



EUROPEAN COMMISSION PROFICIENCY TEST FOR PESTICIDE RESIDUES IN FRUITS AND VEGETABLES

SCREENING METHODS 10 GREEN BEANS WITH PODS

RESULTS



ACTIVITY	DATE
Publishing the Calendar and Matrix on the Web page.	January 2018
Receiving Application Form from invited laboratories.	19 th Jan – 5 th Feb 2018
Specific Protocol published on the Web site.	19 th Feb 2018 at the latest
Sample distribution.	5 th March 2018
Deadline for receiving results: Fill in “Results Page”	72 hours after receiving the sample
Preliminary Report: only results. no statistical treatment.	Last week of March 2018
Final Report distributed to the Laboratories.	December 2018

EUPT-FV-SM010- Participants

69 Participants

COUNTRY	No.	COUNTRY	No.
Austria	1	Italy	6
Belgium	3	Kenia	1
China	3	Latvia	1
Costa Rica	1	Lithuania	1
Croatia	1	Norway	1
Czech Republic	2	Serbia	1
Denmark	1	Slovenia	1
Estonia	1	Spain	13
Finland	1	Sweden	2
France	5	Switzerland	2
Germany	10	The Netherlands	3
Greece	1	Turkey	1
Hungary	3	UK	1
Ireland	1		

Austria
Belgium
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Netherlands
Norway
Slovenia
Spain
Sweden
Switzerland
United Kingdom

**22 EU/EFTA
Countries**

China
Costa Rica
Kenya
Serbia
Turkey

**5 Non EU/EFTA
Countries**

Pesticides evaluated

Benalaxyl	Penthiopyrad
Clomazone	Proquinazid
Cyfluthrin	Prosulfocarb
Emamectin	Spinetoram
Etoxazole	Spirotetramat
Fenpyrazamine	Spirotetramat metabolite BYI08330-enol*
Isopyrazam	Spirotetramat metabolite BYI08330-ketohydroxy*
Metrafenone	Sulfoxaflor
Penflufen	Tetramethrin
Pentachloroaniline	



RESULTS

Pesticides	Robust mean (mg/kg)	Conc. Homogeneity test (mg/kg)	CV (%)	No of Detections (% of Laboratories)	No of Concentration Reported
Benalaxyl	0.041	0.050	22,0	62 (90%)	74
Clomazone	0.010	0.011	21,0	68 (99%)	68
Cyfluthrin	0.068	0.071	32,0	62 (90%)	62
Emamectin	0.009	0.011	34,4	54 (78%)	54
Etozazole	0.013	0.012	26,0	66 (96%)	66
Fenpyrazamine	0.008	0.010	26,8	46 (67%)	46
Isopyrazam	0.009	0.014	29,3	52 (75%)	52
Metrafenone	0.013	0.017	21,1	67 (97%)	67
Penflufen	0.010	0.012	15,2	39 (57%)	39
Pentachloroaniline	0.012	0.017	20,2	47 (68%)	47
Penthiopyrad	0.067	0.094	23,4	51 (74%)	51
Proquinazid	0.017	0.021	18,9	59 (86%)	59
Prosulfocarb	0.011	0.015	22,1	68 (99%)	68
Spinetoram	0.035	0.054	26,1	53 (77%)	56
Spirotetramat	0.072	0.059	38,2	59 (86%)	59
Spirotetramat -ketohydroxy*	0.005		45,0	21 (30%)	22
Spirotetramat-enol*	0.036		69,0	40 (58%)	40
Sulfoxaflo	0.009	0.011	24,2	36 (52%)	36
Tetramethrin	0.011	0.015	15,7	63 (91%)	63

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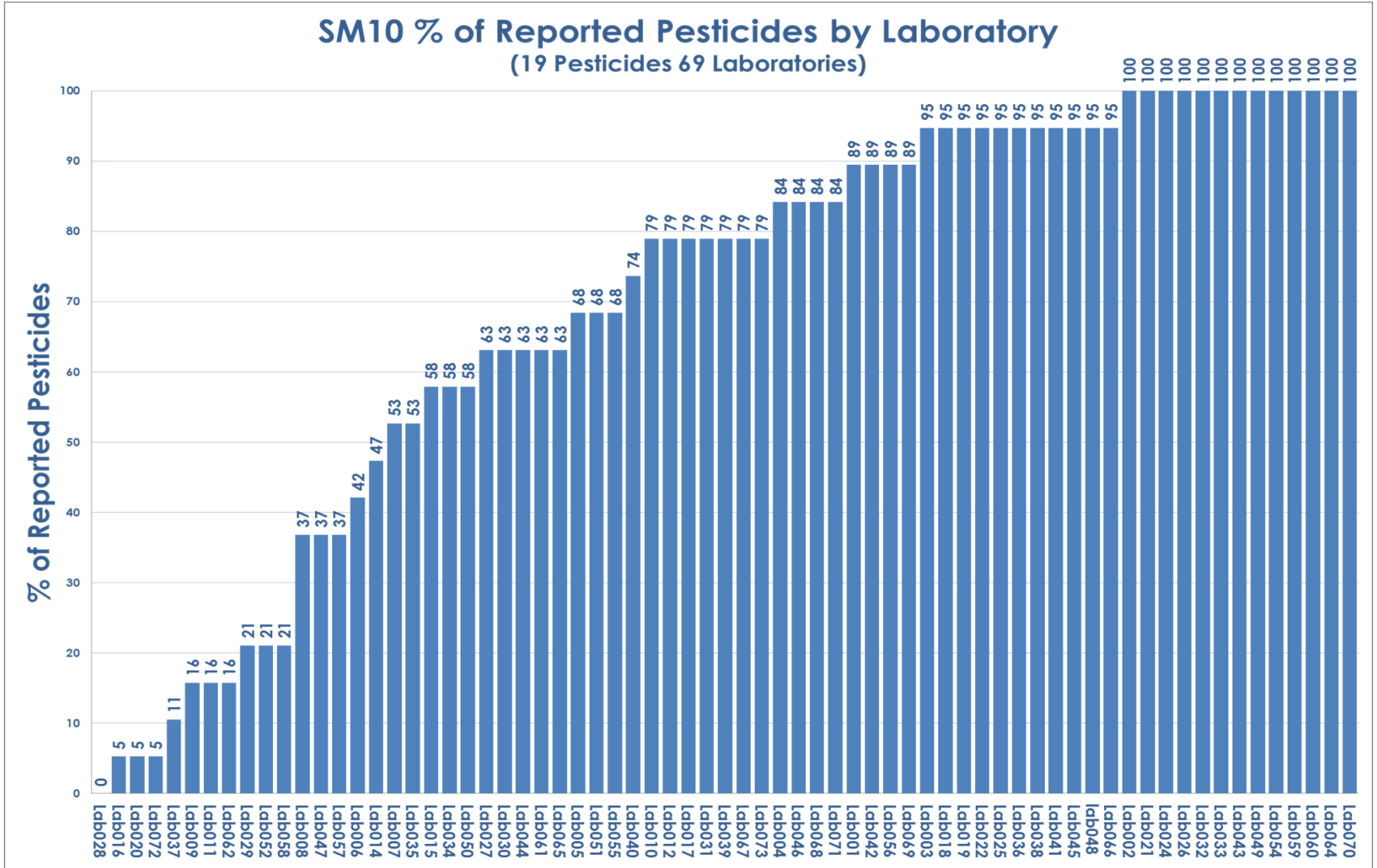
Results

19 Evaluated Pesticides
69 Laboratories

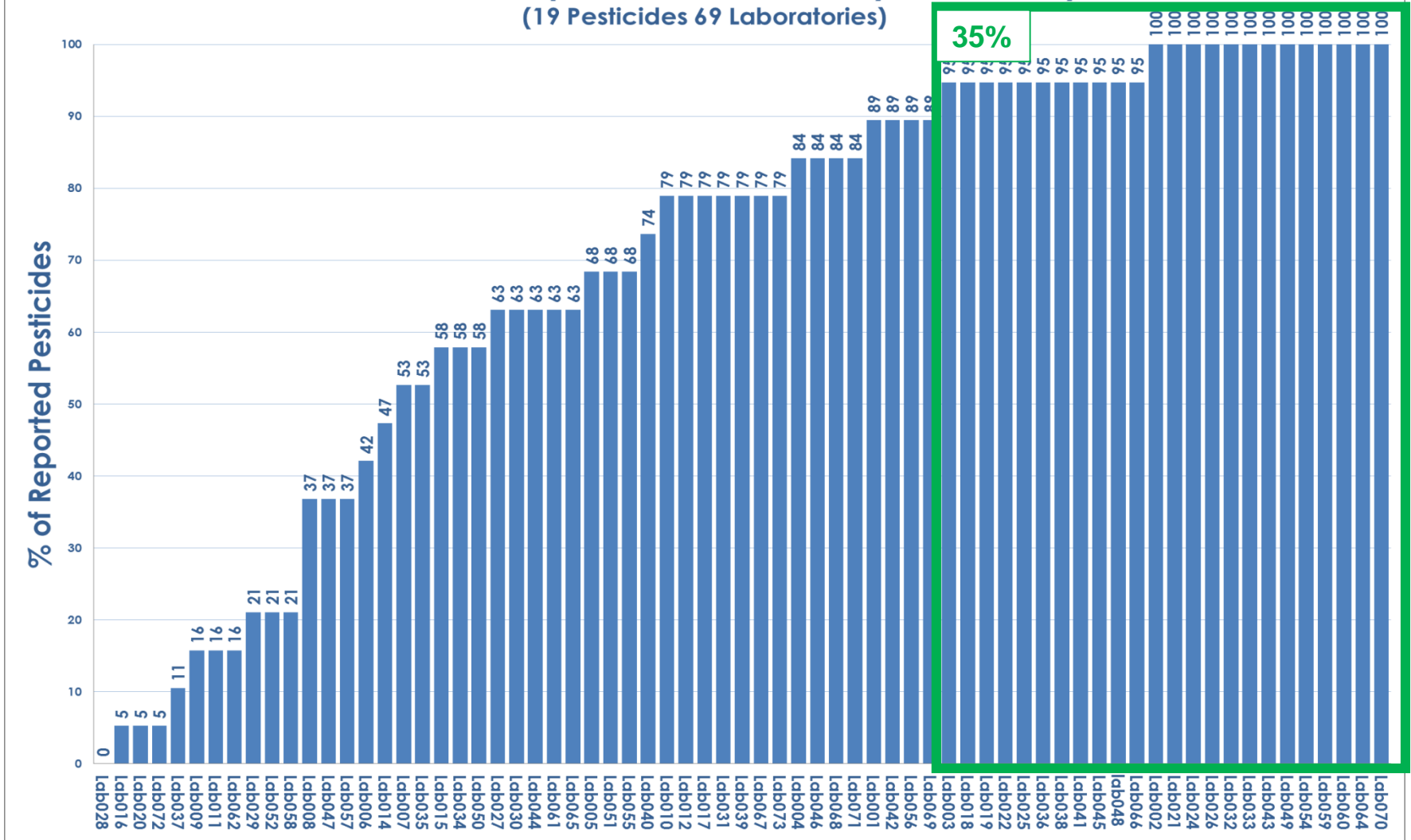
19 Pesticides = 1+5+13

	Benalaxyl	Clomazone	Cyfluthrin	Emamectin	Etoxazole	Fenpyrazamine	Isopyrazam	Metrafenone	Penflufen	Pentachloroaniline	Penthiopyrad	Proquinazid	Prosulfocarb	Spinetoram	Spirotetramat	Spirotetramat metabolite BY108330-enol	Spirotetramat metabolite BY108330-ketohydroxy	Sulfoxaflor	Tetramethrin
Total Number of Reported Pesticides	62	68	62	54	66	46	52	67	39	47	51	59	68	53	59	40	21	36	63
% of Reported Pesticides	90	99	90	78	96	67	75	97	57	68	74	86	99	77	86	58	30	52	91

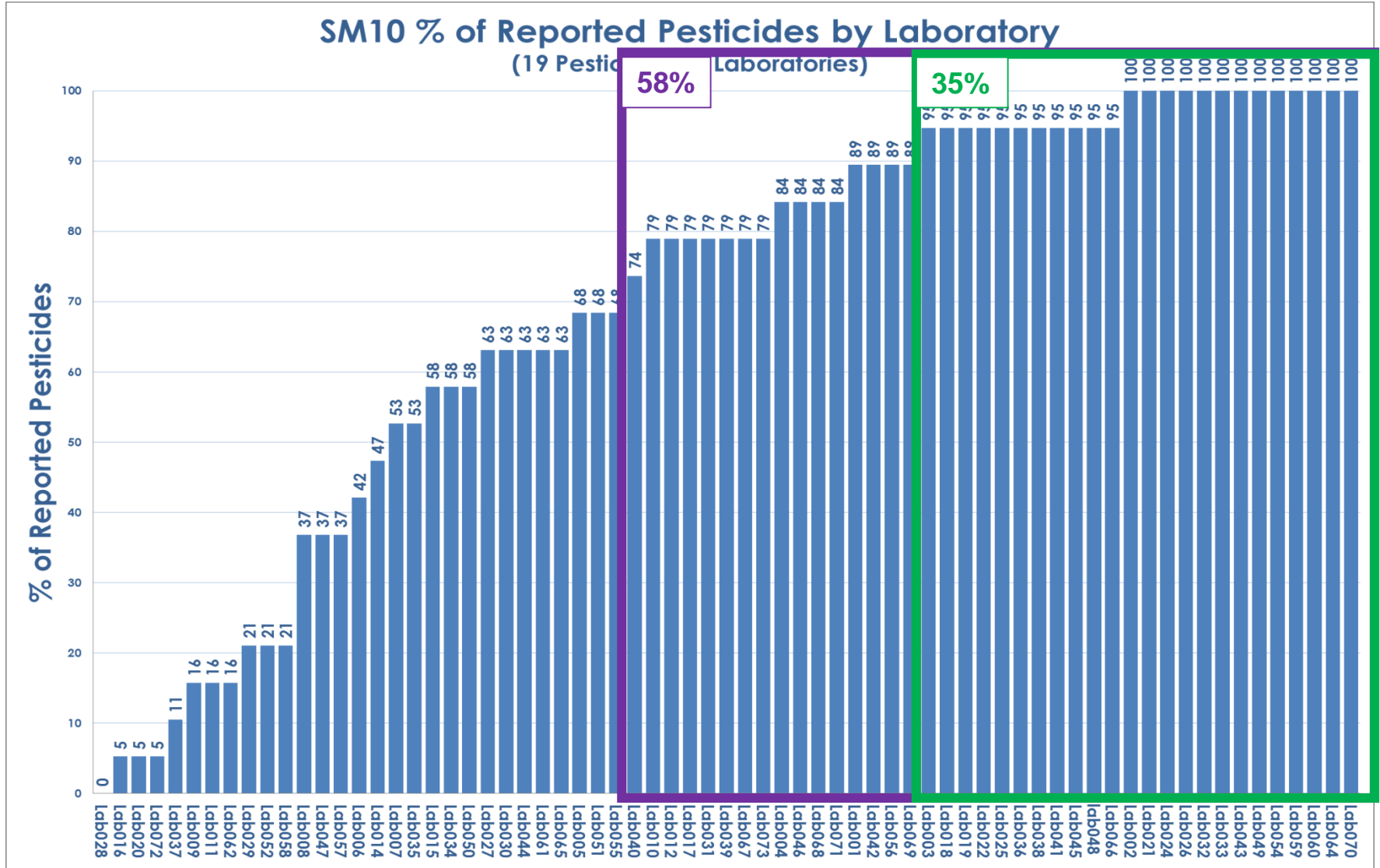
SM10 % of Reported Pesticides by Laboratory (19 Pesticides 69 Laboratories)



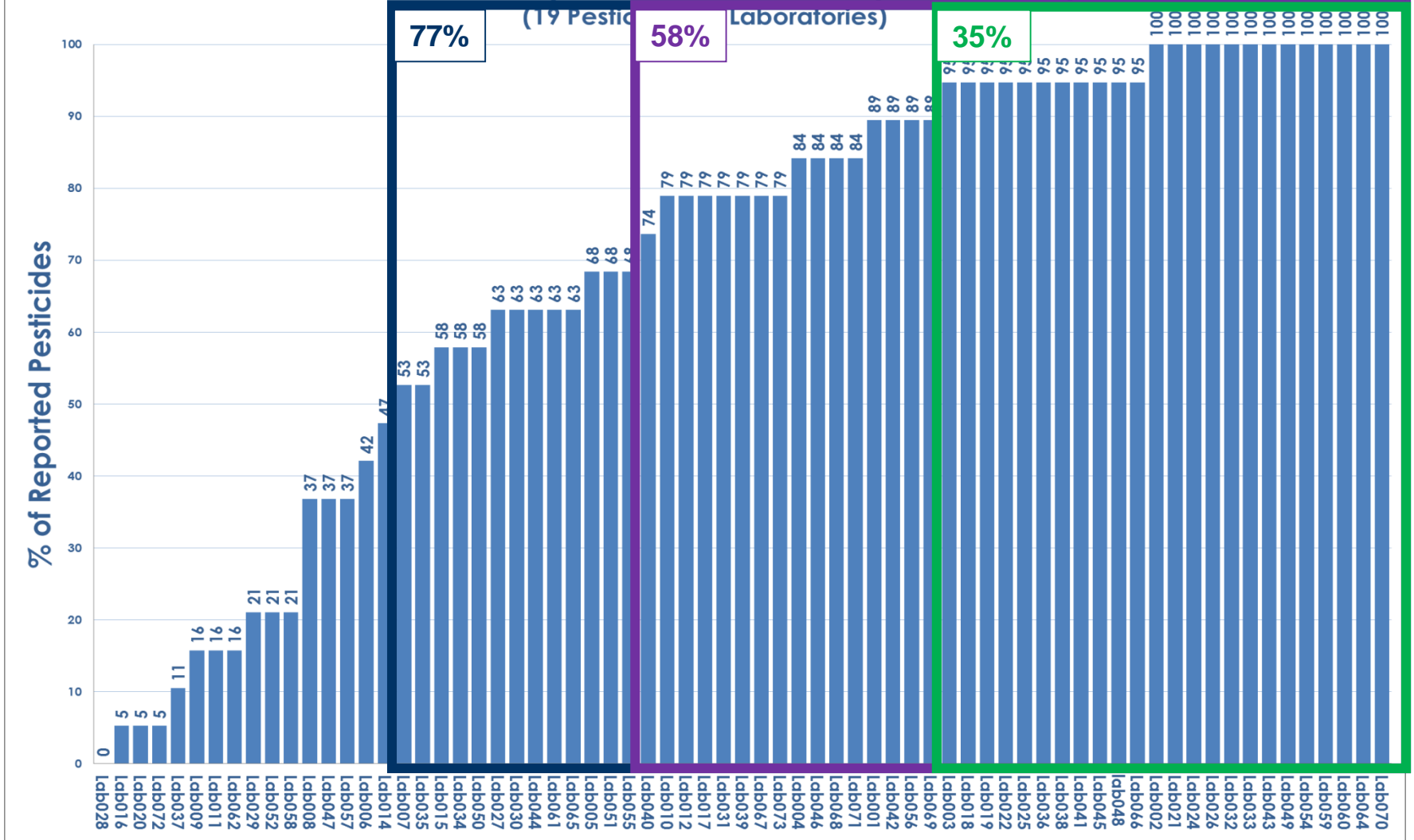
SM10 % of Reported Pesticides by Laboratory (19 Pesticides 69 Laboratories)



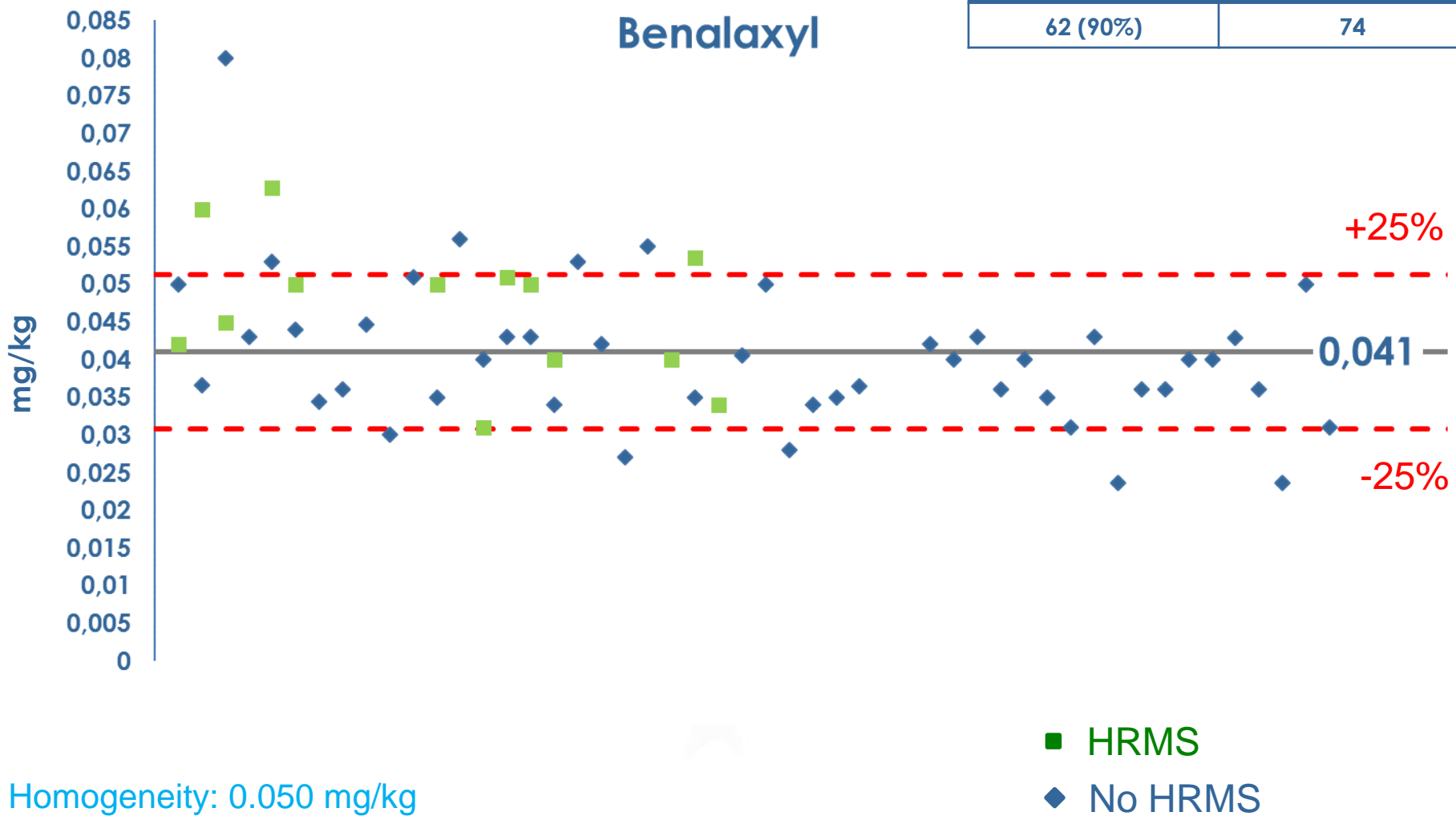
35%



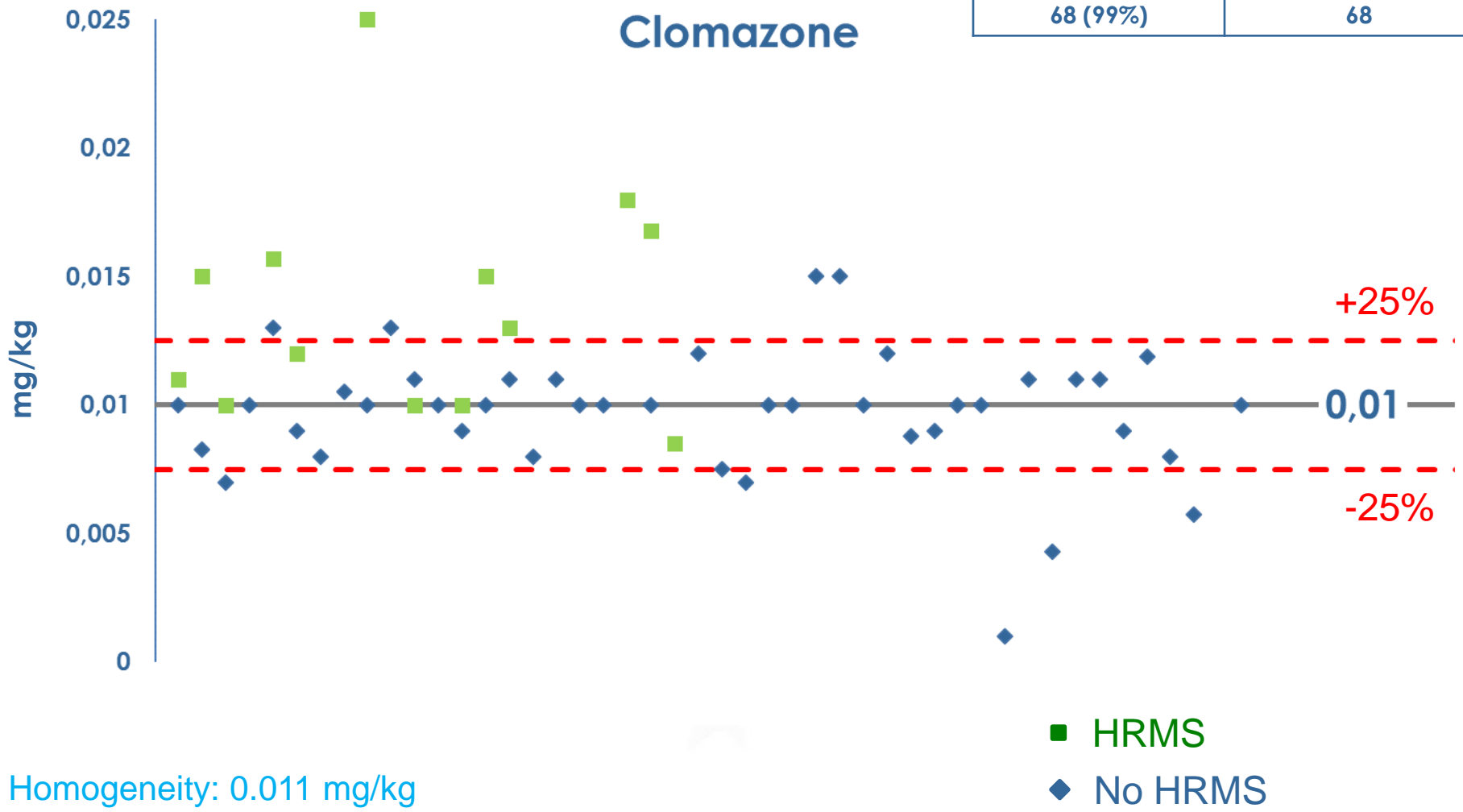
SM10 % of Reported Pesticides by Laboratory



