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1. Abstract and main results

Pesticides are ubiquitous in our environment and food. Many pesticides are reported to induce health issues including cancer, neurological pathologies and endocrine disruption. The Greens/European Free Alliance group in the European Parliament set up a large-scale campaign to measure human exposure for a selection of 30 pesticides, reported as endocrine disruptors, among the EU population.

Hair analysis has been chosen to investigate pesticide exposure because hair is a unique and reliable bio-monitoring tool to investigate long-term chronic exposure. Moreover, xenobiotics that are present in blood are incorporated into the hair structure during hair synthesis in the scalp and incorporated substances have increased stability. As hair grows about 1 cm per month, the analysis of each centimetre informs us about the average exposure over a one-month period. In addition, hair is easy to sample and to ship to the laboratory.

148 hair samples were collected from 6 EU countries: Germany, Denmark, Wales (United Kingdom), Italy, France and Belgium between the end of July and October 2018. The samples were tested for a selection of 30 pesticides including insecticides, fungicides and herbicides.

The main results of the study indicate:

- 15 pesticides out of 30 were detected at least once
- 60.1% of analysed samples contained at least one pesticide residue
- 23.6% of analysed samples contained at least two pesticide residues
- The most occurring pesticides were:
  - ⇨ fipronil (insecticide) found in 29.7% of samples,
  - ⇨ propiconazole (fungicide) found in 18.9% of samples,
  - ⇨ permethrine (insecticide) found in 18.9% of samples,
  - ⇨ chlorpyrifos-ethyl (insecticide) found in 10.1% of samples
- Highest proportion of samples with pesticide residues (84.6%) was found in Wales (United Kingdom)
- Lowest proportion of samples with pesticide residues (44.1%) was found for Germany
- Highest number of different pesticide residues (4) was found for 4 samples from Belgium
- Highest concentration of pesticide residues (3941.9 pg/mg (ppb)) was found for one sample from France

The populations from the 6 countries studied are exposed to a variable number and quantity of pesticides depending on the country and age category.

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3. Customer information

The Greens | European Free Alliance in the European Parliament, Rue Wiertz 60, B-1047 BRUXELLES, Belgium

4. Aim of the report

The Greens | European Free Alliance in the European Parliament organised a campaign to investigate pesticide exposure amongst the population in 6 countries: France, Wales (United Kingdom), Italy, Belgium, Denmark and Germany.
Hair samples were collected by volunteers themselves in each country and sent to IRES for pesticide residue analysis. The aim of this report is to present the results of this pilot study.

5. Confidentiality and anonymity

In order to guarantee anonymity, hair sampling kits with unique IDs were sent to the study coordinator and then anonymously dispatched to volunteers. Each sampling kit contains:

- Hair sampling devices (cardboard collection devices, aluminium foil for sample protection, paper envelope for sample storage)
- Questionnaire form (consent agreement, sampling date, age category and environment information)
- Prepaid return envelope for sample shipment

6. Analytical methodology

Hair samples were collected from volunteers using sampling kits provided by IRES and sent to the laboratory by postal mail. They were checked on their arrival to ensure that sufficient material was available to perform the analysis, and stored at 4°C until analysis.

Hair samples were cut to keep 3 cm of the proximal segment when length was longer than 3 cm. The entire sample was used when the length was shorter than 3 cm. Proximal segment was cut in small segments with stainless steel scissors and grinded in stainless steel buckets to get a fine powder.

An accurate mass of hair powder was weighed in a glass test tube. An accurate volume of organic solvent was added and the suspension was incubated in an ultrasonic bath for a precise time. The suspension was centrifuged and the supernatant collected to be analysed by liquid chromatography coupled with tandem mass spectrometry detection (LC-MS/MS) and gas chromatography coupled with tandem mass spectrometry detection (GC-MS/MS).

7. List of selected pesticides

The complete list of pesticides is presented in the table below with CAS number (Chemical Abstract Service) and category (I: Insecticide; H: Herbicide; F: Fungicide).

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Compound	CAS	Category
Bifenthrin	82657-04-3	I
Boscalid	188425-85-6	F
Chlorotoluron	15545-48-9	H
Chlorpyrifos-ethyl	2921-88-2	I
Chlorpyrifos-methyl	5598-13-0	I
Cypermethrin	52315-07-8	I
Cyproconazole	94361-06-5	F
Deltamethrin	52918-63-5	I
Dimethoate	60-51-5	I
Dimethomorph	110488-70-5	F
Diuron	330-54-1	H
Epoxiconazole	106325-08-0	F
Fenamidone	161326-34-7	F
Fipronil	120068-37-3	I
Ioxynil	1689-83-4	H

Compound	CAS	Category
Iprovalicarb	140923-17-7	F
Isoproturon	34123-59-6	H
Lambda-Cyhalothrin	91465-08-6	I
Linuron	330-55-2	H
Malathion	121-75-5	I
Myclobutanil	88671-89-0	F
Pendimethalin	40487-42-1	H
Permethrin	52645-53-1	I
Propiconazole	60207-90-1	F
Propyzamide	23950-58-5	H
Pyrimethanil	53112-28-0	F
Spiroxamine	118134-30-8	F
Tebuconazole	107534-96-3	F
Tetraconazole	112281-77-3	F
Triadimenol	55219-65-3	F

8. Overall results synthesis and comparison between participating countries

148 hair samples were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 60.1% of the samples and 15 pesticides out of 30 were detected.

The presence of a chemical in hair indicates with a high confidence level an exposure to that chemical.

Legends used are:

- N.D.: The compound was not detected (concentration below Limit of Detection LD of the instrument)
- <LQ: The compound was detected (concentration higher than Limit of Detection LD of the instrument) but with concentration below the Limit of Quantification LQ of the analytical method
- Concentration values (higher than Limit of Quantification LQ of the analytical method) are given in pg/mg of hair (picogram per milligram of hair).

For information: 1 mg = 1000 µg (microgram), 1 µg = 1000 ng (nanogram) and 1 ng = 1000 pg (picogram).

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8.1. Overall results

The table below summarises for each chemical the occurrence (number of samples with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg, or ppb). Only detected or quantified pesticides are presented.

Compounds	Occurrence %	Maximum Conc. (pg/mg) (ppb)
Bifenthrin	0.7%	< LQ
Chlorpyrifos-ethyl	10.1%	101.1
Chlorpyrifos-methyl	1.4%	21.5
Dimethomorph	0.7%	8.1
Diuron	3.4%	13.9
Fenamidone	0.7%	< LQ
Fipronil	29.7%	1 122.1
Iprovalicarb	0.7%	< LQ
Isoproturon	1.4%	6.6
Myclobutanil	0.7%	< LQ
Pendimethalin	4.7%	< LQ
Permethrin	18.9%	3 941.9
Propiconazole	18.9%	54.2
Pyrimethanil	5.4%	22.7
Tebuconazole	2.7%	7.8

Four pesticides were found with occurrence higher than 10.0%: chlorpyrifos-ethyl (insecticide, 10.1%), fipronil (insecticide, 29.7%), permethrin (insecticide, 18.9%) and propiconazole (fungicide, 18.9%).

For all pesticides, highest concentration was found for permethrin with 3941.9 pg/mg and fipronil with 1122.1 pg/mg.

Four samples have total pesticides residues concentration above 1000 pg/mg, one belonging to a French volunteer, one belonging to an Italian volunteer and two belonging to Welsh volunteers.

The table below summarises the statistical information about the number of detected and quantified pesticides and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	4	1.0	0	0	1	2	2
Number of detected pesticide(s)	4	0.5	0	0	0	1	2
Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
Max. quantified concentration (pg/mg)	3941.9	72.2	-	-	-	14.1	54.3
Sum of quantified pesticides (pg/mg)	3941.9	78.0	-	-	-	14.9	59.5

The highest number of pesticides in hair was 4 and 4 samples have 4 pesticides residues, all belonging to Belgian volunteers.

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More than one sample out of two (60.1%) contains at least 1 pesticide residue (P50 = 1), one sample out of four contains at least 2 pesticides residues (P75 = 2) and one sample out of four contains at least one quantified pesticide residue (P75 = 1).

8.2. Comparison between participating countries

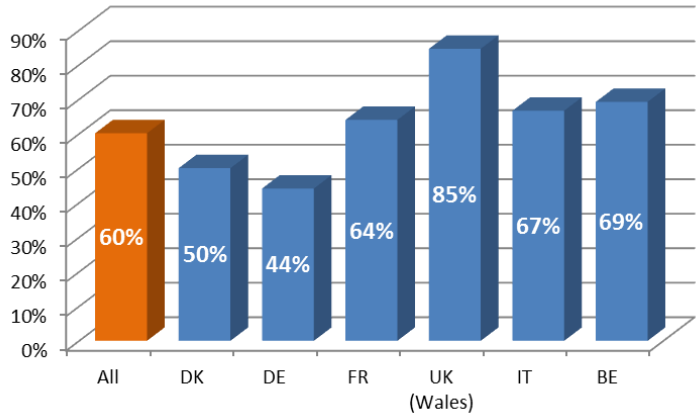
8.2.1. Number of samples per country

A total of 148 hair samples from 6 EU countries were collected and analysed. The table below summarises the number of sample analysed per country.

Country	N	% of samples
Germany	34	23.0%
Denmark	26	17.6%
Italy	24	16.2%
United Kingdom (Wales)	13	8.8%
France	25	16.9%
Belgium	26	17.6%
TOTAL	148	100.0%

8.2.2. Proportion of samples with pesticide residues per country

Proportion of samples with pesticide residues is presented for the overall study and individually for each country in the figures below.



The proportion of samples with pesticide residues is 60.1% for the overall study and ranged from 44.1% (Germany) to 84.6% (Wales). France, Wales (United Kingdom), Italy and Belgium have a proportion of samples with pesticide residues above the level observed for the overall study.

