluene 90/10	1	5	No
089	22.52	GC-IT/MS	GC-IT/MS	No	1	2	Yes
090	32.372	LC-MS/MS	LC-MS/MS	No	20	1	Yes
091	32.1	LC-MS/MS	GC-ITD-MS/MS	No	5	5	Yes
093	30.2	GC-NPD	GC-PFPD	isooctan	1	5	Yes
094	24.04	GC-Q-MS	GC-Q-MS	acetone	1	2	Yes
096	30.5	LC-MS/MS	No	No	5	1	Yes
098	34.1	GC-NPD	GC-NPD	Yes	2	2	No
101	30	GC-NPD	GC-ITD-MS/MS	Ethyle Acetate	4	3	Yes
102	33	GC-NPD	GC-ECD	Yes	2	2	No
104	38	GC-ITD-MS/MS	GC-ITD-MS/MS	AcOEt	10	3	Yes
106	47.9	GC-FPD	LC-MS/MS	No	1	2	Yes
107	16.0	GC-TOF/MS	GC-TOF/MS	ethyl acetate	1	2	Yes
111	0.30	GC-Q-MS	GC-Q-MS	acetonitrile	5	2	Yes
114	26.15	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
118	30.8	GC-NPD	No	acn	5	3	No
119	36.10	GC-NPD	No	Yes	1	2	Yes
120	32.3	GC-NPD	GC-ITD-MS/MS	Yes	1	2	Yes
121	16.010	GC-Q-MS	GC-FPD	No	5	1	Yes
124	16.3	GC-Q-MS	No	No	8	4	Yes
125	30.7	GC-ITD-MS	GC-ITD-MS	No	5	4	No
130	30.3	GC-NPD	No	heksane/acetone	2	2	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

Triazophos							
Lab	Concentration (mg/L)	Determination Technique	Confirmation Technique	Solvent Exchange (if any)	Injection Volume (µl)	Injection Type (if applicable)	Have you used the same Standard solution to quantify EUPT-FV matrix than to quantify this Standar solution?
132	23.58	GC-FPD	No	acetone	1	5	Yes
133	43.4	GC-NPD	GC-Q-MS	ethyl acetate	1	2	Yes
135	20.3	GC-NPD	GC-NPD	acetone	1	1	Yes
136	23.7	LC-MS/MS	LC-MS/MS	No	20	2	Yes
137	14.18	GC-ITD-MS/MS	GC-ITD-MS/MS	Acetonitrilo	10	3	Yes
142	21	GC-NPD	GC-NPD	ethyl acetate	5	2	Yes
148	22.60	GC/MS scan	GC/MS scan	No	1	2	Yes
150	33	GC-FPD	GC-Q-MS	isohexane	2	3	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

Table 3. List of EUPT-FV-11 standard solution ring test participants.

