



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

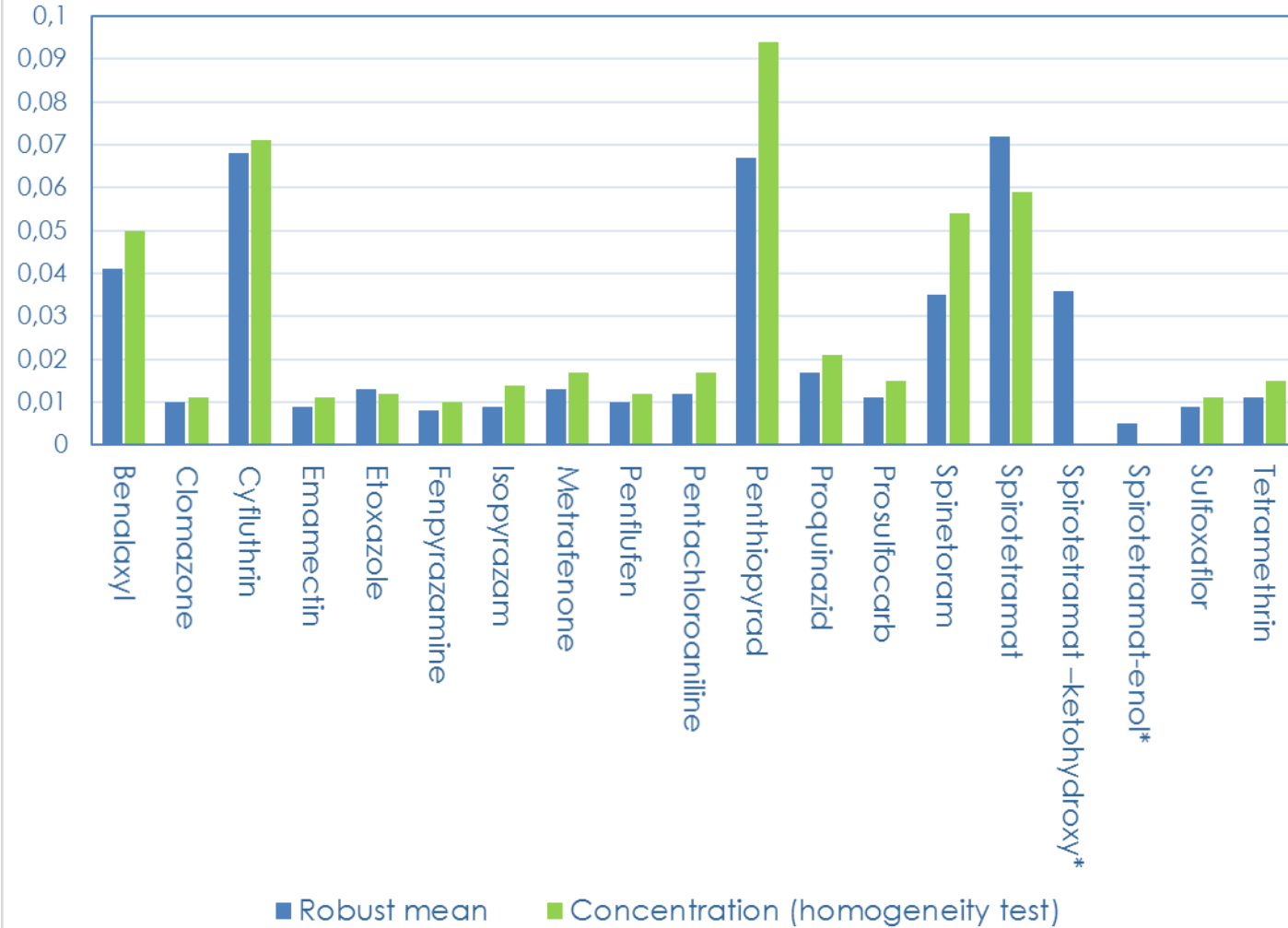
Pesticides	Robust mean (mg/kg)	Conc. Homogeneity test (mg/kg)	CV (%)	No of Detections (% of Laboratories)	No of Concentration Reported
Benalaxyl	0.041	0.050	22,0	62 (90%)	74
Clomazone	0.010	0.011	21,0	68 (99%)	68
Cyfluthrin	0.068	0.071	32,0	62 (90%)	62
Emamectin	0.009	0.011	34,4	54 (78%)	54
Etoxazole	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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CONCENTRATIONS



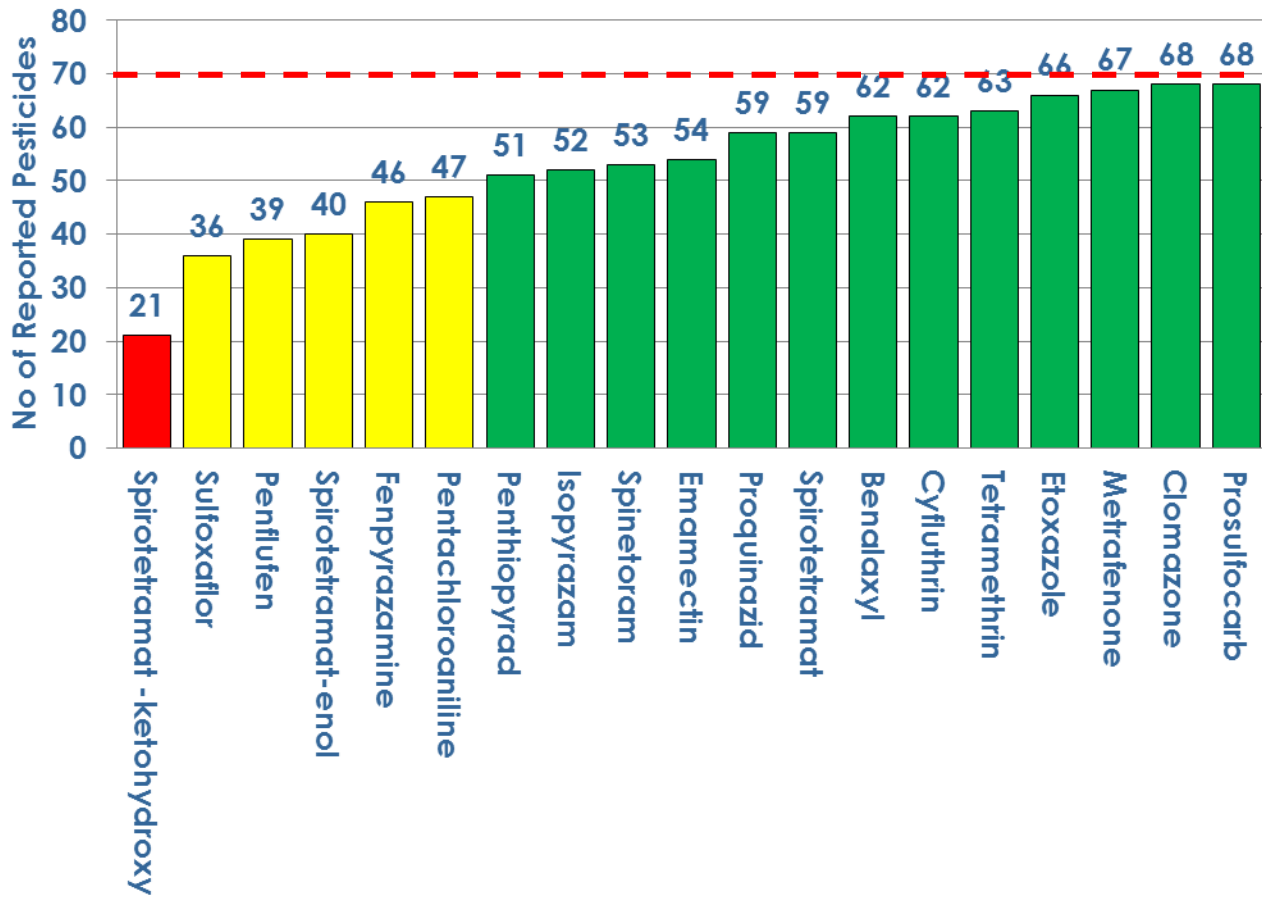
Results

19 Evaluated Pesticides
69 Laboratories

19 Pesticides = 1 + 5 + 13

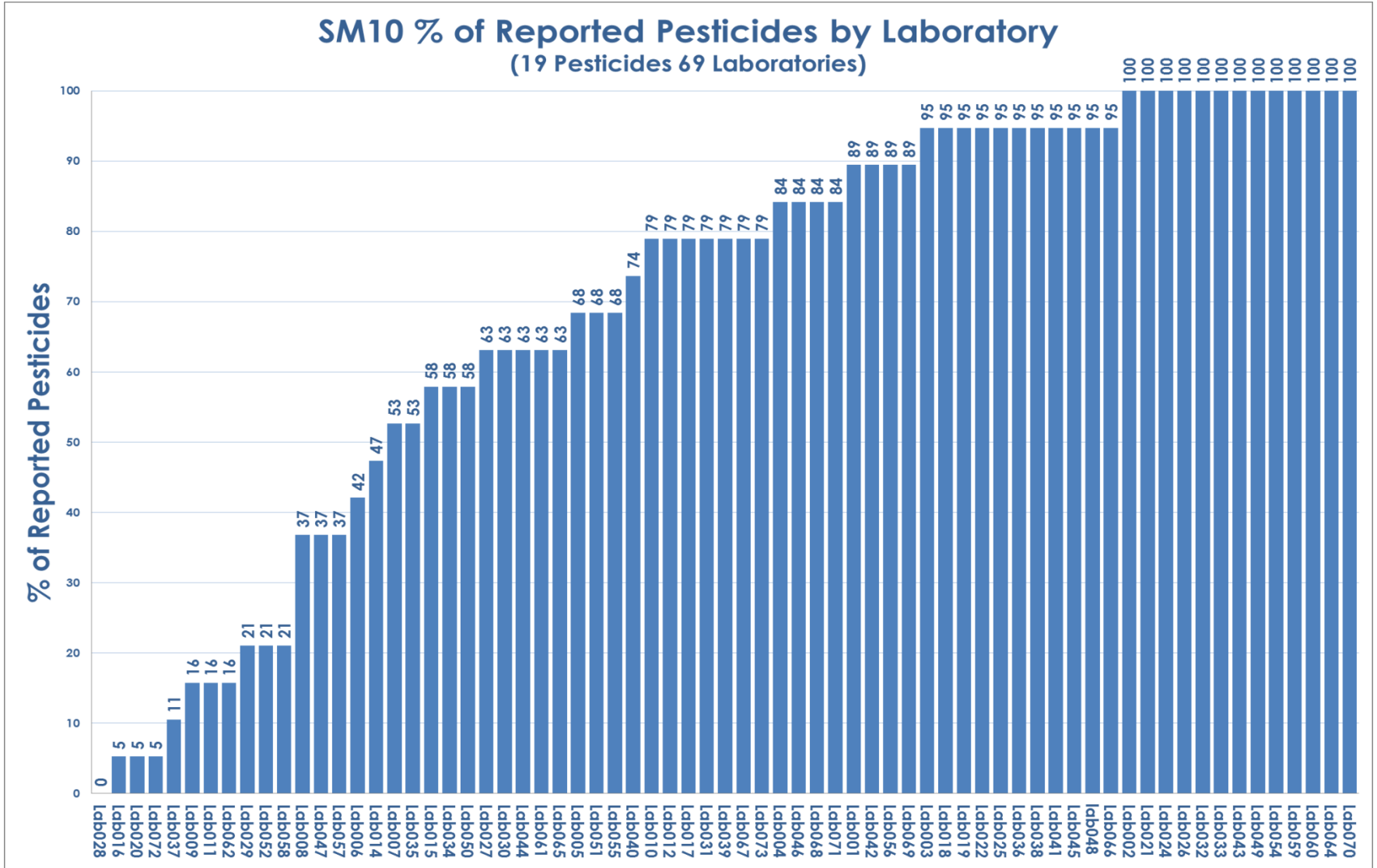
	Benalaxyl	Clomazone	Cyfluthrin	Emamectin	Etoxazole	Fenpyrazamine	Isopyrazam	Metrafenone	Penflufen	Pentachloroaniline	Penthiopyrad	Proquinazid	Prosulfocarb	Spinetoram	Spirotetramat	Spirotetramat metabolite BY108330-enol	Spirotetramat metabolite BY108330-ketohydroxy	Sulfoxaflor	Tetramethrin
Total Number 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 No of Reported Pesticides
 (69 Laboratories Reported Data)**