Based on the results of this study (occurrence) and the reported population for each EU country, the projection of population with at least one pesticide residue in the studied countries is presented in the table below.

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Country	Total Population (in Million)	Projection of Population with Pesticide residues (in Million)
All 6 UE countries	228.6	137.5
Denmark	5.6	2.8
Germany	80.7	35.6
France	67.2	43.0
United Kingdom (Wales)	3.1	2.6
Italy	60.8	40.5
Belgium	11.2	7.8

8.2.3. Occurrence of pesticide residues per country

The occurrence of pesticide residues is presented for each country in the table below (detected and quantified pesticides only).

Compounds	Occurrence %						
	Overall	Germany	Denmark	UK - Wales	France	Italy	Belgium
Bifenthrin	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%
Chlorpyrifos-ethyl	10.1%	11.8%	0.0%	0.0%	8.0%	16.7%	19.2%
Chlorpyrifos-methyl	1.4%	2.9%	3.8%	0.0%	0.0%	0.0%	0.0%
Dimethomorph	0.7%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%
Diuron	3.4%	0.0%	0.0%	7.7%	4.0%	4.2%	7.7%
Fenamidone	0.7%	0.0%	0.0%	7.7%	0.0%	0.0%	0.0%
Fipronil	29.7%	17.6%	23.1%	69.2%	24.0%	45.8%	23.1%
Iprovalicarb	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%
Isoproturon	1.4%	0.0%	0.0%	0.0%	4.0%	0.0%	3.8%
Myclobutanil	0.7%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%
Pendimethalin	4.7%	2.9%	0.0%	0.0%	0.0%	12.5%	11.5%
Permethrin	18.9%	2.9%	19.2%	15.4%	36.0%	25.0%	19.2%
Propiconazole	18.9%	11.8%	19.2%	7.7%	8.0%	20.8%	42.3%
Pyrimethanil	5.4%	2.9%	0.0%	23.1%	4.0%	0.0%	11.5%
Tebuconazole	2.7%	2.9%	0.0%	0.0%	0.0%	4.2%	7.7%
No. of pest. with lower occ.	-	12	12	11	11	7	5
No. of pest. with higher occ.	-	3	3	4	4	8	10

Green color indicate lower level than the overall study
Red color indicate higher level than the overall study

Italy and Belgium have respectively 8 and 10 pesticides found with higher occurrence than the overall study.

Change in occurrence level for most occurring pesticides (chlorpyrifos-ethyl, fipronil, permethrin and propiconazole) among different countries is presented in the figures below.

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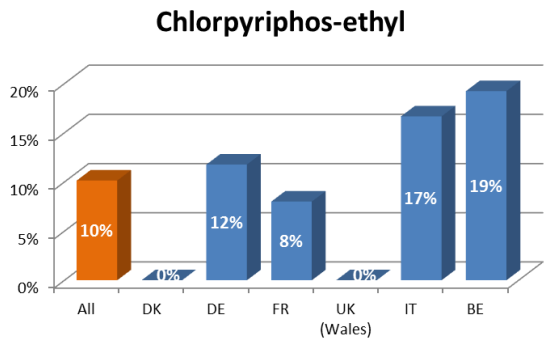
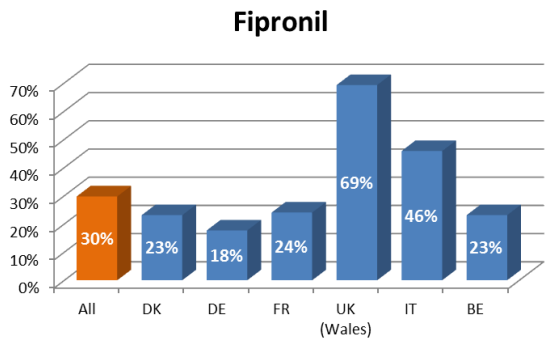
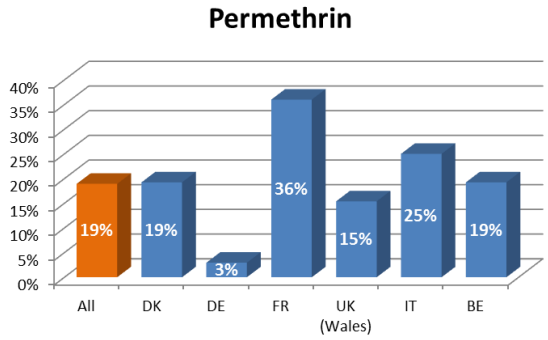
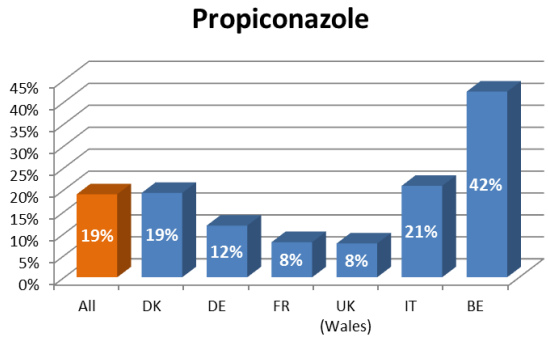




Only Denmark and Wales have no samples with chlorpyrifos-ethyl residue. Italy and Belgium have the highest occurrence of chlorpyrifos-ethyl residue, with respectively 16.7% and 19.2%.

Wales (United Kingdom) and Italy have the highest occurrence of fipronil residue with respectively 69.2% and 45.8%.





France has the highest occurrence of permethrin residue with 36.0%.

Belgium has the highest occurrence of propiconazole residue with 42.3%.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

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	Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Overall Study	Number of detected & quantified pesticide(s)	4	1.0	0	0	1	2	2
	Number of detected pesticide(s)	4	0.5	0	0	0	1	2
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	3941.9	72.2	-	-	-	14.1	54.3
	Sum of quantified pesticides (pg/mg)	3941.9	78.0	-	-	-	14.9	59.5
Denmark	Number of detected & quantified pesticide(s)	3	0.7	0	0	1	1	2
	Number of detected pesticide(s)	2	0.3	0	0	0	0	1
	Number of quantified pesticide(s)	1	0.3	0	0	0	1	1
	Max. quantified concentration (pg/mg)	48.1	13.7	-	-	-	17.1	34.8
	Sum of quantified pesticides (pg/mg)	48.1	13.7	-	-	-	17.1	34.8
Germany	Number of detected & quantified pesticide(s)	3	0,5	0	0	0	1	1
	Number of detected pesticide(s)	1	0,3	0	0	0	1	1
	Number of quantified pesticide(s)	2	0,2	0	0	0	0	1
	Max. quantified concentration (pg/mg)	222.4	11.2	-	-	-	-	26.3
	Sum of quantified pesticides (pg/mg)	222.4	11.4	-	-	-	-	26.3
France	Number of detected & quantified pesticide(s)	3	0.7	0	0	1	1	2
	Number of detected pesticide(s)	2	0.4	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.3	0	0	0	1	1
	Max. quantified concentration (pg/mg)	3941.9	175.3	-	-	-	17.5	82.4
	Sum of quantified pesticides (pg/mg)	3941.9	175.4	-	-	-	18.7	82.4
UK - Wales	Number of detected & quantified pesticide(s)	2	1.3	0	1	1	2	2
	Number of detected pesticide(s)	2	0.3	0	0	0	0	1
	Number of quantified pesticide(s)	2	1.0	0	0	1	2	2
	Max. quantified concentration (pg/mg)	1122.1	243.1	-	-	8.5	266.8	940.8
	Sum of quantified pesticides (pg/mg)	1143.5	253.9	-	-	12.4	321.9	981.2
Italy	Number of detected & quantified pesticide(s)	3	1.3	0	0	2	2	3
	Number of detected pesticide(s)	2	0.8	0	0	1	1	2
	Number of quantified pesticide(s)	2	0.6	0	0	0	1	2
	Max. quantified concentration (pg/mg)	831.1	93.2	-	-	-	16,0	240,3
	Sum of quantified pesticides (pg/mg)	1378.9	121.6	-	-	-	21,1	319,3
Belgium	Number of detected & quantified pesticide(s)	4	1.5	0	0	1	2	4
	Number of detected pesticide(s)	4	1.0	0	0	1	2	3
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	2
	Max. quantified concentration (pg/mg)	54.2	6.6	-	-	-	7.5	17.8
	Sum of quantified pesticides (pg/mg)	71.5	7.8	-	-	-	7.5	21.1

Green color indicates lower level than overall study
Red color indicates higher level than overall study

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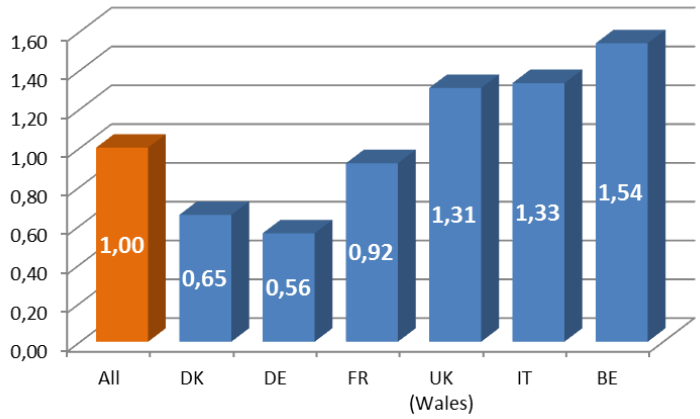
8.2.4. Average number of pesticide residues per country

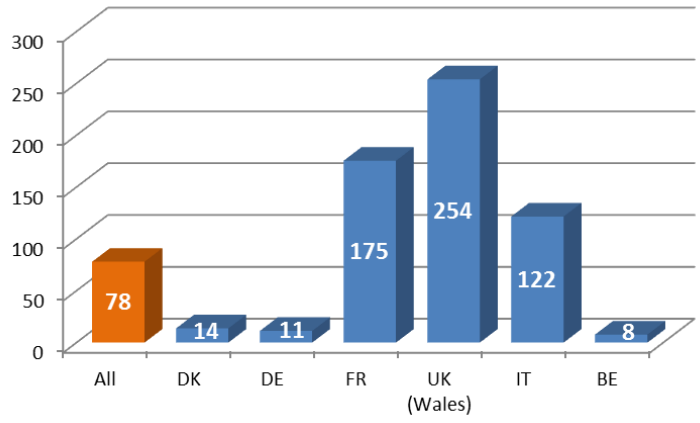
Average number of pesticides is presented for overall study and for each country individually in the figure below.