COUNTRY	LABORATORY NAME	CITY	PARTICIPATION	REPORTED RESULTS
AUSTRIA	AGES Competence Center for Residues of Plant Protection Products	INNSBRUCK	Yes	Yes
AUSTRIA	Competence Centre for Residue Analysis, Austrian Agency for Health and Food Safety	WIEN	Yes	No
BELGIUM	Fytolab	ZWIJNAARDE	Yes	Yes
BELGIUM	Scientific Institute of Public Health	BRUXELLES	Yes	Yes
BELGIUM	LOVAP	GEEL	Yes	Yes
BELGIUM	Eurofins Belgium NV	OOSTKAMP	Yes	Yes
BULGARIA	Central Laboratory for Chemical Testing and Control	SOFIA	Yes	Yes
BULGARIA	Laboratory Analysis Directorate - Regional Inspectorate for Public Health Protection and Control - Pleven	PLEVEN	Yes	Yes
BULGARIA	Regional Inspectorate for Public Health Protection and Control, Directorate Laboratory Analysis	SOFIA	Yes	Yes
BULGARIA	Regional Inspectorate for Public Health Protection and Control - Veliko Tarnovo	VELIKO TARNOVO	Yes	Yes
BULGARIA	RIOKOZ - Plovdiv	PLOVDIV	Yes	Yes
BULGARIA	RIOKOZ - Varna	VARNA	No	No
CYPRUS	Pesticide Residues Laboratory of the State General Laboratory	NICOSIA	No	No
CZECH REPUBLIC	Institute of Chemical Technology, Prague	PRAGUE	Yes	Yes
CZECH REPUBLIC	Czech Agriculture and Food Inspection Authority	PRAHA	Yes	No
DENMARK	Danish Vet, and Food Adm. Region East	DENMARK	Yes	Yes
DENMARK	National Food Institute, DTU	SOEBORG	Yes	Yes
EGYPT	Central Lab of Residue Analysis of Pesticides and Heavy Metals in Foods	GIZA	Yes	Yes
ESTONIA	Laboratory for Residues and Contaminants, Agricultural Research Centre	SAKU	Yes	Yes
ESTONIA	Tartu Laboratory of Health Protection Inspectorate	TARTU	Yes	No
FINLAND	Finnish Customs Laboratory	ESPOO	Yes	Yes
FINLAND	Metropolilab	HELSINKI	Yes	No
FRANCE	Laboratoire du SCL de Montpellier	MONTPELLIER	Yes	Yes
FRANCE	SCL - Laboratoire de d'Ile de France Massy	MASSY CEDEX	Yes	Yes
FRANCE	SCL - Rennes	RENNES	Yes	Yes
FRANCE	SCL - Strasbourg	ILLKIRCH	Yes	Yes
FRANCE	SCL Laboratoire de Pessac	PESSAC	Yes	Yes
FRANCE	Laboratoire Départemental de la Sarthe	LE MANS	Yes	No
GERMANY	Landesuntersuchungsanstalt für das Gesundheits- und Veterinärwesen (LUA) Sachsen	DRESDEN	Yes	Yes
GERMANY	CVUA Stuttgart	FELLBACH	Yes	Yes
GERMANY	Landesbetrieb Hessisches Landeslabor	KASSEL	Yes	Yes
GERMANY	Landesamt für Landwirtschaft, Lebensmittelsicherheit und Fischerei Mecklenburg-Vorpommern	ROSTOCK	Yes	Yes
GERMANY	Niedersaechsisches Landesamt für Verbraucherschutz und Lebensmittelsicherheit	OLDENBURG	Yes	Yes
GERMANY	LAV Sachsen-Anhalt	HALLE/SAALE	Yes	Yes
GERMANY	Thueringer Landesamt fuer Lebensmittelsicherheit und Verbraucherschutz	BAD LANGENSALZA	Yes	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