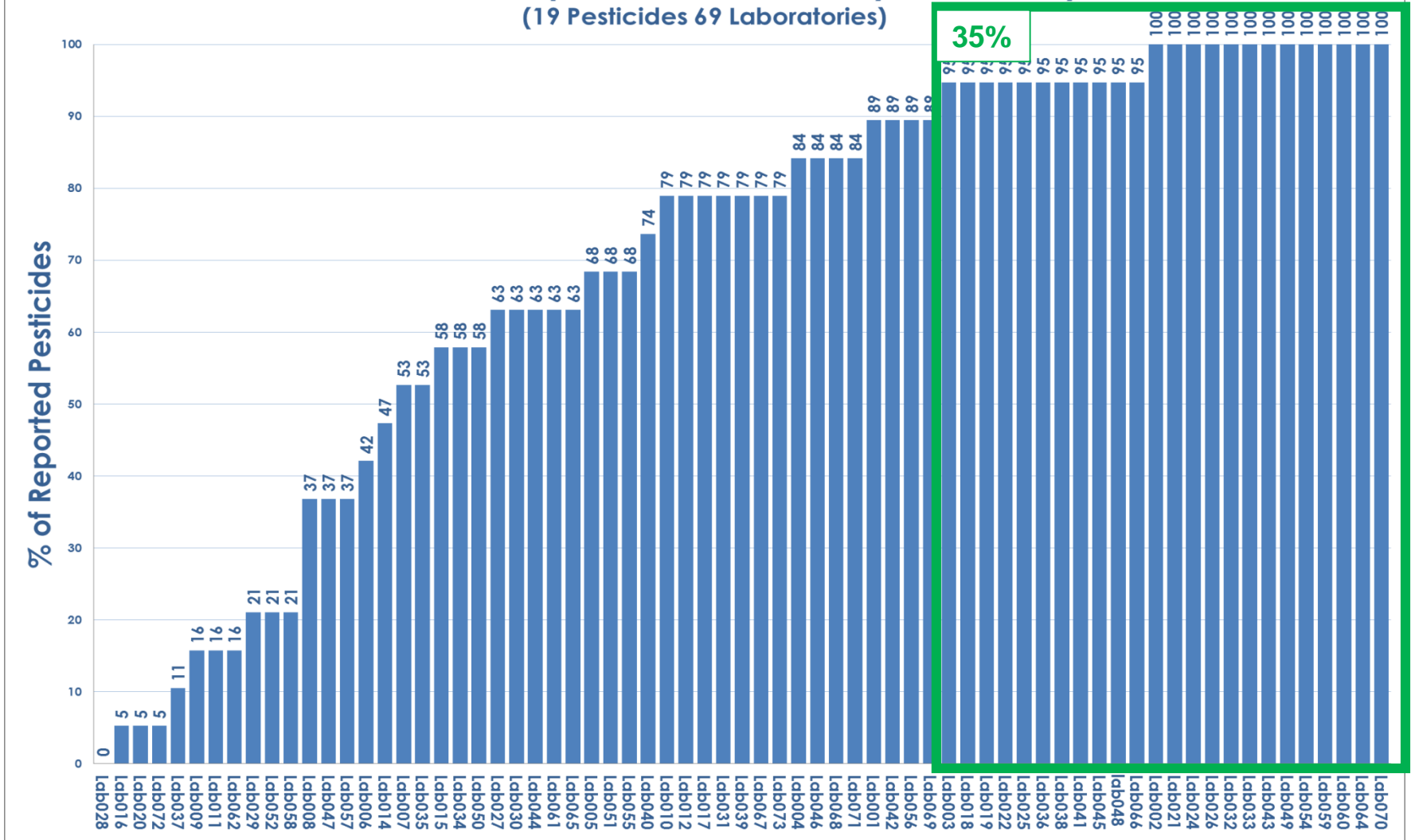
--- 69 participants

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



SM10 % of Reported Pesticides by Laboratory

(19 Pesticides 69 Laboratories)