Average number of pesticides per sample is 1.00 for overall study and ranged from 0.56 (Germany, -44%) to 1.54 (Belgium, +54%). Half of the countries are above overall study level: United Kingdom (Wales), Italy and Belgium respectively with 1.31, 1.33 and 1.54 pesticides per sample.

8.2.5. Average concentration of pesticides residues

Average concentration of pesticide per sample is presented for the overall study and each country individually in the figure below.



Average quantity of pesticides per sample is 78.0 pg/mg (ppb) for overall study and ranged from 7.8 pg/mg (Belgium, -89.2%) to 253.9 pg/mg (United Kingdom – Wales, +352.6%). France, United Kingdom (Wales) and Italy have average concentration of pesticide above overall study level (78.0 pg/mg).

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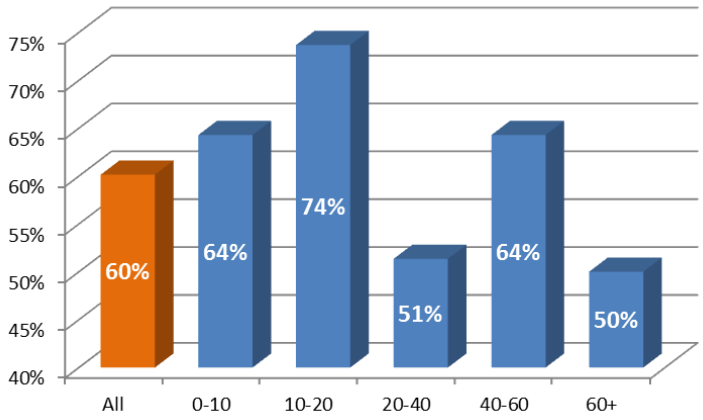
8.3. Results by age categories

Volunteers belong to five age categories: 0 to 10 years old, 10 to 20 years old, 20 to 40 years old, 40 to 60 years old and above 60 years old. Number of samples for each age category is presented in the table below.

Age category	N	% of sample
0-10	28	18.9%
10-20	19	12.8%
20-40	37	25.0%
40-60	42	28.4%
60+	22	14.9%
All	148	100.0%

8.3.1. Proportion of sample with pesticide residues by age category

Proportion of samples containing pesticide residues is presented in the figure below for overall study and for each age category.



Proportion of samples with pesticide residues is 60.1% for overall study and ranged from 50.0% (above 60 years old) and 73.7% (10-20 years old).

8.3.2. Occurrence of pesticide residues by age category

Occurrence of pesticide residues by age category is presented in the table below.

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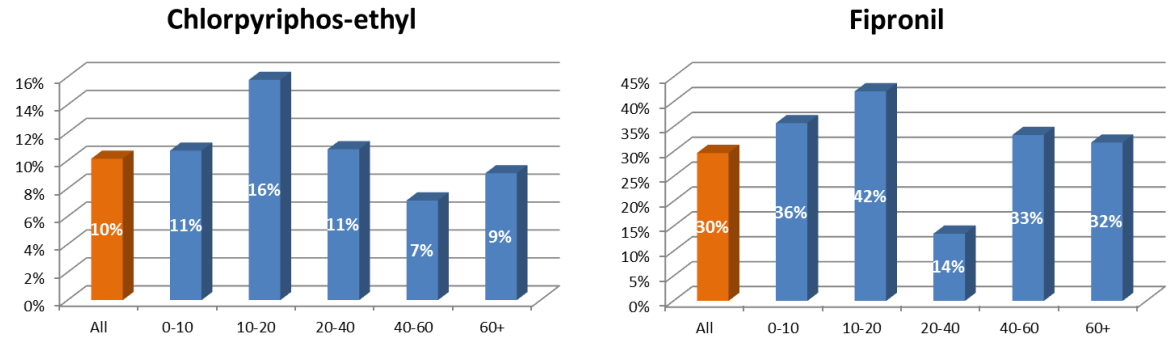
Compounds	Overall study	Occurrence by Age Category				
		0-10	10-20	20-40	40-60	60+
Bifenthrin	0.7%	0.0%	0.0%	0.0%	2.4%	0.0%
Chlorpyrifos-ethyl	10.1%	10.7%	15.8%	10.8%	7.1%	9.1%
Chlorpyriphos-methyl	1.4%	3.6%	0.0%	2.7%	0.0%	0.0%
Dimethomorph	0.7%	0.0%	0.0%	2.7%	0.0%	0.0%
Diuron	3.4%	7.1%	0.0%	2.7%	0.0%	9.1%
Fenamidone	0.7%	0.0%	0.0%	0.0%	0.0%	4.5%
Fipronil	29.7%	35.7%	42.1%	13.5%	33.3%	31.8%
Iprovalicarb	0.7%	3.6%	0.0%	0.0%	0.0%	0.0%
Isoproturon	1.4%	0.0%	0.0%	2.7%	2.4%	0.0%
Myclobutanil	0.7%	0.0%	0.0%	0.0%	2.4%	0.0%
Pendimethalin	4.7%	3.6%	5.3%	8.1%	2.4%	4.5%
Permethrin	18.9%	25.0%	15.8%	16.2%	21.4%	13.6%
Propiconazole	18.9%	28.6%	15.8%	10.8%	26.2%	9.1%
Pyrimethanil	5.4%	3.6%	5.3%	2.7%	9.5%	4.5%
Tebuconazole	2.7%	0.0%	0.0%	5.4%	4.8%	0.0%
No. of pest. with lower level	-	9	13	10	6	11
No. of pest. with higher level	-	6	2	5	9	4

Green color indicates lower level than the overall study
Red color indicates higher level than the overall study

Volunteers with age between 40 and 60 years old have 9 pesticide residues with occurrence above the level of the overall study.

Change in occurrence for most occurring pesticides (chlorpyrifos-ethyl, fipronil, permethrin and propiconazole) among different age categories is presented in the figure below.



Volunteers with age between 10 and 20 years old have the highest occurrence for chlorpyrifos-ethyl residue with 15.8%.

Volunteers with age between 10 and 20 years old have the highest occurrence for fipronil residue with 42.1%.

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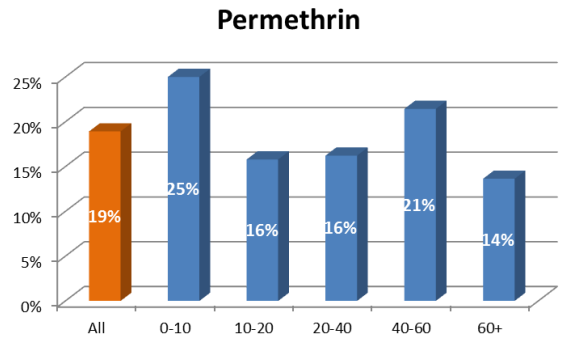

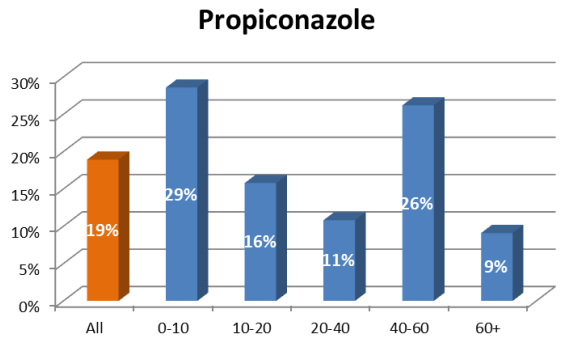

Volunteers with age between 0 and 10 years old have the highest occurrence for permethrin residue and propiconazole residue respectively with 25.0% and 28.6%.

The table below summarizes the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

	Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Overall Study	Number of detected & quantified pesticide(s)	4	1.0	0	0	1	2	2
	Number of detected pesticide(s)	4	0.5	0	0	0	1	2
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	3941.9	43.8	-	-	-	14.1	54.3
	Sum of quantified pesticides (pg/mg)	3941.9	49.6	-	-	-	14.9	59.5
0-10	Number of detected & quantified pesticide(s)	4	1.2	0	0	1	2	2
	Number of detected pesticide(s)	4	0.8	0	0	0	1	2
	Number of quantified pesticide(s)	2	0.4	0	0	0	1	1
	Max. quantified concentration (pg/mg)	1075.8	66.9	-	-	-	20.9	185.4
	Sum of quantified pesticides (pg/mg)	1143.5	69.3	-	-	-	20.9	185.4
10-20	Number of detected & quantified pesticide(s)	3	1.0	0	1	1	1	2
	Number of detected pesticide(s)	3	0.5	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	1122.1	101.4	-	-	-	40.5	279.4
	Sum of quantified pesticides (pg/mg)	1126.3	107.5	-	-	-	40.5	369.6
20-40	Number of detected & quantified pesticide(s)	3	0.8	0	0	1	1	2
	Number of detected pesticide(s)	2	0.4	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.4	0	0	0	1	1
	Max. quantified concentration (pg/mg)	222.4	11.1	-	-	-	7.8	20.6
	Sum of quantified pesticides (pg/mg)	222.4	11.5	-	-	-	7.8	21.1