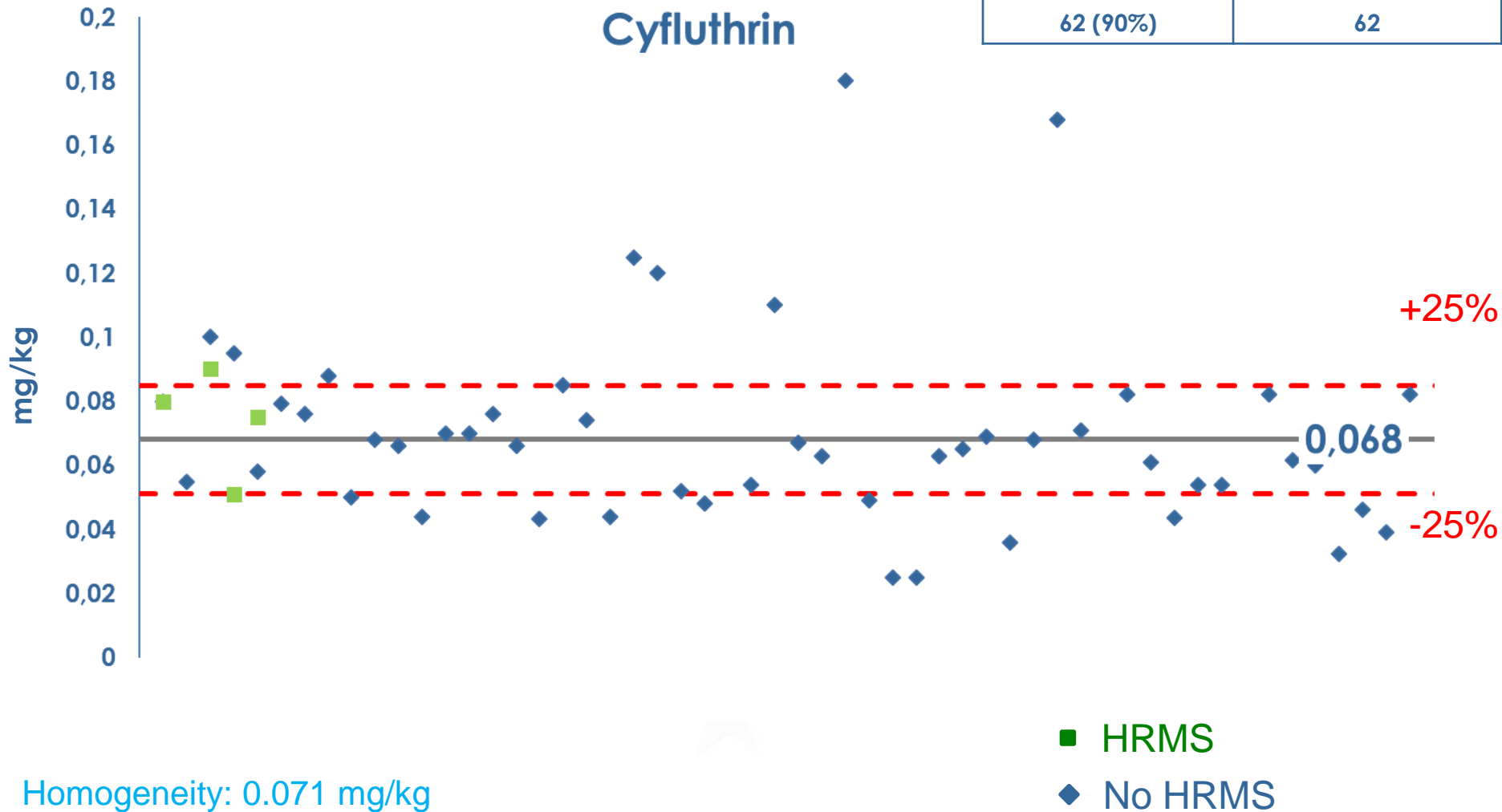
No of Detections (% of Laboratories)	No of Concentration Reported
62 (90%)	74



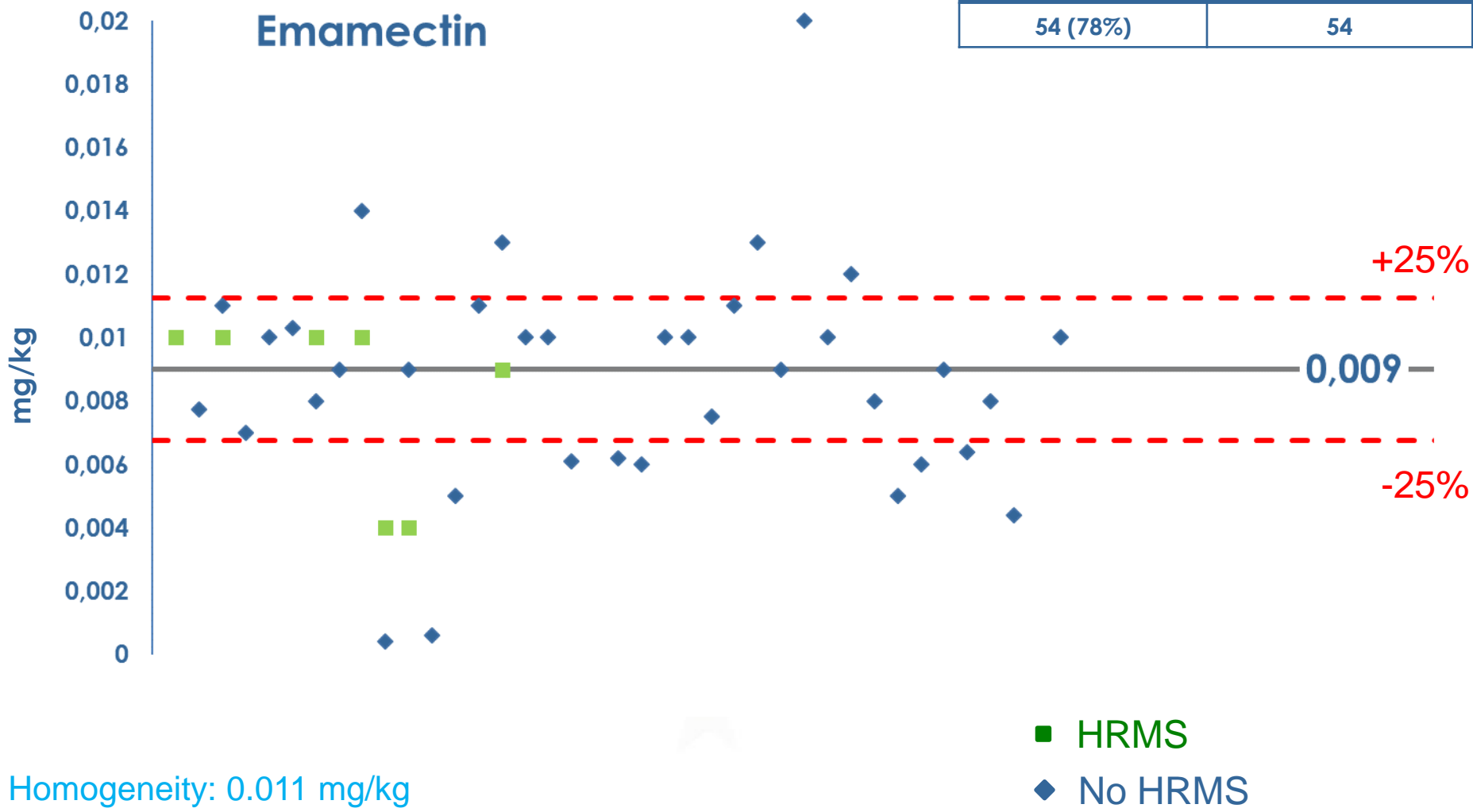
No of Detections (% of Laboratories)	No of Concentration Reported
68 (99%)	68



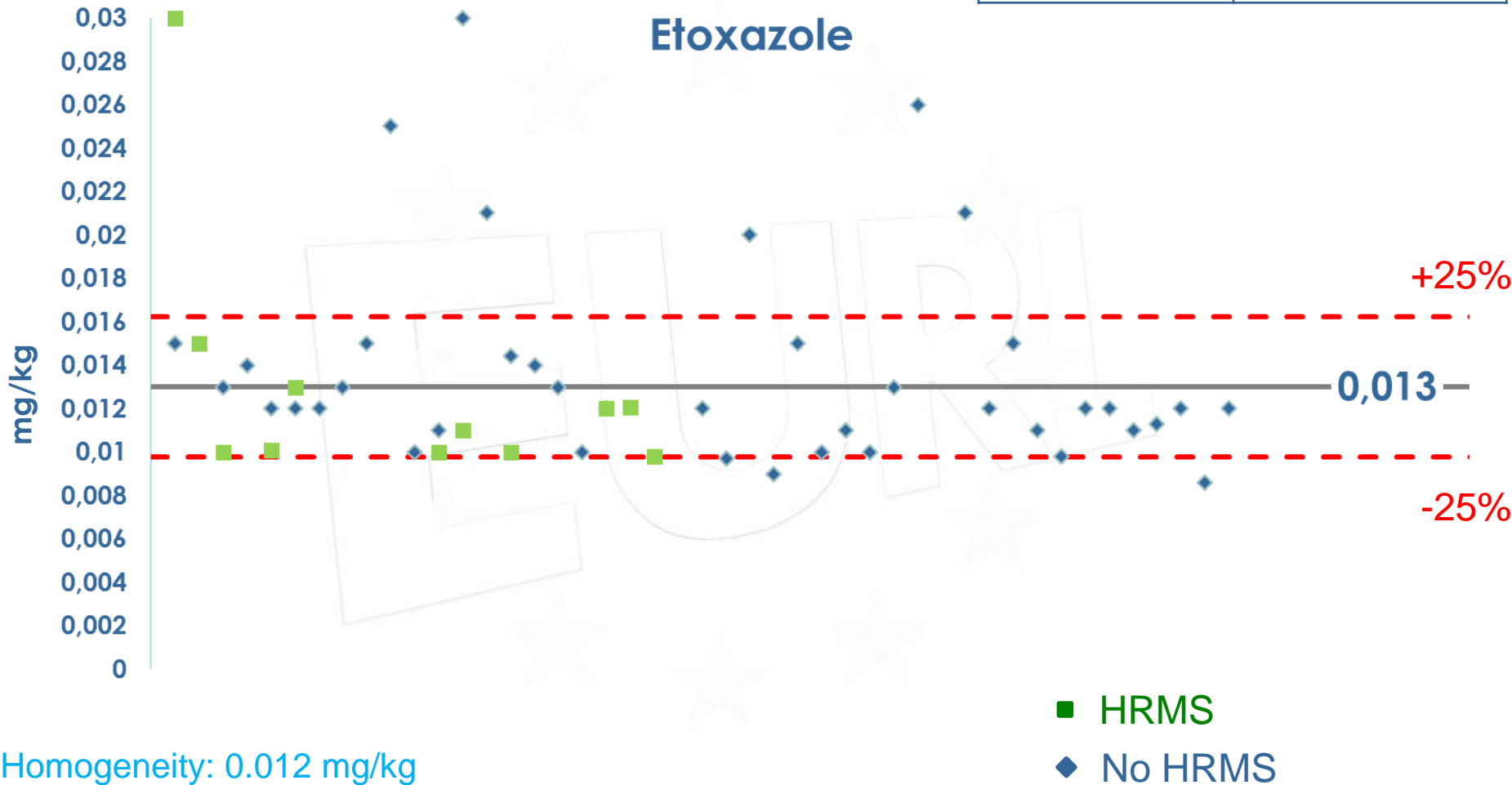
No of Detections (% of Laboratories)	No of Concentration Reported
62 (90%)	62