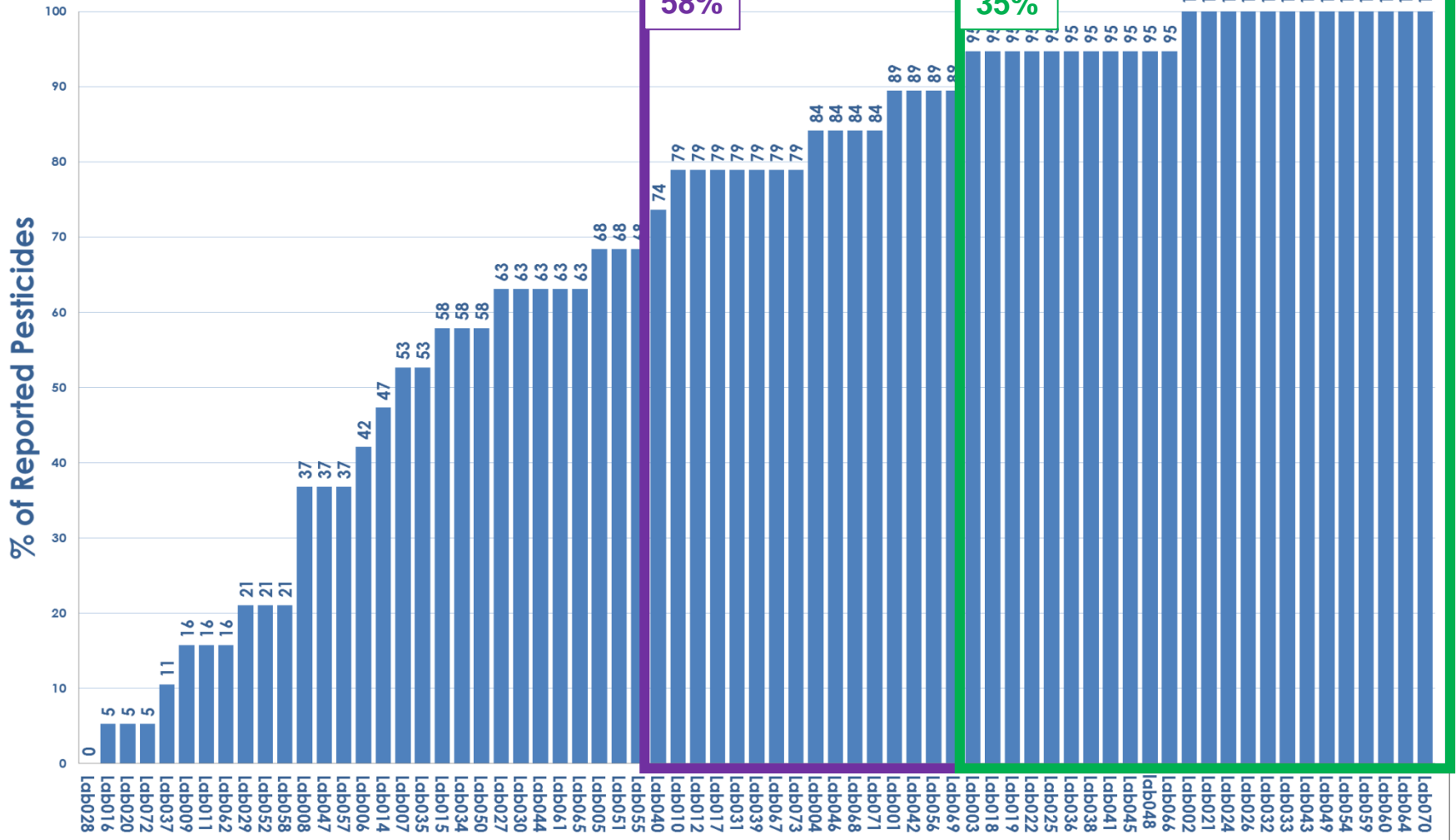
35%

SM10 % of Reported Pesticides by Laboratory

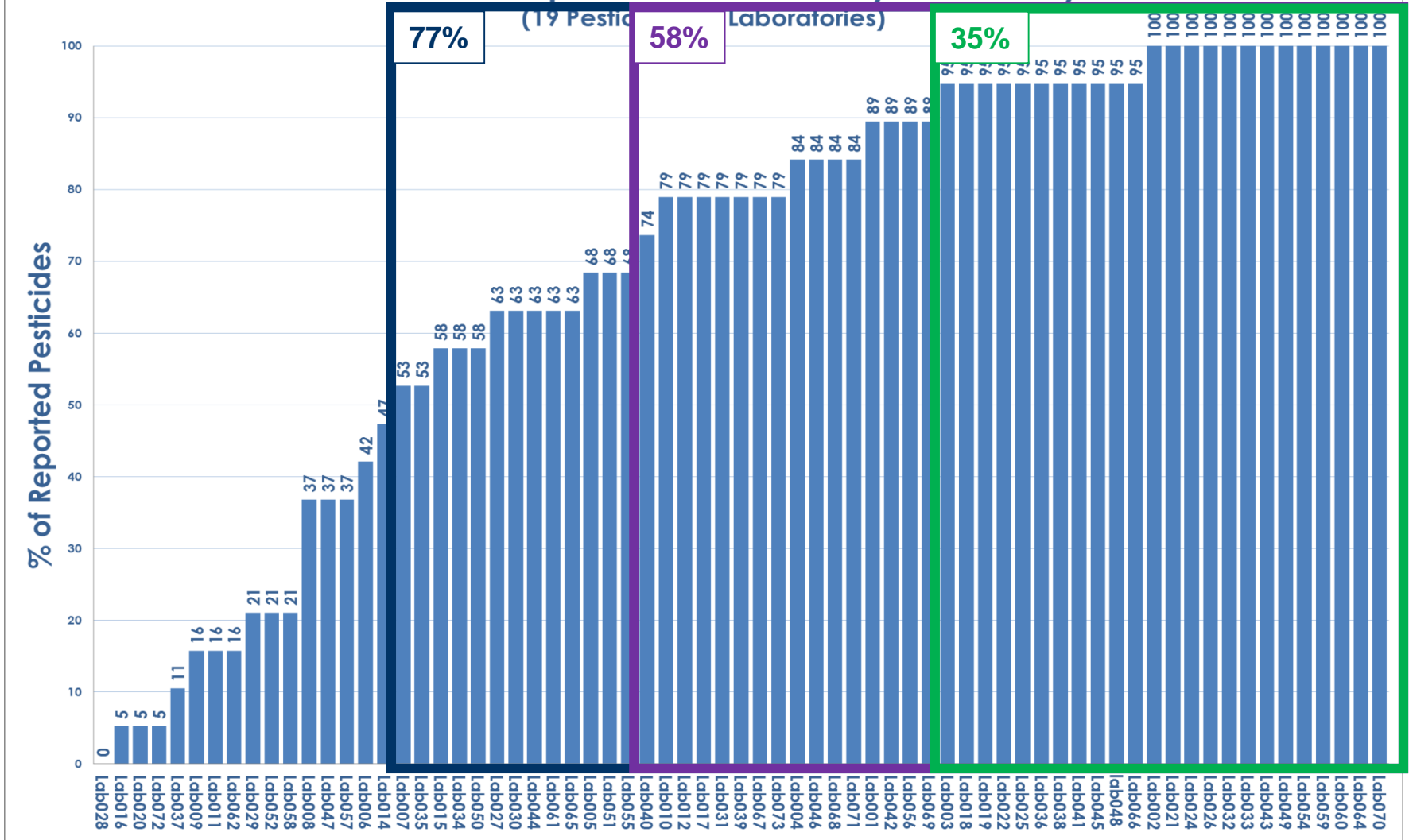
(19 Pesticides) Laboratories

58%

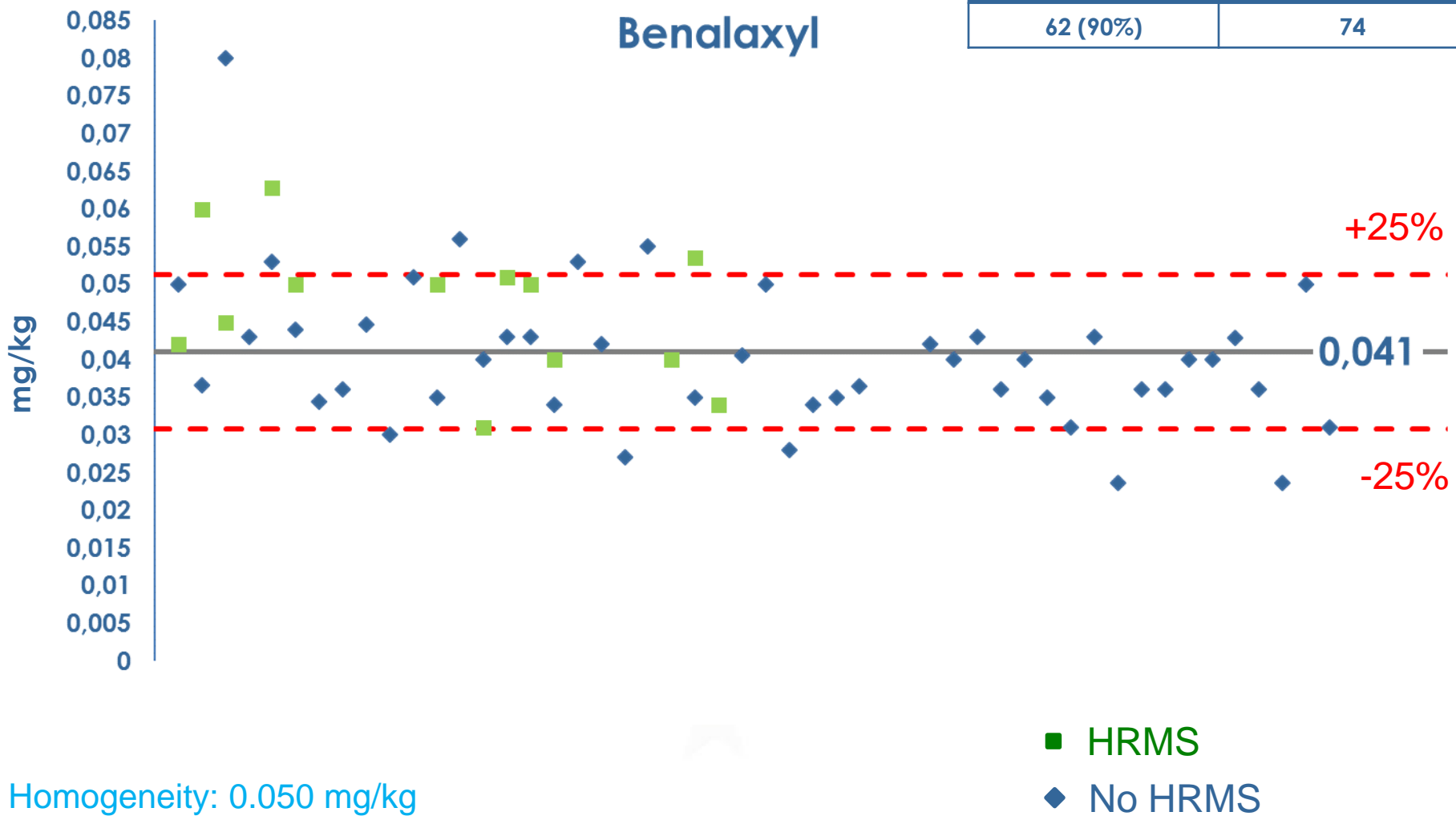
35%



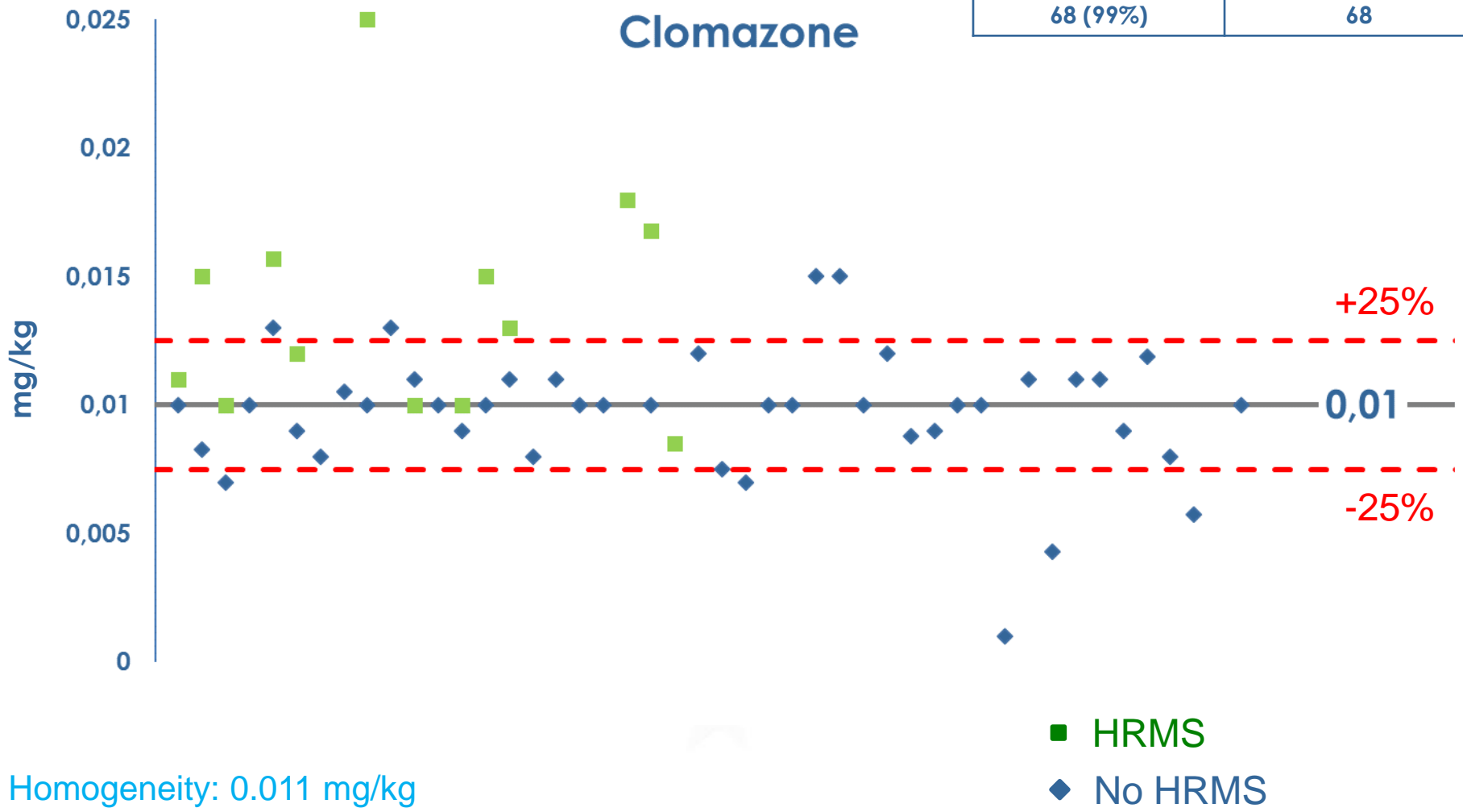
SM10 % of Reported Pesticides by Laboratory



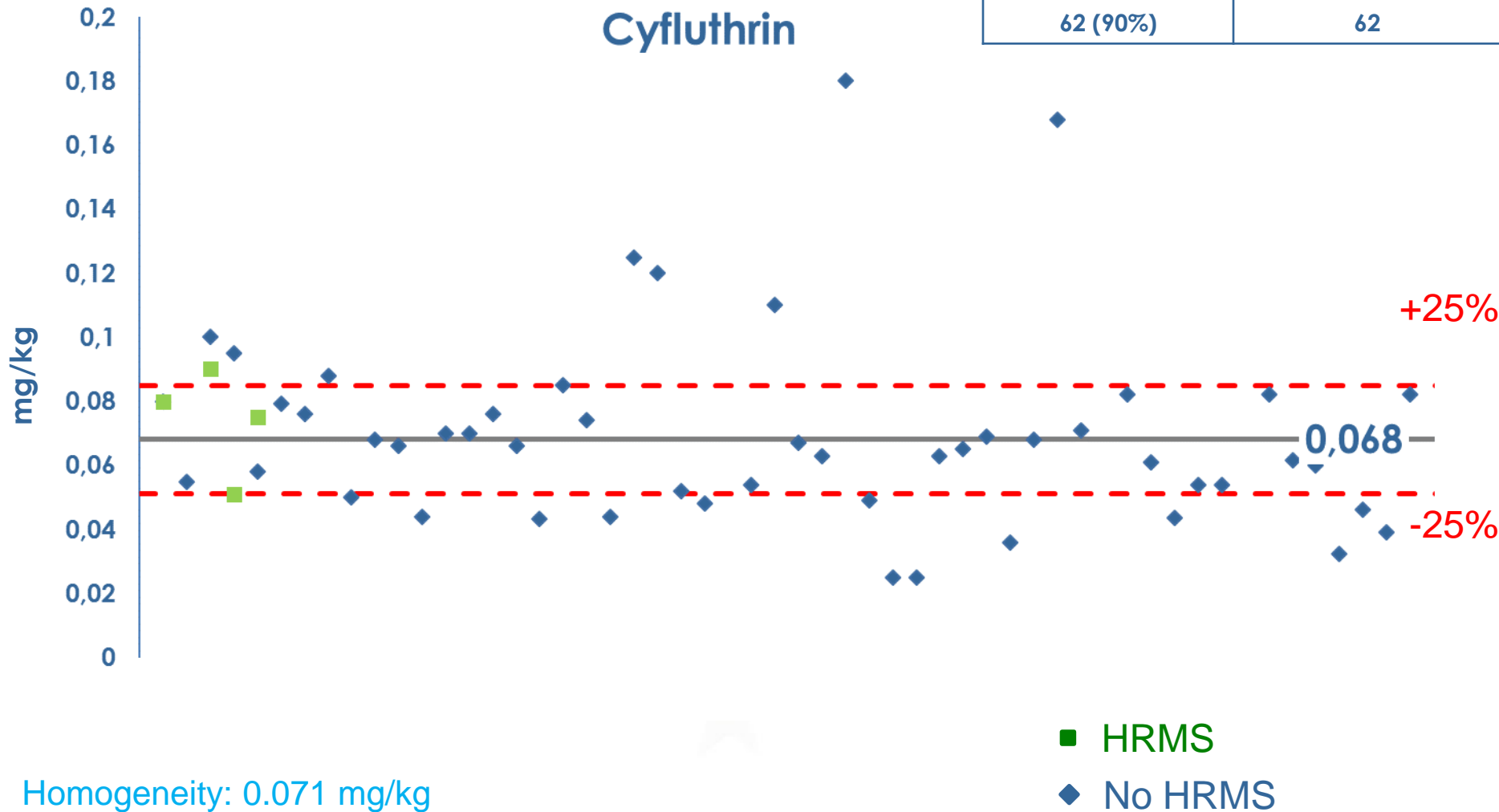
No of Detections (% of Laboratories)	No of Concentration Reported
62 (90%)	74