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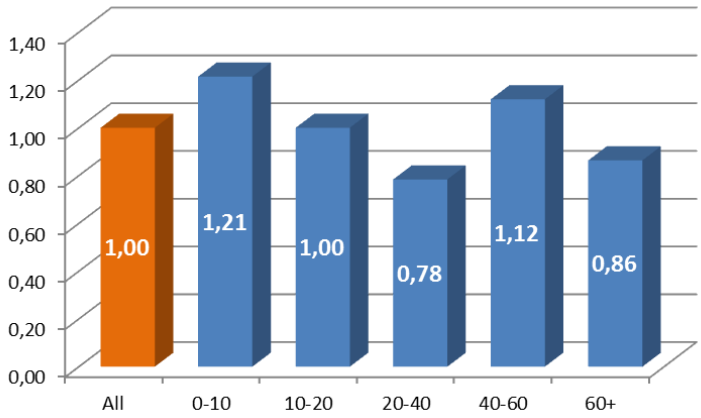
40-60	Number of detected & quantified pesticide(s)	4	1.1	0	0	1	2	3
	Number of detected pesticide(s)	2	0.5	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.6	0	0	0	1	2
	Max. quantified concentration (pg/mg)	3941.9	128.0	-	-	-	12.3	51.9
	Sum of quantified pesticides (pg/mg)	3941.9	143.5	-	-	-	14.1	52.5
60+	Number of detected & quantified pesticide(s)	4	0.9	0	0	1	2	2
	Number of detected pesticide(s)	2	0.4	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	831.1	49.6	-	-	-	9.4	50.3
	Sum of quantified pesticides (pg/mg)	831.1	50.4	-	-	-	9.4	65.9

Green color indicates lower level than overall study
Red color indicates higher level than overall study

8.3.3. Average number of pesticide residues by age category

The average number of pesticide residues is presented in the figure below for overall study and each age category individually.

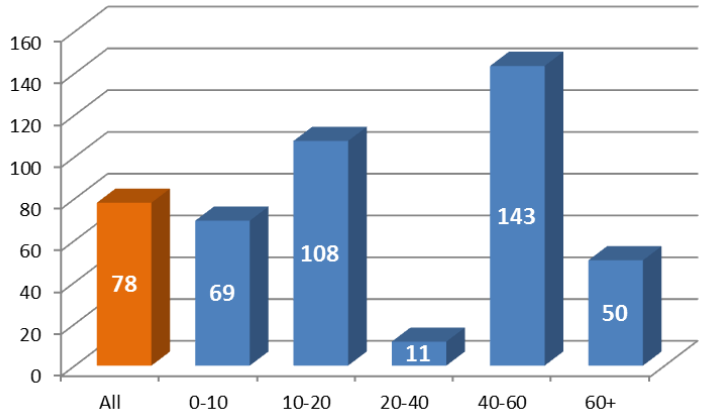


Average number of pesticide residues is 1.00 for overall study and ranged from 0.78 for 20-40 years old category (-22%) to 1.21 for 0-10 years old category (+21%).

8.3.4. Average concentration of pesticide residues by age category

The average concentration of pesticide residues is presented in the figure below for overall study and each age category individually.

2, rue de la Durance – EUROPARC - 67100 STRASBOURG – Tél. 03.69.61.46.00 – info@kudzuscience.com



The average concentration of pesticide residues is 78.0 pg/mg for the overall study and ranged from 11.5 pg/mg (20-40 years old, -85.3%) and 143.5 pg/mg (40-60 years old, +184%).

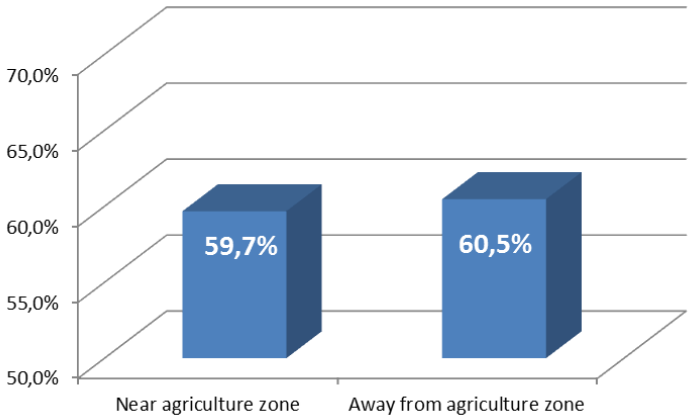
8.4. Influence of proximity to agriculture zone

Volunteers indicated their proximity to agriculture zone on the sampling form: 41.9% live near fields, crops, orchards or vineyards.

Proximity to agriculture zone	N	% of sample
Living NEAR agriculture zone	62	41.9%
Living AWAY agriculture zone	86	58.1%

8.4.1. Proportion of sample with pesticide residues

The proportion of samples with pesticide residues are presented in the figure below.



No significant difference was observed for the proportion of sample with pesticide residues for the two populations.

8.4.2. Occurrence of pesticide residues

Comparison of occurrence and maximum measured concentration for volunteer population living or not near agriculture zone is presented in the tables below.

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Compounds	AWAY frow Agriculture Zone		NEAR Agriculture Zone	
	Occurrence %	Maximum Conc. (pg/mg)	Occurrence %	Maximum Conc. (pg/mg)
Bifenthrin	0.0%	-	1.6%	< LQ
Chlorpyrifos-ethyl	12.8%	101.1	6.5%	28.4
Chlorpyriphos-methyl	1.2%	21.5	1.6%	20.7
Dimethomorph	0.0%	-	1.6%	8.1
Diuron	2.3%	< LQ	4.8%	13.9
Fenamidone	1.2%	< LQ	0.0%	-
Fipronil	24.4%	1122.1	37.1%	831.1
Iprovalicarb	0.0%	-	1.6%	< LQ
Isoproturon	2.3%	6.6	0.0%	-
Myclobutanil	0.0%	-	1.6%	< LQ
Pendimethalin	5.8%	< LQ	3.2%	< LQ
Permethrin	20.9%	3941.9	16.1%	818.3
Propiconazole	11.6%	22.2	29.0%	54.2
Pyrimethanil	7.0%	8.5	3.2%	22.7
Tebuconazole	3.5%	7.8	1.6%	< LQ

Focusing only on the most occurring pesticides:

- Occurrence of chlorpyrifos-ethyl and permethrin residues is higher for volunteers living away from agriculture zone
- Occurrence with fipronil or propiconazole residue is higher for volunteers living near agriculture zone

The table below summarizes the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

	Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
AWAY from agriculture zone	Number of detected & quantified pesticide(s)	4	0.9	0	0	1	2	2
	Number of detected pesticide(s)	3	0.5	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	3941.9	92.4	0.0	0.0	0.0	9.9	125.6
	Sum of quantified pesticides (pg/mg)	3941.9	95.4	0.0	0.0	0.0	11.8	125.6
NEAR agriculture zone	Number of detected & quantified pesticide(s)	4	1.1	0	0	1	2	3
	Number of detected pesticide(s)	4	0.6	0	0	0	1	2
	Number of quantified pesticide(s)	2	0.5	0	0	0	1	1
	Max. quantified concentration (pg/mg)	831.1	44.2	-	-	-	14.6	28.4
	Sum of quantified pesticides (pg/mg)	1378.9	53.9	-	-	-	17.3	34.6

Green color indicates lower level than volunteers living AWAY from agriculture zone
Red color indicates higher level than volunteers living AWAY from agriculture zone

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As permethrin and fipronil are not authorized to be used in the EU for agriculture and as they are found in hair samples with the highest occurrences and concentrations, the contribution of these domestic biocides introduces a bias to investigate population exposure to pesticides especially used in agriculture.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile, without permethrin and fipronil.

	Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
AWAY from agriculture zone	Number of detected & quantified pesticide(s)	3	0.5	0	0	0	1	2
	Number of detected pesticide(s)	2	0.3	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.2	0	0	0	0	1
	Max. quantified concentration (pg/mg)	101.1	2.4	-	-	-	-	5.3
	Sum of quantified pesticides (pg/mg)	101.1	2.5	-	-	-	-	5.3
NEAR agriculture zone	Number of detected & quantified pesticide(s)	3	0.6	0	0	0	1	2
	Number of detected pesticide(s)	3	0.4	0	0	0	1	1
	Number of quantified pesticide(s)	2	0.2	0	0	0	0	1
	Max. quantified concentration (pg/mg)	54.2	3.6	-	-	-	-	19.8
	Sum of quantified pesticides (pg/mg)	71.5	4.0	-	-	-	-	20.7

Green color indicate lower level than volunteers living AWAY from agriculture zone
Red color indicate higher level than volunteers living AWAY from agriculture zone

9. Results per country

Analysis results are presented individually for each participating country.

9.1. Results synthesis for Germany

9.1.1. Results for Germany

A total of 34 hair samples from German volunteers were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 44.1% of the samples and 8 pesticides were detected.

The table below summarises for each chemical the occurrence (number of sample with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg (ppb)). Only detected or quantified pesticides are presented.

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Compounds	Occurrence %	Maximum Conc. (pg/mg)
Chlorpyrifos-ethyl	11.8%	28.4
Chlorpyrifos-methyl	2.9%	21.5
Fipronil	17.6%	47.4
Pendimethalin	2.9%	< LQ
Permethrin	2.9%	222.4
Propiconazole	11.8%	< LQ
Pyrimethanil	2.9%	4.9
Tebuconazole	2.9%	< LQ

Three pesticides were found with occurrence higher than 10.0%: chlorpyrifos-ethyl (insecticide, 11.8%), propiconazole (fungicide, 11.8%) and fipronil (insecticide, 17.6%).

For all pesticides, highest concentration was found for permethrin with 222.4 pg/mg.