COUNTRY	LABORATORY NAME	CITY	PARTICIPATION	REPORTED RESULTS
GERMANY	Federal Office of Consumer Protection and Food Safety (BVL)	BERLIN	Yes	Yes
GERMANY	Chemisches Landes- und staatliches Veterinäruntersuchungsamt Muenster	MUENSTER	Yes	Yes
GERMANY	Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit	ERLANGEN	Yes	Yes
GERMANY	Chemisches u. Lebensmitteluntersuchungsamt der Stadt Dortmund	DORTMUND	Yes	Yes
GERMANY	Chemisches und Veterinäruntersuchungsamt Ostwestfalen-Lippe - CVUA-OWL	BIELEFELD	Yes	Yes
GERMANY	Landesuntersuchungsamt Rheinland-Pfalz	SPEYER	Yes	Yes
GERMANY	Amt für Umwelt, Verbraucherschutz und Lokale Agenda der Stadt Bonn	BONN	Yes	Yes
GERMANY	LUFA-ITL GMBH	KIEL	Yes	Yes
GERMANY	Amt für Verbraucherschutz Düsseldorf - Abt. 39/2 Chemische und Lebensmitteluntersuchung		Yes	Yes
GERMANY	Landesamt für Soziales, Gesundheit und Verbraucherschutz	SAARBRÜCKEN	Yes	No
GERMANY	Institut für Hygiene und Umwelt	HAMBURG	Yes	No
GERMANY	CVUA-RRW-Standort Essen	ESSEN	Yes	No
GERMANY	Landeslabor Berlin-Brandenburg, FB II-3 (Berlin)	BERLIN	No	No
GERMANY	Landesuntersuchungsamt für Chemie, Hygiene und Veterinärmedizin Bremen	BREMEN	No	No
GERMANY	Landeslabor Berlin-Brandenburg Fachbereich II-2	FRANKFURT(ODER)	No	No
GERMANY	Landeslabor Schleswig Holstein	NEUMÜNSTER	No	No
GREECE	Benaki Phytopathological Institute	KIFISSIA	Yes	Yes
GREECE	Ministry of Rural Development & Food, Regional Centre of Plant Protection & Quality Control of Ioannina Laboratory of pesticide analysis	IOANNINA	Yes	Yes
GREECE	Regional Center of Plant Protection and Quality Control of Magnesia, Laboratory of Pesticides Residue Analysis	VOLOS	Yes	Yes
GREECE	General Chemical State Laboratory, Pesticide Residues Laboratory	ATHENS	Yes	Yes
GREECE	Regional Centre of Plant Protection & Q. Control of Heraklio	HERAKLIO - CRETE - GREECE	Yes	Yes
GREECE	Peripheral Center of Plant Protection And Quality Control of Kavala - Ministry of Rural Development and Food	KAVALA	No	No
GREECE	Regional Center of Plant Protection and Quality Control. Laboratory of Pesticide Residues	THESSALONIKI	No	No
GREECE	Laboratory of Pesticide Residues of Nafplio	NAFPLIO	No	No
GREECE	Pesticide Residue Laboratory of Regional Center of Plant Protection & Quality Control of Piraeus	ATHENS	No	No
HUNGARY	Agricultural Office of B.-A.-Z. County Plant Protection and Soil Conservation Directorate Pesticide Residue Analytical Laboratory	MISKOLC	Yes	Yes
HUNGARY	Agricultural Office of Somogy County; Pesticide Residue Analytical Laboratory	KAPOSVÁR	Yes	Yes
HUNGARY	Agricultural Office of County Fejér, PPSCD Pesticide Residue Analytical Lab	VELENCE	Yes	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

COUNTRY	LABORATORY NAME	CITY	PARTICIPATION	REPORTED RESULTS
HUNGARY	Agricultural Office of Vas County, Plant Protection and Soil Conservation Directorate Pesticide Residue Analytical Laboratory	TANAKAJD	Yes	Yes
HUNGARY	Agricultural Office of County Csongrád, Directorate of Plant Protection and Soil Conservation, Pesticide Residue Analytical Laboratory	HODMEZOVASARHELY	Yes	Yes
HUNGARY	Plant Protection and Soil Conservation Directorate of Jasz-Nagykun-Szolnok County	SZOLNOK	Yes	Yes
ICELAND	Matis ohf	AKUREYRI	Yes	Yes
IRELAND	Pesticide Control Laboratoy	CELBRIDGE, CO. KILDARE	Yes	Yes
ITALY	ARPA Piemonte Polo Regionale Alimenti	LA LOGGIA	No	No
ITALY	APPA Trento	TRENTO	Yes	Yes
ITALY	Laboratorio Di Sanita Pubblica	BERGAMO	Yes	Yes
ITALY	ARPA Puglia - Dipartimento di Bari -	BARI	Yes	Yes
ITALY	Arpa Emilia-Romagna RAR Fitofarmaci (Ex. Eccellenza Fitofarmaci)	FERRARA	Yes	Yes
ITALY	A.R.P.A.T.-Dipartimento di Arezzo	AREZZO	Yes	Yes
ITALY	ARPA Valle d'aosta	SAINT CHRISTOPHE	Yes	Yes
ITALY	Agentur für Umwelt - Labor für Luft- und Lärmanalysen	BOZEN	Yes	Yes
ITALY	auls n.7 ARPA sicilia dap ragusa	RAGUSA	Yes	Yes
ITALY	A.S.L. della Provincia di Varese U.O. Laboratorio Chimico	VARESE	Yes	No
ITALY	ARPA-VENETO - DIP.REG.LAB. - S.L.	VERONA	Yes	No
ITALY	Laboratorio specializzato fitofarmaci- Dipartimento Tecnico di Napoli- ARPACampania	NAPLES	Yes	No
ITALY	Istituto Superiore di Sanità - Dip. AMPP - Reparto Antiparassitari	ROMA	Yes	No
ITALY	Arpa Sardegna - Dipartimento di Cagliari	CAGLIARI	Yes	No
ITALY	Arpacal - Dipartimento Di Reggio Calabria	REGGIO CALABRIA	Yes	No
ITALY	Arpal Laboratorio "Centro Regionale Pesticidi"	LA SPEZIA	No	No
ITALY	Arpa Friuli Venezia Giulia Dipartimento Di Pordenone	PORDENONE	No	No
ITALY	Arpam-Dip Macerata	MACERATA	No	No
LATVIA	National Diagnostic Centre	RIGA	Yes	Yes
LITHUANIA	National Food and Veterinary Risk Assessment Institute	VILNIUS	Yes	Yes
NORWAY	Bioforsk, Plant Health and Plant Protection, Pesticide Chemistry	AAS	Yes	Yes
POLAND	Laboratory of Warsaw Voivodeship Sanitary-Epidemiological Station	WARSAW	Yes	Yes
POLAND	Department of Pesticide Residue Research, Institute of Plant Protection	POZNAN	Yes	Yes
POLAND	Institute of Plant Protection National Research Institute Sosnicowice Branch	SOSNICOWICE	Yes	Yes
POLAND	Laboratory of Department of Environmental Toxicology, National Institute of Public Health- National Institute of Hygiene	WARSAW	Yes	Yes
POLAND	Institute oOf Plant Protection National Research Institute	RZESZOW	Yes	Yes
POLAND	Voivodeship Epidemiological and Sanitary Station	GORZÓW WIELKOPOLSKI	Yes	Yes