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

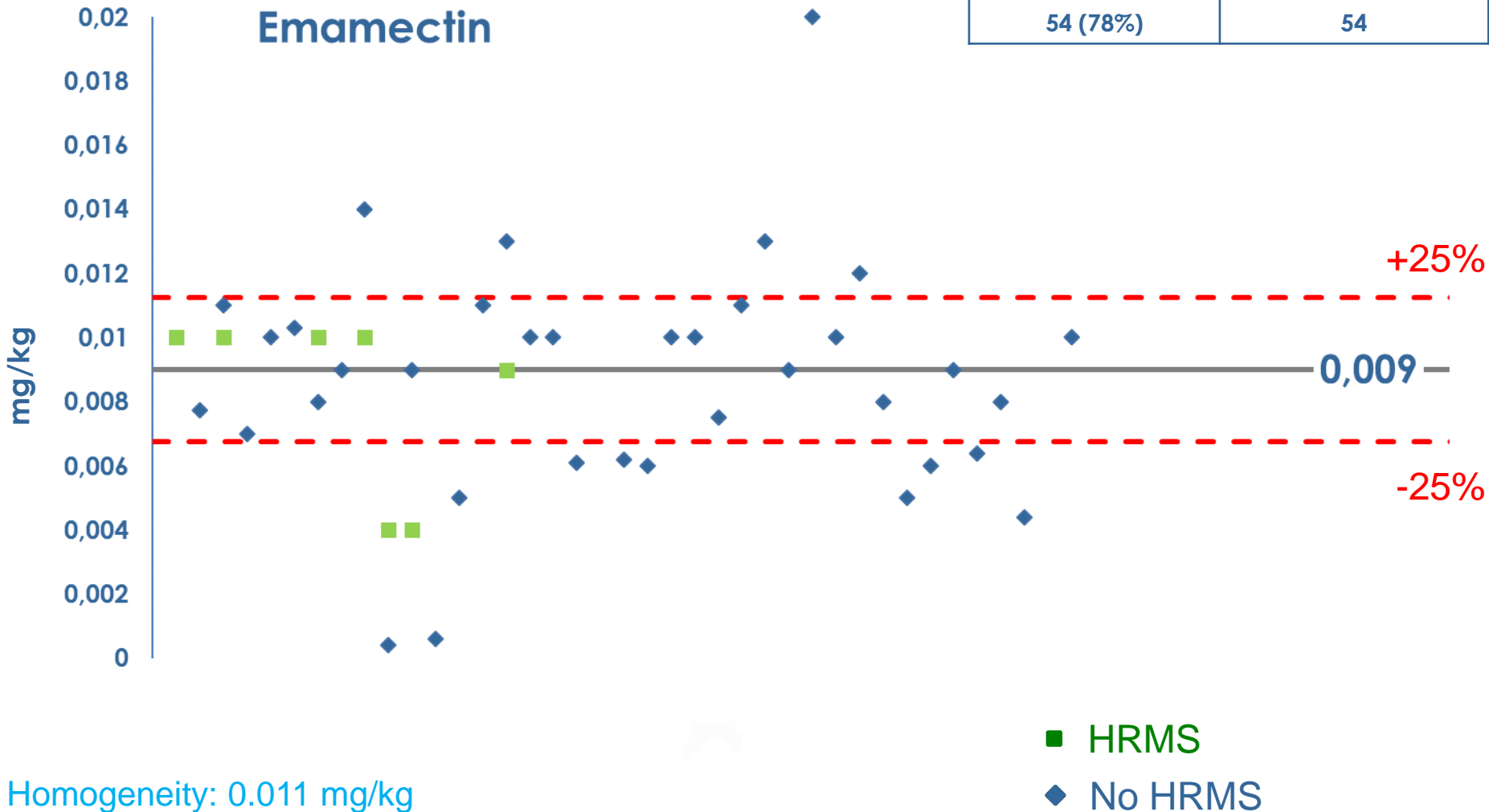


No of Detections (% of Laboratories)	No of Concentration Reported
62 (90%)	62

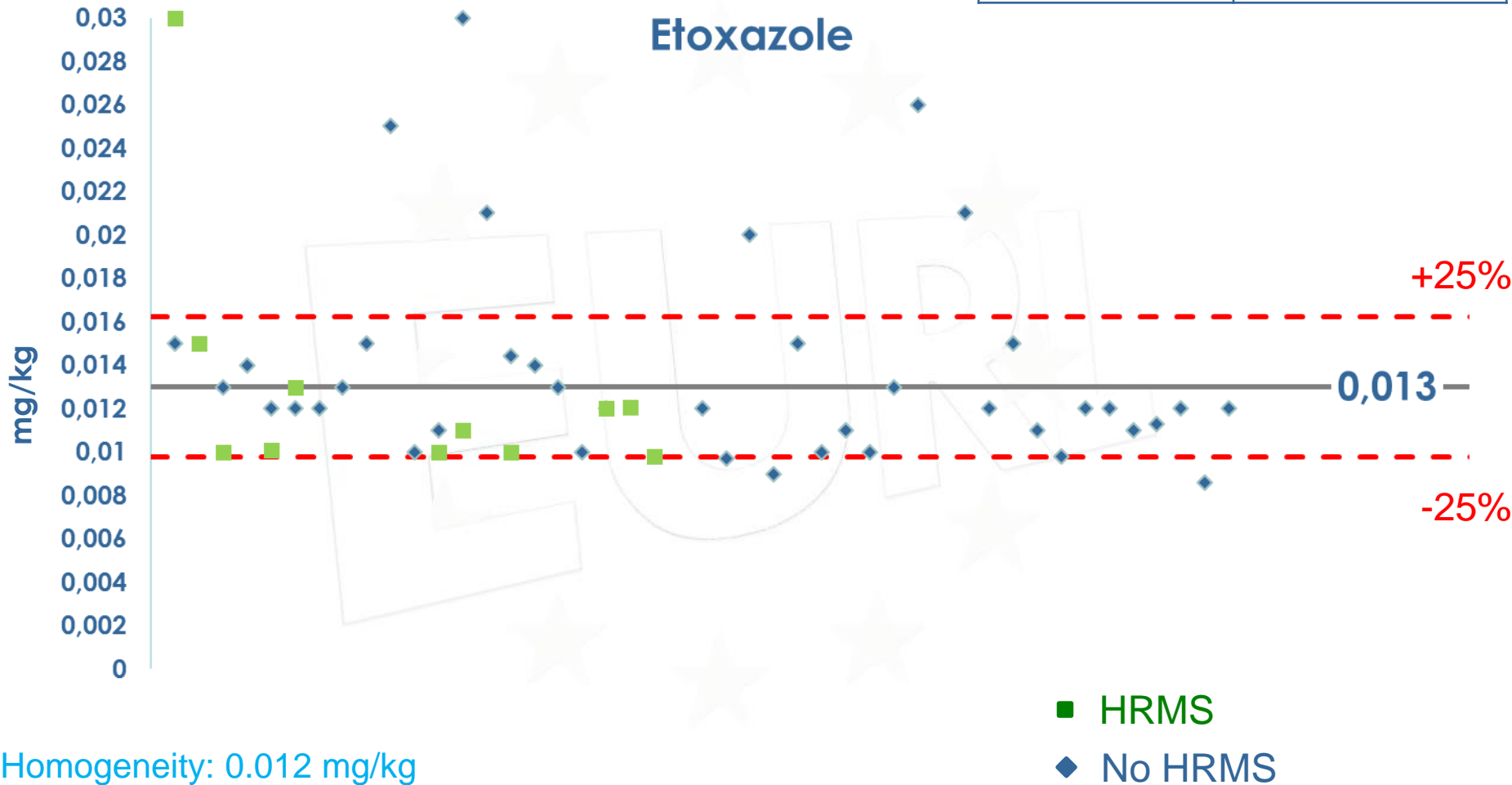




No of Detections (% of Laboratories)	No of Concentration Reported
54 (78%)	54

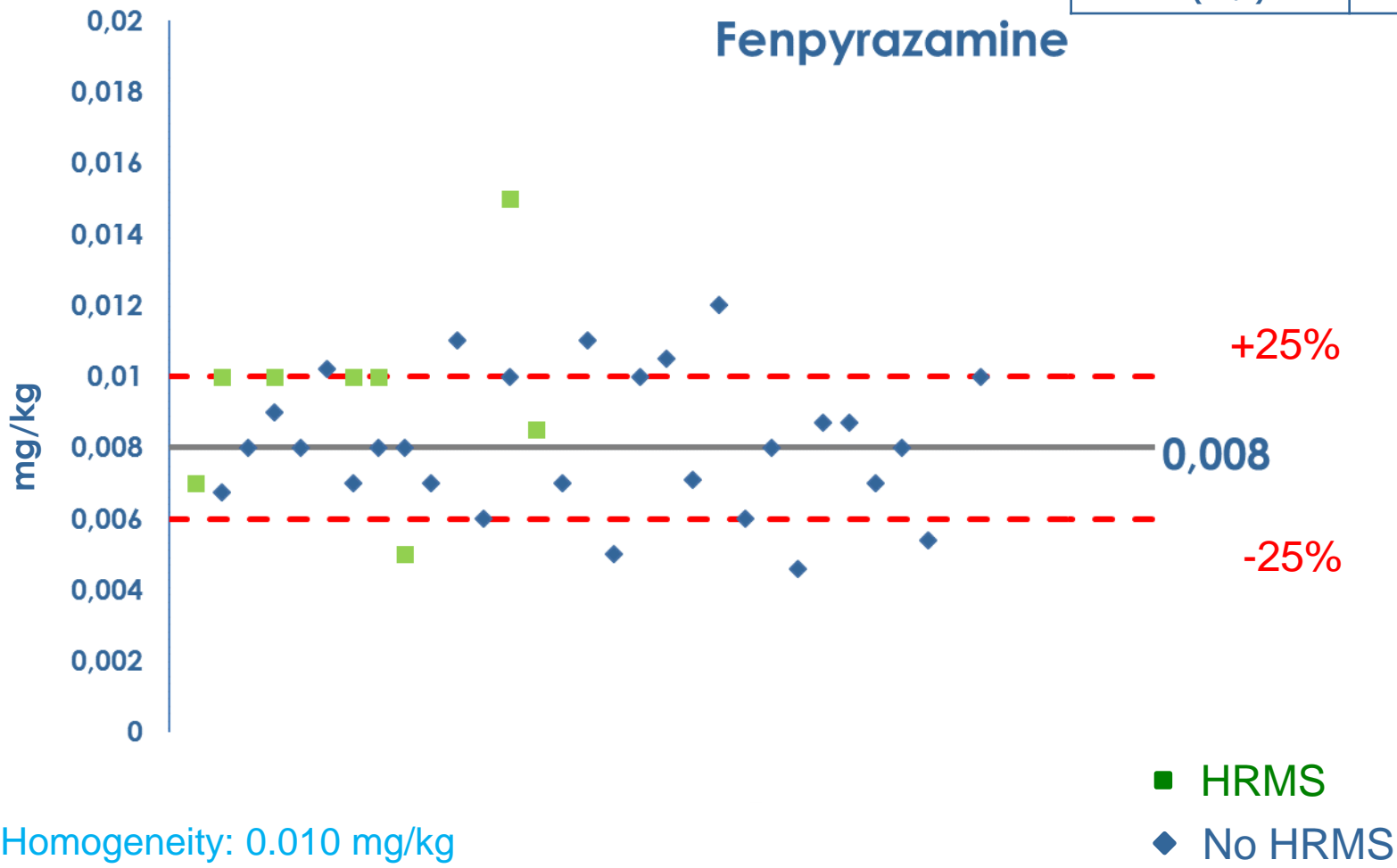


No of Detections (% of Laboratories)	No of Concentration Reported
66 (96%)	66



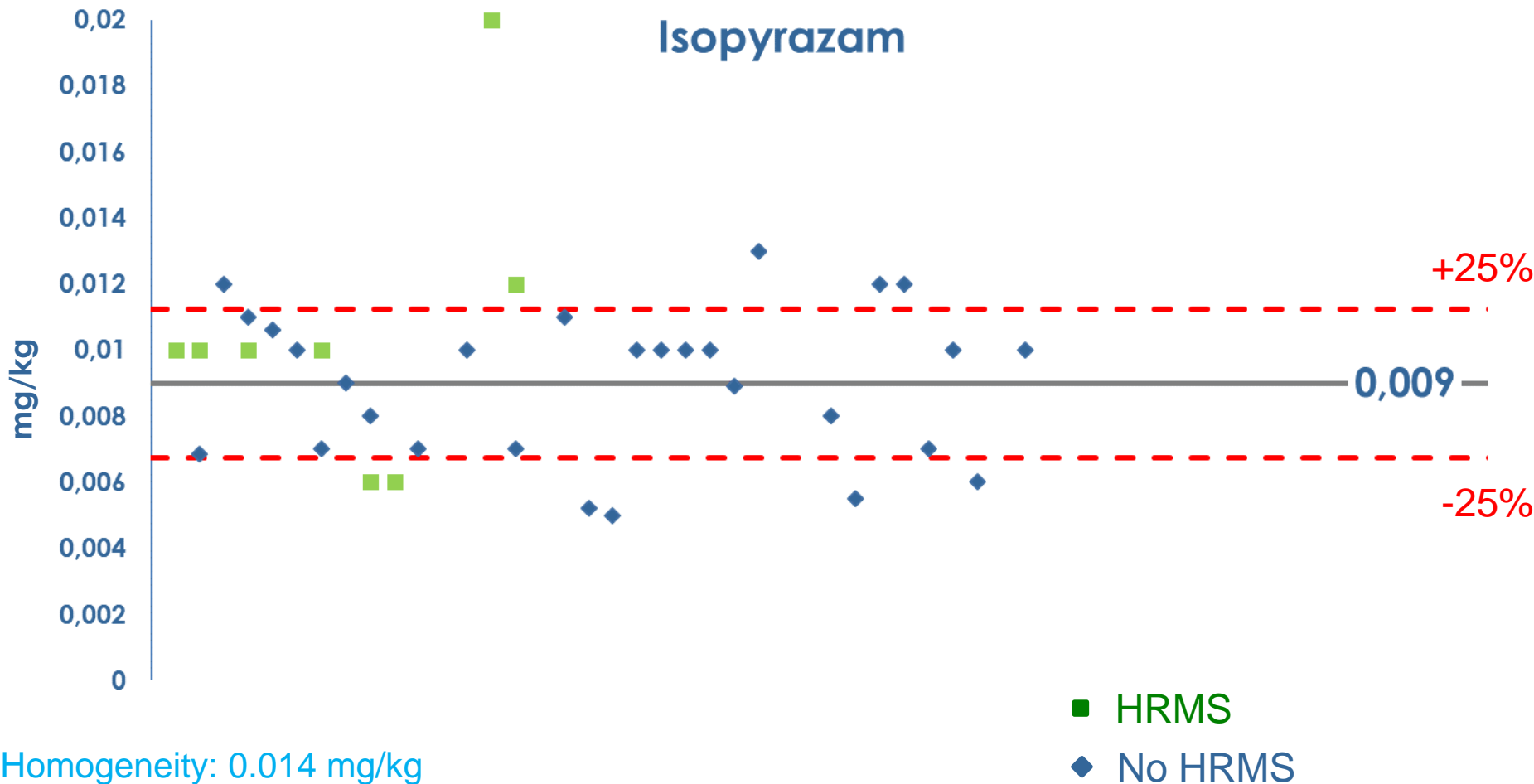
Homogeneity: 0.012 mg/kg