No of Detections (% of Laboratories)	No of Concentration Reported
54 (78%)	54

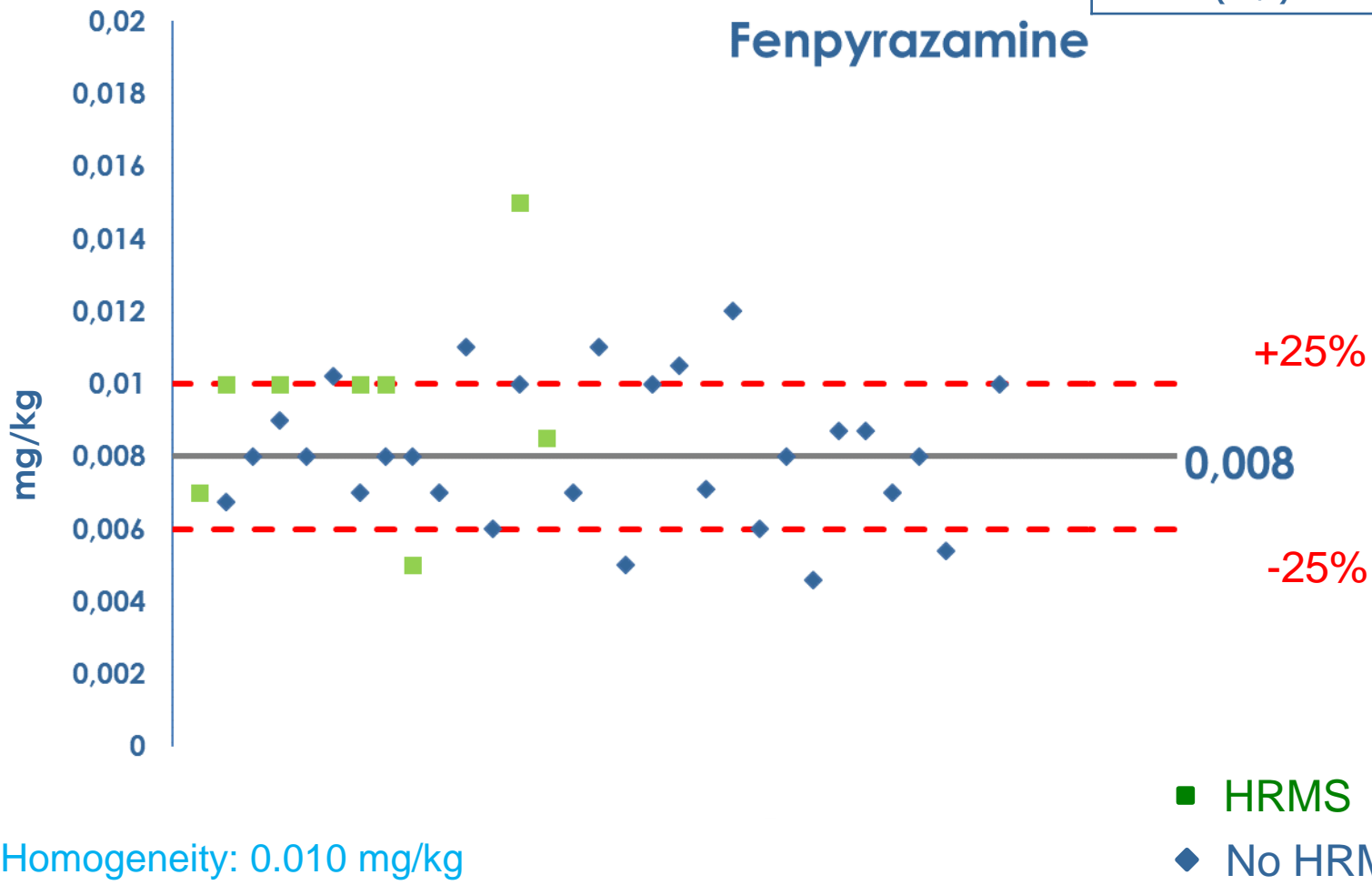


No of Detections (% of Laboratories)	No of Concentration Reported
66 (96%)	66



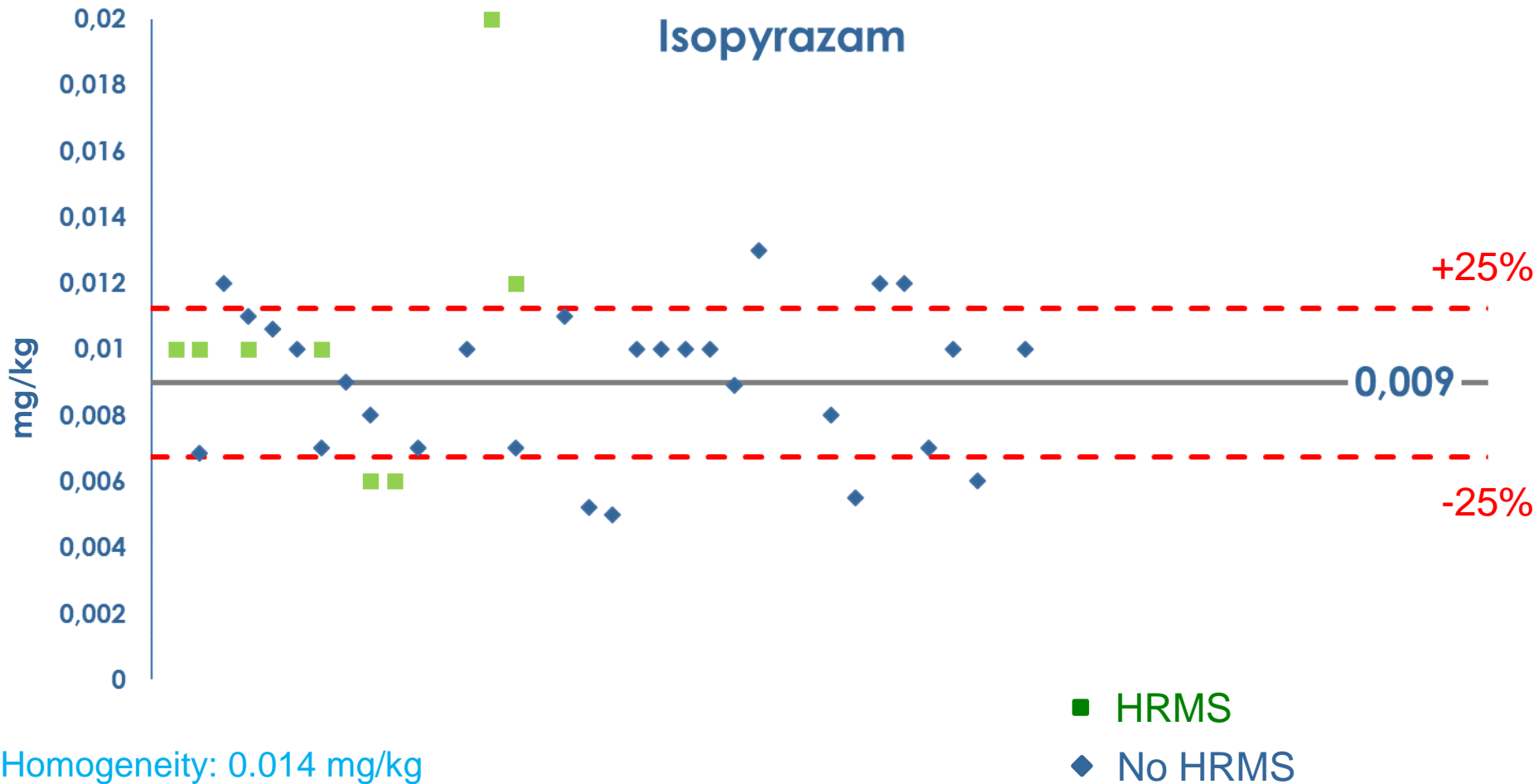
Homogeneity: 0.012 mg/kg

No of Detections (% of Laboratories)	No of Concentration Reported
46 (67%)	46

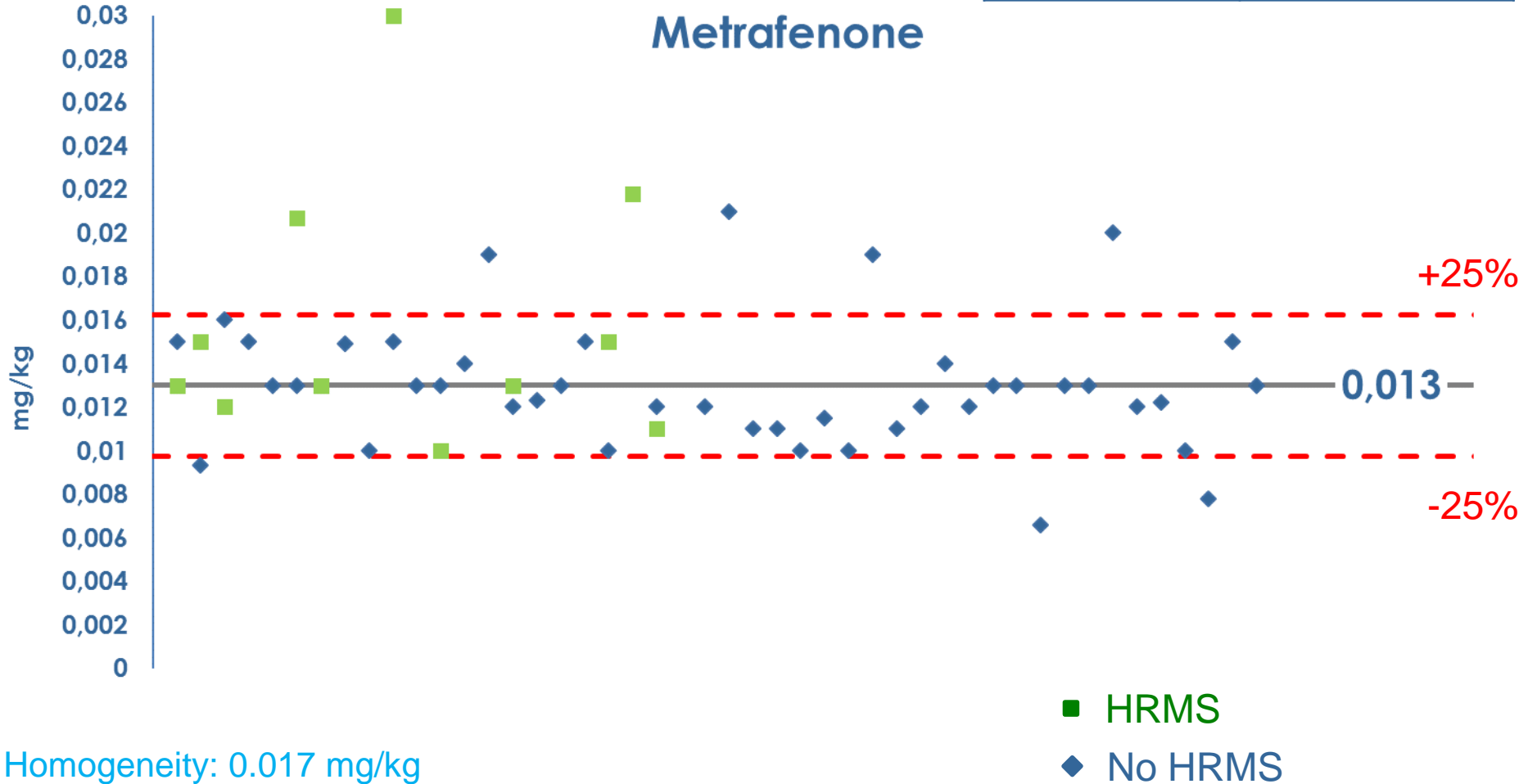


Homogeneity: 0.010 mg/kg

No of Detections (% of Laboratories)	No of Concentration Reported
52 (75%)	52

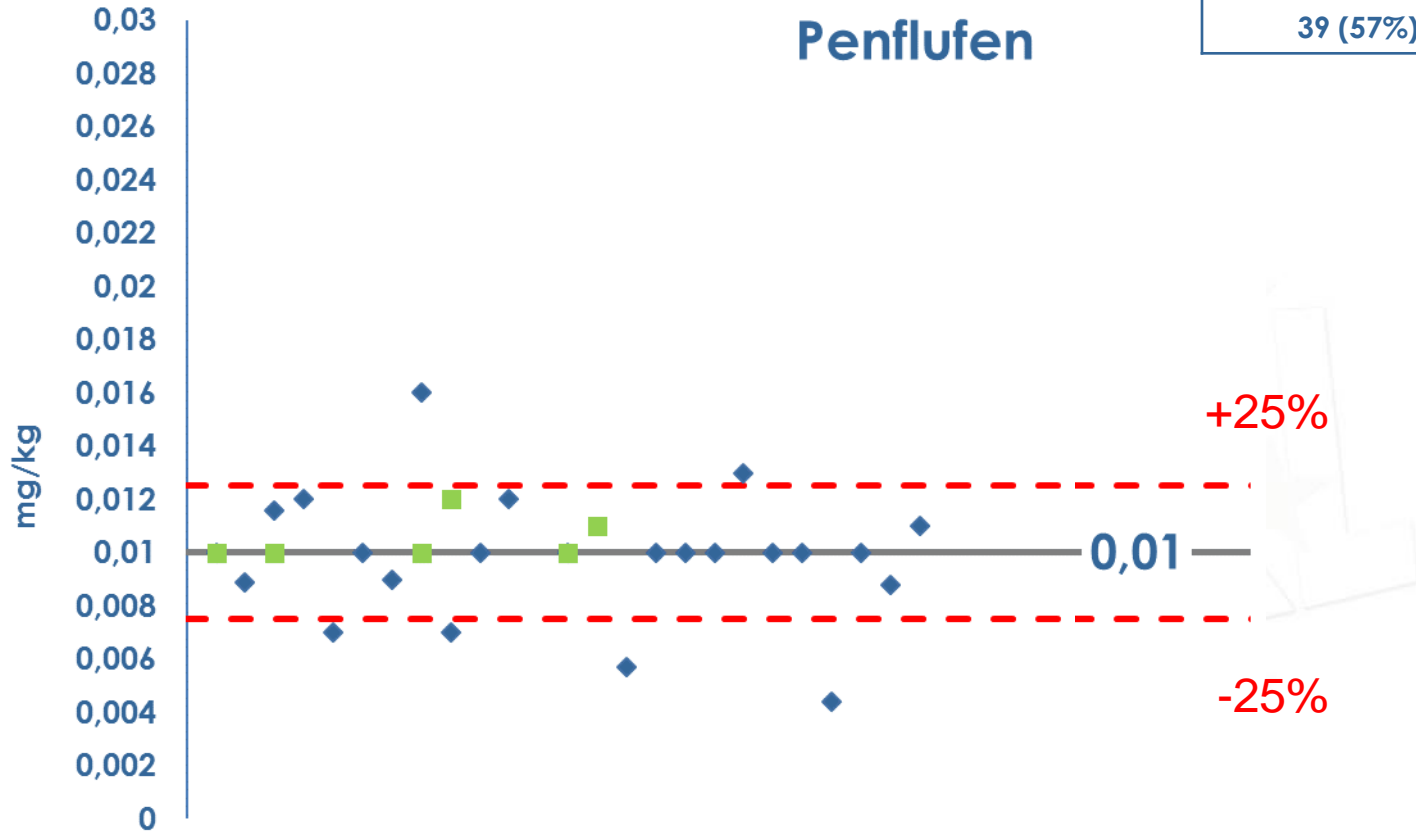


No of Detections (% of Laboratories)	No of Concentration Reported
67 (97%)	67



Homogeneity: 0.017 mg/kg

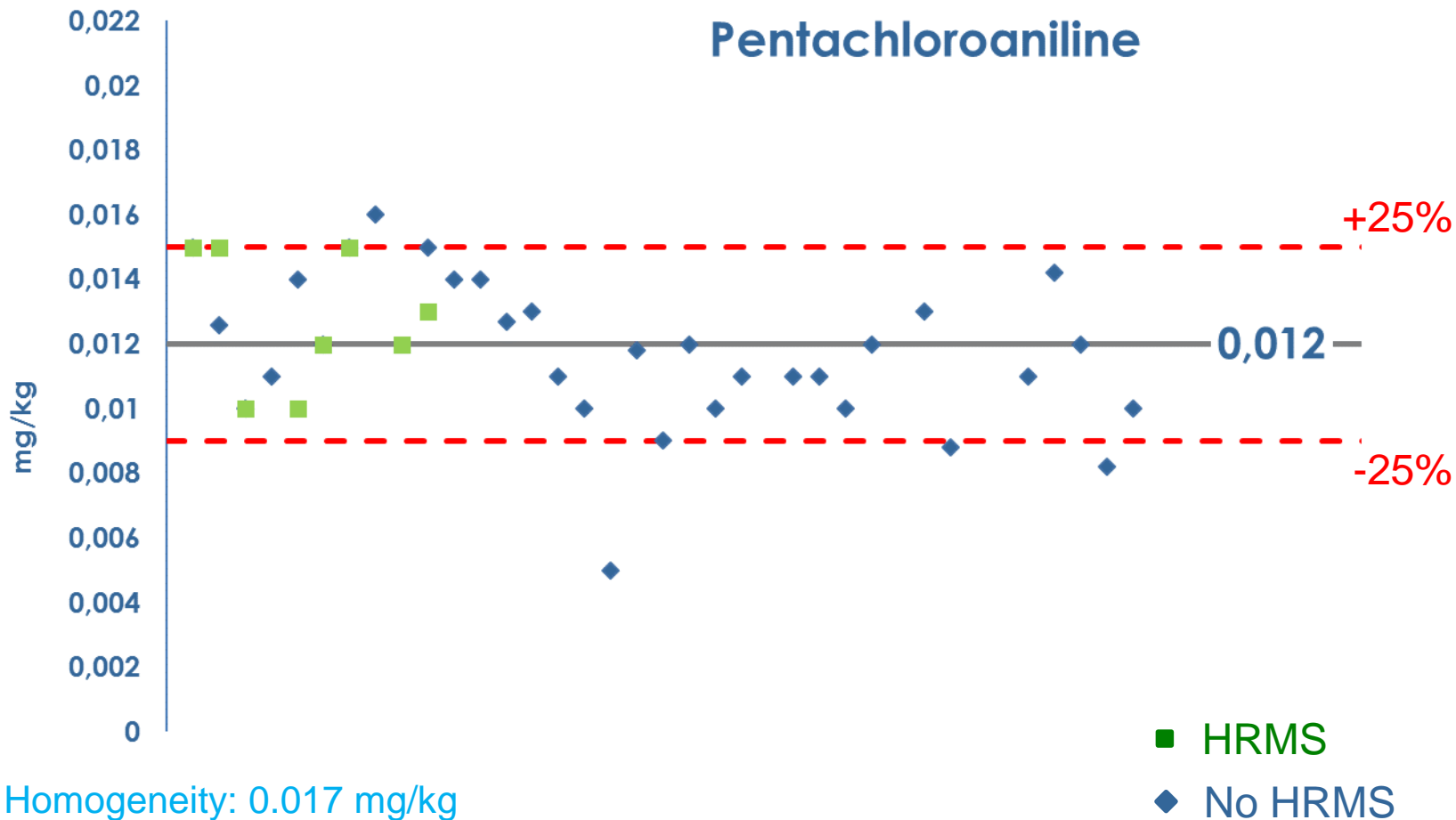
No of Detections (% of Laboratories)	No of Concentration Reported
39 (57%)	39



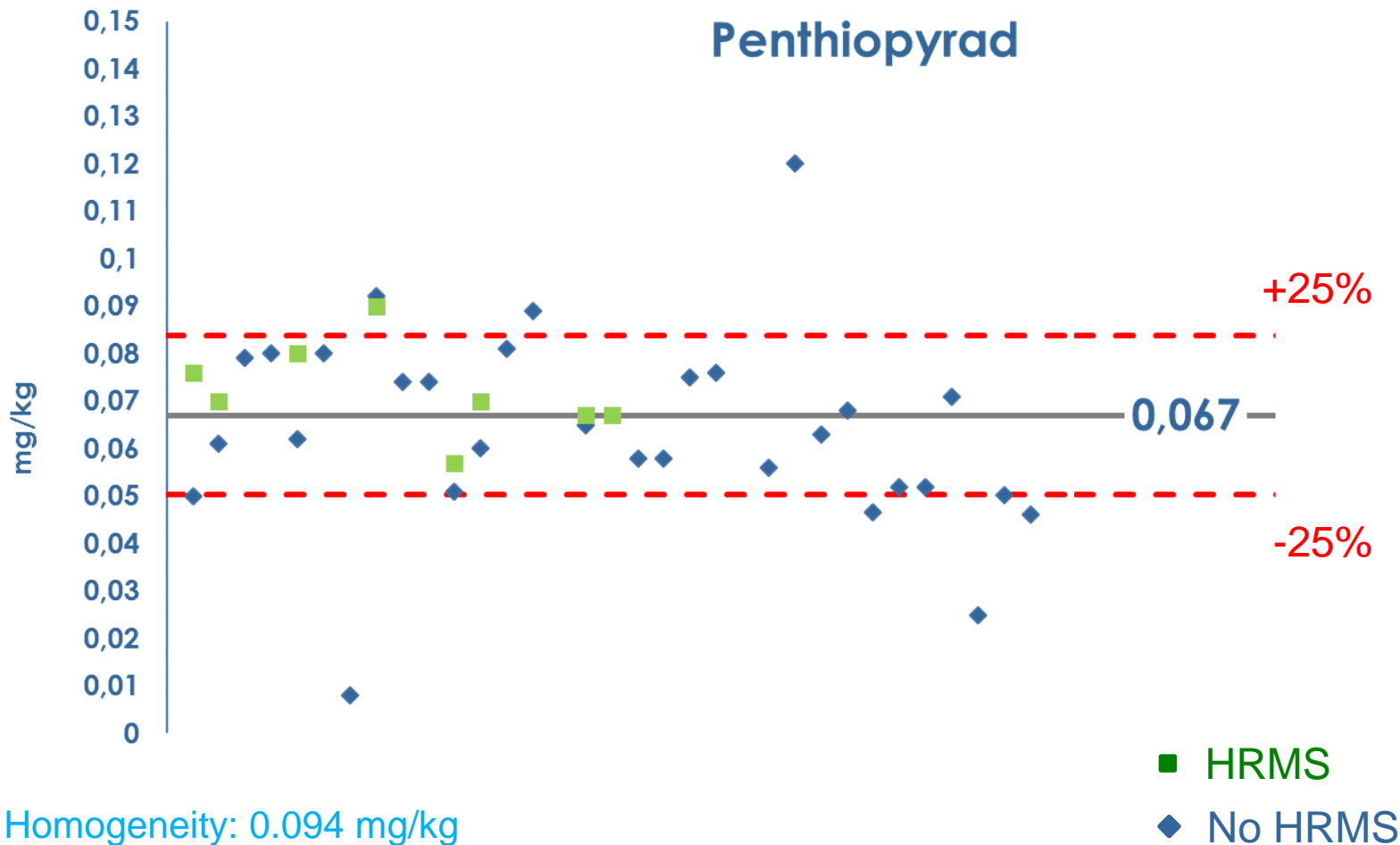
Homogeneity: 0.012 mg/kg

- HRMS
- ◆ No HRMS

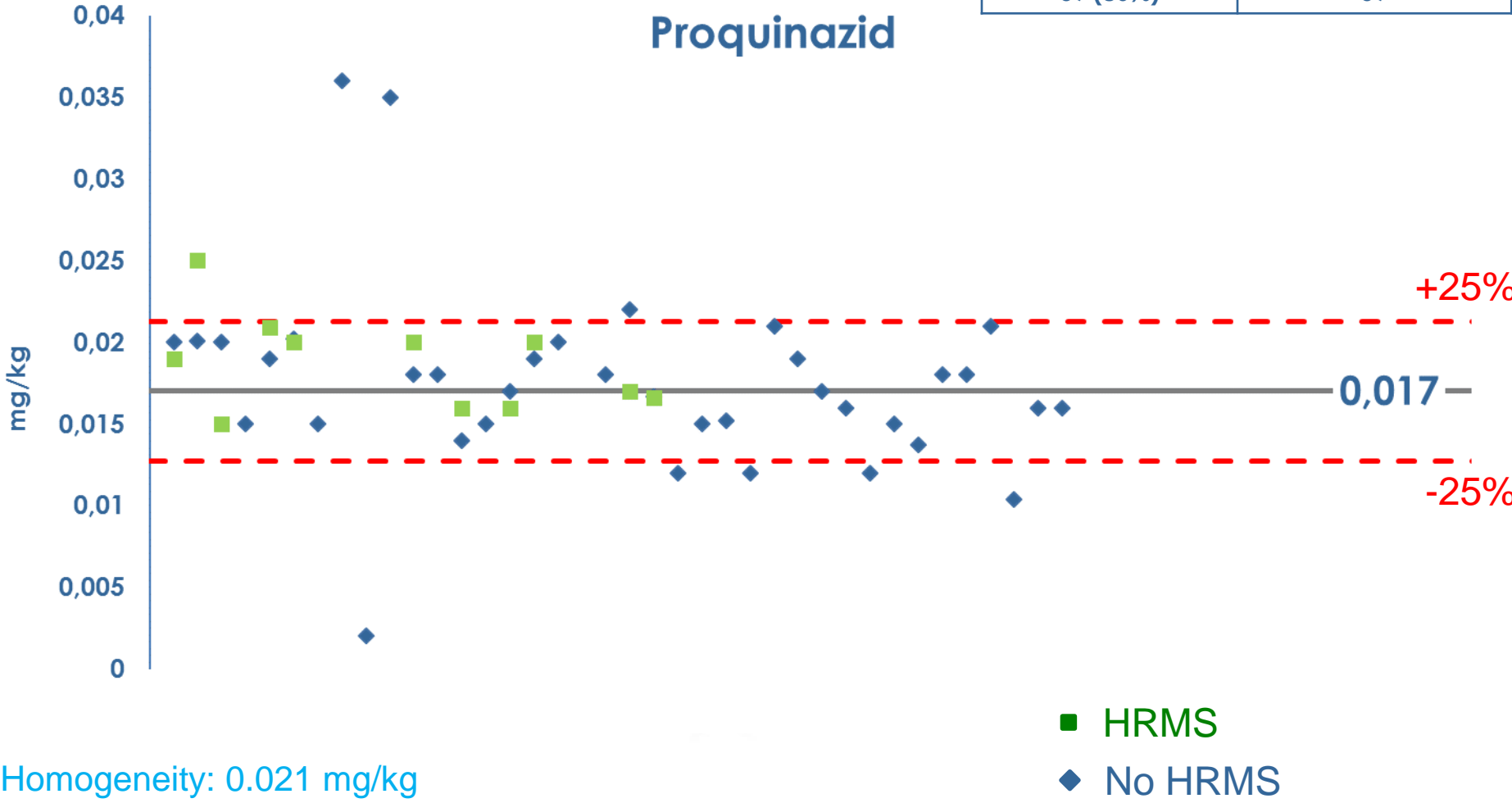
No of Detections (% of Laboratories)	No of Concentration Reported
47 (68%)	47



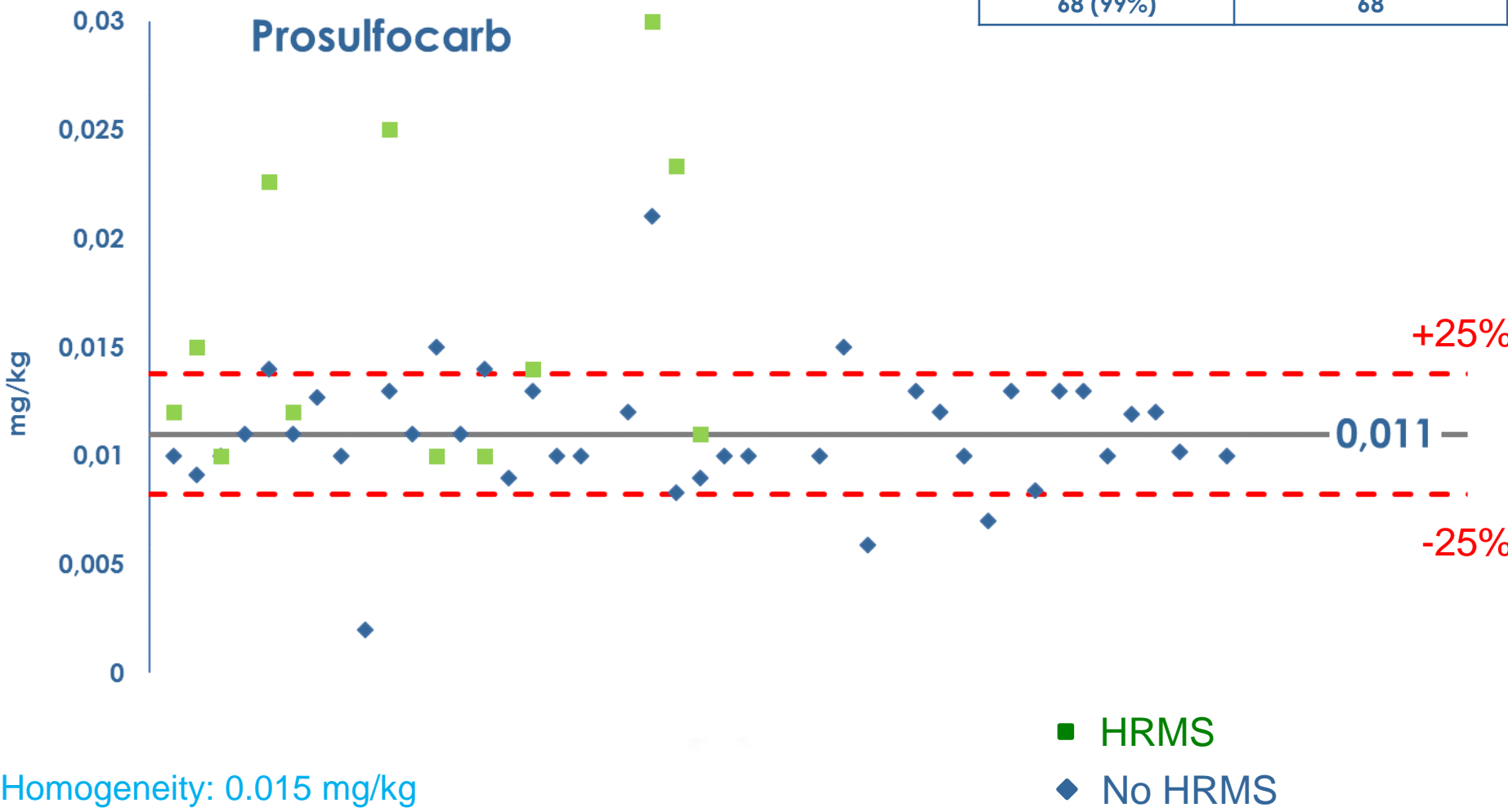
No of Detections (% of Laboratories)	No of Concentration Reported
51 (74%)	51