The table below summarizes statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	3	0,5	0	0	0	1	1
Number of detected pesticide(s)	1	0,3	0	0	0	1	1
Number of quantified pesticide(s)	2	0,2	0	0	0	0	1
Max. quantified concentration (pg/mg)	222.4	11.2	-	-	-	-	26.3
Sum of quantified pesticide (pg/mg)	222.4	11.4	-	-	-	-	26.3

The highest number of pesticides in hair was 3 and 1 sample have 3 pesticides residues.

More than one sample out of four (44.1%) contains at least one pesticide residue (P75 = 1) and one sample out of ten contains at least one quantified pesticide residue (P90 = 1).

9.1.2. Results for North Rhine-Westphalia (Germany)

A total of 26 volunteers out of 34 are living in North Rhine-Westphalia (Nordrhein-Westfalen, NRW), the most populated Lander of Germany. Synthesis of the results obtained for that area is presented in this paragraph and compared with results obtained for Germany.

Results showed presence of pesticides residues in 46.2% of the samples and 7 pesticides were detected.

The table below summarizes for each chemical the occurrence (number of sample with pesticide residues divided by total number of sample) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

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Compounds	Germany		North Rhine-Westphalia	
	Occurrence %	Maximum Conc. (pg/mg)	Occurrence %	Maximum Conc. (pg/mg)
Chlorpyrifos-ethyl	11.8%	28.4	7.7%	< LQ
Chlorpyrifos-methyl	2.9%	21.5	3.8%	21.5
Fipronil	17.6%	47.4	19.2%	47.4
Pendimethalin	2.9%	< LQ	3.8%	< LQ
Permethrin	2.9%	222.4	3.8%	222.4
Propiconazole	11.8%	< LQ	7.7%	< LQ
Pyrimethanil	2.9%	4.9	0.0%	-
Tebuconazole	2.9%	< LQ	3.8%	< LQ

Green color indicates lower level in NRW area
Red color indicates higher level in NRW area

One pesticide was found with occurrence higher than 10.0%: fipronil (insecticide, 19.2%) with a maximum concentration of 47.4 pg/mg.

For all pesticides, highest concentration was found for permethrin with 222.4 pg/mg.

The table below summarizes statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

	Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Germany	Number of detected & quantified pesticide(s)	3	0,5	0	0	0	1	1
	Number of detected pesticide(s)	1	0,3	0	0	0	1	1
	Number of quantified pesticide(s)	2	0,2	0	0	0	0	1
	Max. quantified concentration (pg/mg)	222.4	11.2	-	-	-	-	26.3
	Sum of quantified pesticides (pg/mg)	222.4	11.4	-	-	-	-	26.3
North Rhine-Westphalia	Number of detected & quantified pesticide(s)	2	0,5	0	0	0	1	1
	Number of detected pesticide(s)	1	0,3	0	0	0	1	1
	Number of quantified pesticide(s)	1	0,2	0	0	0	0	1
	Max. quantified concentration (pg/mg)	222,4	12,3	-	-	-	-	18,5
	Sum of quantified pesticides (pg/mg)	222,4	12,3	-	-	-	-	18,5

Green color indicates lower level in NRW area
Red color indicates higher level in NRW area

The highest number of pesticides in hair was 2 and 1 sample have 2 pesticides residues.

More than one sample out of four (46.2%) contains at least one pesticide residue (P75 = 1) and one sample out of ten contains at least one quantified pesticide residue (P90 = 1).

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9.2. Results synthesis for Denmark

A total of 26 hair samples from Danish volunteers were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 50.0% of the samples and 4 pesticides were detected.

The table below summarises for each chemical the occurrence (number of sample with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

Compounds	Occurrence %	Maximum Conc. (pg/mg)
Chlorpyrifos-methyl	3.8%	20.7
Fipronil	23.1%	51.6
Permethrin	19.2%	150.0
Propiconazole	19.2%	21.4

Three pesticides were found with occurrence higher than 10.0%: fipronil (insecticide, 23.1%), permethrin (insecticide, 19.2%) and propiconazole (fungicide, 19.2%).

For all pesticides, highest concentration was found for permethrin with 150.0 pg/mg.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	3	0.7	0	0	1	1	2
Number of detected pesticide(s)	2	0.3	0	0	0	0	1
Number of quantified pesticide(s)	1	0.3	0	0	0	1	1
Max. quantified concentration (pg/mg)	48.1	13.7	-	-	-	17.1	34.8
Sum of quantified pesticides (pg/mg)	48.1	13.7	-	-	-	17.1	34.8

The highest number of pesticides in hair was 3 and 1 sample have 3 pesticides residues.

One sample out of two (50.0%) contains at least one pesticide residue (P50 = 1), one sample out of ten contains at least 2 pesticide residues (P90 = 2) and one sample out of four contains at least one quantified pesticide residue (P75 = 1).

9.3. Results synthesis for Italy

A total of 24 hair samples from Italian volunteers were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 66.7% of the samples and 8 pesticides were detected.

The table below summarises for each chemical the occurrence (number of sample with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

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Compounds	Occurrence %	Maximum Conc. (pg/mg)
Chlorpyrifos-ethyl	16.7%	< LQ
Dimethomorph	4.2%	8.1
Diuron	4.2%	13.9
Fipronil	45.8%	831.1
Pendimethalin	12.5%	< LQ
Permethrin	25.0%	818.3
Propiconazole	20.8%	< LQ
Tebuconazole	4.2%	< LQ

Five pesticides were found with occurrence higher than 10.0%: chlorpyrifos-ethyl (insecticide, 16.7%), fipronil (insecticide, 45.8%), pendimethaline (herbicide, 12.5%), permethrin (insecticide, 25.0%) and propiconazole (fungicide, 20.8%).

For all pesticides, highest concentrations were found for fipronil with 831.1 pg/mg and permethrin with 818.3 pg/mg.

The table below summarizes the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	3	1.3	0	0	2	2	3
Number of detected pesticide(s)	2	0.8	0	0	1	1	2
Number of quantified pesticide(s)	2	0.6	0	0	0	1	2
Max. quantified concentration (pg/mg)	831.1	93.2	-	-	-	16,0	240,3
Sum of quantified pesticides (pg/mg)	1378.9	121.6	-	-	-	21,1	319,3

The highest number of pesticides in hair was 3 and 1 sample have 3 pesticide residues.

One sample out of two contains at least two pesticide residues (P50 = 2) and one sample out of two contains at least one quantified pesticide residue (P75 = 1).

9.4. Results synthesis for the United Kingdom (Wales)

A total of 13 hair samples from Welsh volunteers were analyzed for 30 pesticides residues. Results showed presence of pesticide residues in 84.6% of the samples and 6 pesticides were detected.

The table below summarises for each chemical the occurrence (number of sample with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

2, rue de la Durance – EUROPARC - 67100 STRASBOURG – Tél. 03.69.61.46.00 – info@kudzuscience.com

Compounds	Occurrence %	Maximum Conc. (pg/mg)
Diuron	7.7%	< LQ
Fenamidone	7.7%	< LQ
Fipronil	69.2%	1122.1
Permethrin	15.4%	1075.8
Propiconazole	7.7%	< LQ
Pyrimethanil	23.1%	8.5

Three pesticides were found with occurrence higher than 10.0%: fipronil (insecticide, 69.2%), permethrin (insecticide, 15.4%) and pyrimethanil (fungicide, 23.1%).

For all pesticides, highest concentrations were found for fipronil with 1122.1 pg/mg and permethrin with 1075.8 pg/mg.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	2	1.3	0	1	1	2	2
Number of detected pesticide(s)	2	0.3	0	0	0	0	1
Number of quantified pesticide(s)	2	1.0	0	0	1	2	2
Max. quantified concentration (pg/mg)	1122.1	243.1	-	-	8.5	266.8	940.8
Sum of quantified pesticides (pg/mg)	1143.5	253.9	-	-	12.4	321.9	981.2

The highest number of pesticides in hair was 2 and 6 sample have 2 pesticide residues.

Three samples out of four contain at least one pesticide residue (P25 = 1), one sample out of two contains at least one quantified pesticide residue (P50 = 1) and one sample out of four contains 2 quantified pesticides (P75 = 2).

9.5. Results synthesis for France

A total of 25 hair samples from French volunteers were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 64.0% of the samples and 8 pesticides were detected.

The table below summarises for each chemical the occurrence (number of sample with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

2, rue de la Durance – EUROPARC - 67100 STRASBOURG – Tél. 03.69.61.46.00 – info@kudzuscience.com

Compounds	Occurrence %	Maximum Conc. (pg/mg)
Chlorpyrifos-ethyl	8.0%	101.1
Diuron	4.0%	< LQ
Fipronil	24.0%	54.4
Isoproturon	4.0%	4.1
Myclobutanil	4.0%	< LQ
Permethrin	36.0%	3941.9
Propiconazole	8.0%	< LQ
Pyrimethanil	4.0%	22.7

Two pesticides were found with occurrence higher than 10.0%: fipronil (insecticide, 24.0%) and permethrin (insecticide, 36.0%).

For all pesticides, highest concentration was found for permethrin with 3941.9 pg/mg.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	3	0.7	0	0	1	1	2
Number of detected pesticide(s)	2	0.4	0	0	0	1	1
Number of quantified pesticide(s)	2	0.3	0	0	0	1	1
Max. quantified concentration (pg/mg)	3941.9	175.3	-	-	-	17.5	82.4
Sum of quantified pesticides (pg/mg)	3941.9	175.4	-	-	-	18.7	82.4

The highest number of pesticides in hair was 3 and 1 sample have 3 pesticides residues.

More than one sample out of two (64.0%) contains at least one pesticide residue (P50 = 1), one sample out of ten contains at least 2 pesticide residues and one sample out of four contains at least one quantified pesticides (P75 = 1).

9.6. Results synthesis for Belgium

A total of 26 hair samples from Belgian volunteers were analysed for 30 pesticides residues. Results showed presence of pesticide residues in 69.2% of the samples and 11 pesticides were detected.