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

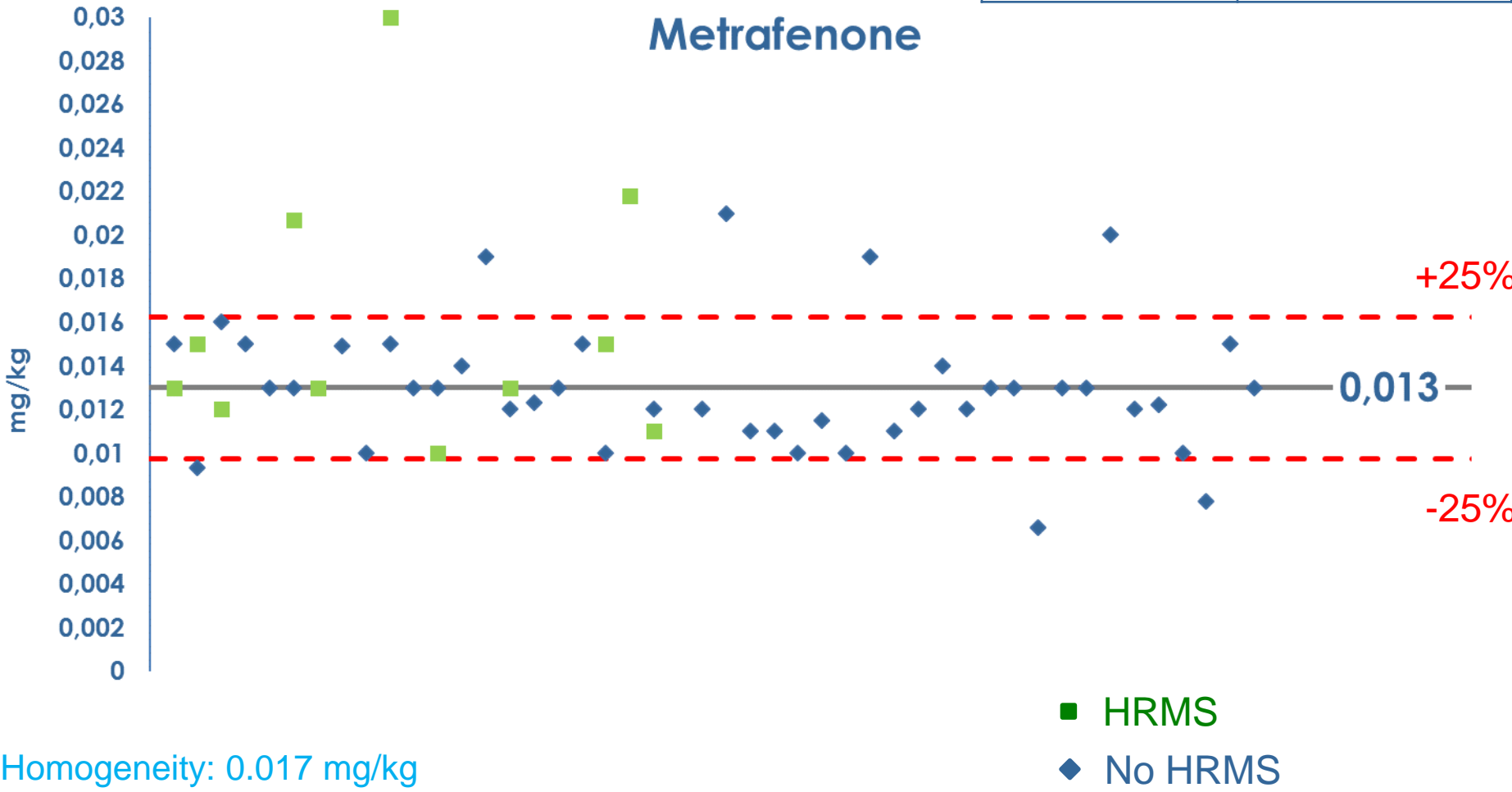


Homogeneity: 0.010 mg/kg

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



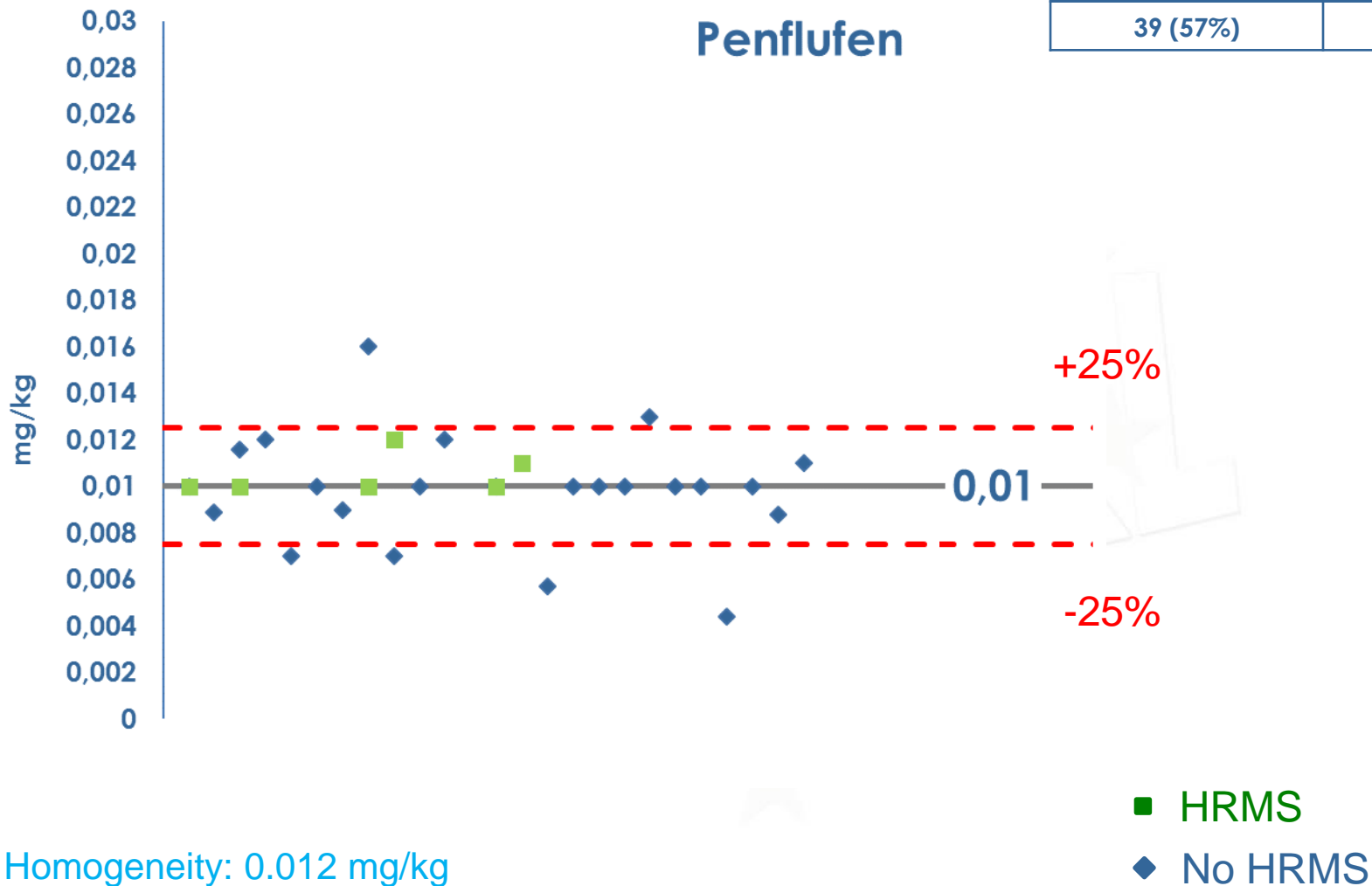
No of Detections (% of Laboratories)	No of Concentration Reported
67 (97%)	67



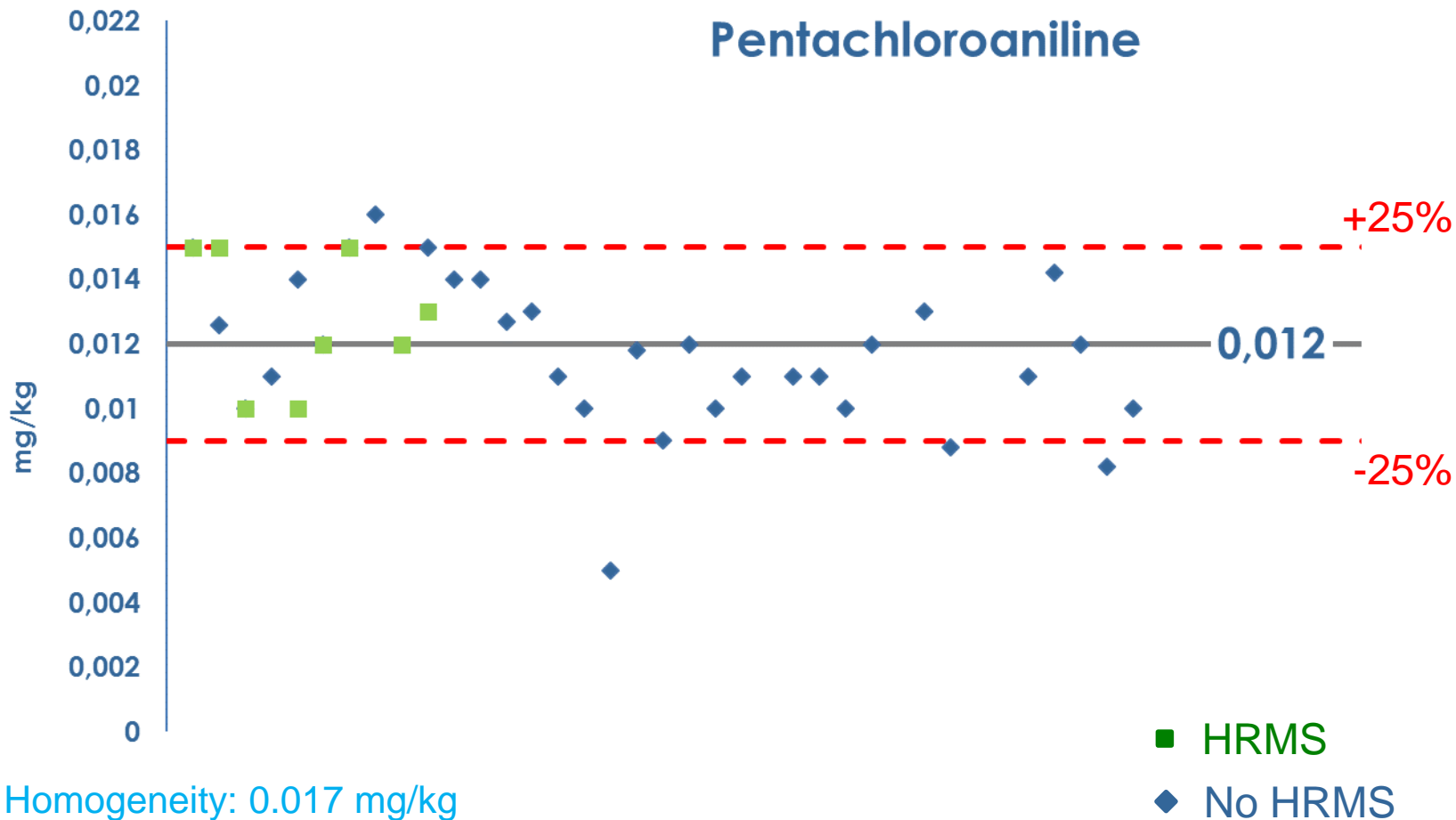
Homogeneity: 0.017 mg/kg



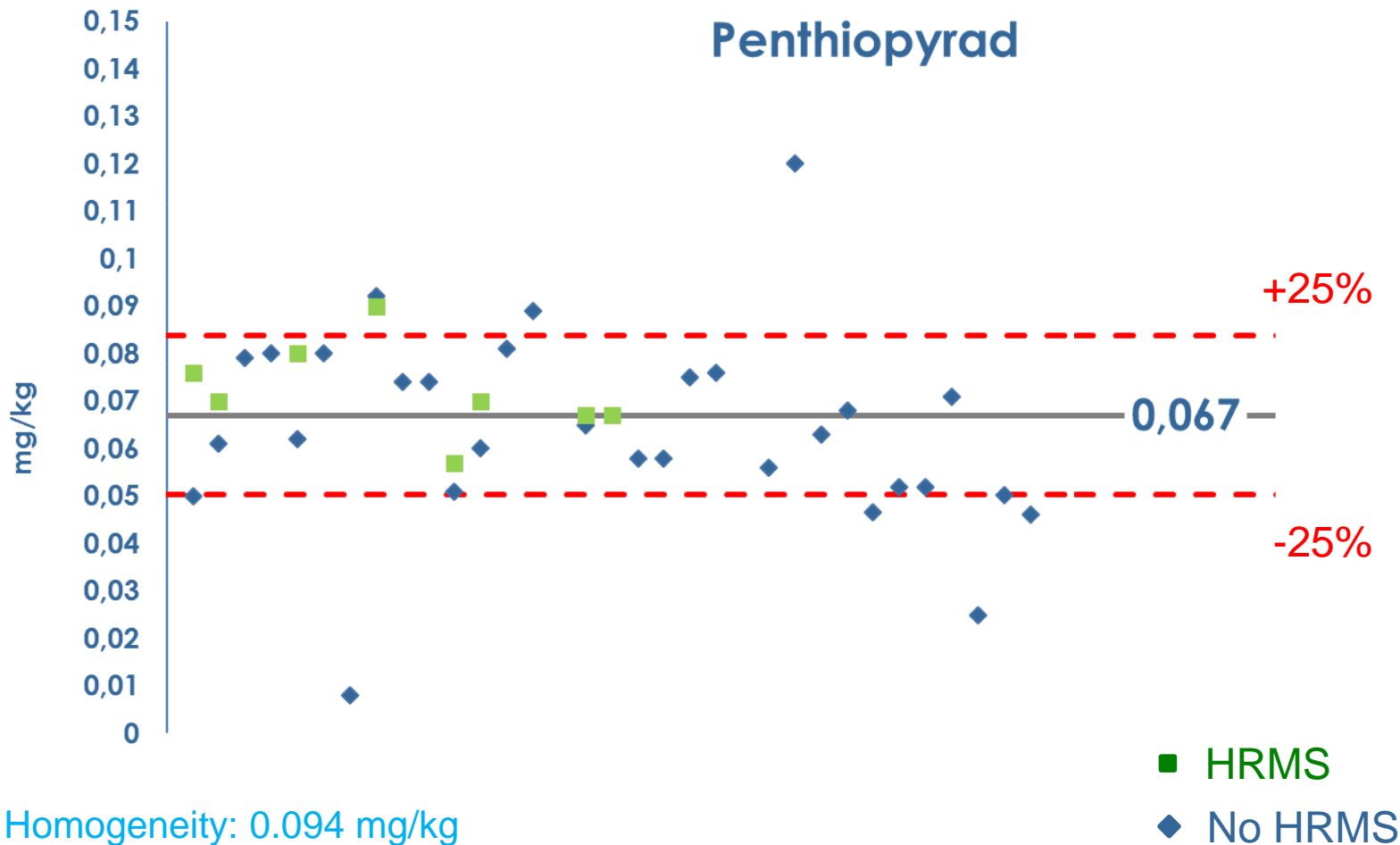
No of Detections (% of Laboratories)	No of Concentration Reported
39 (57%)	39