No of Detections (% of Laboratories)	No of Concentration Reported
59 (86%)	59

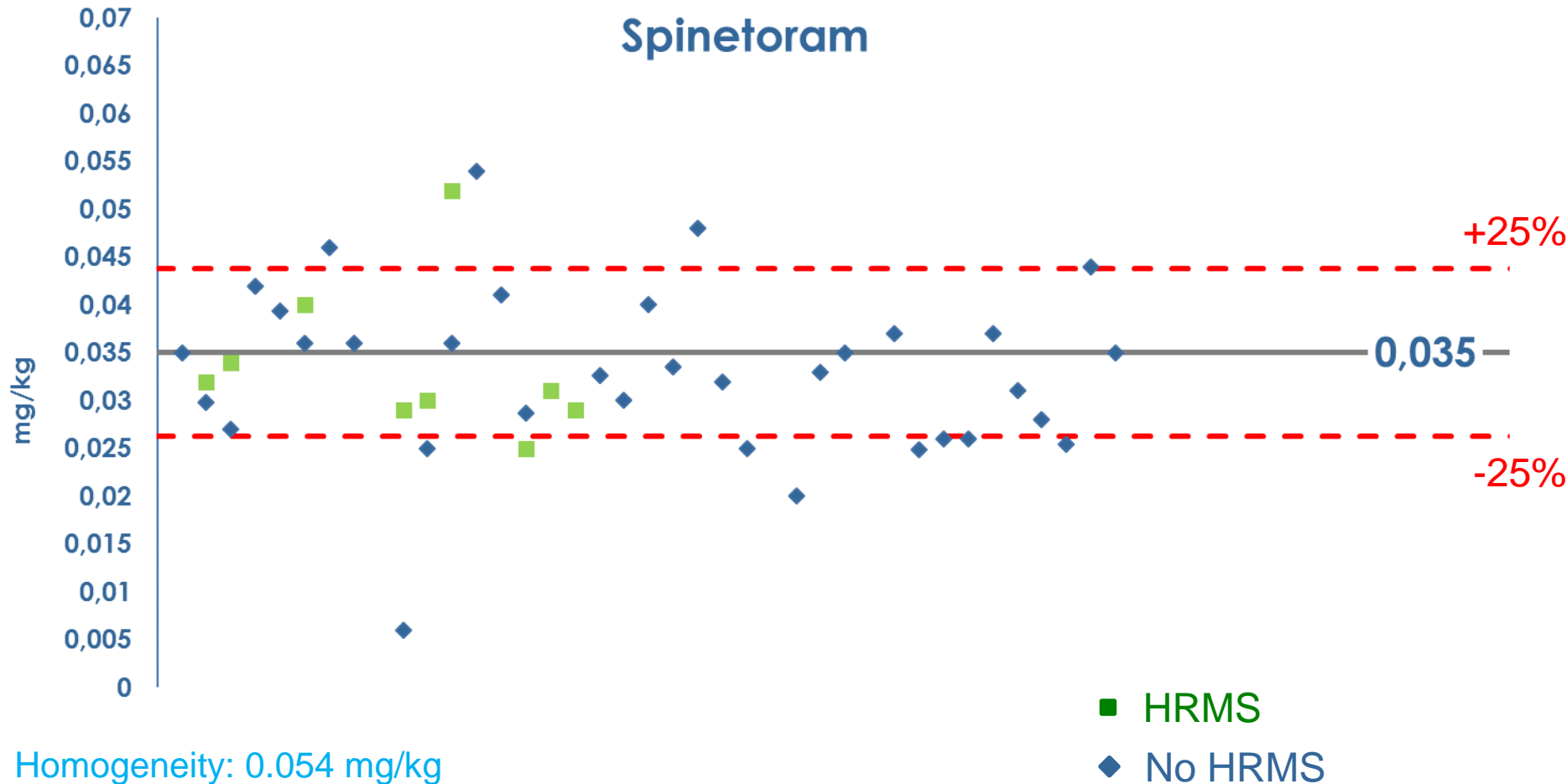


No of Detections (% of Laboratories)	No of Concentration Reported
68 (99%)	68

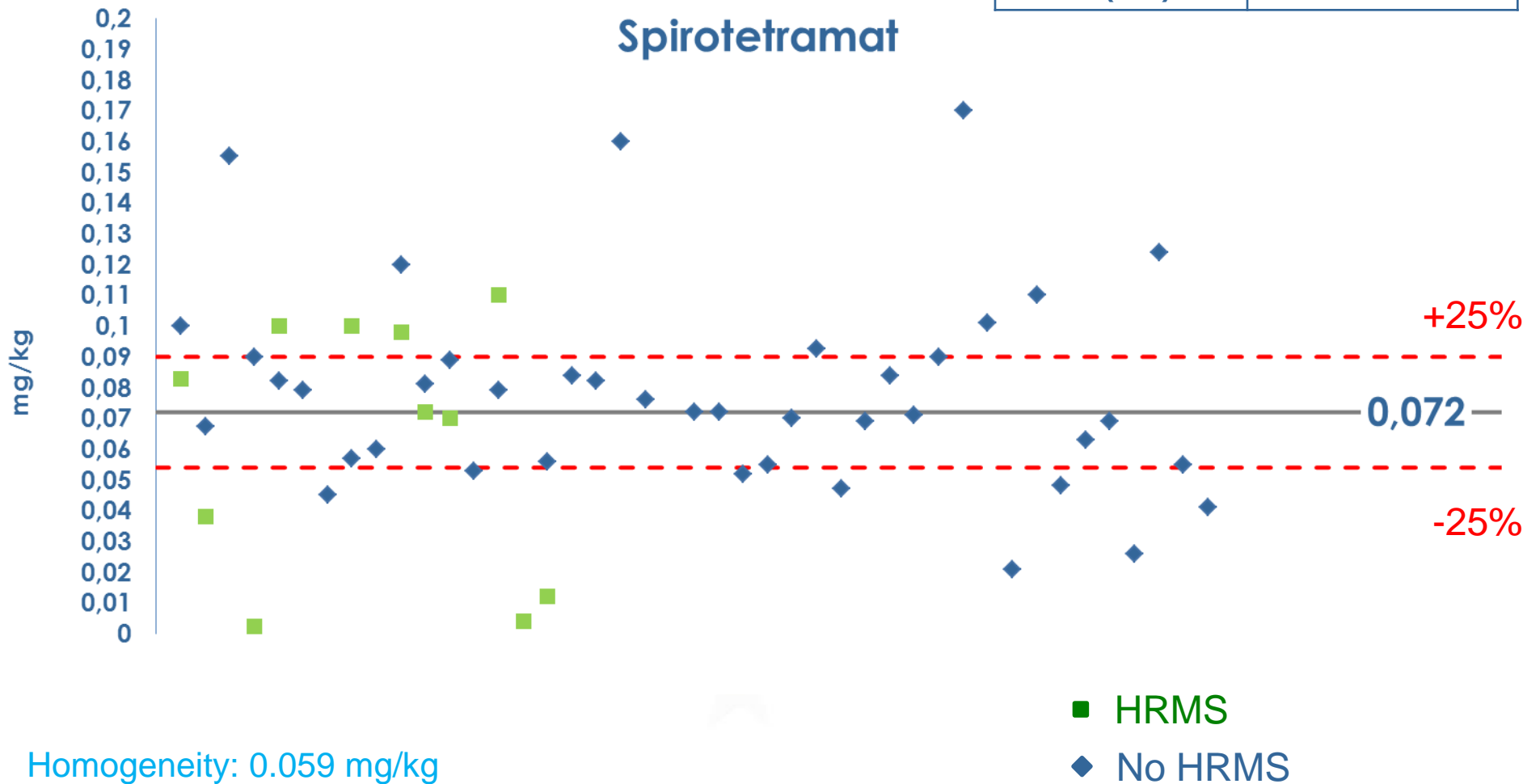


Homogeneity: 0.015 mg/kg

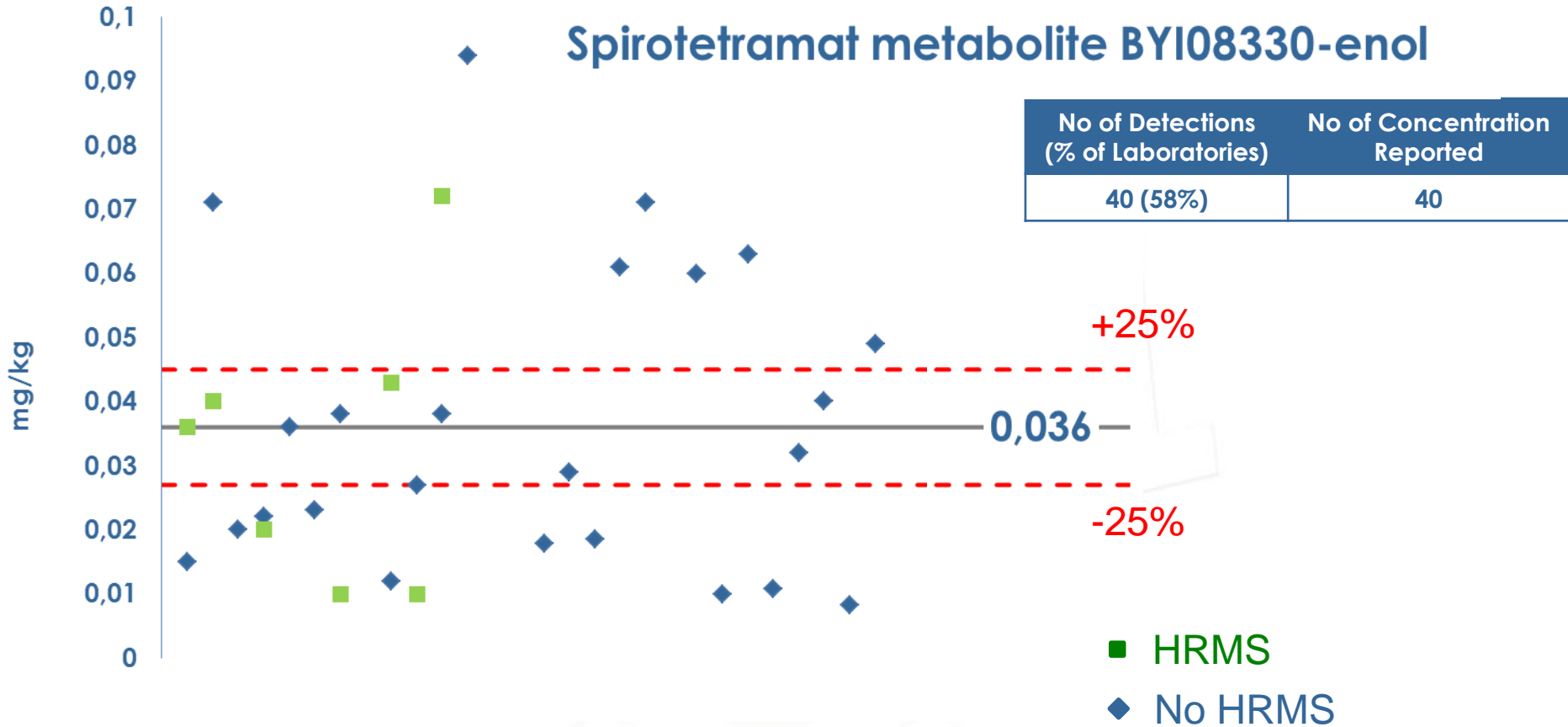
No of Detections (% of Laboratories)	No of Concentration Reported
53 (77%)	56



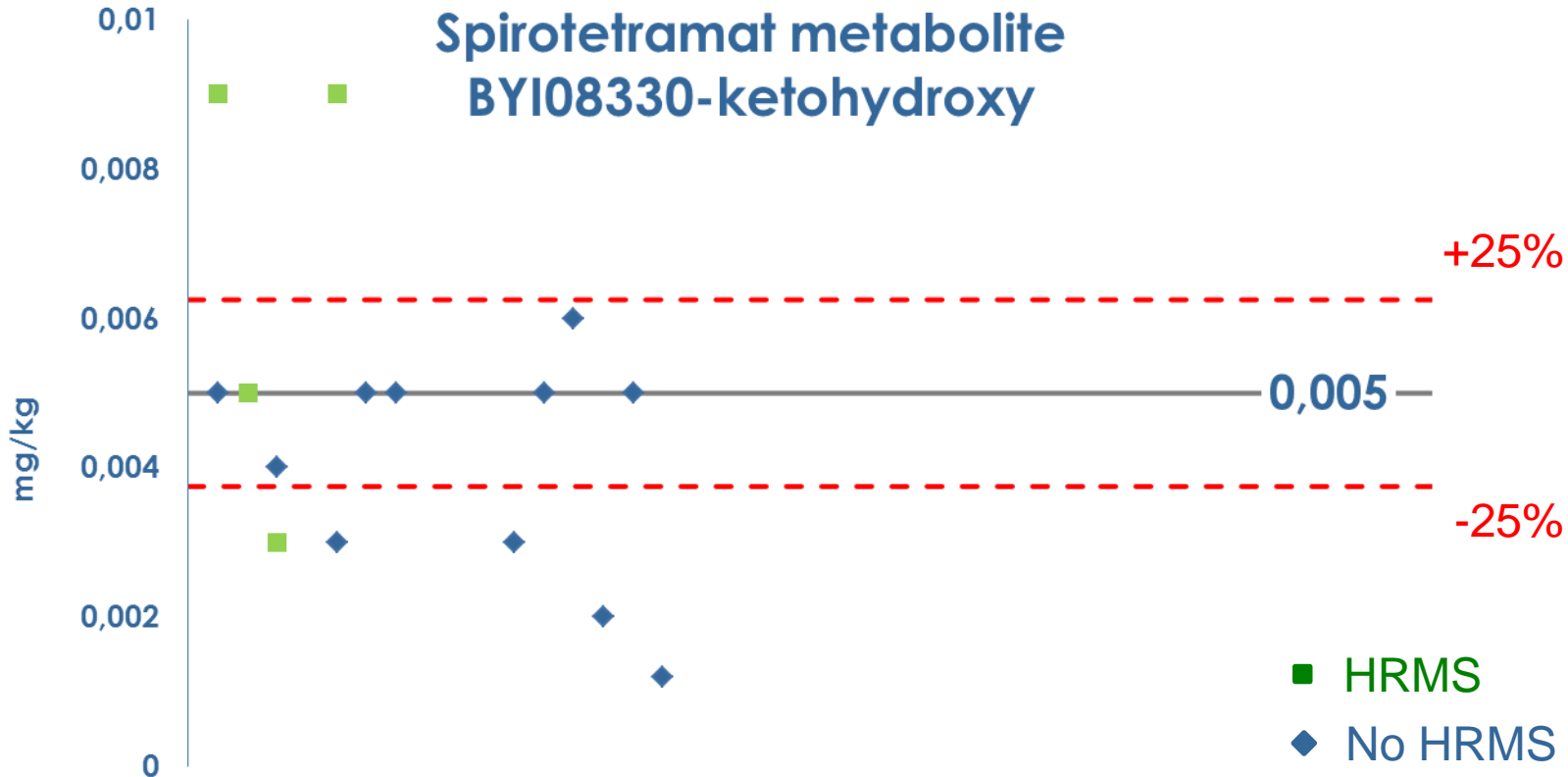
No of Detections (% of Laboratories)	No of Concentration Reported
59 (86%)	59



Homogeneity: 0.059 mg/kg

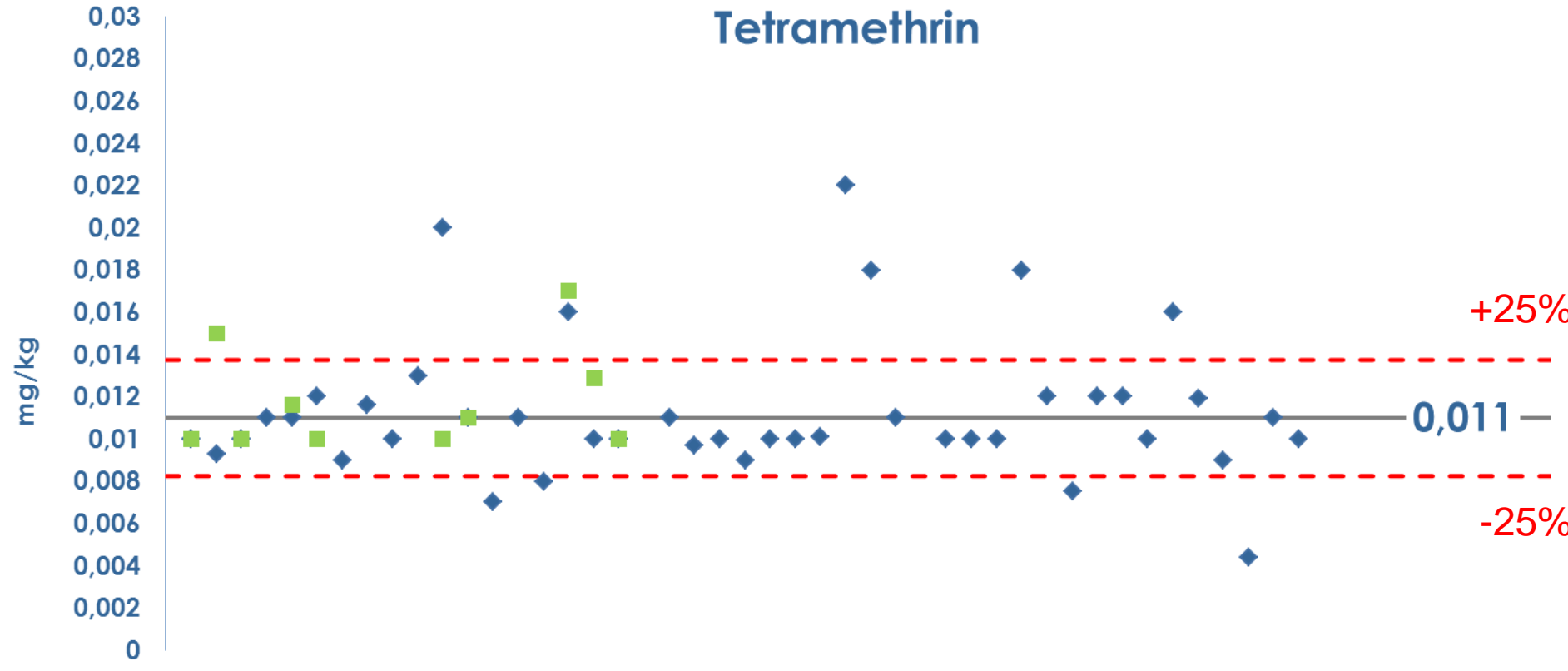


No of Detections (% of Laboratories)	No of Concentration Reported
21 (30%)	22



No of Detections (% of Laboratories)	No of Concentration Reported
63 (91%)	63

Tetramethrin



Homogeneity: 0.015 mg/kg

- HRMS
- ◆ No HRMS

RESULTS

Non spiked pesticides reported by laboratories:

ABOVE 0.01 mg/kg

Amitraz

Chlorothalonil

Cycloxydim

Pyrethrins

TFNA

Results

Not spiked pesticides reported by laboratories:

Reported below 0.01 mg/kg or not quantified

(Z)-13-hexadecen-11-yn-1-yl acetate

Binapacryl

Chlorantraniliprole

Cinerin

Flufenoxuron

Hexachlorobenzene

Isoxaben

Jasmonic acid

Kinoprene

Methacrifos

Methoxyfenozide

Pyranocoumarin

Spinosad

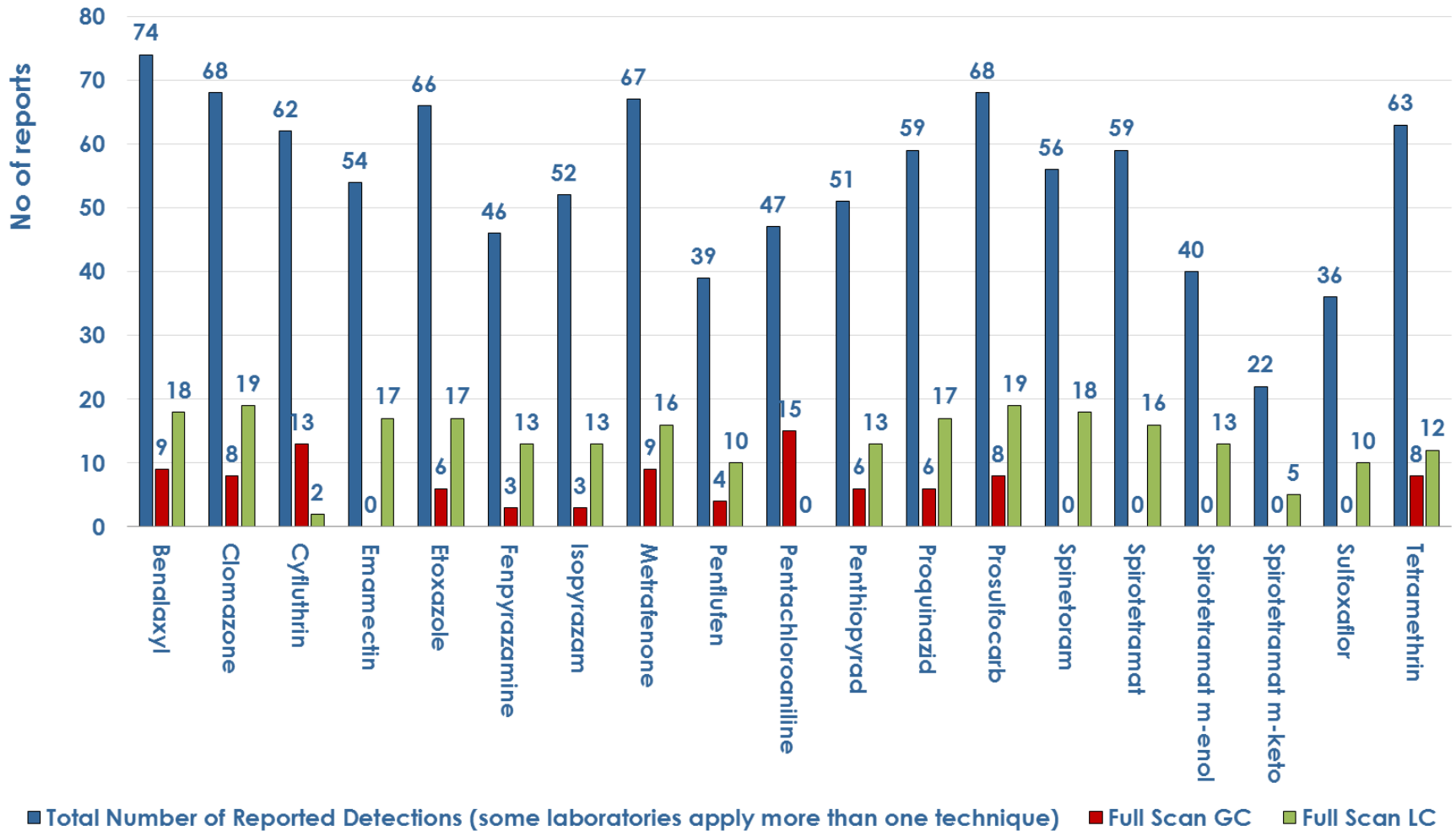
Terbufos-oxon-sulfoxide

TFNA

Tolclofos-methyl

Triadimenol

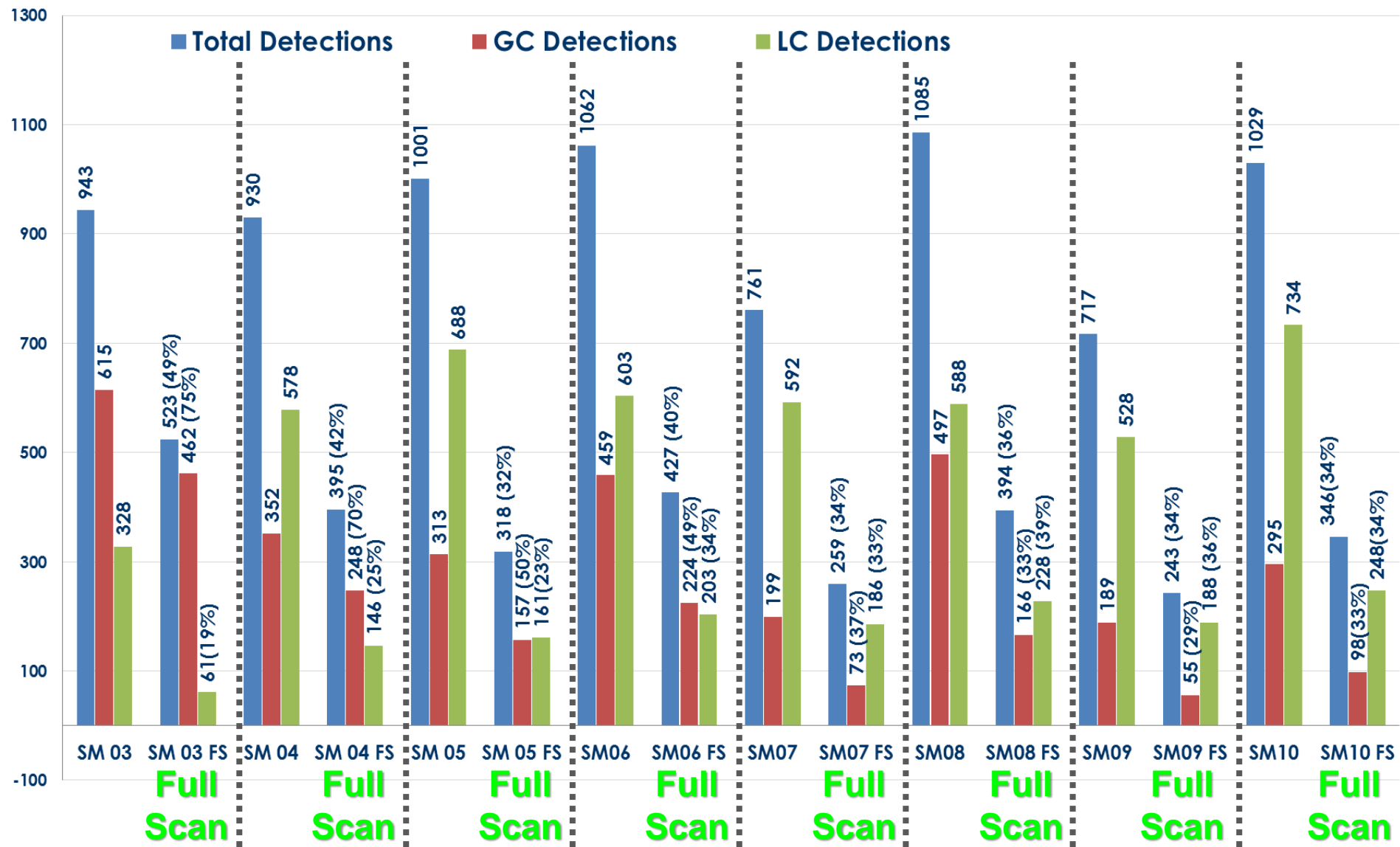
SM-10 Techniques (Full Scan)



Analytical Techniques



EURL-FV



LAB. CODE	Total Detections (all of them)	GC Detections	LC Detections	Total Full Scan	GC Full Scan	LC Full Scan
Lab001	22	10	12	22	10	12
Lab002	11	7	4	7	7	7
Lab003	15	8	7	15	8	7
Lab004	16	11	5	0	0	0
Lab005	17	6	0	0	0	0
Lab006	6	3	0	0	0	0
Lab007	14	8	0	8	8	0
Lab008	3	0	0	0	0	0
Lab009	16	9	0	0	0	0
Lab010	19	8	0	0	0	0
Lab011	25	0	0	14	14	10
Lab012	14	1	0	0	0	0
Lab013	11	8	0	0	0	0
Lab014	14	8	0	0	0	0
Lab015	14	8	0	0	0	0
Lab016	14	8	0	0	0	0
Lab017	14	8	0	0	0	0
Lab018	21	3	0	21	3	18
Lab019	10	5	0	0	0	4
Lab020	16	9	0	13	9	12
Lab021	33	6	0	0	0	0
Lab022	24	14	0	0	0	0
Lab023	14	7	0	9	0	0
Lab024	13	8	0	0	0	0
Lab025	23	6	0	0	0	0
Lab026	14	7	0	0	0	0
Lab027	13	8	0	0	0	0
Lab028	0	6	0	0	0	0
Lab029	9	2	0	0	0	0
Lab030	13	4	0	0	0	0
Lab031	13	8	0	9	0	0
Lab032	22	9	0	22	9	13
Lab033	15	8	0	0	0	11
Lab034	14	3	0	14	3	0
Lab035	13	9	0	0	0	0
Lab036	0	9	0	0	0	0
Lab037	9	2	0	0	0	0
Lab038	13	4	0	0	0	0
Lab039	13	8	0	0	0	0
Lab040	13	15	0	13	0	0
Lab041	12	3	0	12	0	0
Lab042	5	2	0	0	0	0
Lab043	9	6	0	0	0	0
Lab044	7	7	0	0	0	0
Lab045	12	1	0	0	0	0
Lab046	9	5	0	0	0	0
Lab047	1	1	0	0	0	0
Lab048	10	3	0	0	0	0
Lab049	8	0	0	0	0	0
Lab050	8	8	0	0	0	0
Lab051	3	0	0	0	0	0
Lab052	13	1	0	0	0	0
Lab053	14	7	0	0	0	0
Lab054	11	6	0	9	1	0
Lab055	15	7	0	1	8	0
Lab056	15	7	0	4	0	0
Lab057	8	4	0	0	0	0
Lab058	14	9	0	0	0	0
Lab059	14	9	0	0	0	0
Lab060	11	4	0	13	0	0
Lab061	15	13	0	8	0	0
Lab062	8	0	0	15	0	0
Lab063	20	6	0	0	0	0
Lab064	14	5	0	0	0	0
Lab065	11	9	0	0	0	0
Lab066	8	4	0	0	0	0
Lab067	14	6	0	0	0	0
Lab068	26	5	0	0	0	0
Lab069	15	9	0	0	0	0
Lab070	23	7	0	0	0	0
Lab071	16	5	0	9	25	0
Lab072	10	9	0	0	0	0
Lab073	35	11	0	0	0	0
Lab074	15	6	0	0	0	0
Lab075	11	3	0	0	0	0
Lab076	8	11	0	0	0	0
Lab077	16	5	0	0	0	0
Lab078	15	5	0	1	0	0
Lab079	9	8	0	0	0	0
Lab080	13	5	0	0	0	0
Lab081	14	12	0	0	0	0
Lab082	2	2	0	14	0	0
Lab083	19	0	0	0	0	0
Lab084	6	4	0	0	0	0
Lab085	4	7	0	0	0	0
Lab086	14	0	0	0	0	0
Lab087	12	5	0	0	0	0
Lab089	13	0	5	11	13	0