The table below summarises for each chemical the occurrence (number of samples with pesticide residues divided by total number of samples) and the maximum concentration measured (in pg/mg). Only detected or quantified pesticides are presented.

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Compounds	Occurrence %	Maximum Conc. (pg/mg)
Bifenthrin	3.8%	< LQ
Chlorpyrifos-ethyl	19.2%	12.9
Diuron	7.7%	< LQ
Fipronil	23.1%	13.4
Iprovalicarb	3.8%	< LQ
Isoproturon	3.8%	6.6
Pendimethalin	11.5%	< LQ
Permethrin	19.2%	< LQ
Propiconazole	42.3%	54.2
Pyrimethanil	11.5%	17.3
Tebuconazole	7.7%	7.8

Six pesticides were found with occurrence higher than 10.0%: chlorpyrifos-ethyl (insecticide, 19.2%), fipronil (insecticide, 23.1%), pendimethaline (herbicide, 11.5%), permethrin (insecticide, 19.2%), propiconazole (fungicide, 42.3%) and pyrimethanil (fungicide, 11.5%).

For all pesticides, highest concentration was found for propiconazole with 54.2 pg/mg.

The table below summarises the statistical information about the number of detected and quantified pesticides, and the quantity measured: maximum, mean, 10 percentile, 25 percentile, median (50 percentile), 75 percentile and 90 percentile.

Parameter	Max.	Mean	P10	P25	P50 (Median)	P75	P90
Number of detected & quantified pesticide(s)	4	1.5	0	0	1	2	4
Number of detected pesticide(s)	4	1.0	0	0	1	2	3
Number of quantified pesticide(s)	2	0.5	0	0	0	1	2
Max. quantified concentration (pg/mg)	54.2	6.6	-	-	-	7.5	17.8
Sum of quantified pesticides (pg/mg)	71.5	7.8	-	-	-	7.5	21.1

The highest number of pesticides in hair was 4 and 4 samples have 4 pesticide residues.

One sample out of two contains at least one detected pesticide residue (P50 = 1), one sample out of four contains at least 2 pesticide residues and one sample out of four contains at least one quantified pesticides (P75 = 1).

10.Origins of pesticides with highest occurrence

Use of pesticides with high occurrence in hair is commented below:

- Chlorpyrifos-ethyl (or chlorpyrifos) is an insecticide authorised in agriculture[1] in the EU[2]. It is not authorised as biocide in the EU[3] and uncommon for domestic use. It is commonly found in food[4,5] and

[1] http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.selection&language=EN
[2] Except in Denmark, Finland, Germany, Ireland, Latvia, Lithuania, Slovenia, Sweden
[3] https://echa.europa.eu/information-on-chemicals/biocidal-active-substances
[4] The 2016 European Union report on pesticide residues in food, EFSA Journal, 2018

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therefore human exposure is expected to occur through food consumption and/or contamination of environment and indoor environment. Chlorpyrifos is one of the five endocrine disruptive pesticides in food produced in the EU[6] - in particular in, rice, cereal products, fish, dairy products, and drinking water.

- Fipronil is an insecticide commonly used for veterinary and domestic purposes. It is registered as biocide authorised in the EU[3]. It is not approved in the EU for agriculture[1] use since 2017. Therefore human exposure is expected to occur through domestic use: pet treatment, contact with treated pet, bug treatment and/or contamination of indoor environment.
- Permethrin is an insecticide commonly used as wood preservative and for veterinary and domestic purposes. It is registered as a biocide [7]authorised in the EU. It is not approved in the EU for agriculture[8] use since 2000. Therefore human exposure is expected to occur through domestic use: pet treatment, contact with treated pet, bug treatment and/or contamination of indoor environment.
- Propiconazole is a fungicide authorised in the EU for agriculture purposes. Its use is uncommon for domestic purpose. It is commonly found in food[1,2] and therefore human exposure is expected to occur through food consumption and/or contamination of environment and indoor environment.

11. Toxicological information

Toxicological information is provided for pesticides with highest occurrence: chlorpyrifos-ethyl, fipronil, permethrin and propiconazole.

For each pesticide, we present its usual name, chemical family, category, common commercial brand names, major manufacturers, common uses, but also health risks associated with chronic or acute exposure when the toxicological information is available.

We draw your attention to the fact that the presence of pesticides in your hair does not necessarily imply that you will develop the pathologies described here, which are only given for information.

Appearance of pathologies by exposure to pesticides depends on multiple factors including quantity and duration of exposure as well as a person's sensitivity.

In general, if you have any health symptoms, we recommend you consult a doctor.

11.1. Definitions

- Toxicity: Determined from the Lethal Dose 50 (LD50), for which 50% of the population dies. It allows measuring the toxicity: low, moderate or strong.
- Carcinogen: Property of a substance to promote the development of cancer cells.
- Mutagen: Property of a substance to induce genetic mutations (DNA modification).
- Reprotoxic: Property of a substance to alter reproductive abilities, embryonic and fetal development.
- Neurotoxic: Property of a substance to alter the functioning of nerve cells.

[5] The 2015 European Union report on pesticide residues in food, EFSA Journal, 2017
[6] PAN Europe, Endocrine Disrupting Pesticides in European Food, October 2017, https://www.pan-europe.info/sites/pan-europe.info/files/Report_ED%20pesticides%20in%20EU%20food_PAN%20Europe.pdf
[7] https://echa.europa.eu/information-on-chemicals/biocidal-active-substances
[8] http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=activesubstance.selection&language=EN

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- Endocrine disruptor: Property of a substance to interact with or modify the hormonal messages of the body.
- Low doses effect: The effects of acute intoxication (high dose and short time) are relatively well documented. However, toxicological data on the effects of chronic (repeated) exposure at low doses are rarely available. This is the case of endocrine disruptors for which the low doses effect is greater than for higher doses.

11.2. Sources of toxicological data presented

* Information on toxicology and use of pesticides was obtained with data from:

- Pesticides Action Network (PAN) : www.pesticideinfo.org/
- Pesticides Properties DataBase (PPDB) : www.sitem.herts.ac.uk/aeru/footprint/fr/index.htm
- Observatoire des résidus de pesticides (ORP) : www.observatoire-pesticides.gouv.fr/
- Agritox : www.agritox.anses.fr/
- E-Phy : http://ephy.anses.fr/
- U.S. Environmental Protection Agency (US EPA) :www.epa.gov
- International Agency for Research on Cancer (IARC): http://www.iarc.fr/
- European Food Safety Authority (EFSA) : www.efsa.europa.eu
- INERIS : www.ineris.fr
- World Health Organization (WHO): www.who.int/
- The Endocrine Disruption Exchange (TEDX) : www.endocrinedisruption.org

CHLORPYRIFOS-ETHYL (or CHLORPYRIFOS)

Category: Insecticide

Chemical family: Organophosphate

Trade names (non-exhaustive list): Aludor, Baygon, Carponex, Cazopyre, Cazorla C-48, Chlorplus, Clearifos 5G, Cuzco, Dorvert, Dune, Dursban, Dursbel, Geotion, Nelpon 480, Nurelle, Pyriban 48 EC, Pyrinex ME, Pyristar, Tumba, Verde Chlorpyriphos, Versar 550, Viphos 48, Ballad, Cyren, Equity, Govern, …

Manufacturers (non-exhaustive list): Agriphar SA, Bayer, Gritche Coopérative, Cazorla Salip Daniel, Saga SAS, Makhteshim Agan France, Dow Agrosciences SAS, Endymis c/o Triasem, Rivale, Verde-Bio SRL, Headland, S.C. Johnson & Son, Scotts, SumiAgro, …

Use: Chlorpyrifos is an insecticide widely used to control arthropods (mites, termites, cockroaches, flies, mosquitoes, ticks, fleas …) in the indoor and outdoor environment of homes.

In homes, chlorpyrifos is mainly present in repellent treatments applied to dogs (collars, shampoos and flea sprays) and in wood treatment products against termites and cockroaches. In agriculture, this insecticide is used as a treatment on fruit trees and shrubs (apricot trees, peach trees, pear trees, apple trees, vines), cereal crops and vegetable crops (artichokes, aubergines, cabbages, turnips, tomatoes, onions, potatoes, leeks …).

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The use of this substance is authorised in the majority of the countries of the European Union and in the United States.

Toxicological data:

- Acceptable Daily Intake (ADI): 0.01 mg/kg of body weight/day (PPDB).
- Acute Toxicity: Moderate for oral and respiratory route of exposure (PAN). Very toxic if swallowed (PPDB).
- Symptoms of exposure: Eye and skin irritation, skin sensitization and visual disturbance in case of exposure by contact (PPDB). Convulsions, vertigo, excessive sweating and salivation, muscle cramps in case of inhalation. In addition to these symptoms, ingestion exposure may result in abdominal cramps, diarrhea, nausea, vomiting and loss of consciousness (PAN).
- Carcinogen: No (PAN, PPDB, US EPA).
- Neurotoxic: Yes (PPDB). Organophosphate are well known acetylcholinesterase inhibitor, acetylcholine (Ach) is a neurotransmitter that play essential role in central nervous system.
- Toxic Effect on Development & Reproduction: Yes (PPDB), Possible (PAN). A study published in 2012 shows that chlorpyrifos is responsible for important abnormalities in the brain development of children whose mothers were exposed during pregnancy in urban areas (treatment of gardens, parks and golf courses)[9].
- Endocrine disruptor: Yes (TEDX), Suspected (PAN), Possible (PPDB). a significant body of scientific evidence illustrates the endocrine disrupting characteristics of chlorpyrifos[10]. According to animal studies, prenatal and postnatal exposure may influence the thyroid function. A mother's exposure to chlorpyrifos may influence the *in utero* environment of the foetus and affect the functioning of the thyroid later in life[11][12]

FIPRONIL

Category: Insecticide

Chemical family: Organochloride and Phenylpyrazole

Trade names (non-exhaustive list): Frontline*, Fiprospot*, Tick-Puss*, Flevox*, Goliath Gel, Regent 500FS, Standak 250 FS, Cosmos 250 FS, Cosmos 500 FS, Mundial, Sofion, Diffuseur Fipro Habitat* …

** Formulations authorised for domestic use (indoor or in gardens).*

[9] *V.A. RAUH et al. (2012) Brain anomalies in children exposed prenatally to a common organophosphate, Proceedings of the National Academy of Sciences of the United States of America*

[10] Venerosi, A, L. Ricceri, S. Tait and G. Calamandrei. "Sex dimorphic behaviors as markers of neuroendocrine disruption by environmental chemicals: the case of chlorpyrifos". NeuroToxicology, August 2012. Volume 2012, pp.1420-1426.