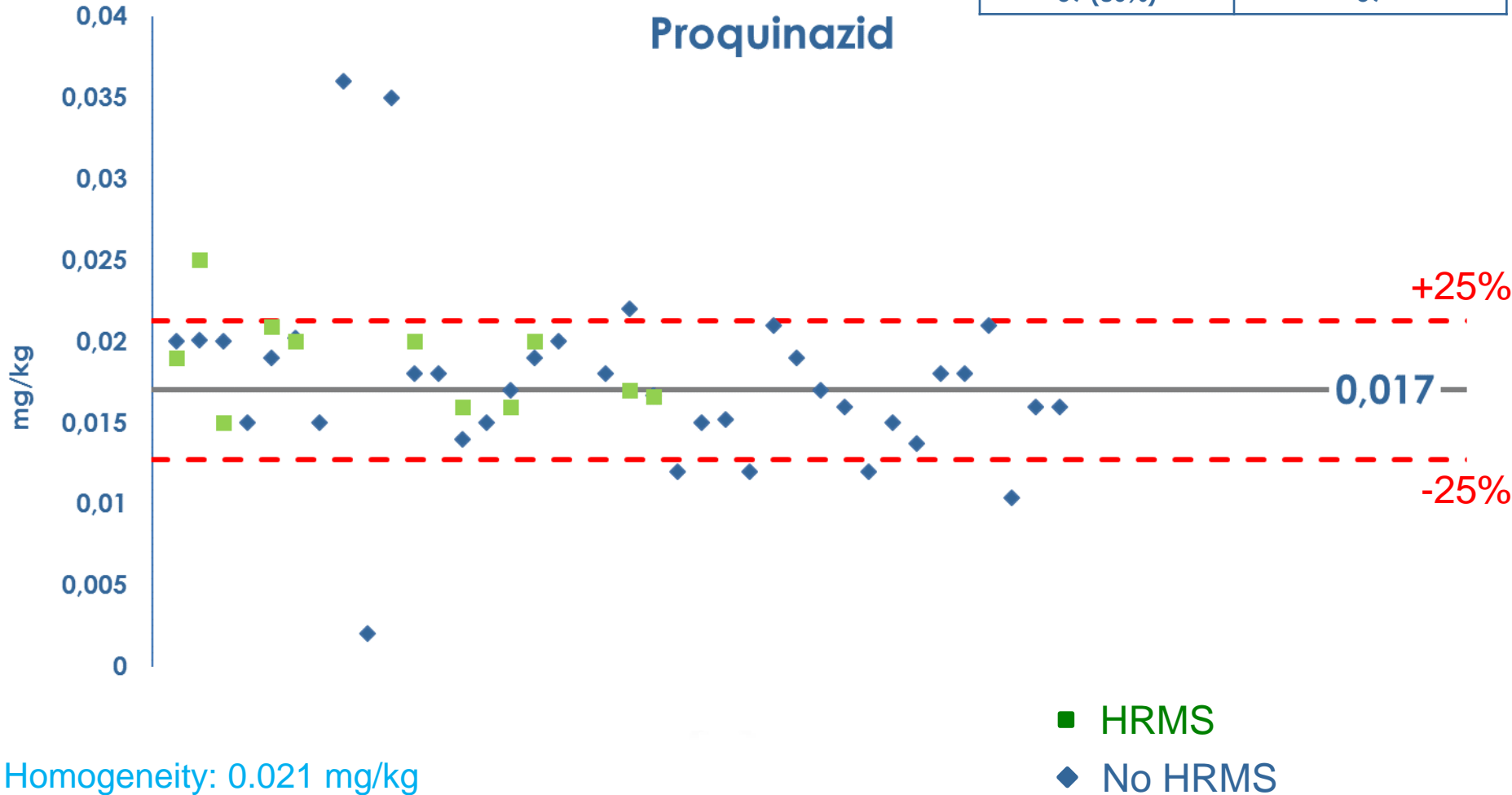
No of Detections (% of Laboratories)	No of Concentration Reported
47 (68%)	47



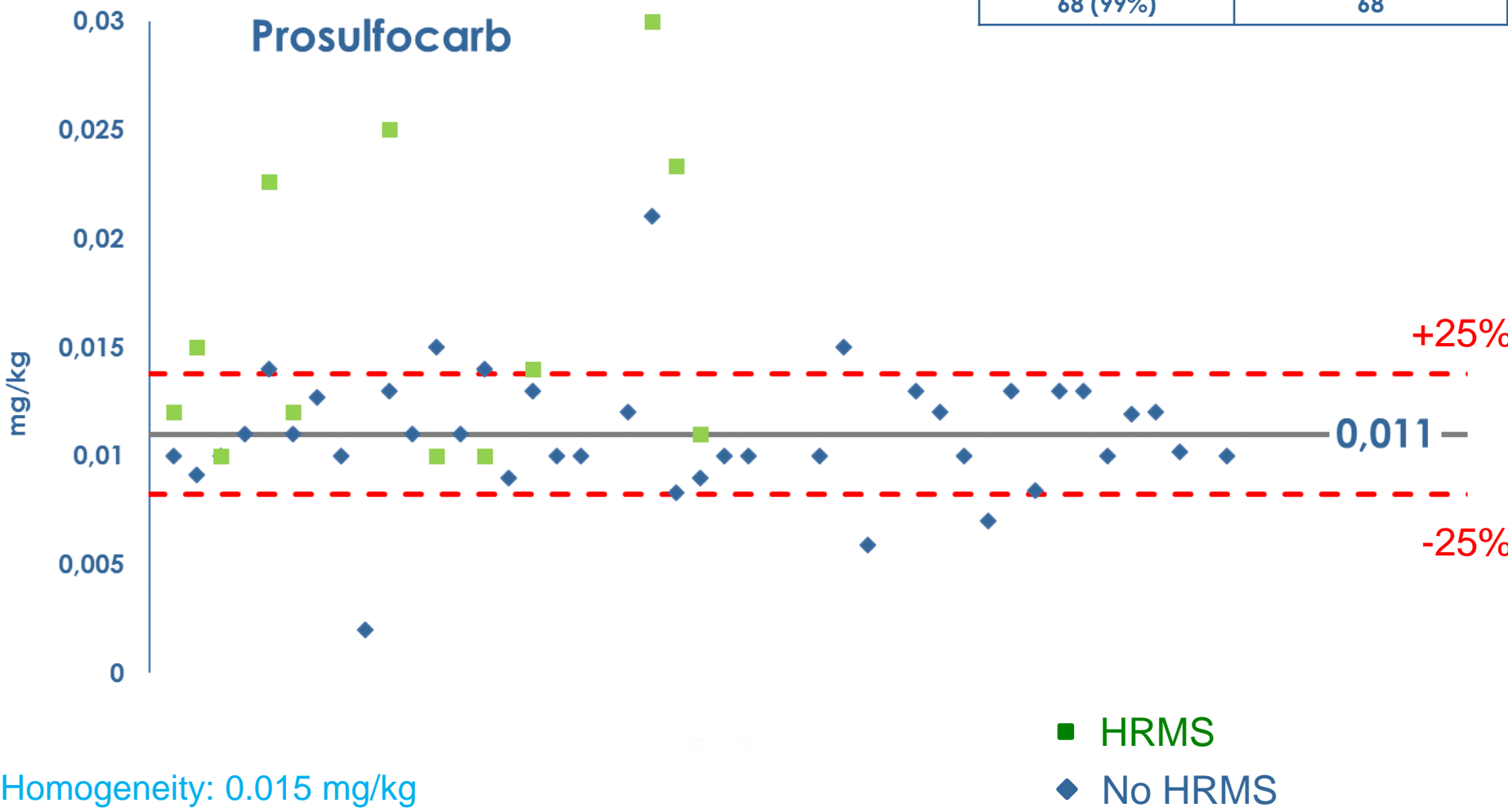
No of Detections (% of Laboratories)	No of Concentration Reported
51 (74%)	51