Total Detections: 1029 **GC Detections: 295** **LC Detections: 734**
Total Full Scan: 346 **GC Full Scan: 98** **LC Full Scan: 248**
(34% of the Total) **(28% of the Full Scan)** **(72% of the Full Scan)**

NO OF PARTICIPATING LABS 69 LABS

Labs **NOT ANALIZING BY** HRMS
46 Labs (67%)

Labs **ANALIZING BY** HRMS
23 Labs (33%)

Labs ANALIZING BY **GC-HRMS**
11 Labs
48 % from the 23 laboratories
using HRMS

Labs ANALIZING BY **LC-HRMS**
21 Labs
91 % from the 23 laboratories
using HRMS

NOTE: SOME LABORATORIES are using GC and LC HRMs



EUPT-FV-SC01
European Proficiency Test FV-SC01

EUPT-FV-SC01

European Proficiency Test FV-SC01



Chia seeds

Chia seeds were purchased in the local market in Almería and spiked with pesticides

EURL

192 pesticides

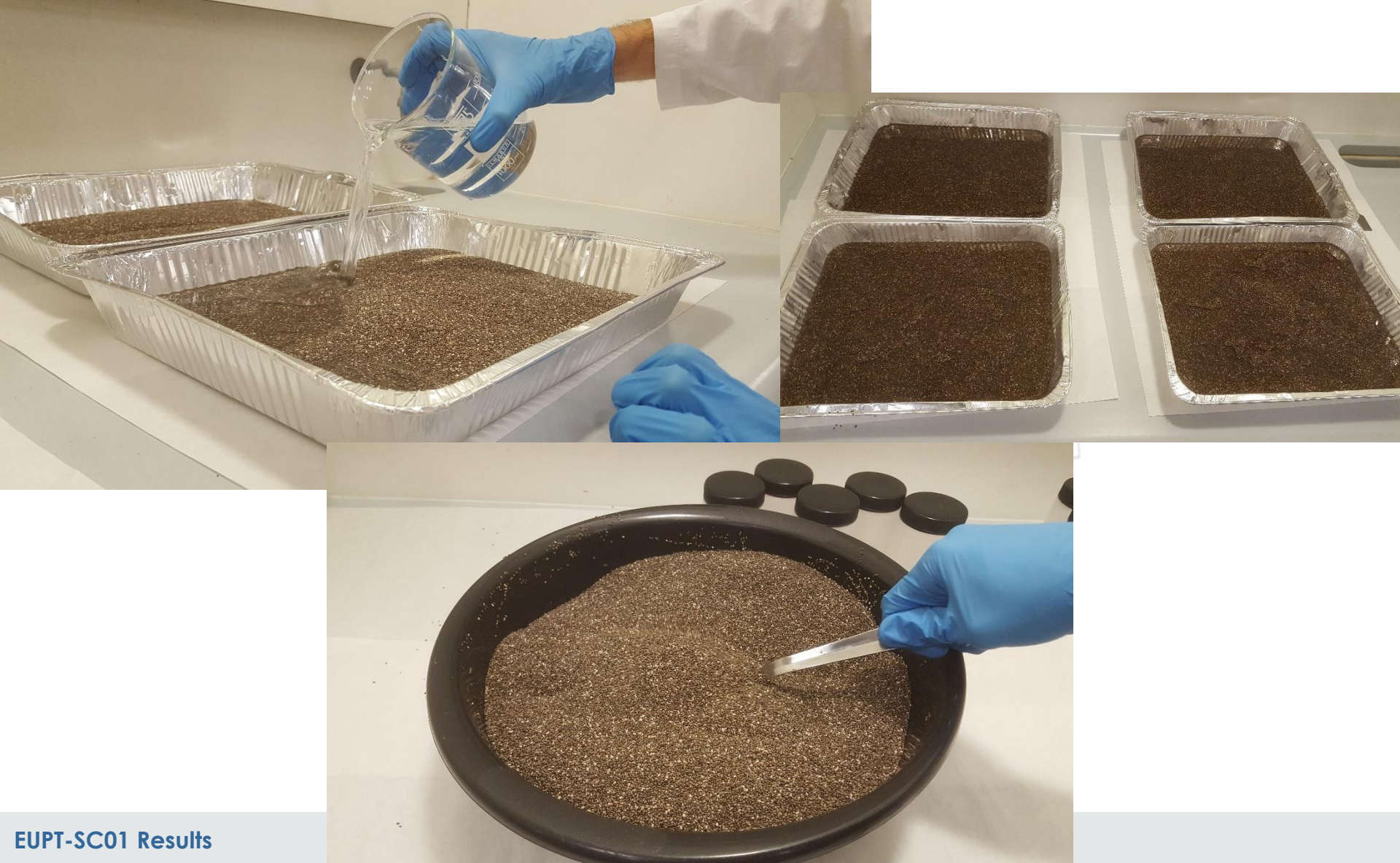
Acephate	Chlorfenapyr	Diethofencarb	Fenpropathrin
Acetamiprid	Chlorfenvinphos	Difenoconazole	Fenpropidin
Acrinathrin	Chlorobenzilate	Diflubenzuron	Fenpropimorph
Aldicarb	Chlorothalonil	Dimethoate	Fenpyroximate
Aldicarb Sulfone	Chlorpropham	Dimethomorph	Fenthion
Aldicarb Sulfoxide	Chlorpyrifos	Dimethylaminosulfotoluidide (DMST)	Fenthion oxon
Aldrin	Chlorpyrifos-methyl	Diniconazole	Fenthion oxon sulfone
Azinphos-methyl	Clofentezine	Diphenylamine	Fenthion oxon sulfoxide
Azoxystrobin	Clothianidin	Endosulfan alpha	Fenthion sulfone
Benfuracarb	Cyfluthrin (cyfluthrin incl. other mixtures of constituent isomers (sum of isomers))	Endosulfan beta	Fenthion sulfoxide
Bifenthrin	Cymoxanil	Endosulfan sulfate	Fenvalerate
Biphenyl	Cypermethrin (cypermethrin incl. other mixtures of constituent isomers (sum of isomers))	EPN	Fipronil (only parent compound)
Bitertanol	Cyproconazole	Epoxiconazole	Flubendiamide
Boscalid	Cyprodinil	Ethion	Fludioxonil
Bromopropylate	Deltamethrin (cis-deltamethrin)	Ethirimol	Flufenoxuron
Bromuconazole	Demeton-S-methylsulfone	Ethoprophos	Fluopicolide
Bupirimate	Diazinon	Etofenprox	Fluopyram
Buprofezin	Dichlofluanid	Famoxadone	Fluquinconazole
Cadusafos	Dichlorvos	Fenamidone	Flusilazole
Carbaryl	Dicloran	Fenamiphos	Flutolanil
Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Dicofol (sum of p, p' and o,p' isomers)	Fenamiphos sulfone	Flutriafol
Carbofuran	Dieldrin	Fenamiphos sulfoxide	Fosthiazate
Carbofuran-3-hydroxy		Fenarimol	Hexaconazole
Carbosulfan		Fenazaquin	Hexythiazox
Chlorantraniliprole		Fenbuconazole	Imazalil
		Fenhexamid	
		Fenitrothion	
		Fenoxycarb	

192 pesticides

Imidacloprid	Monocrotophos	Profenofos	Thiabendazole
Indoxacarb (sum of indoxacarb and its R enantiomer)	Myclobutanyl	Propamocarb	Thiacloprid
Iprodione	Omethoate	Propargite	Thiamethoxam
Iprovalicarb	Orthophenylphenol	Propiconazole	Thiodicarb
Isocarbophos	Oxadixyl	Propyzamide	Thiophanate-methyl
Isofenphos-methyl	Oxamyl	Prothioconazole	Tolclofos-methyl
Isoprothiolane	Oxydemeton-methyl	Prothiofos	Tolyfluanid
Kresoxim-methyl	Paclobutrazole	Pyraclostrobin	Triadimefon
Lambda-Cyhalothrin	Paraoxon-methyl	Pyridaben	Triadimenol
Linuron	Parathion-ethyl	Pyrimethanil	Triazophos
Lufenuron	Parathion-methyl	Pyriproxyfen	Trichlorfon
Malaoxon	Penconazole	Quinoxyfen	Trifloxystrobin
Malathion	Pencycuron	Spinosad	Triflumuron
Mandipropamid	Pendimethalin	Spirodiclofen	Trifluralin
Mepanipyrim	Permethrin (sum of isomers)	Spiromesifen	Triticonazole
Metaflumizone	Phenthoate	Spiroxamine	Vinclozolin
Metalaxyl and metalaxyl-M	Phosalone	Tau-Fluvalinate	Zoxamide
Metconazole	Phosmet	Tebuconazole	
Methamidophos	Phosmet oxon	Tebufenozide	
Methidathion	Phoxim	Tebufenpyrad	
Methiocarb	Pirimicarb	Teflubenzuron	
Methiocarb sulfone	Pirimicarb-desmethyl	Tefluthrin	
Methiocarb sulfoxide	Pirimiphos-methyl	Terbutylazine	
Methomyl	Prochloraz	Tetraconazole	
Methoxyfenozide	Procymidone	Tetradifon	

Pesticides used for the treatment	
Acetamiprid	Linuron
Carbendazim	Malathion
Chlorpyrifos	Myclobutanil
Cypermethrin	Pirimiphos-methyl
Dimethomorph	Propiconazole
Hexaconazole	Triazophos
Isofenphos-mehtyl	Trifluralin
Total: 14	

Preparation of the test item





Homogeneity

The homogeneity in the treated sample was studied using the 2006 Harmonised Protocol.

Stability

1st Analysis - prior to the sample shipment

2nd Analysis - after the deadline for reporting results

3rd Analysis - reproducing the delivery conditions that the samples experienced during 48 hours

All pesticides passed the homogeneity and stability tests

Participation

Total No. of Labs = 37

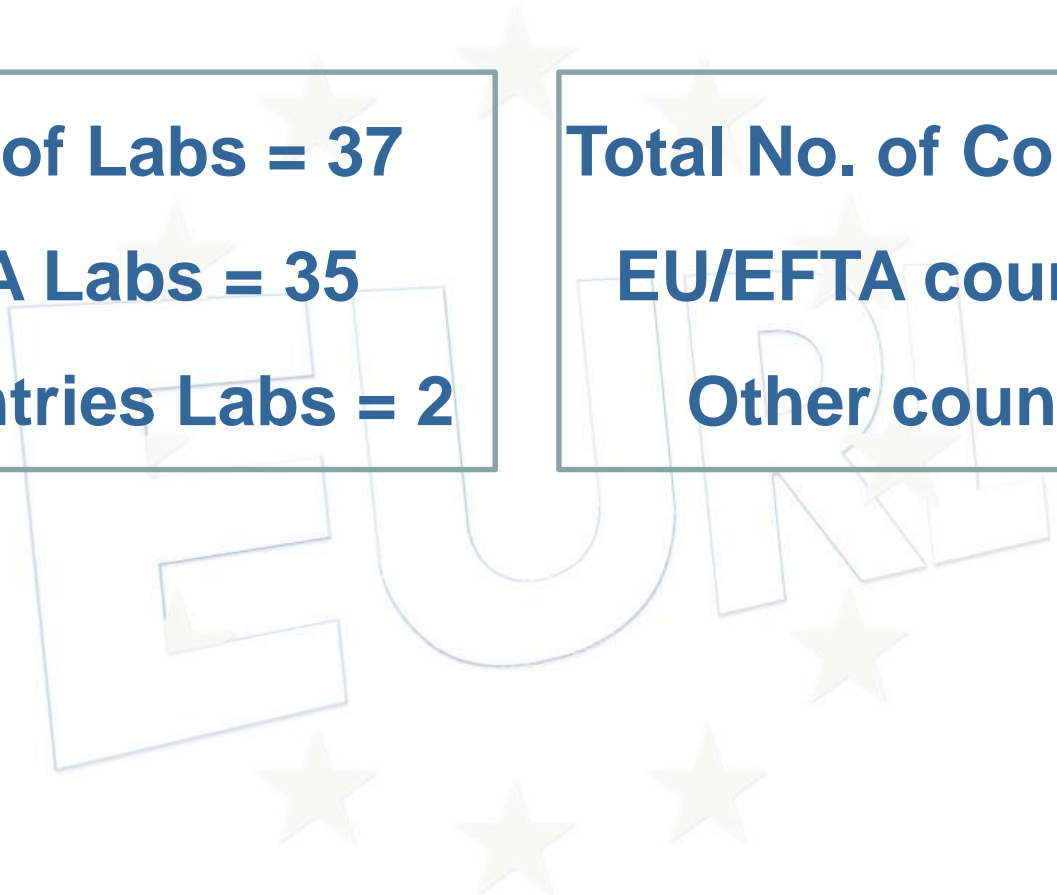
EU/EFTA Labs = 35

Other countries Labs = 2

Total No. of Countries = 19

EU/EFTA countries = 17

Other countries = 2



Participation

Member State	Number of Labs
Austria	1
Belgium	4
Croatia	1
Czech Republic	1
Finland	1
Germany	4
Greece	1
Iceland	1
Ireland	1
Italy	5
Latvia	1
Malta	1
Poland	1
Portugal	1
Spain	10
Sweden	1
The Netherlands	1

Non-EU/EFTA Country	No. of Labs
Kenya	1
Thailand	1

Results

Assigned values

	Robust Mean X* (mg/kg)
Pirimiphos-methyl	0.016
Acetamiprid	0.032
Trifluralin	0.034
Malathion	0.039
Dimethomorph	0.042
Linuron	0.059
Cypermethrin	0.061
Carbendazim	0.084
Hexaconazole	0.093
Propiconazole	0.119
Chlorpyrifos	0.145
Myclobutanil	0.194
Isofenphos-methyl	0.230
Triazophos	0.444

Assigned values

0.016-0.093 mg/kg

	Robust Mean X* (mg/kg)
Pirimiphos-methyl	0.016
Acetamiprid	0.032
Trifluralin	0.034
Malathion	0.039
Dimethomorph	0.042
Linuron	0.059
Cypermethrin	0.061
Carbendazim	0.084
Hexaconazole	0.093
Propiconazole	0.119
Chlorpyrifos	0.145
Myclobutanil	0.194
Isofenphos-methyl	0.230
Triazophos	0.444



Assigned values

0.016-0.093 mg/kg

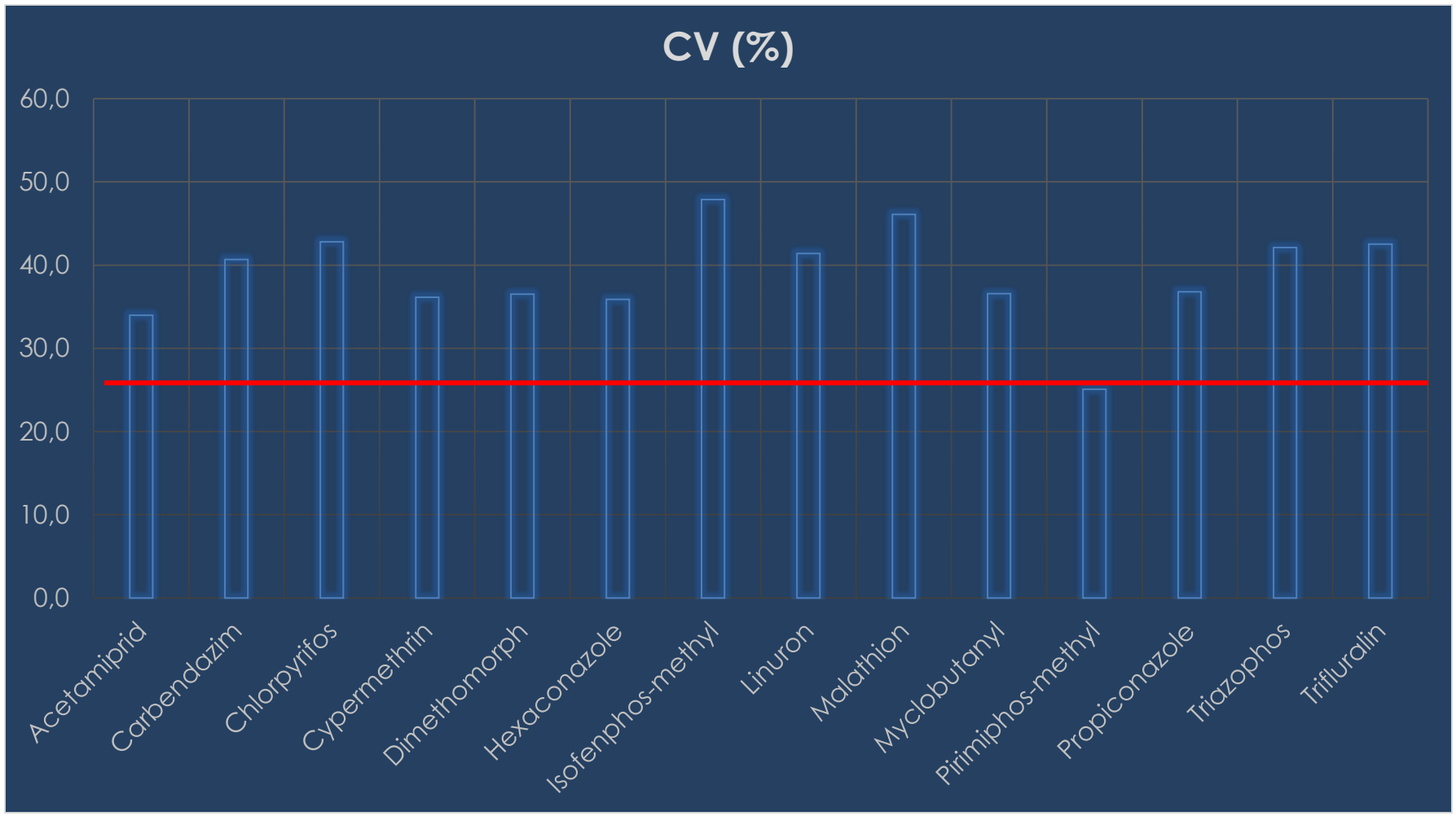
0.119-0.444 mg/kg

	Robust Mean X* (mg/kg)
Pirimiphos-methyl	0.016
Acetamiprid	0.032
Trifluralin	0.034
Malathion	0.039
Dimethomorph	0.042
Linuron	0.059
Cypermethrin	0.061
Carbendazim	0.084
Hexaconazole	0.093
Propiconazole	0.119
Chlorpyrifos	0.145
Myclobutanil	0.194
Isofenphos-methyl	0.230
Triazophos	0.444

	MRRL (mg/kg)	Robust Mean (mg/kg)	CV (%)	Uncertainty (mg/kg)
Acetamiprid	0.010	0.032	34.0	0.002
Carbendazim	0.010	0.084	40.7	0.008
Chlorpyrifos	0.010	0.145	42.8	0.013
Cypermethrin	0.010	0.061	36.1	0.005
Dimethomorph	0.010	0.042	36.5	0.003
Hexaconazole	0.010	0.093	35.9	0.007
Isofenphos-methyl	0.010	0.230	47.9	0.026
Linuron	0.010	0.059	41.4	0.005
Malathion	0.010	0.039	46.1	0.004
Myclobutanil	0.010	0.194	36.6	0.015
Pirimiphos-methyl	0.010	0.016	25.1	0.001
Propiconazole	0.010	0.119	36.8	0.009
Triazophos	0.010	0.444	42.1	0.040
Trifluralin	0.010	0.034	42.5	0.003

	MRRL (mg/kg)	Robust Mean (mg/kg)	CV (%)	Uncertainty (mg/kg)
Acetamiprid	0.010	0.032	34.0	0.002
Carbendazim	0.010	0.084	40.7	0.008
Chlorpyrifos	0.010	0.145	42.8	0.013
Cypermethrin	0.010	0.061	36.1	0.005
Dimethomorph	0.010	0.042	36.5	0.003
Hexaconazole	0.010	0.093	35.9	0.007
Isofenphos-methyl	0.010	0.230	47.9	0.026
Linuron	0.010	0.059	41.4	0.005
Malathion	0.010	0.039	46.1	0.004
Myclobutanil	0.010	0.194	36.6	0.015
Pirimiphos-methyl	0.010	0.016	25.1	0.001
Propiconazole	0.010	0.119	36.8	0.009
Triazophos	0.010	0.444	42.1	0.040
Trifluralin	0.010	0.034	42.5	0.003

Dispersion of Results





Pesticides	No. of Reported Results	No. of False Negative Results	No. of Not Analysed Results	Percentage of Labs Reporting Results (out of 37)
Acetamiprid	34	1	2	92
Carbendazim	32	0	5	86
Chlorpyrifos	37	0	0	100
Cypermethrin	30	3	4	81
Dimethomorph	35	1	1	95
Hexaconazole	34	2	1	92
Isofenphos-methyl	29	4	4	78
Linuron	34	2	1	92
Malathion	34	1	2	92
Myclobutanil	36	0	1	97
Pirimiphos-methyl	21	15	1	57
Propiconazole	36	0	1	97
Triazophos	35	0	2	95
Trifluralin	32	1	4	86

Pesticides	No. of Reported Results	No. of False Negative Results	No. of Not Analysed Results	Percentage of Labs Reporting Results (out of 37)
Acetamiprid	34	1	2	92
Carbendazim	32	0	5	86
Chlorpyrifos	37	0	0	100
Cypermethrin	30	3	4	81
Dimethomorph	35	1	1	95
Hexaconazole	34	2	1	92
Isofenphos-methyl	29	4	4	78
Linuron	34	2	1	92
Malathion	34	1	2	92
Myclobutanil	36	0	1	97
Pirimiphos-methyl	21	15	1	57
Propiconazole	36	0	1	97
Triazophos	35	0	2	95
Trifluralin	32	1	4	86