[11] Jain, Ram B. "Association between thyroid function and urinary levels of 3,5,6-trichloro-2-pyridinol: data from NHANES 2007-2008". Environ Sci Pollut Res, November 2016

[12] Nishi, Kumari and Swarndeep Singh Hundal. "Chlorpyrifos induced toxicity in reproductive organs of female Wistar rats". Food and Chemical Toxicology, October 2013. Volume 61, pp. 732 - 738.

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Manufacturers (non-exhaustive list): Bayer, BASF, Beaphar, Biocanina, Ceva, Certis, Kingtai, Chemicals, Merial, Vetoquinol …

Use: Use of Fipronil is authorised as a biocide in some European Union countries such as France, Belgium, Bulgaria, Cyprus, Czech Republic, Spain, Hungary, Romania and Slovakia. This active substance is found in flea and tick treatment preparations in dogs and cats for veterinary and domestic use. It is also used against cockroaches and grasshoppers.

Toxicological data:

- Acceptable Daily Intake (ADI): 0.0002 mg/kg of body weight /day (PAN)
- Acute Toxicity: Medium for oral, dermal and respiratory routes (AgriTox). Specific toxicity for some targeted organ.
- Symptoms of exposure: Irritating to the eyes.
- Carcinogen: Possible (PPDB, EPA and PAN).
- Mutagen: Data not available (PPDB)
- Neurotoxic: Yes (PPDB)
- Toxic Effect on Development & Reproduction: Possible (PPDB), Data not available (PAN)
- Endocrine disruptor: Yes (TEDX), possible (PPDB), suspected (PAN).

PERMETHRIN

Category: Insecticide

Chemical family: Pyrethroid

Trade names (non-exhaustive list): Adventix dog*, Raid against bedbugs*, Diffuser Pucid'habitat*, Pulvex*, Eco-logis Spray*…

** Formulations authorised for domestic use (E-Phy)*

Manufacturers (non-exhaustive list): S.C.Johson, Bayer, Biocanina, MSD, Virbac, Ceva, Vetoquinol, Beaphar…

Use: Permethrin has been used against a large number of insects, including insect parasites (cockroaches, horseflies, fleas, etc.) in nut/fruit trees, vegetables, cotton and mushroom crops. Since 2000, the agricultural use of permethrin is no longer authorised in Europe. On the other hand, this substance is found in repellent insecticidal formulations for domestic and veterinary use.

Toxicological data:

- Acceptable Daily Intake (ADI): 0.05 mg/kg of body weight /day (PPDB)
- Acute Toxicity: Moderately toxic (PPDB).

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- Symptoms of exposure: Irritation for the skin (redness, burning sensation), eyes and respiratory tracts (cough). Risk of diarrhea and vomiting if swallowed.
- Carcinogen: Likely (PPDB, EPA).
- Mutagen: No (PPDB)
- Neurotoxic: Yes (PPDB)
- Toxic Effect on Development & Reproduction: Yes (PPDB)
- Endocrine disruptor: Yes (TEDX, PPDB).

PROPICONAZOLE

Category: Fungicide

Chemical family: Triazole

Trade names (non-exhaustive list): Alto X-tra, Barclay bolt XL, Bravo Ultra, Bumper, Cabestor, Cosinus, E A Maladies des rosiers*, Inspire, Menara, Polyflor fongicide rosiers*, Polyflor jardin*, Quadrimex maladies des rosiers*, Ramena, Simbo, Taspa, Tiro, Zenit …

** Formulations authorised for domestic use (indoor or in gardens).*

Manufacturers (non-exhaustive list): Syngenta Agro, Barclay Chemical, Makhteshim Agan france, Bayer, Caussade,Novamex, Top SA …

Use: Propiconazole is mainly applied to seeds before germination (corn, wild rice, almonds, oats …) to fight fungi and molds.

Toxicological data:

- Acceptable Daily Intake (ADI): 0.04 mg/kg of body weight /day (PPDB).
- Symptoms of exposure: Irritating to the skin and eyes.
- Acute Toxicity: Medium (PAN).
- Carcinogen: Possible (PAN, PPDB, EPA).
- Neurotoxic: Data not available (PPDB).
- Mutagen: Data not available (PPDB).
- Toxic Effect on Development & Reproduction: Yes (PAN).
- Endocrine disruptor: Yes (TEDX), Suspected (PAN).

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12. Conclusion

Hair samples (148) from 6 EU countries: Germany, Denmark, United Kingdom (Wales), Italy, France and Belgium were analysed for a selection 30 pesticides.

Results obtained in this study showed that the European population is exposed to many of the pesticides tested for.

Exposure to the studied pesticides is variable among the investigated countries and age categories, in terms of occurrence and contamination levels.

More than 60% of samples contain at least one pesticide residue and the most detected pesticides were insecticides (fipronil 29.7%, permethrin 18.9% and chlorpyrifos-ethyl 10.1%) and the fungicide (propiconazole 18.9%).

Highest pesticide concentrations in hair were observed for permethrin (3941.9 pg/mg) and fipronil (1122.1 pg/mg).

13. Appendix: Sample information and individual analysis results per country

For each participating country, sample information and individual hair analysis results are presented in the following paragraphs.

Legends used are:

- N.D.: The compound was not detected (concentration below Limit of Detection LD of the instrument)
- <LQ: The compound was detected (concentration higher than Limit of Detection LD of the instrument) but with concentration below the Limit of Quantification LQ of the analytical method
- Concentration values (higher than Limit of Quantification LQ of the analytical method) are given in pg/mg of hair (picogram per milligram of hair).

For information: 1 mg = 1000 µg (microgram), 1 µg = 1000 ng (nanogram) and 1 ng = 1000 pg (picogram).

The presence of pesticides in hair may result either from a significant and occasional exposure (known as acute exposure) or from exposure to low and regular doses (known as chronic exposure), or a combination of both.

Pesticide hair concentration (pg/mg (ppb)) is only given for information as it is not possible to link hair concentration to known level of exposure. However, a relationship between hair concentration and exposure level has been found for rats[13] and hair concentration can reasonably be used as classification tool for comparison of human exposure to pesticides.

It is important to draw your attention to the fact that there is currently no reference scale for linking a certain measured pesticide concentration in hair to a level of risk to health. However, taking into account the mechanisms of action at low doses and the effects of pesticide cocktails (increased toxicity from the combination

[13] B.M.R Appenzeller *et al.*, Hair analysis for the biomonitoring of pesticide exposure: comparison with blood and urine in a rat model. Archives of Toxicology, August 2017, Volume 91, Issue 8, pp 2813–2825

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of multiple pesticides) observed in scientific studies[14,15], it is wise to consider that any pesticide presence in the organism, whatever the concentration, may have some health effects.

Acceptable Daily Intake (ADI) value is given in mg/kg of body weight and refers to a substance dose that can be absorbed each day without adverse health effects. It doesn't account for endocrine disruption effects. ADI values cannot be compared to pesticide levels found in hair.

[14] Metabolic Effects of a Chronic Dietary Exposure to a Low-Dose Pesticide Cocktail in Mice: Sexual Dimorphism and Role of the Constitutive Androstane Receptor, C. Lukowicz *et al.*. Environmental Health Perspectives, 2018.
[15] Genotoxicity of pesticide mixtures present in the diet of the french population, V. Graillot *et al.*, Environmental and Molecular Mutagenesis 53:173-184, 2012.

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13.1. Germany

A total of 34 samples from German volunteers were analysed.

13.1.1. Samples information for Germany

The following tables summarise the samples information for Germany.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-fkfcps	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-9pj900	31/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-3dukir	31/07/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-cheoya	08/08/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-rofbem	17/08/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-2eziyx	17/08/2018	22/07/2018	1	07/06/2018	to	07/07/2018
GP-0718-b3sx2c	17/08/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-7uc7qh	24/08/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-fp84g7	24/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-subr7u	31/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-pphd1j	31/07/2018	22/07/2018	2	08/05/2018	to	07/07/2018
GP-0718-awgy3u	31/07/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-u1n05g	24/07/2018	12/07/2018	3	29/03/2018	to	27/06/2018
GP-0718-z91u0f	24/07/2018	13/07/2018	3	30/03/2018	to	28/06/2018
GP-0718-1n6wp7	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-w05bnl	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-yvhgyt	31/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-chptuz	02/08/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-faianp	22/08/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-0d0z09	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-v3owjh	31/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-lztdn5	24/07/2018	12/07/2018	3	29/03/2018	to	27/06/2018
GP-0718-a3b4ia	31/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-3rgvhx	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-53ogex	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-kdoljl	09/08/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-lzhgoy	09/08/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-xsmwxz	09/08/2018	26/07/2018	3	12/04/2018	to	11/07/2018
GP-0718-j8z2yb	17/09/2018	07/09/2018	2	24/06/2018	to	23/08/2018
GP-0718-yodjfi	31/07/2018	20/07/2018	2	06/05/2018	to	05/07/2018
GP-0718-ofezef	26/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-go3b57	09/08/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-1mw4dj	09/08/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-grpstq	09/08/2018	22/07/2018	3	08/04/2018	to	07/07/2018