ANNEX 3. Standards Solution Ring Test. Results and Participants.

COUNTRY	LABORATORY NAME	CITY	PARTICIPATION	REPORTED RESULTS
POLAND	Instytut Ochrony Roślin Terenowa Stacja Doświadczalna	TRZEBNICA	Yes	Yes
POLAND	Wojewódzka Stacja Sanitarno Epidemiologiczna w Bydgoszczy	BYDGOSZCZ	Yes	Yes
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna Lab. Badania Zywnosci I Przedmiotow Uzytku	POZNAN	Yes	Yes
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna w Opolu	OPOLE	Yes	Yes
POLAND	Food Safety Laboratory, Research Institute of Pomology & Floriculture	SKIERNIEWICE	Yes	Yes
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna W Gdańsku Laboratorium Badania Żywności I Żywnienia	GDAŃSK	Yes	Yes
POLAND	Powiatowa Stacja Sanitarno-Epidemiologiczna w Częstochowie	CZĘSTOCHOWA	Yes	Yes
POLAND	Poland: Voievodship Sanitary- Epidemiological Station in Szczecin, Laboratory of the Hygiene of Food, Nutrition and Articles of Common Use (WSSE Szczecin)	SZCZECIN	Yes	Yes
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna - Dział Laboratoryjny	LUBLIN	Yes	No
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna Olsztyn	OLSZTYN	Yes	No
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna w Kielcach	KIELCE	Yes	No
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna w Łodzi	ŁÓDŹ	No	No
POLAND	Main Inspectorate of Plant Health and Seed Inspection, CENTRAL LABORATORY	TORUN	No	No
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna we Wrocławiu, Dział Laboratoryjny	WROCLAW	No	No
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna (WSSE) Katowice Pracownia Chromatografii Cieczowej	KATOWICE	No	No
POLAND	Wojewódzka Stacja Sanitarno-Epidemiologiczna, Pracownia Chromatografii Gazowej	KATOWICE	No	No
POLAND	WSSE w Białymstoku	BIAŁYSTOK	No	No
POLAND	Laboratorium Badania Pozostalosci Srodkow Ochrony Roslin w Białymstoku	BIALYSTOK	No	No
POLAND	Wojewodzka Stacja Sanitarno-Epidemiologiczna w Rzeszowie	RZESZOW	No	No
PORTUGAL	Laboratório de Qualidade Alimentar da DRAPN	SENHORA DA HORA	Yes	Yes
PORTUGAL	L-INIA - Laboratório de Resíduos de Pesticidas	OEIRAS	Yes	Yes
PORTUGAL	Laboratório de Qualidade Agrícola	CAMACHA	Yes	No
ROMANIA	Sanitary Veterinary and Food Safety Directorate	BUCHAREST	Yes	No
ROMANIA	Central Laboratory for Pesticides Residues Control in Plants and Vegetables - LCCRPPV	BUCHAREST	No	No
SLOVAKIA	State Veterinary and Food Institute Bratislava	BRATISLAVA	No	No
SLOVAKIA	National reference centre for pesticide residues, Public helath authority of the Slovak republic	BRATISLAVA	No	No
SLOVENIA	Institute of Public Health Maribor	MARIBOR	Yes	Yes
SLOVENIA	Institute of public health of Republic of Slovenia	LJUBLJANA	Yes	Yes