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

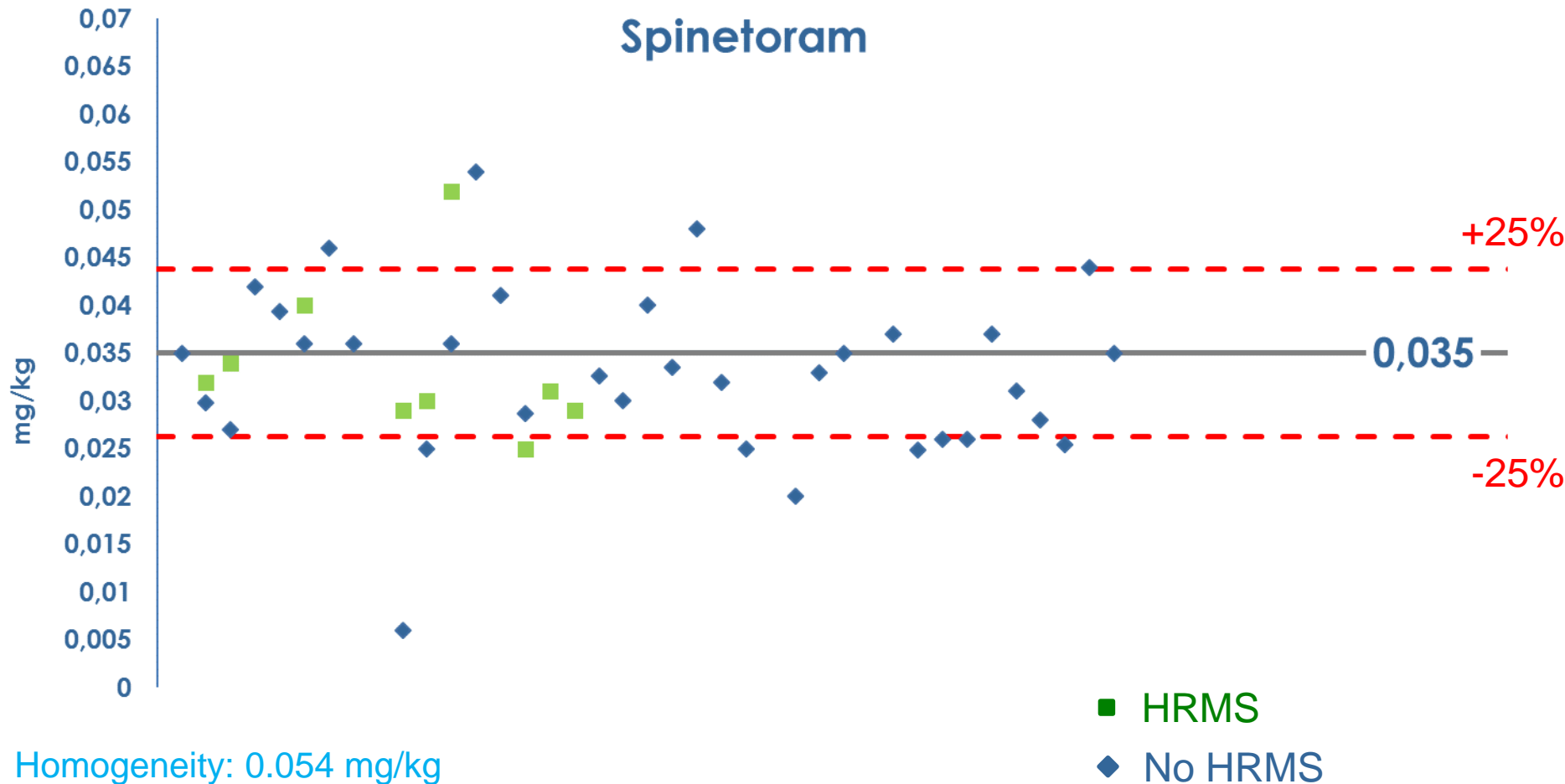


No of Detections (% of Laboratories)	No of Concentration Reported
68 (99%)	68

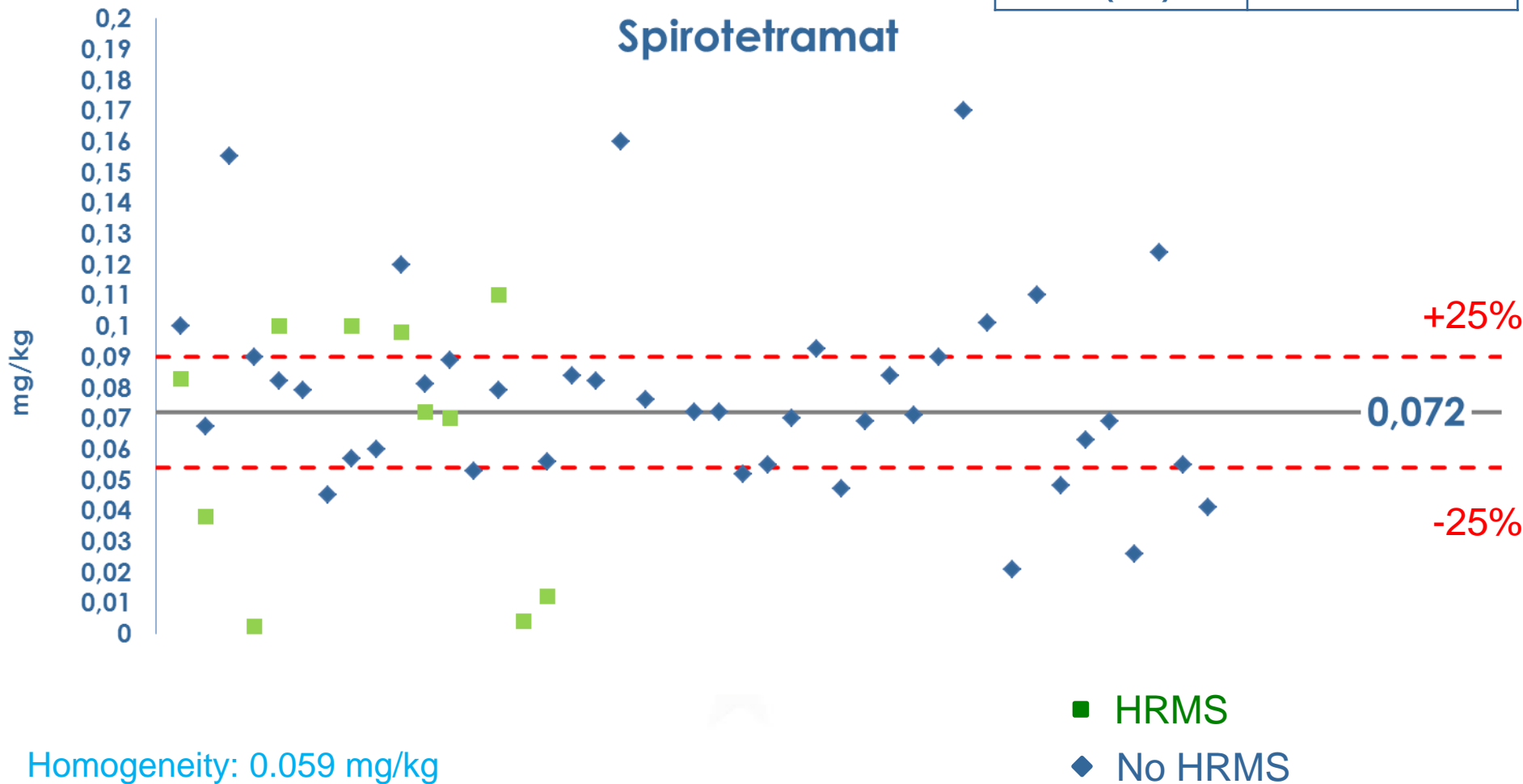


Homogeneity: 0.015 mg/kg

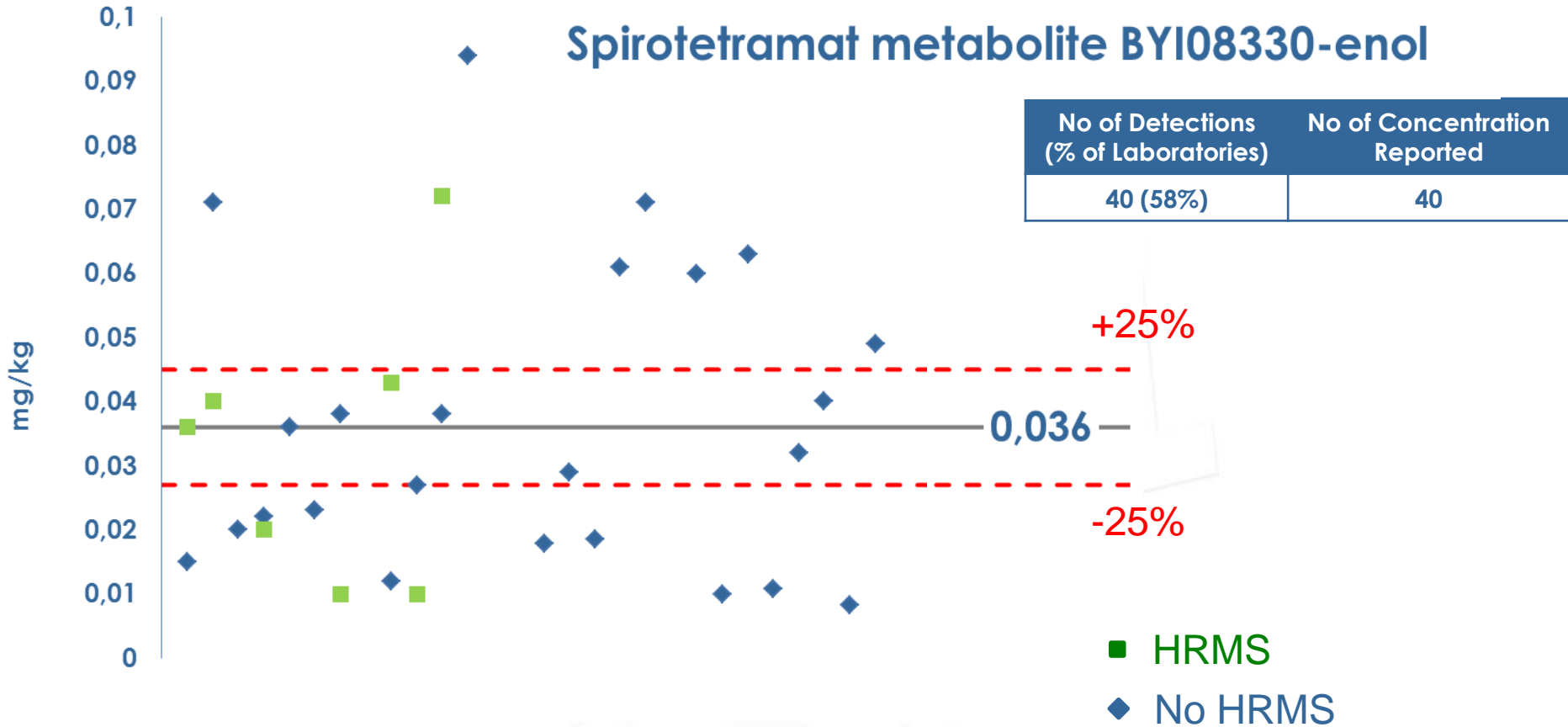
No of Detections (% of Laboratories)	No of Concentration Reported
53 (77%)	56



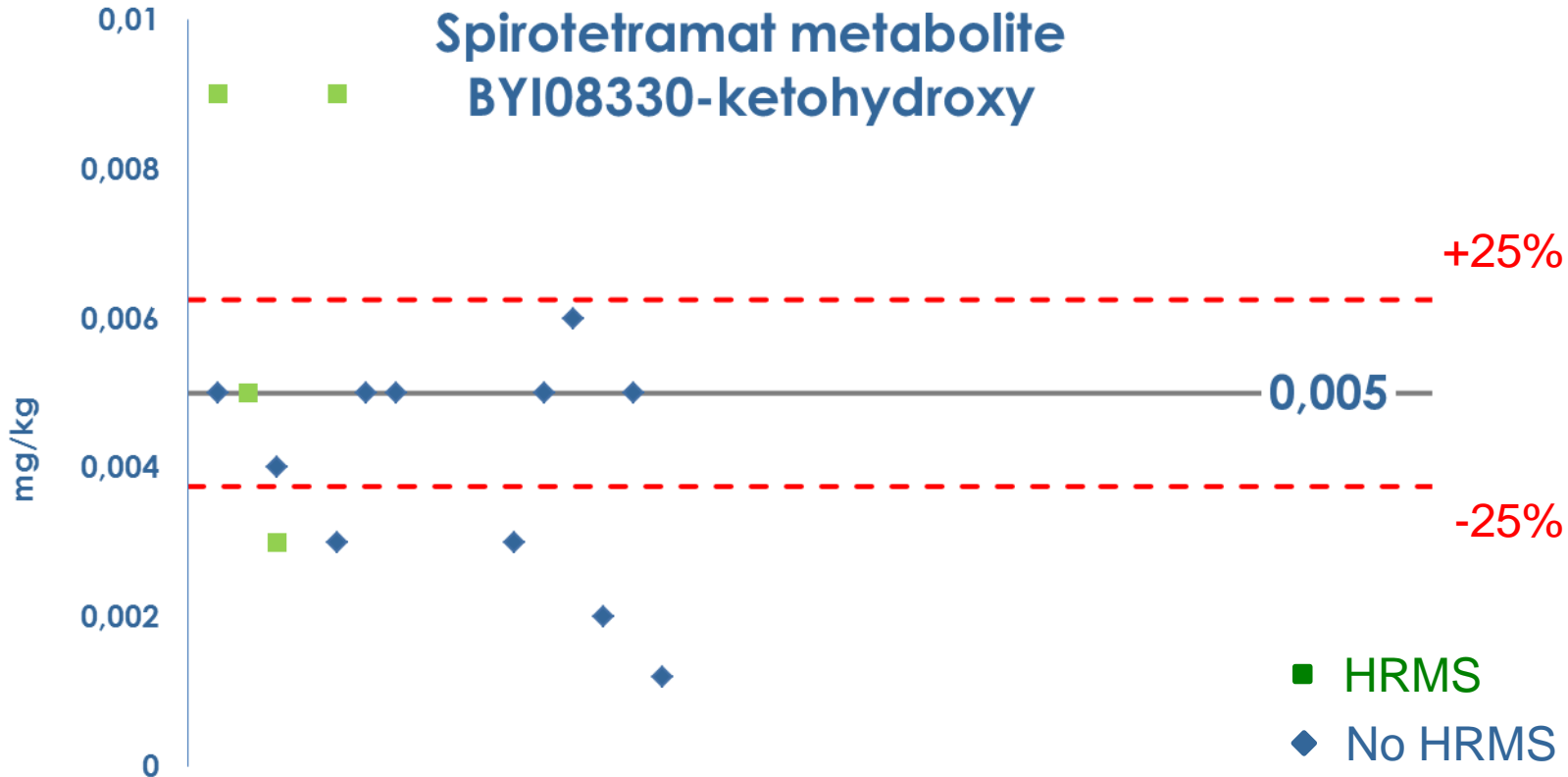
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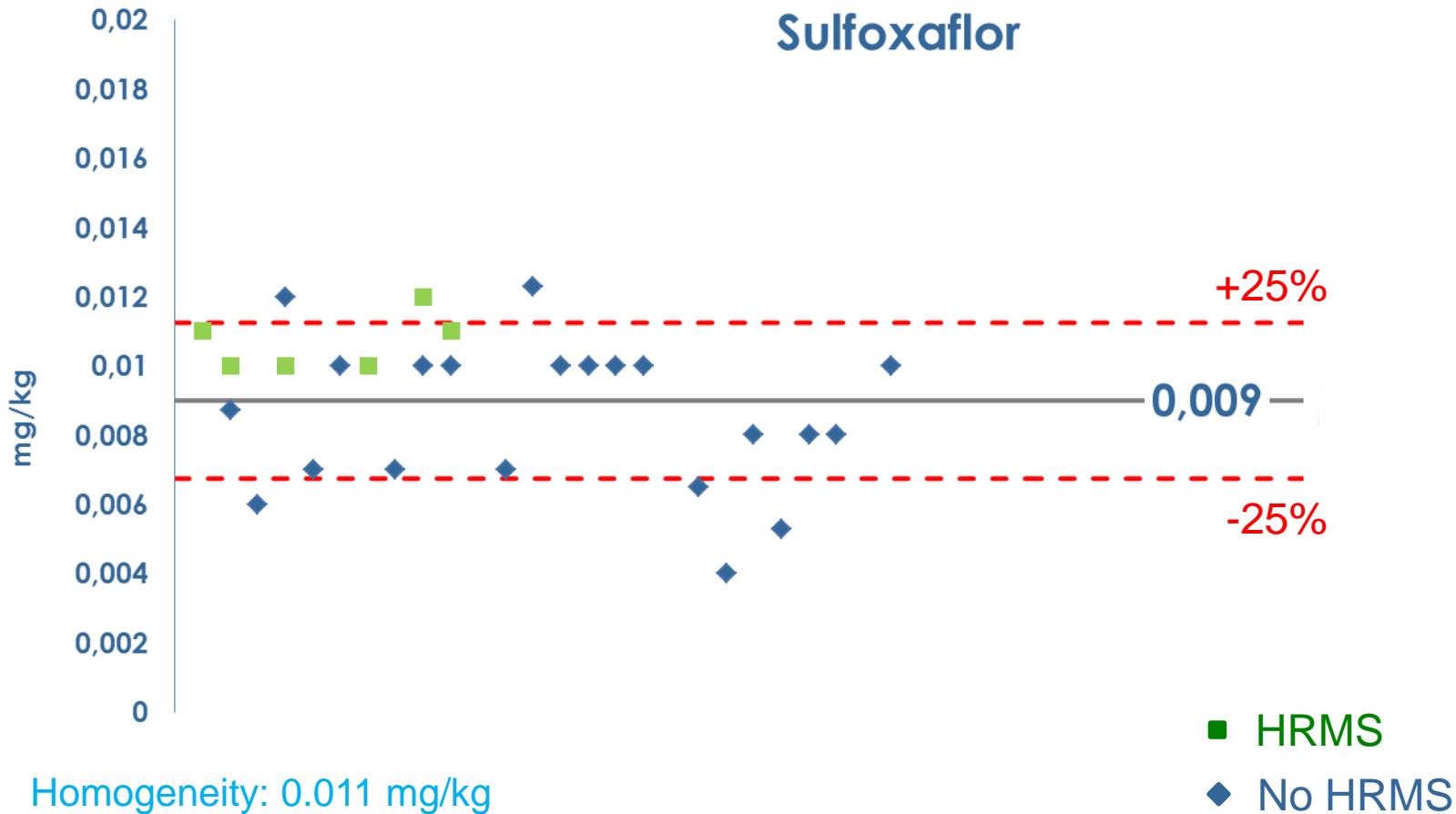
Homogeneity: 0.059 mg/kg