In the case of pirimiphos methyl they are not considered as false negatives, but as not reported

z-Scores

Z Scores classification

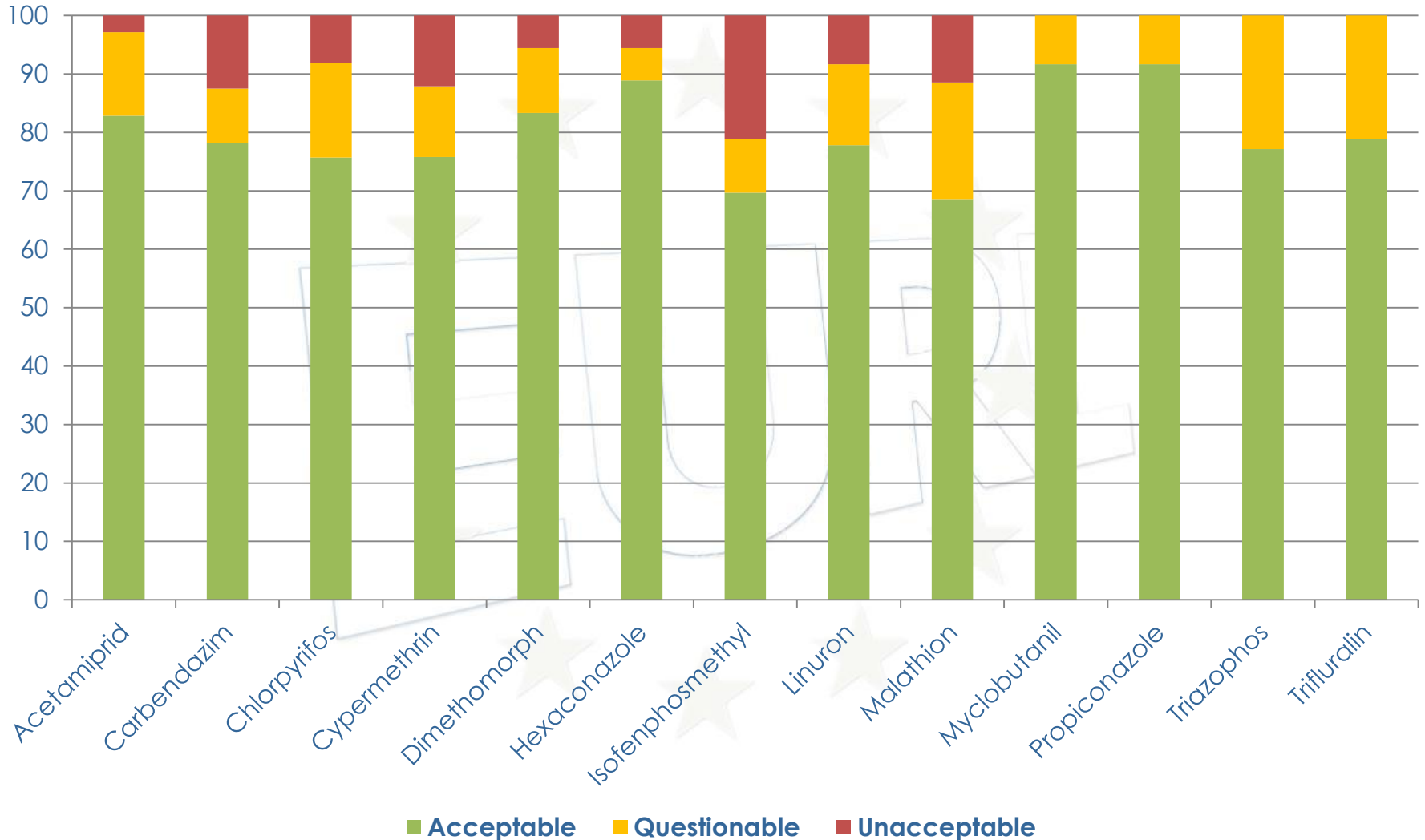


EURL-FV



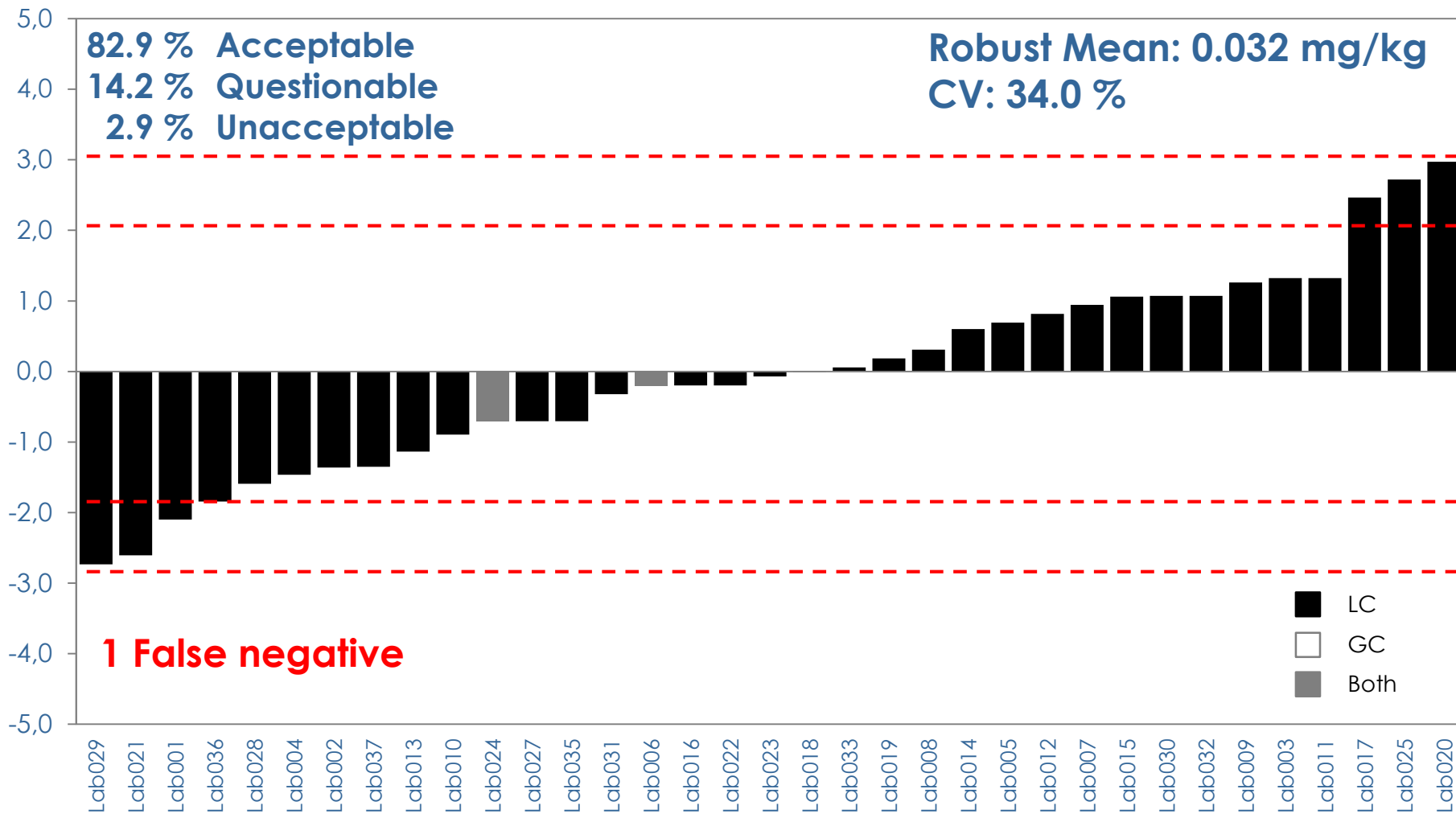
Pesticides	Robust Mean (mg/kg)	% Acceptable z scores	% Questionable z scores	% Unacceptable z scores
Acetamiprid	0.032	82.9	14.2	2.9
Carbendazim	0.084	78.1	9.4	12.5
Chlorpyrifos	0.145	75.7	16.2	8.1
Cypermethrin	0.061	75.8	12.1	12.1
Dimethomorph	0.042	83.3	11.1	5.6
Hexaconazole	0.093	88.8	5.6	5.6
Isofenphos-methyl	0.230	69.7	9.1	21.2
Linuron	0.059	77.8	13.9	8.3
Malathion	0.039	68.6	20.0	11.4
Myclobutanil	0.194	91.7	8.3	0.0
Propiconazole	0.119	91.7	8.3	0.0
Triazophos	0.444	77.1	22.9	0.0
Trifluralin	0.034	78.8	21.2	0.0