ANNEX 3. Standard Solution Ringtest. Results and Participants.

COUNTRY	LABORATORY NAME	CITY	PARTICIPATION	REPORTED RESULTS
SLOVENIA	Agricultural Institute of Slovenia	LJUBLJANA	Yes	Yes
SLOVENIA	Institute of Public Health Kranj	KRANJ	Yes	No
SPAIN	Laboratorio Arbitral Agroalimentario	MADRID	Yes	Yes
SPAIN	Laboratorio Agroalimentario de la Generalitat Valenciana	BURJASSOT, VALENCIA	Yes	Yes
SPAIN	Laboratorio Regional CCAA La Rioja	LOGROÑO	Yes	Yes
SPAIN	Laboratorio de Produccion y Sanidad Vegetal de Almeria	LA MOJONERA	Yes	Yes
SPAIN	Laboratorio Agrario Regional Junta de Castilla y León	BURGOS	Yes	Yes
SPAIN	Instituto Tecnológico de Canarias	SANTA LUCIA DE TIRAJANA	Yes	Yes
SPAIN	Laboratori Agroalimentari -DAR	CABRILS (BARCELONA)	Yes	Yes
SPAIN	Laboratorio Produccion y Sanidad Vegetal de Jaén	JAÉN	Yes	Yes
SPAIN	Laboratorio Provincial de Salud Pública de Almería	ALMERÍA	Yes	Yes
SPAIN	Laboratorio de producción y sanidad vegetal de Huelva	CARTAYA (HUELVA)	Yes	No
SPAIN	INGACAL (Laboratorio Agrario y Fitopatológico de Galicia)	SAN TIRSO DE MABEGONDO	Yes	No
SPAIN	Laboratorio Agroalimentario y de Sanidad Animal	EL PALMAR (MURCIA)	No	No
SPAIN	Centro Nacional Alimentacion AESAN	MAJADAHONDA-MADRID	No	No
SPAIN	Laboratorio Agroalimentario. Gobierno de Aragón	ZARAGOZA	No	No
SWEDEN	National Food Administration, Chemistry Division 1	UPPSALA	Yes	Yes
SWEDEN	Eurofins Food/Agro Sweden AB	LIDKÖPING	Yes	No
SWITZERLAND	Service de la Consommation et des Affaires Vétérinaires (SCAV)	GENÈVE	Yes	Yes
SWITZERLAND	Kantonales Labor Zurich	ZURICH	Yes	Yes
THE NETHERLANDS	VWA - Food and Consumer Product Safety Authority	AMSTERDAM	Yes	Yes
TURKEY	The Ministry of Agriculture and Rural Affairs Directorate of Adana Provincial Control Laboratory	ADANA	Yes	Yes
TURKEY	MSM Food Control Laboratories Inc	MERSIN	Yes	Yes
UNITED KINGDOM	SASA	EDINBURGH	No	No
UNITED KINGDOM	The Food and Environment Research Agency	YORK	Yes	Yes
UNITED KINGDOM	Laboratory of the Government Chemist	TEDDINGTON	Yes	No
UNITED KINGDOM	Eurofins Laboratories Ltd.	WOLVERHAMPTON	Yes	No
URUGUAY	Pharmacognosy & Natural Products Dpto.	MONTEVIDEO	Yes	Yes