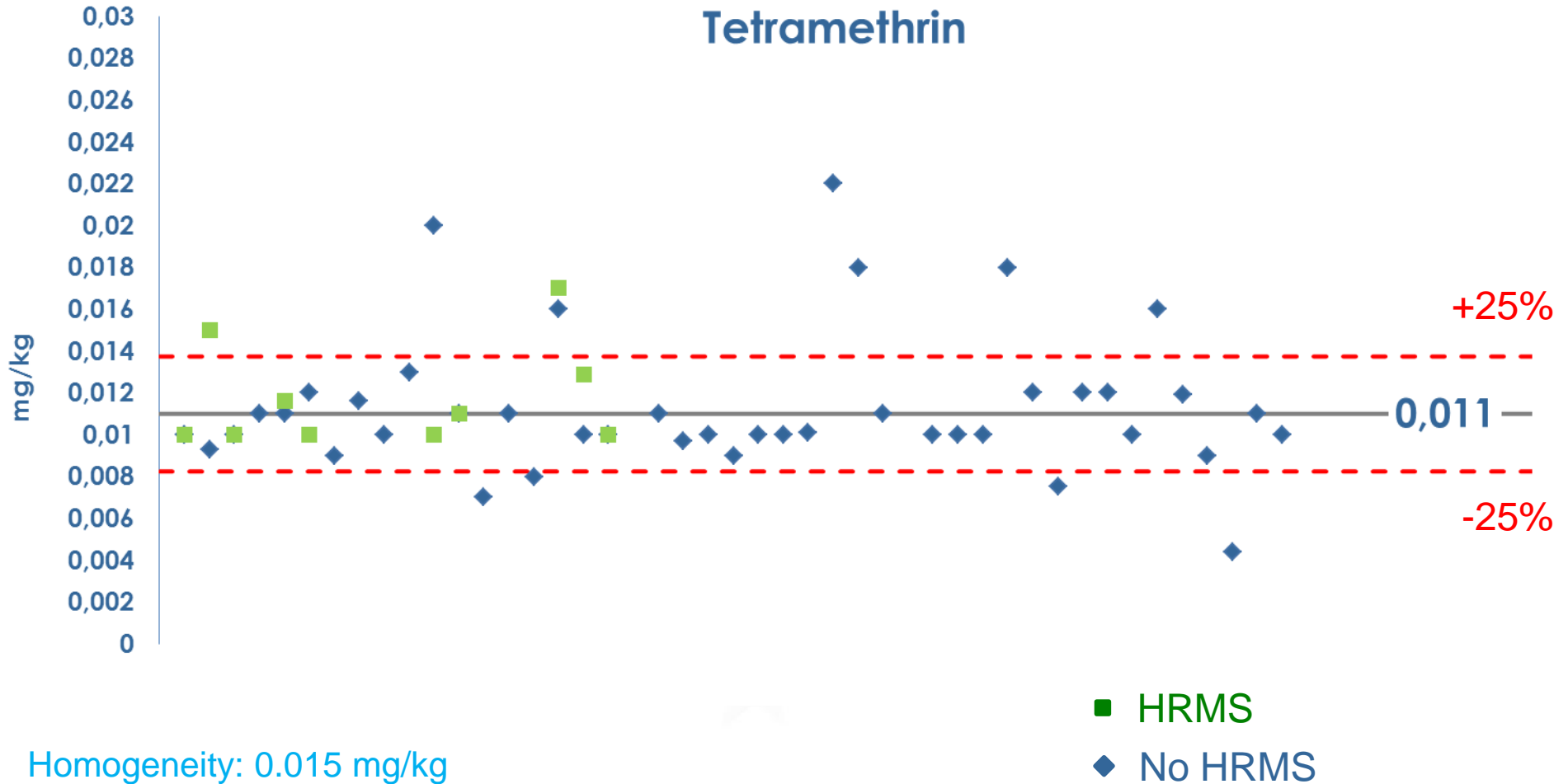
No of Detections (% of Laboratories)	No of Concentration Reported
21 (30%)	22



No of Detections (% of Laboratories)	No of Concentration Reported
36 (52%)	36



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



RESULTS

Not spiked pesticides reported by 3 or more laboratories:

NONE

Not spiked pesticides reported by laboratories:

Reported 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

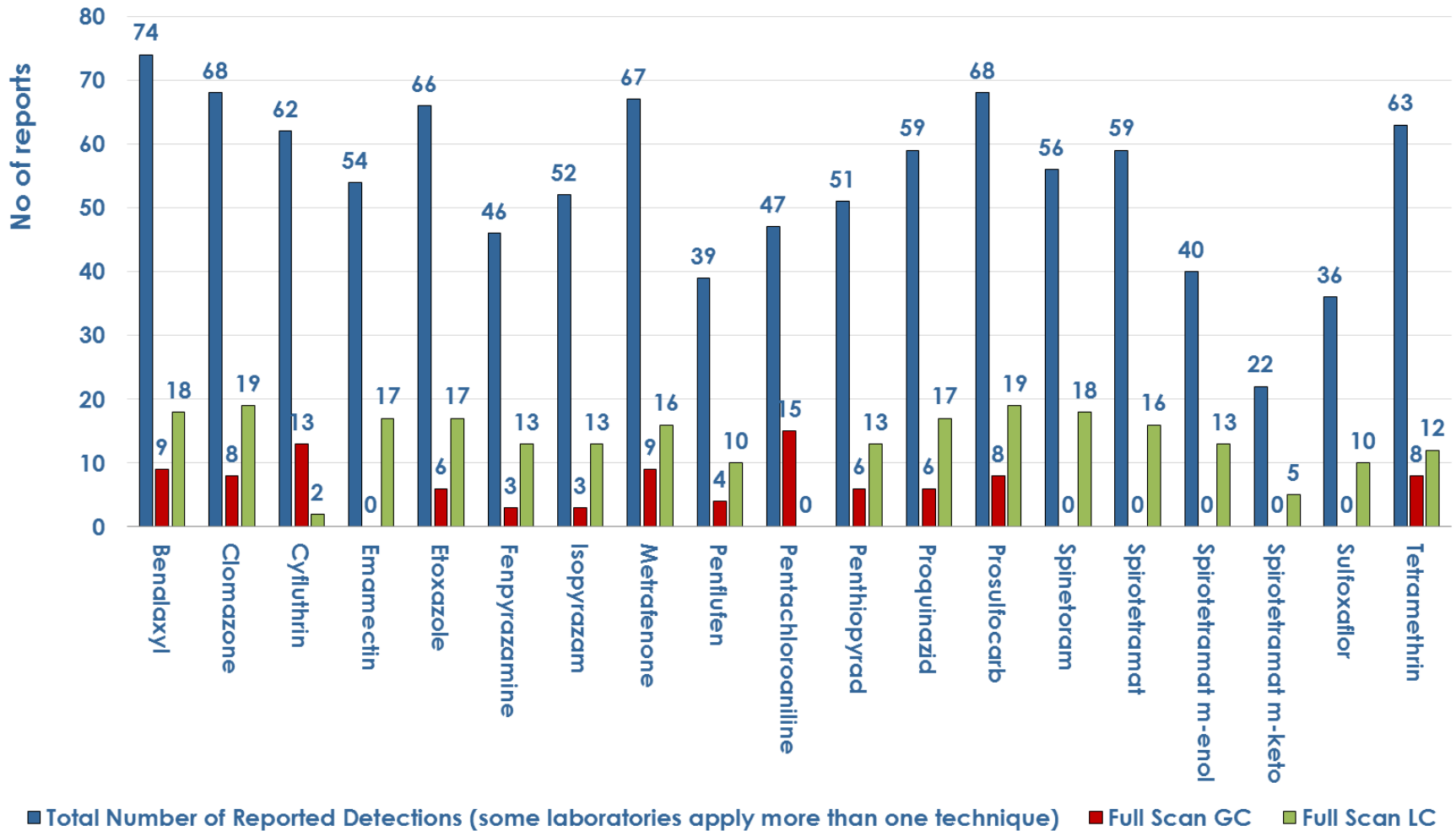
Terbufos-oxon-sulfoxide

TFNA

Tolclofos-methyl

Triadimenol

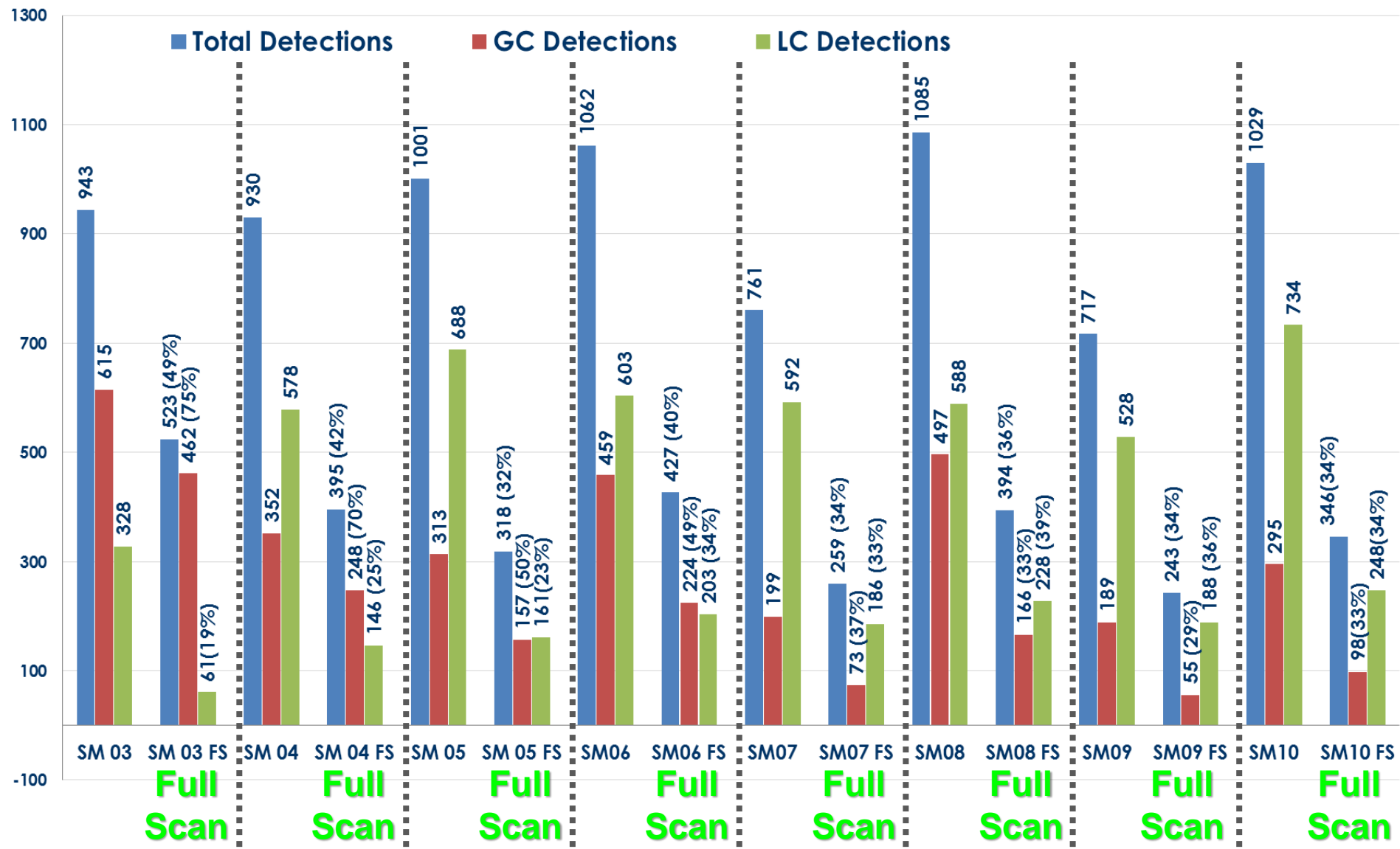
SM-10 Techniques (Full Scan)



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	16	11	5
Lab005	17	6	11	17	6	11
Lab006	6	3	3	6	3	3
Lab007	14	8	6	14	8	6
Lab008	8	0	8	8	8	0
Lab009	3	9	0	3	0	3
Lab010	16	8	8	16	8	8
Lab011	19	3	16	19	3	16
Lab012	25	5	20	25	5	20
Lab013	14	9	5	14	9	5
Lab014	11	0	11	11	0	11
Lab015	14	1	13	14	1	13
Lab016	14	8	6	14	8	6
Lab017	14	8	6	14	8	6
Lab018	14	8	6	14	8	6
Lab019	14	3	11	14	3	11
Lab020	21	5	16	21	5	16
Lab021	10	9	1	10	9	1
Lab022	16	5	11	16	5	11
Lab023	33	6	27	33	6	27
Lab024	24	14	10	24	14	10
Lab025	14	7	7	14	7	7
Lab026	13	8	5	13	8	5
Lab027	23	6	17	23	6	17
Lab028	12	6	6	12	6	6
Lab029	16	5	11	16	5	11
Lab030	22	9	13	22	9	13
Lab031	15	8	7	15	8	7
Lab032	14	3	11	14	3	11
Lab033	14	9	5	14	9	5
Lab034	13	3	10	13	3	10
Lab035	0	9	0	0	9	0
Lab036	9	2	7	9	2	7
Lab037	13	4	9	13	4	9
Lab038	13	8	5	13	8	5
Lab039	21	4	17	21	4	17
Lab040	13	15	0	13	15	0
Lab041	12	3	9	12	3	9
Lab042	5	2	3	5	2	3
Lab043	9	6	3	9	6	3
Lab044	7	7	0	7	7	0
Lab045	12	1	11	12	1	11
Lab046	9	5	4	9	5	4
Lab047	1	1	0	1	1	0
Lab048	10	3	7	10	3	7
Lab049	8	0	8	8	0	8
Lab050	8	8	0	8	8	0
Lab051	3	0	3	3	0	3
Lab052	13	1	12	13	1	12
Lab053	14	7	7	14	7	7
Lab054	15	6	9	15	6	9
Lab055	15	7	8	15	7	8
Lab056	15	6	9	15	6	9
Lab057	8	7	1	8	7	1
Lab058	14	4	10	14	4	10
Lab059	15	9	6	15	9	6
Lab060	14	4	10	14	4	10
Lab061	15	9	6	15	9	6
Lab062	14	9	5	14	9	5
Lab063	14	4	10	14	4	10
Lab064	11	13	0	11	13	0
Lab065	8	0	8	8	0	8
Lab066	20	4	16	20	4	16
Lab067	14	6	8	14	6	8
Lab068	26	5	21	26	5	21
Lab069	15	9	6	15	9	6
Lab070	23	7	16	23	7	16
Lab071	16	5	11	16	5	11
Lab072	10	9	1	10	9	1
Lab073	35	25	10	35	25	10
Lab074	15	11	4	15	11	4
Lab075	11	6	5	11	6	5
Lab076	8	3	5	8	3	5
Lab077	16	11	5	16	11	5
Lab078	15	5	10	15	5	10
Lab079	15	5	10	15	5	10
Lab080	9	8	1	9	8	1
Lab081	13	5	8	13	5	8
Lab082	14	12	2	14	12	2
Lab083	2	2	0	2	2	0
Lab084	19	0	19	19	0	19
Lab085	6	4	2	6	4	2
Lab086	4	7	0	4	7	0
Lab087	14	7	7	14	7	7
Lab088	12	0	12	12	0	12
Lab089	13	0	13	13	0	13

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

**Thank You
for Your Attention**



EURL EUROPEAN
UNION
REFERENCE
LABORATORY