Z Scores classification



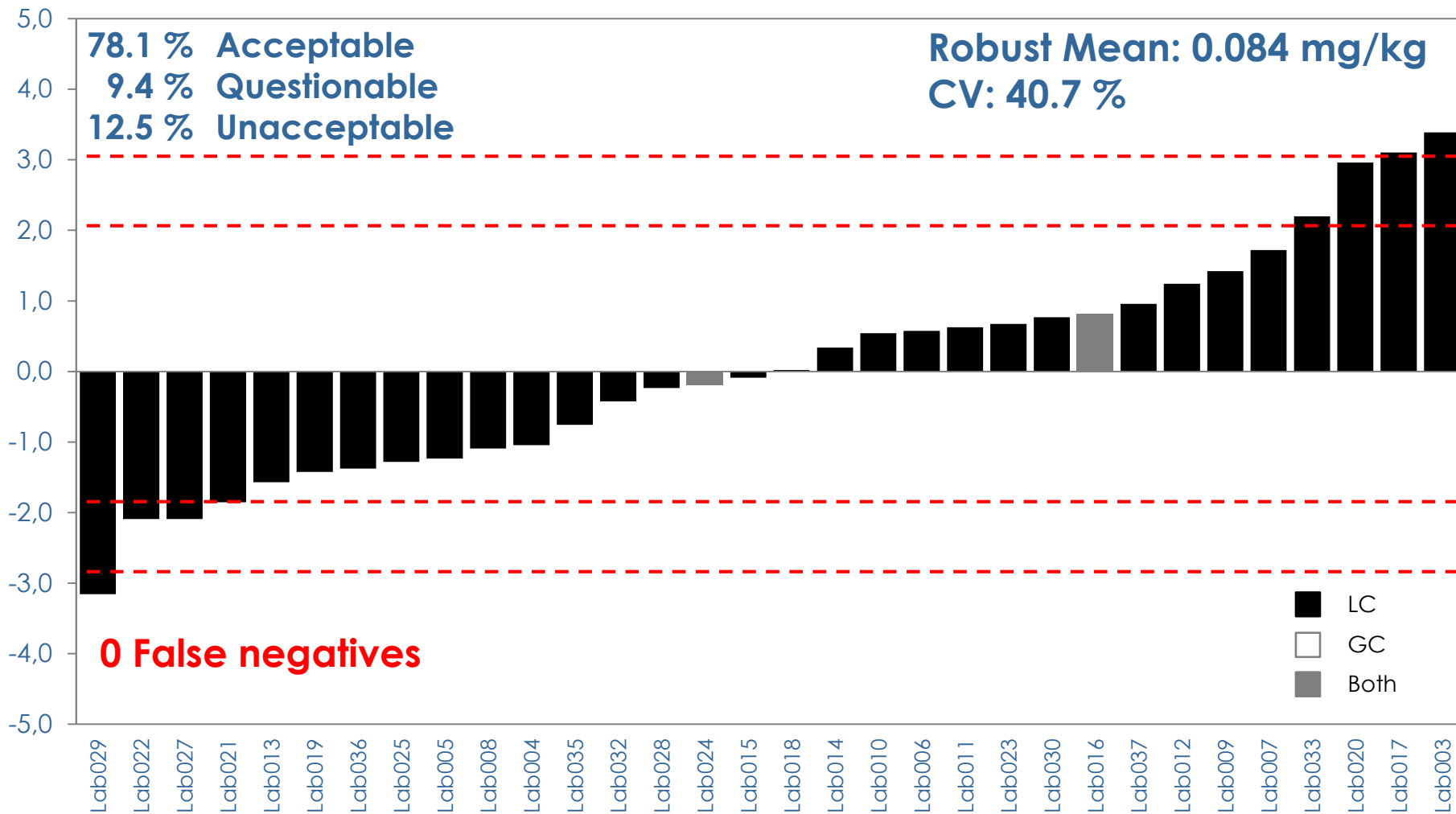


Acetamiprid

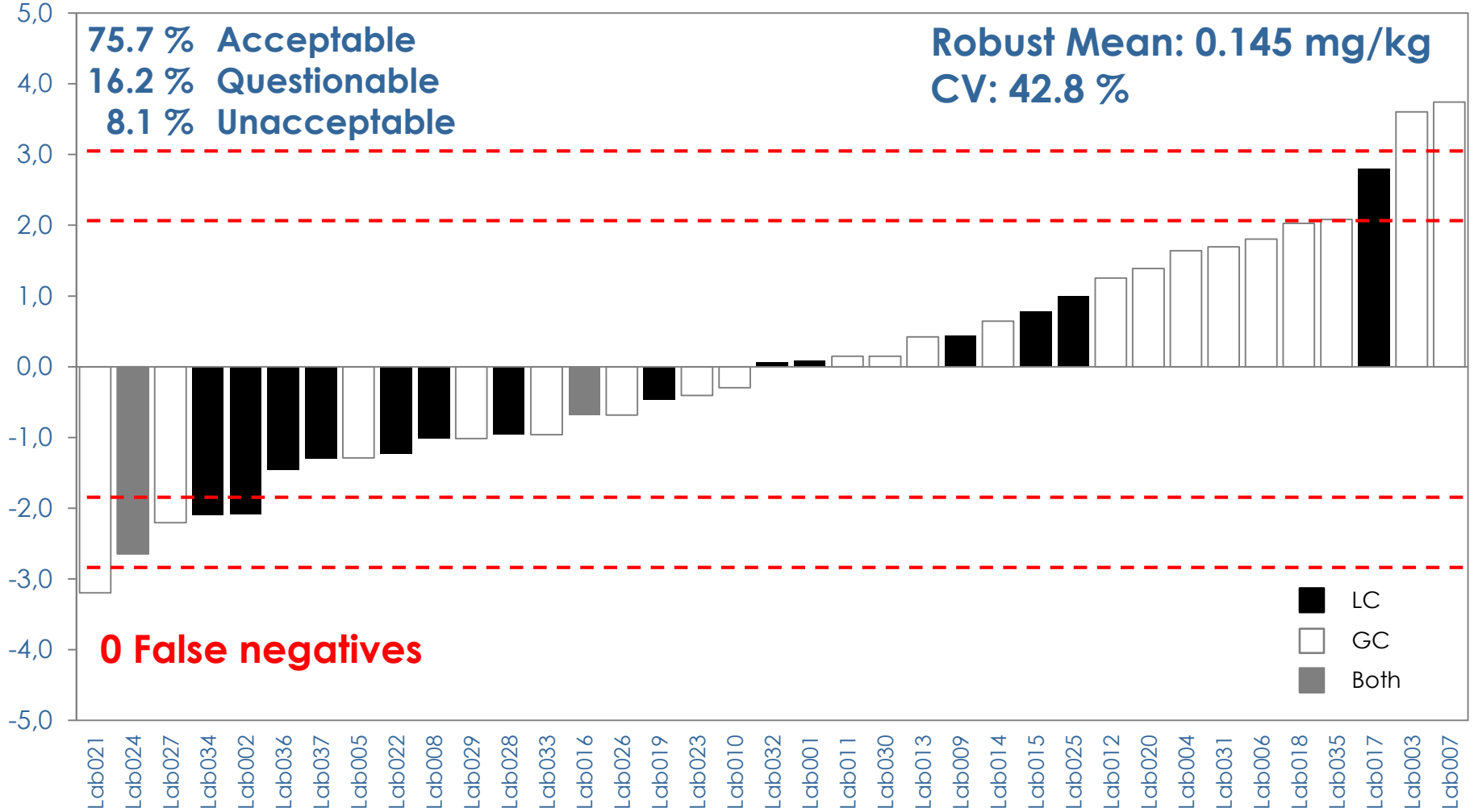




Carbendazim

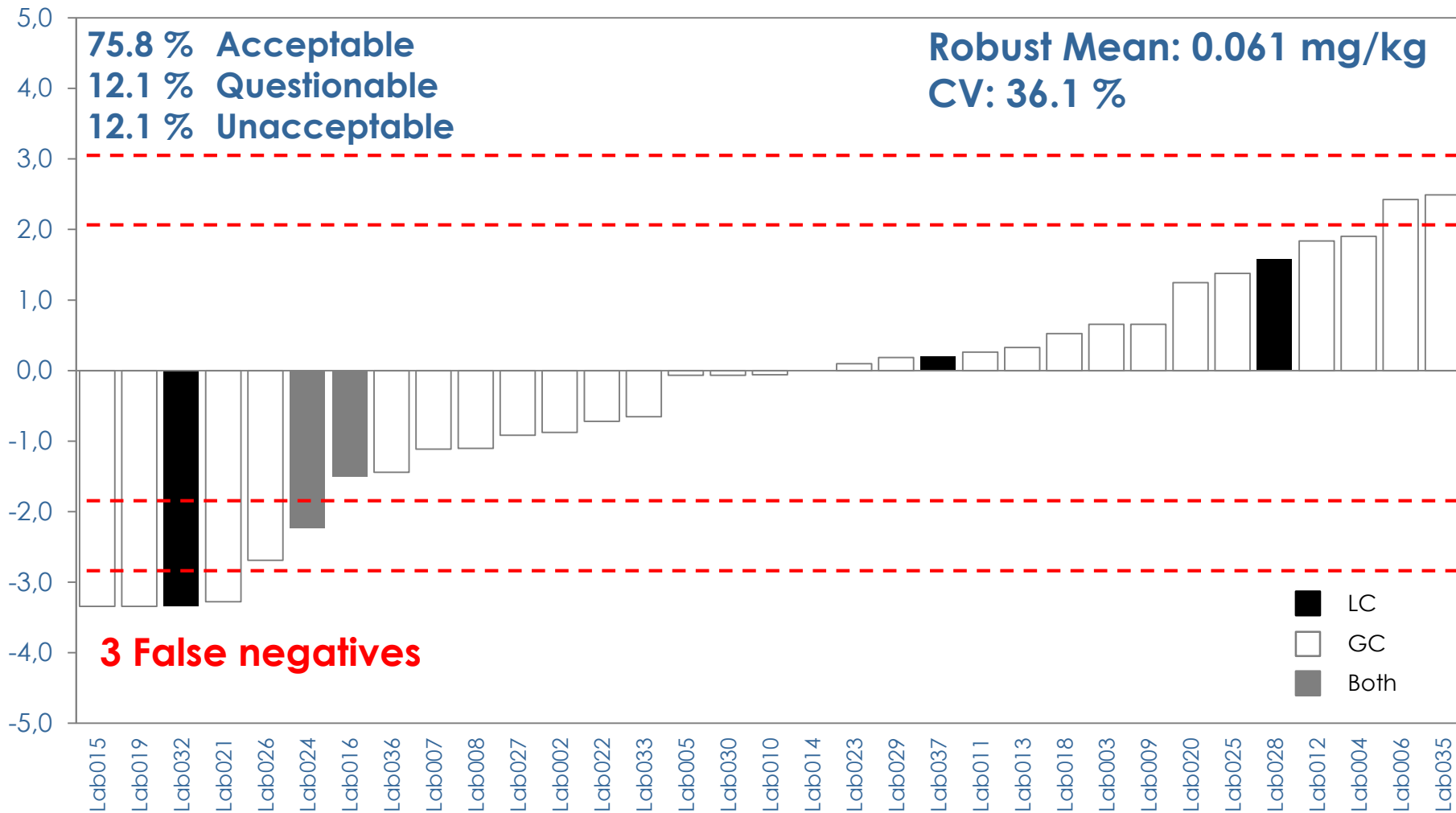


Chlorpyrifos

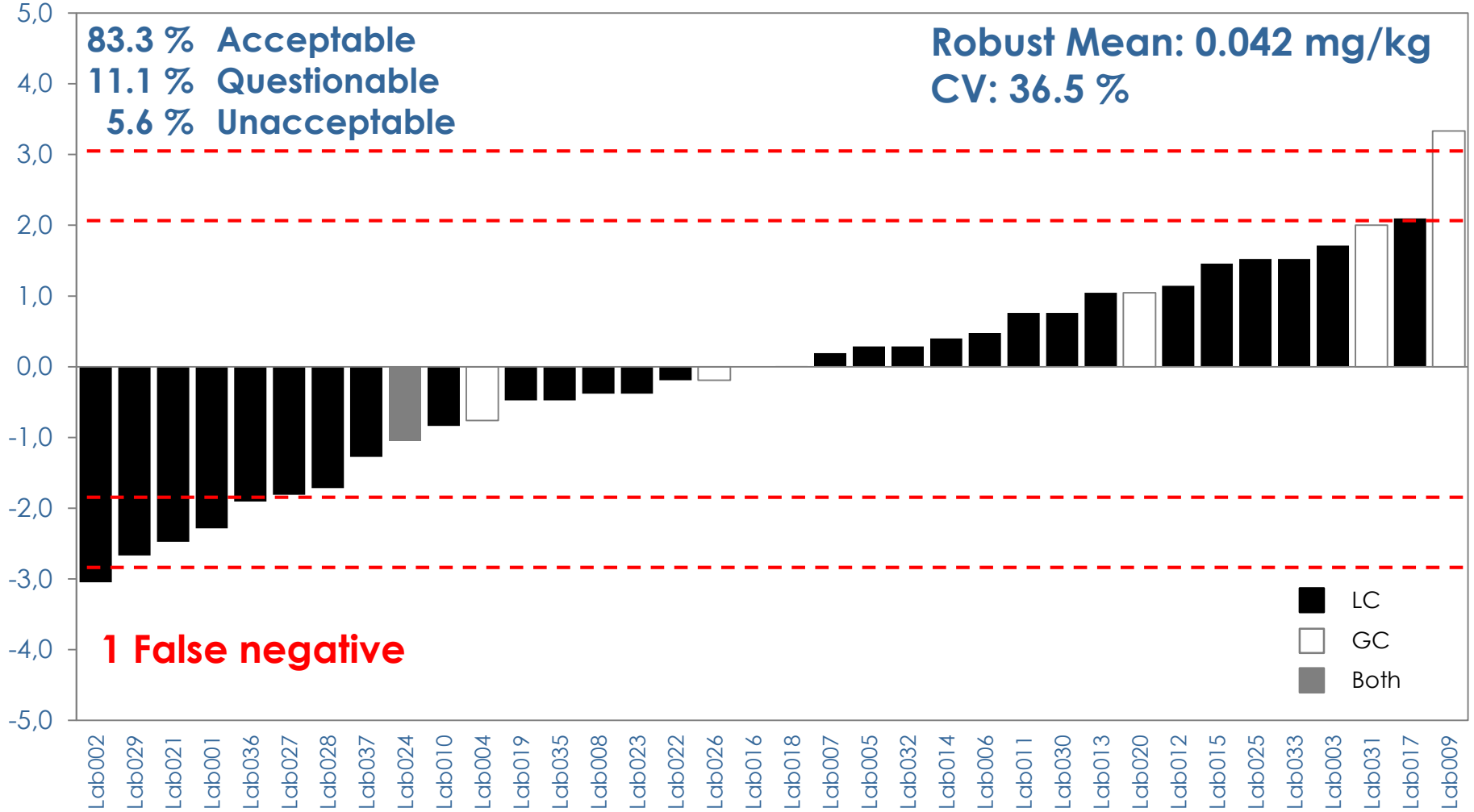




Cypermethrin

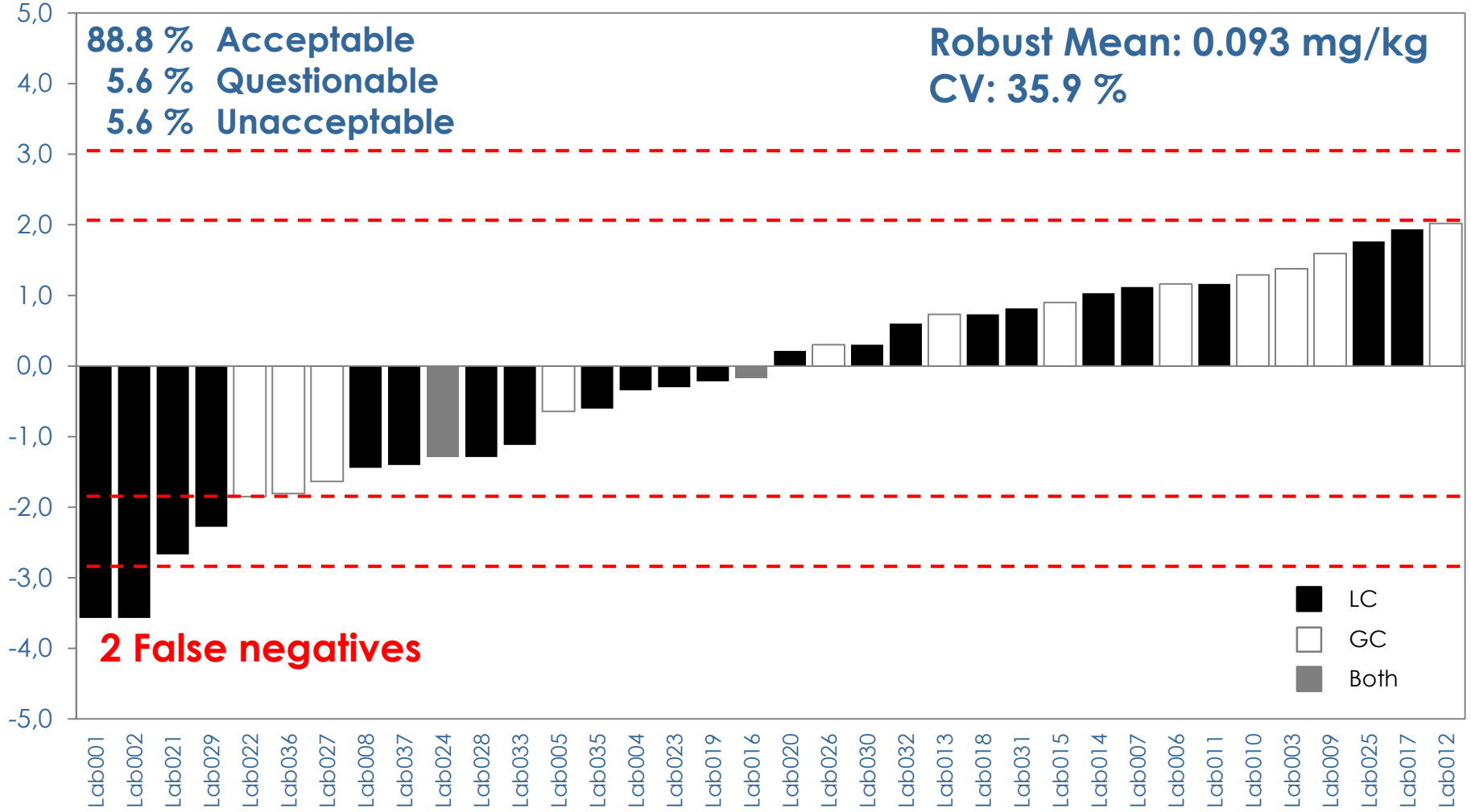


Dimethomorph



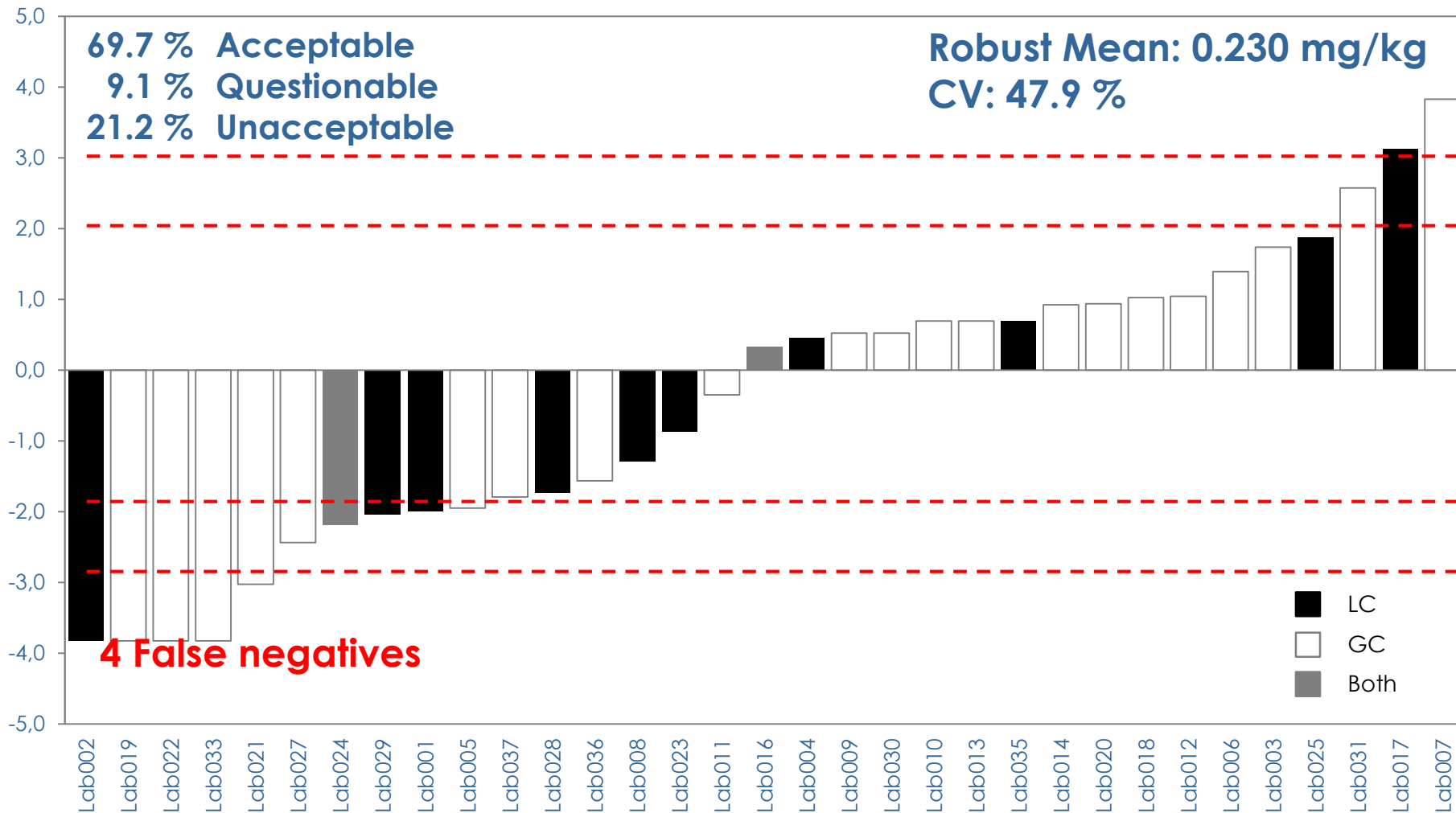
LC
 GC
 Both

Hexaconazole

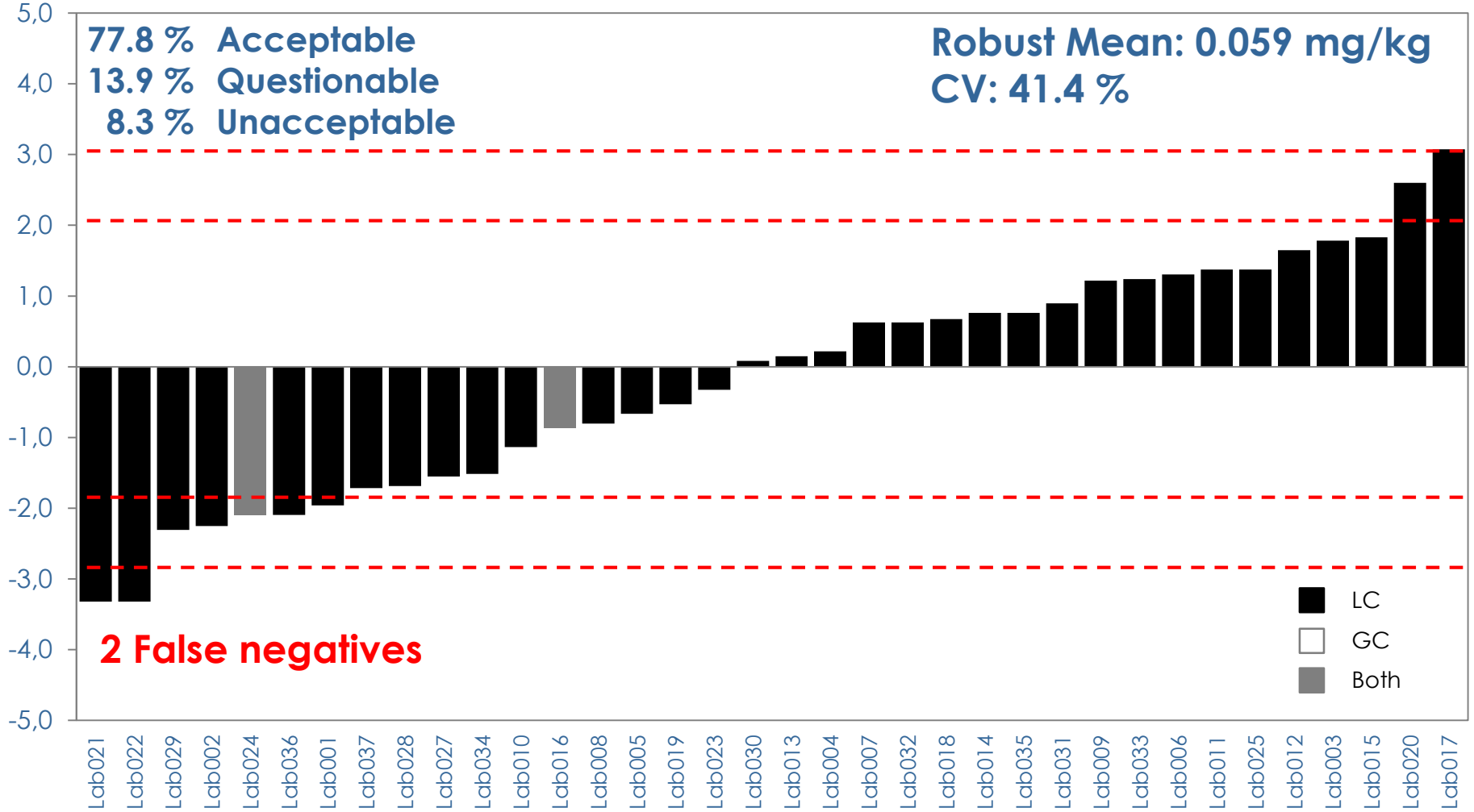




Isofenphos-methyl

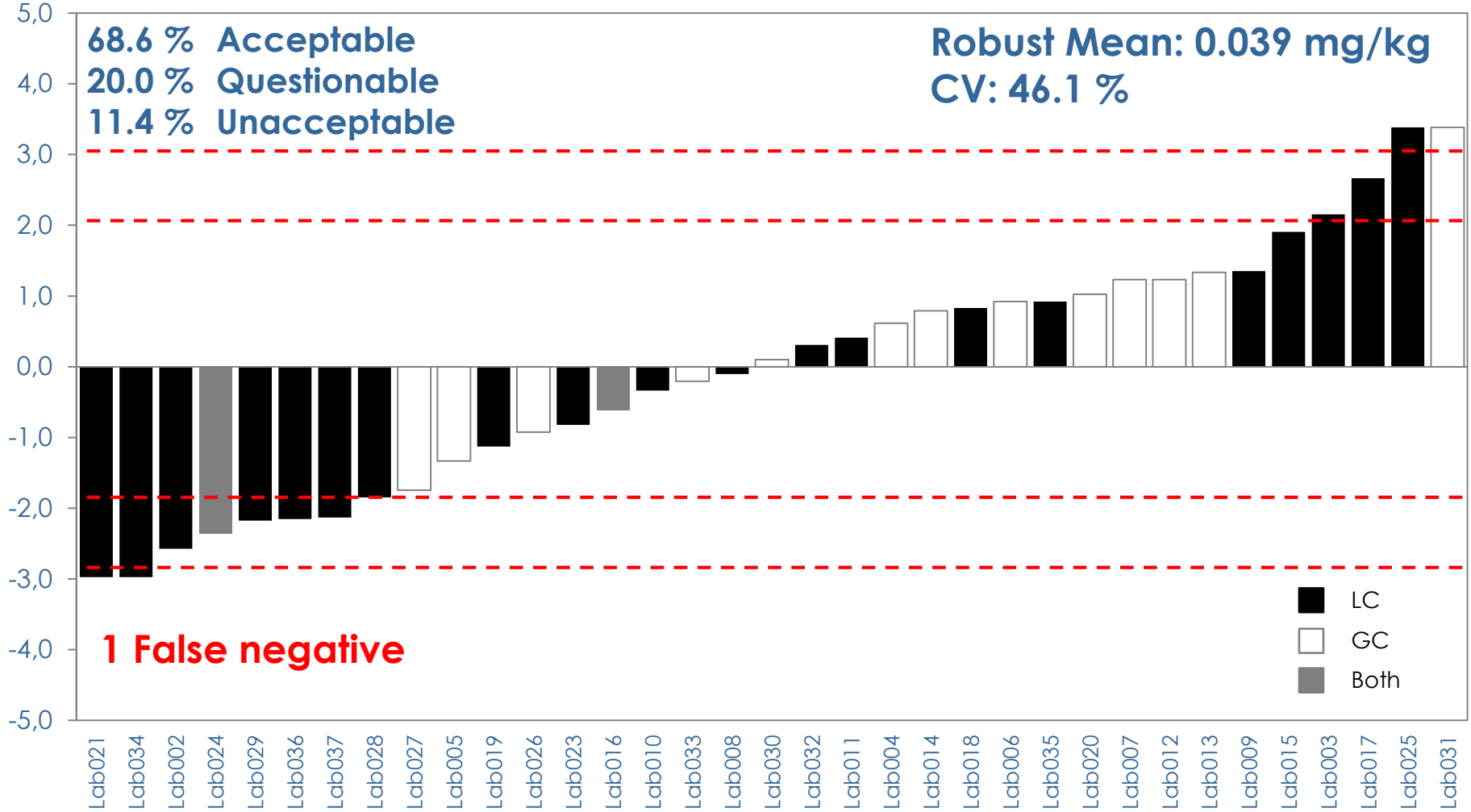


Linuron



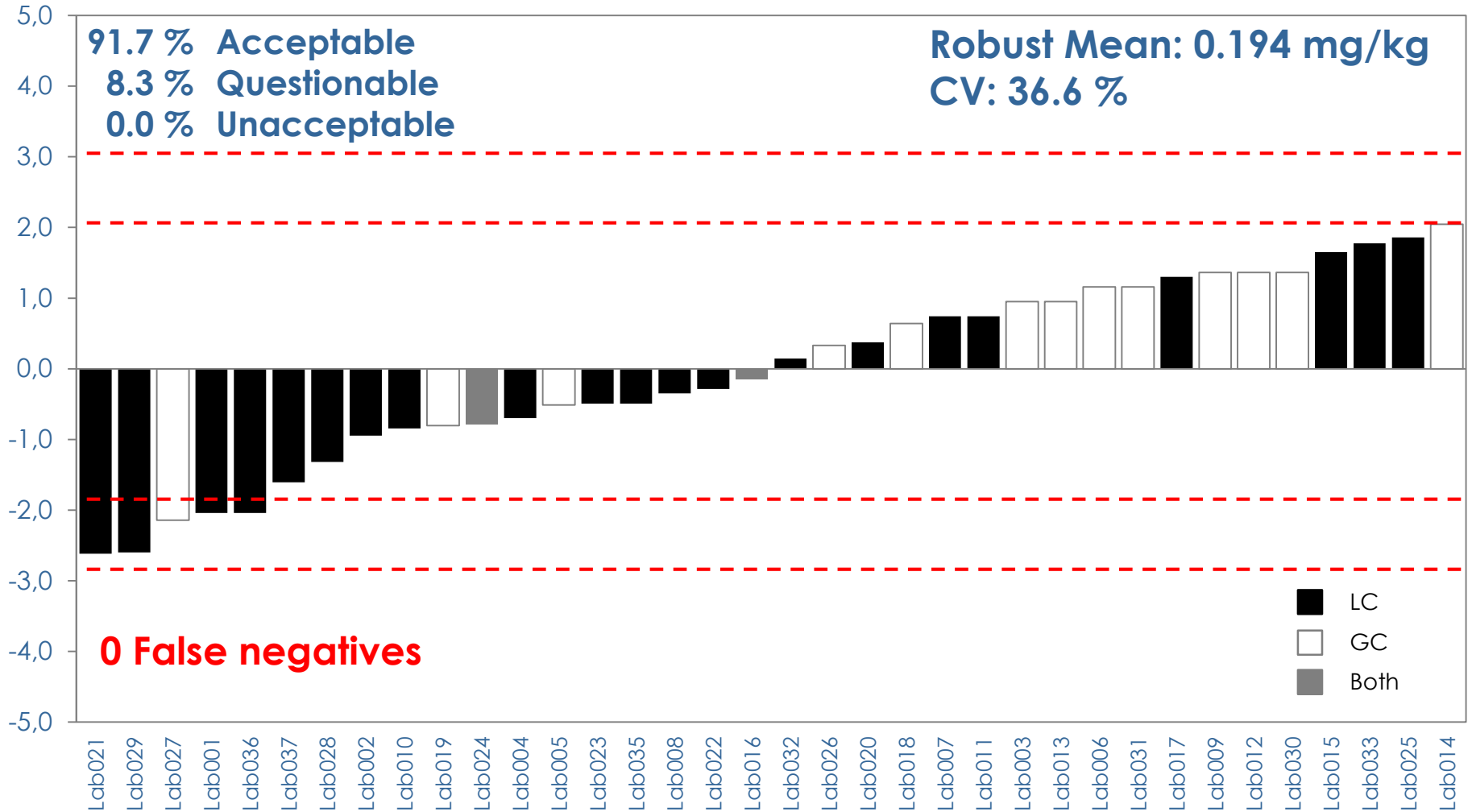
LC
 GC
 Both

Malathion



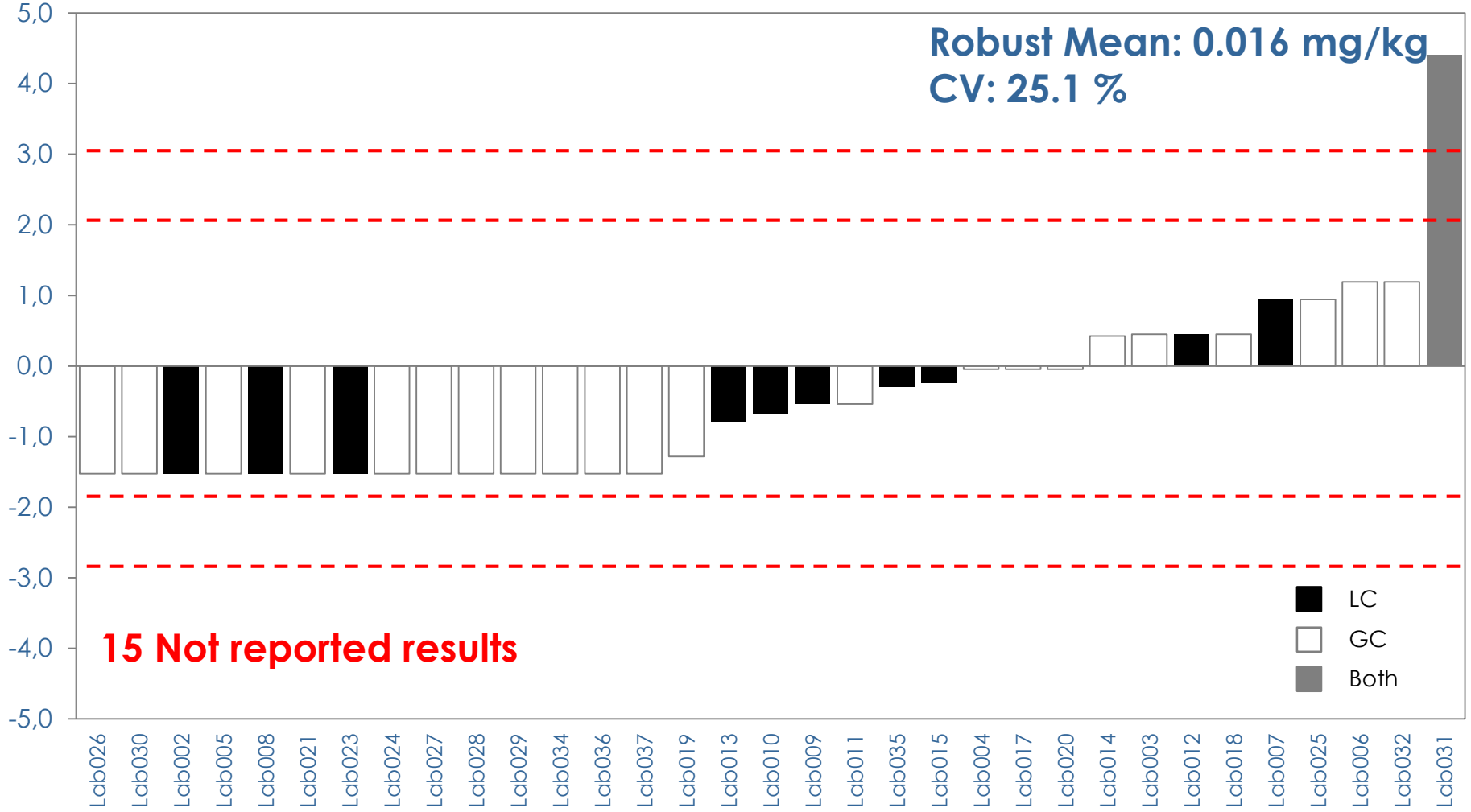
LC
 GC
 Both

Myclobutanil



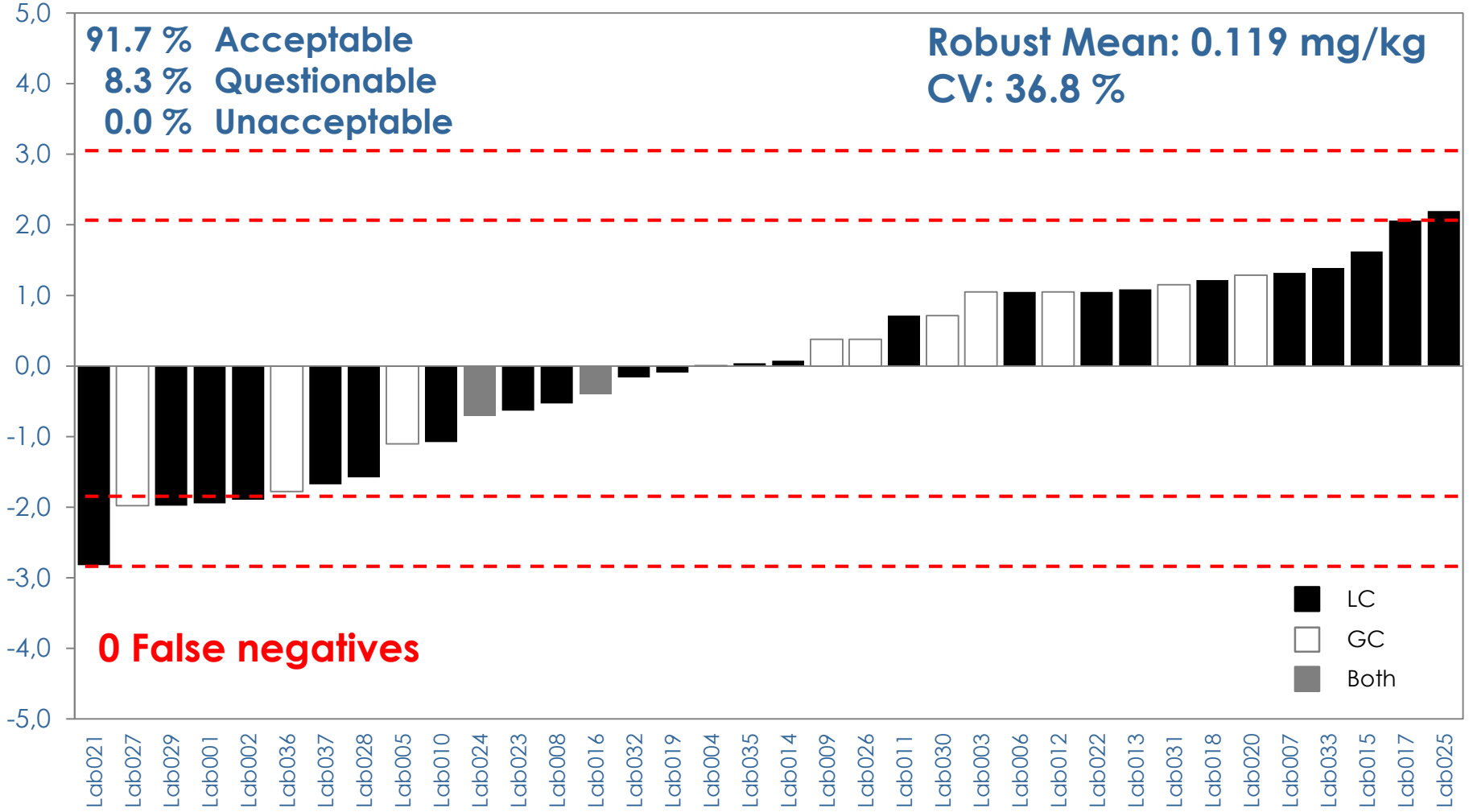
LC
 GC
 Both

Pirimiphos-methyl

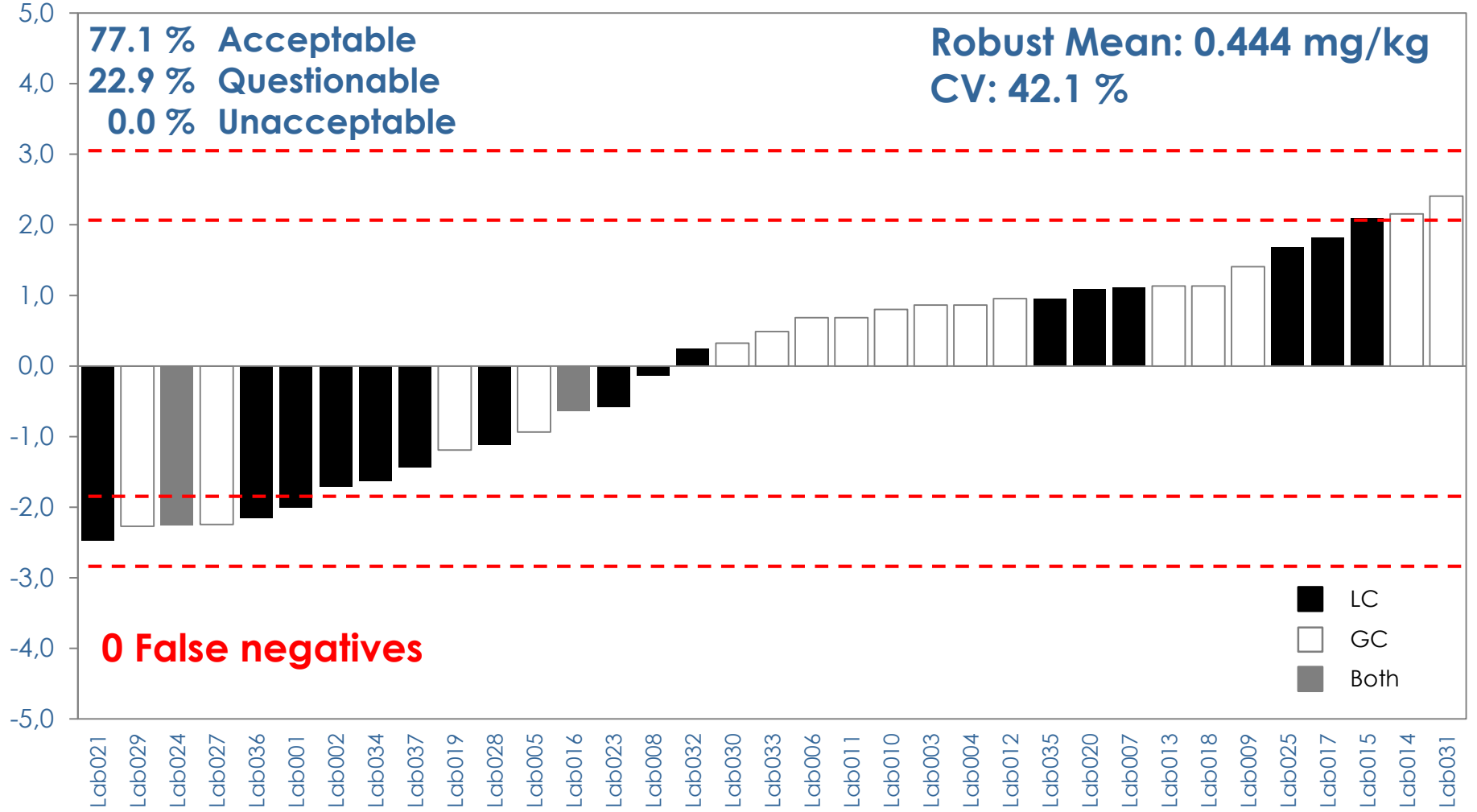


LC
 GC
 Both

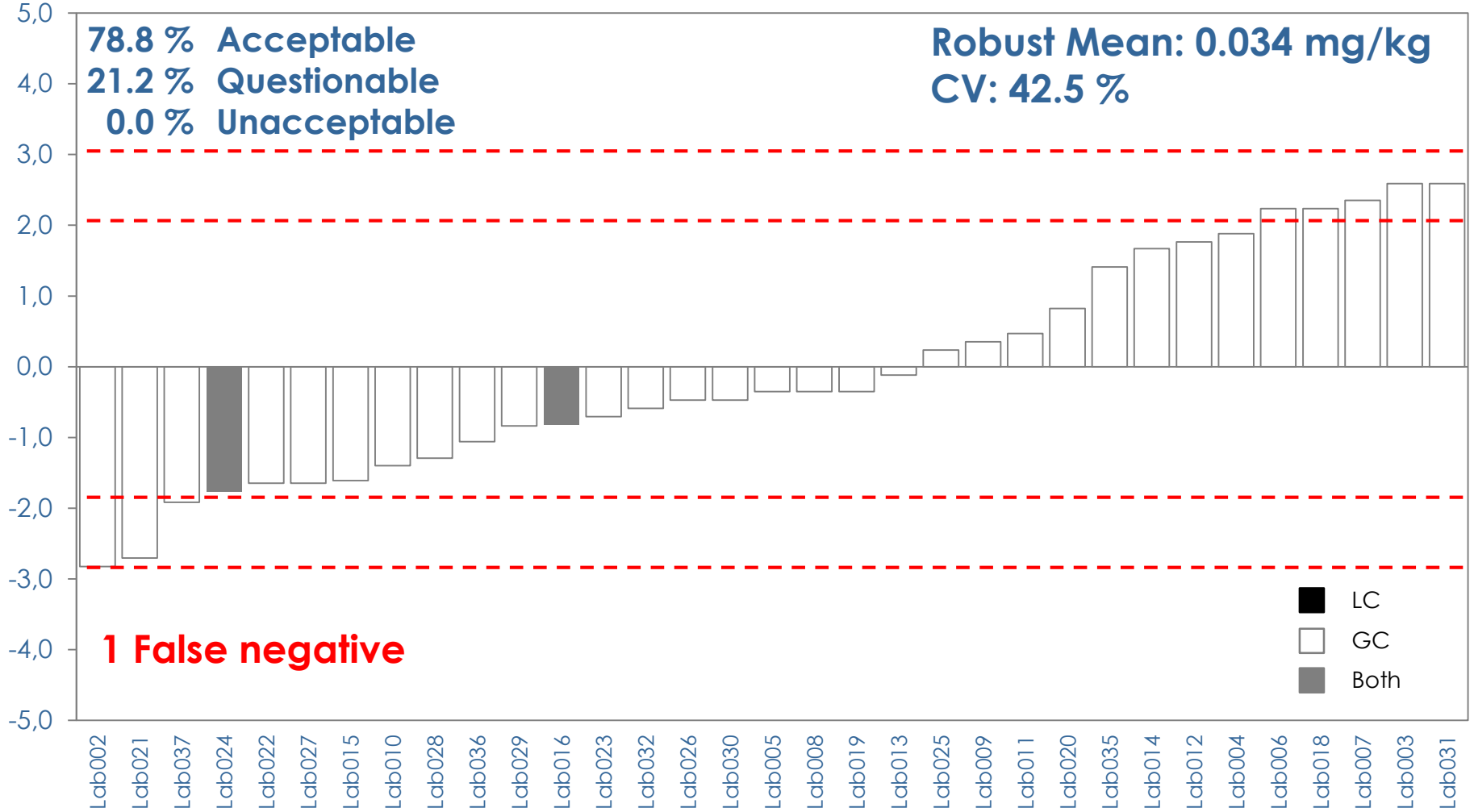
Propiconazole



Triazophos



Trifluralin



LC
 GC
 Both

Combined z-Scores

Average of Squared z-Scores

$$AZ^2 = \frac{\sum_{i=1}^n Z_i^2}{n}$$

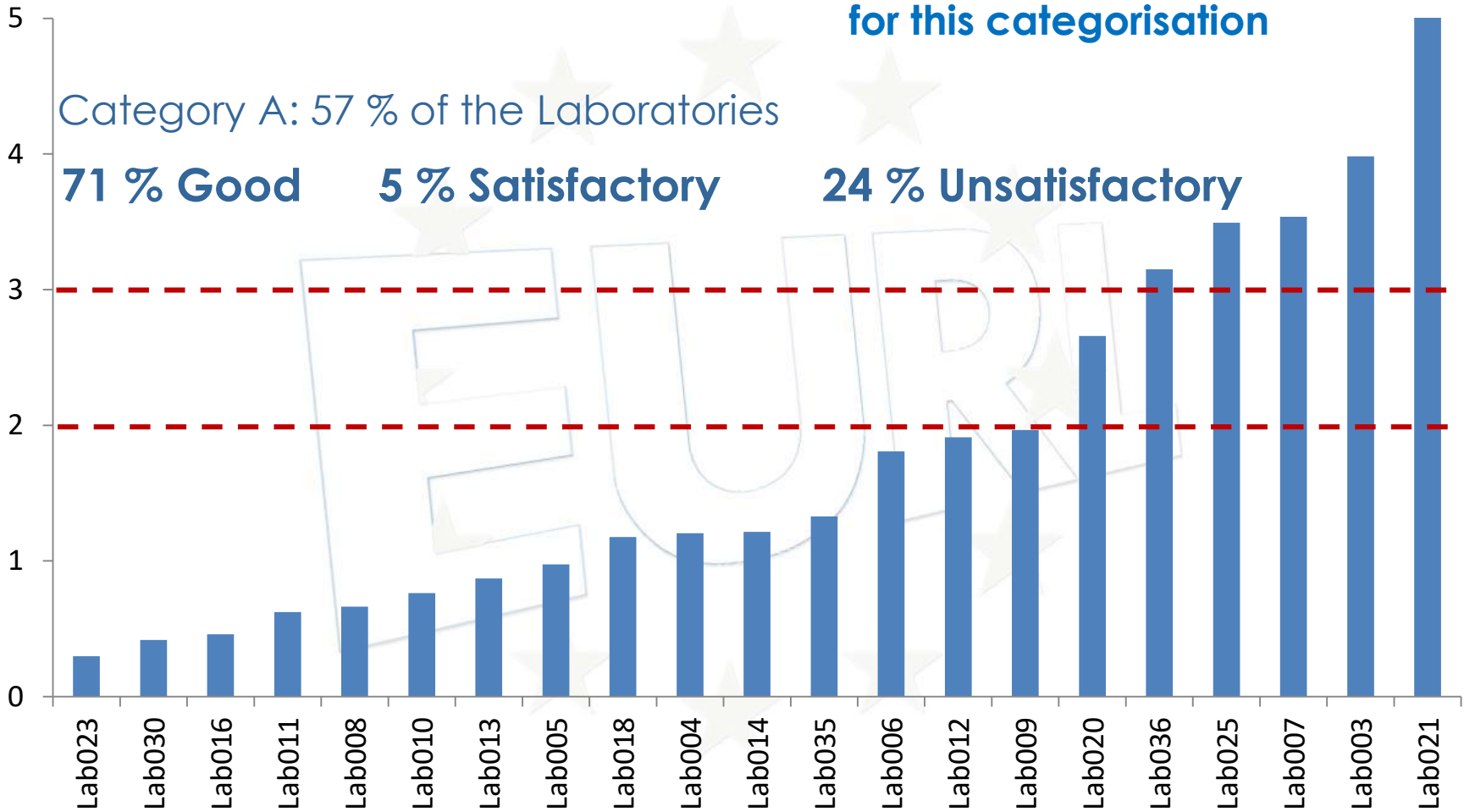
$AZ^2 \leq 2.0$	Good
$2.0 < AZ^2 < 3.0$	Satisfactory
$AZ^2 \geq 3.0$	Unsatisfactory

Category A

Laboratories that were able to analyse at least **90% of the compulsory pesticides in the target pesticides list**, that detected and quantified at least **90 % of the pesticides present in the Test Item** and reported **no false positives**.

AZ² Laboratories

**Pirimiphos methyl was not considered
 for this categorisation**



False Positives

3 laboratories reported
3 pesticides as false positives

Lab Code	Pesticide	Reporting Level (mg/kg)	Concentration (mg/kg)	Determination Technique
Lab022	Fenpropidin	0.010	0.07	GC-MS (tQ)
Lab028	Orthophenylphenol	0.010	0.052	GC-MS (tQ)
Lab031	Fenazaquin	0.010	0.016	LC-MS (tQ)

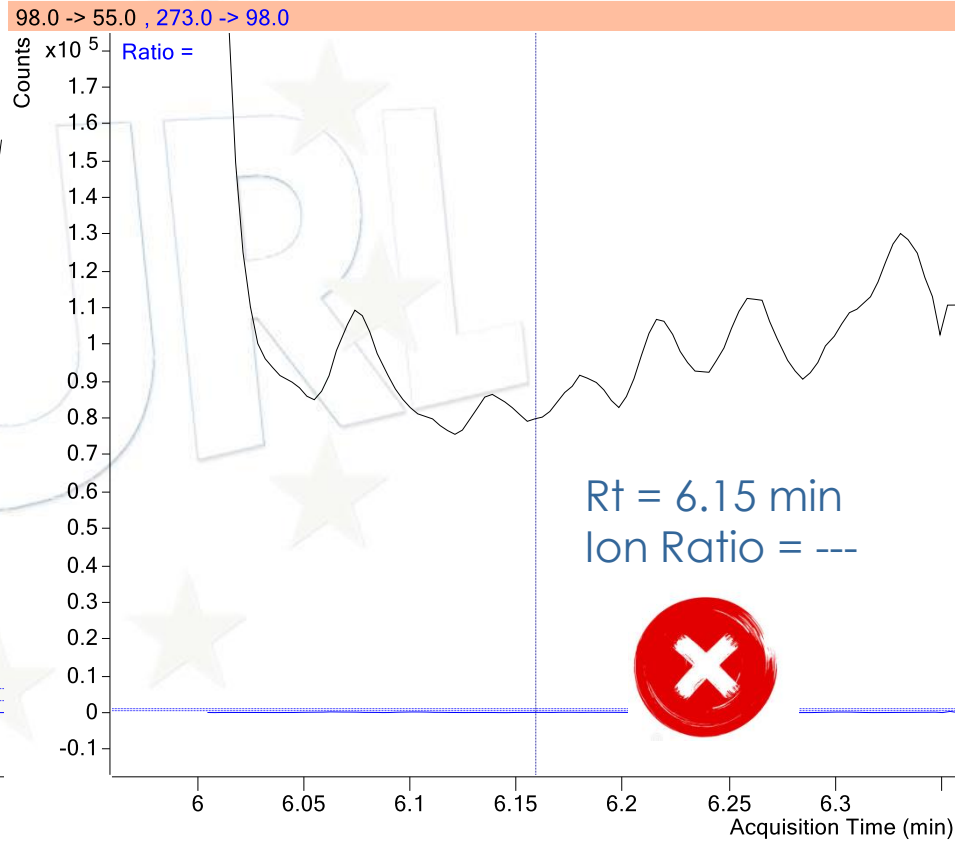
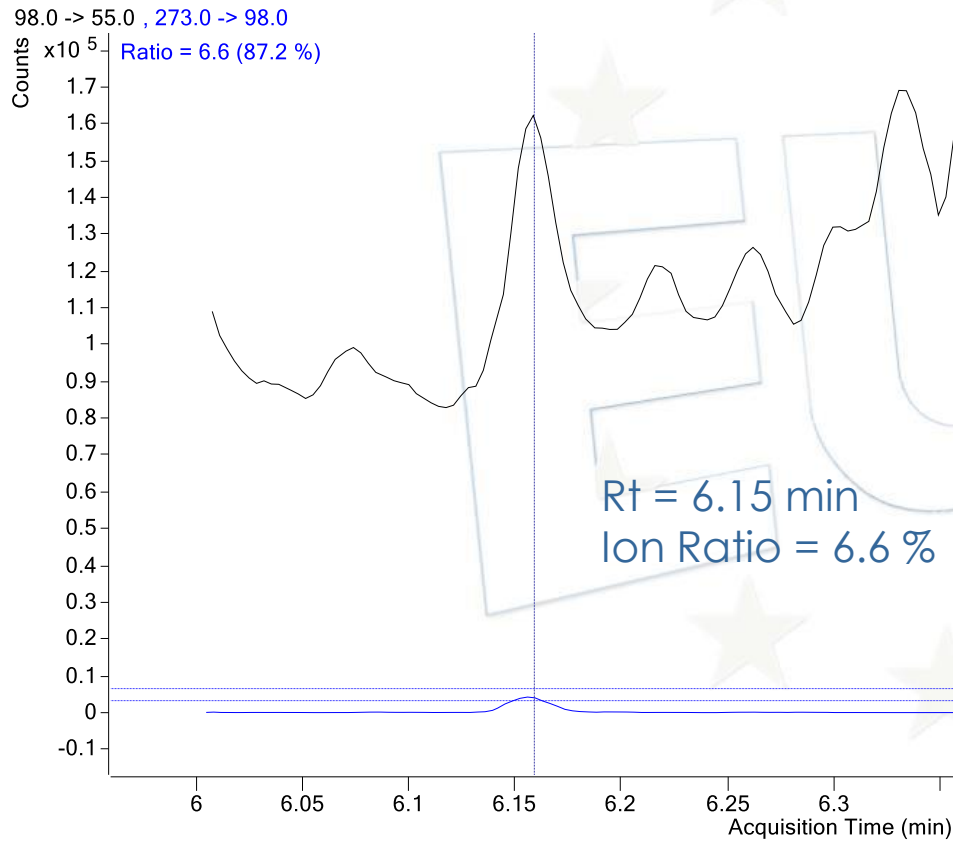
False Positives

Fenpropidin

GC-QqQ-MS/MS

Std at 0.01 mg/kg in Chia Seeds

EUPT-FV-SC01 Sample 030



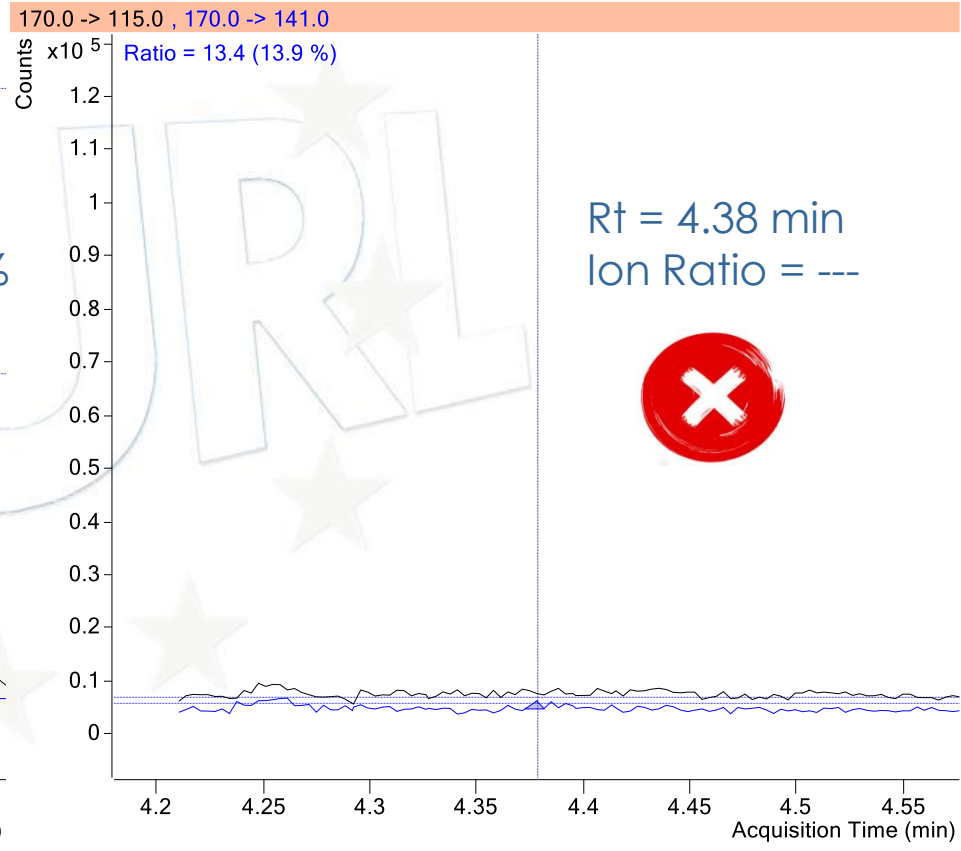
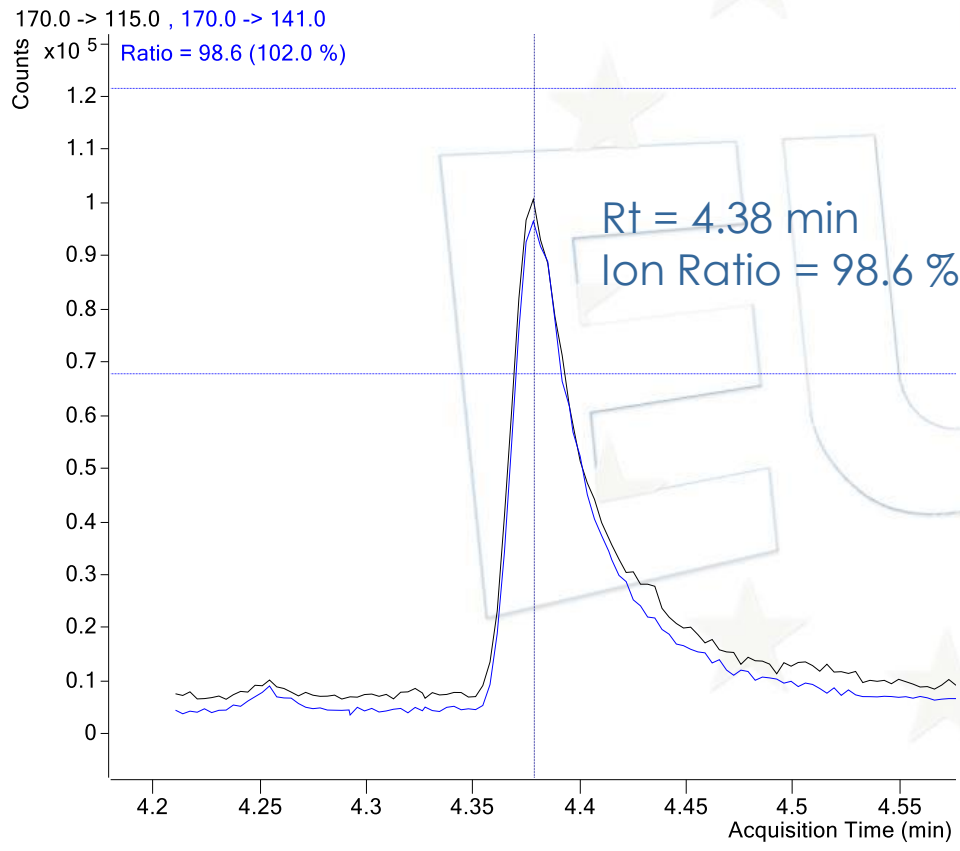
False Positives

Orthophenylphenol

GC-QqQ-MS/MS

Std at 0.01 mg/kg in Chia Seeds

EUPT-FV-SC01 Sample 030



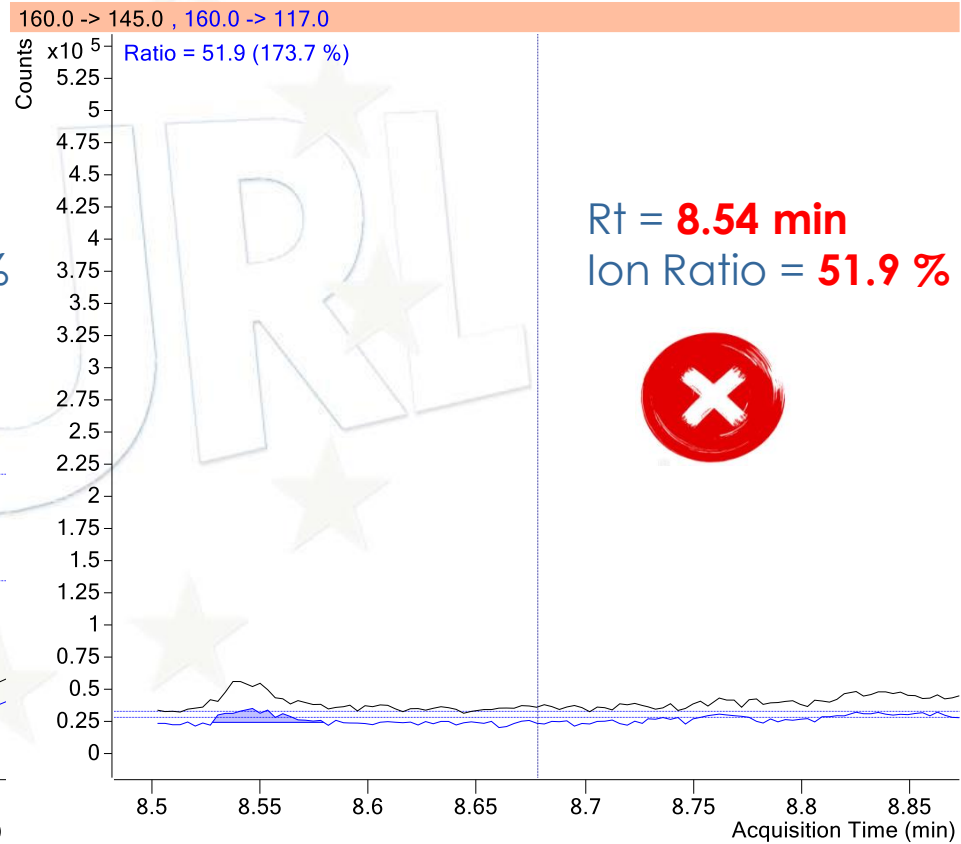
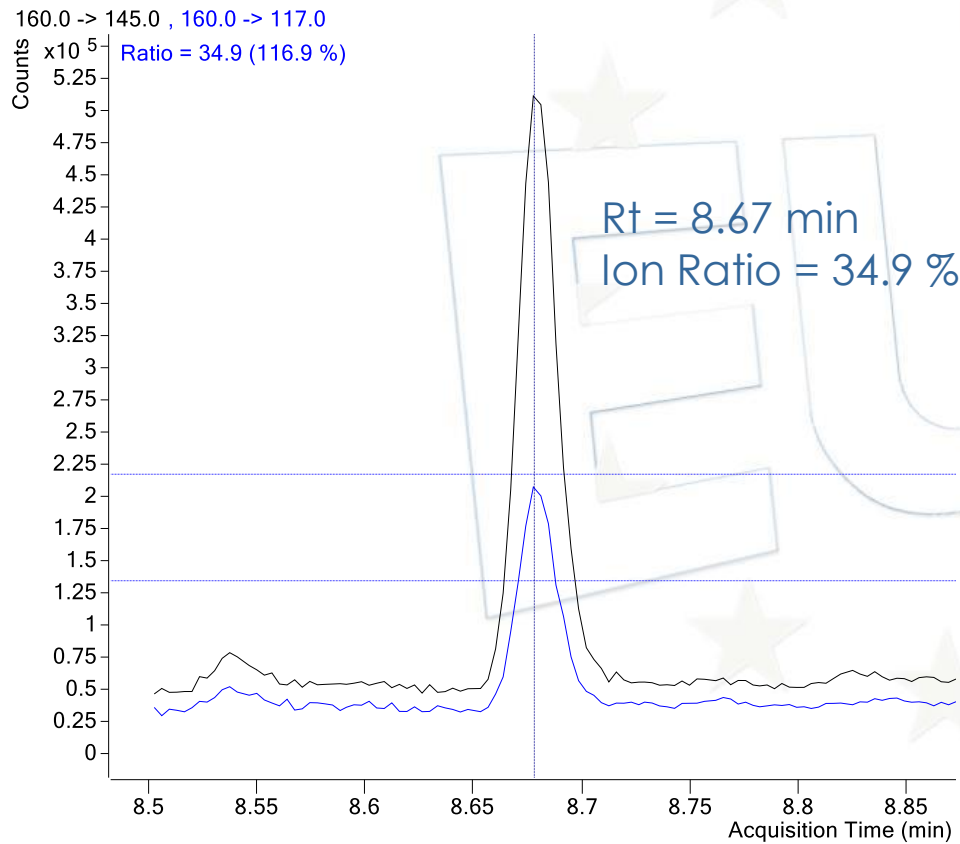
False Positives

Fenazaquin

GC-QqQ-MS/MS

Std at 0.01 mg/kg in Chia Seeds

EUPT-FV-SC01 Sample 030



2019 EUPTs Calendar

EUPT-CF13	End of January
EUPT-FV21	End of February
EUPT-SRM14	End of March
EUPT-AO14	Beggining of May

EUPT-FV21



**Thank You
for Your Attention**



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