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ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-fkfcps	0-10	NO	NO	NO	NO	Organic
GP-0718-9pj900	0-10	NO	NO	NO	NO	NO
GP-0718-3dukir	0-10	NO	NO	NO	NO	Vegetarian
GP-0718-cheoya	0-10	NO	NO	NO	NO	NO
GP-0718-rofbem	0-10	NO	NO	-	NO	NO
GP-0718-2eziyx	0-10	NO	NO	-	NO	Vegetarian
GP-0718-b3sx2c	0-10	YES (Fields)	NO	YES	NO	Vegetarian
GP-0718-7uc7qh	0-10	YES (Fields)	NO	-	NO	NO
GP-0718-fp84g7	10-20	NO	NO	-	NO	Vegetarian
GP-0718-subr7u	10-20	NO	NO	NO	NO	NO
GP-0718-pphd1j	10-20	YES (Fields)	NO	NO	NO	NO
GP-0718-awgy3u	10-20	YES (Fields)	NO	NO	NO	Vegetarian
GP-0718-u1n05g	20-40	NO	NO	NO	NO	Vegetarian
GP-0718-z91u0f	20-40	NO	NO	NO	NO	Vegetarian
GP-0718-1n6wp7	20-40	NO	NO	-	YES (Insecticide)	NO
GP-0718-w05bnl	20-40	NO	NO	NO	NO	Vegan
GP-0718-yvhgyt	20-40	YES (Fields)	NO	NO	NO	Vegetarian
GP-0718-chptuz	20-40	NO	NO	NO	NO	Vegetarian
GP-0718-faianp	20-40	YES (Fields)	NO	YES	NO	NO
GP-0718-0d0z09	40-60	NO	NO	NO	NO	Organic
GP-0718-v3owjh	40-60	YES (-)	NO	NO	NO	Organic
GP-0718-lztdn5	40-60	YES (Fields)	YES	NO	NO	NO
GP-0718-a3b4ia	40-60	YES (Fields)	NO	YES	NO	NO
GP-0718-3rgvhx	40-60	YES (Fields)	NO	-	NO	Pescetarian
GP-0718-53ogex	40-60	YES (Meadow/corn)	NO	NO	NO	NO
GP-0718-kdoljl	40-60	NO	NO	NO	NO	Organic
GP-0718-lzhgoy	40-60	NO	NO	NO	NO	NO
GP-0718-xsmwxz	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-j8z2yb	40-60	YES (Fields/Orchards)	NO	NO	NO	Vegetarian
GP-0718-yodjfi	60+	YES (Fields)	NO	-	NO	NO
GP-0718-ofezef	60+	YES (Fields/Orchards)	-	YES	NO	NO
GP-0718-go3b57	60+	NO	NO	NO	NO	NO
GP-0718-1mw4dj	60+	YES (Fields)	NO	-	NO	NO
GP-0718-grpstq	60+	YES (Fields/Beetroot)	NO	NO	NO	Vegetarian

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13.1.2. Analysis results for Germany

Individual results for each sample are presented in the tables below.

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-fp84g7	GP-0718-lztdn5	GP-0718-u1n05g	GP-0718-z91u0f
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	< LQ
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	47,4	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	0	0	1
Number detected pesticide(s)		0	0	0	1
Number quantified pesticide(s)		1	0	0	0
Min. quantified concentration (pg/mg)		47,4	-	-	-
Max. quantified concentration (pg/mg)		47,4	-	-	-
Sum of quantified pesticide (pg/mg)		47,4	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-ofezef	GP-0718-0d0z09	GP-0718-1n6wp7	GP-0718-3dukir
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	< LQ	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	222,4	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1	1	0
Number detected pesticide(s)		0	1	0	0
Number quantified pesticide(s)		0	0	1	0
Min. quantified concentration (pg/mg)		-	-	222,4	-
Max. quantified concentration (pg/mg)		-	-	222,4	-
Sum of quantified pesticide (pg/mg)		-	-	222,4	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-3rgvhx	GP-0718-53ogex	GP-0718-9pj900	GP-0718-a3b4ia
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	< LQ	N.D.	N.D.	5,9
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	0	0	1
Number detected pesticide(s)		1	0	0	0
Number quantified pesticide(s)		0	0	0	1
Min. quantified concentration (pg/mg)		-	-	-	5,9
Max. quantified concentration (pg/mg)		-	-	-	5,9
Sum of quantified pesticide (pg/mg)		-	-	-	5,9

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-awgy3u	GP-0718-fkfcps	GP-0718-pphd1j	GP-0718-subr7u
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	< LQ	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1	0	0
Number detected pesticide(s)		0	1	0	0
Number quantified pesticide(s)		0	0	0	0
Min. quantified concentration (pg/mg)		-	-	-	-
Max. quantified concentration (pg/mg)		-	-	-	-
Sum of quantified pesticide (pg/mg)		-	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-v3owjh	GP-0718-w05bnl	GP-0718-yodjfi	GP-0718-yvhgyt
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	28,4	< LQ	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	21,5	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	15,6	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	< LQ	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	2	1	0
Number detected pesticide(s)		1	1	0	0
Number quantified pesticide(s)		1	1	1	0
Min. quantified concentration (pg/mg)		28,4	21,5	15,6	-
Max. quantified concentration (pg/mg)		28,4	21,5	15,6	-
Sum of quantified pesticide (pg/mg)		28,4	21,5	15,6	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-rofbem	GP-0718-faianp	GP-0718-7uc7qh	GP-0718-chptuz
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	0	0	0
Number detected pesticide(s)		0	0	0	0
Number quantified pesticide(s)		0	0	0	0
Min. quantified concentration (pg/mg)		-	-	-	-
Max. quantified concentration (pg/mg)		-	-	-	-
Sum of quantified pesticide (pg/mg)		-	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-cheoya	GP-0718-1mw4dj	GP-0718-go3b57	GP-0718-grpstq
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	< LQ	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	0	0	0
Number detected pesticide(s)		1	0	0	0
Number quantified pesticide(s)		0	0	0	0
Min. quantified concentration (pg/mg)		-	-	-	-
Max. quantified concentration (pg/mg)		-	-	-	-
Sum of quantified pesticide (pg/mg)		-	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-kdoljl	GP-0718-lzhgoy	GP-0718-xsmwxz	GP-0718-2eziyx
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	29,8	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	< LQ	< LQ	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	4,9	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	< LQ	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	3	1	0
Number detected pesticide(s)		1	1	1	0
Number quantified pesticide(s)		0	2	0	0
Min. quantified concentration (pg/mg)		-	4,9	-	-
Max. quantified concentration (pg/mg)		-	29,8	-	-
Sum of quantified pesticide (pg/mg)		-	34,7	-	-

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Compounds	LQ	Results (pg/mg)	
	(pg/mg)	GP-0718-b3sx2c	GP-0718-j8z2yb
Bifenthrin	10,0	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.
Diuron	4,0	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.
Fipronil	4,0	N.D.	6,7
Ioxynil	100,0	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.
Linuron	400,0	N.D.	N.D.
Malathion	40,0	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1
Number detected pesticide(s)		0	0
Number quantified pesticide(s)		0	1
Min. quantified concentration (pg/mg)		-	6,7
Max. quantified concentration (pg/mg)		-	6,7
Sum of quantified pesticide (pg/mg)		-	6,7

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13.2. Results for Denmark

A total of 26 samples from Danish volunteers was analysed.

13.2.1. Samples information for Denmark

The following tables summarise the samples information for Denmark.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-hnivyl	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-8nw7x2	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-tq3a3w	31/07/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-rtwfre	17/09/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-ezhshv	02/08/2018	30/07/2018	3	16/04/2018	to	15/07/2018
GP-0718-lgcqd9	22/08/2018	08/08/2018	3	25/04/2018	to	24/07/2018
GP-0718-wx6yrg	17/09/2018	28/07/2018	3	14/04/2018	to	13/07/2018
GP-0718-x3kmiu	02/08/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-mqx0lu	02/08/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-wv4p5c	31/07/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-cq01yp	17/09/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-gdxnni	17/09/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-ih3ezr	17/09/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-k3kcuz	17/09/2018	26/07/2018	3	12/04/2018	to	11/07/2018
GP-0718-kyuvw4	17/09/2018	30/07/2018	3	16/04/2018	to	15/07/2018
GP-0718-nno2wl	17/09/2018	30/07/2018	3	16/04/2018	to	15/07/2018
GP-0718-tafbh4	17/09/2018	30/07/2018	3	16/04/2018	to	15/07/2018
GP-0718-eaxf16	17/09/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-11jay5	31/07/2018	25/07/2018	3	11/04/2018	to	10/07/2018
GP-0718-gpu7st	31/07/2018	22/07/2018	2	08/05/2018	to	07/07/2018
GP-0718-v5ipf5	02/08/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-840h78	17/09/2018	07/08/2018	3	24/04/2018	to	23/07/2018
GP-0718-vu5zvj	17/09/2018	28/07/2018	3	14/04/2018	to	13/07/2018
GP-0718-yxb5x8	17/09/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-tycu0b	05/09/2018	02/08/2018	3	19/04/2018	to	18/07/2018
GP-0718-gzcpfn	17/09/2018	30/07/2018	3	16/04/2018	to	15/07/2018

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ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-hnivyl	0-10	YES (Fields)	NO	-	NO	NO
GP-0718-8nw7x2	0-10	YES (Fields)	NO	NO	NO	NO
GP-0718-tq3a3w	0-10	YES (Fields)	NO	NO	NO	NO (no lactose, egg white, no peanuts)
GP-0718-rtwfre	0-10	NO	NO	NO	NO	NO
GP-0718-ezhshv	10-20	NO	NO	NO	NO	Vegetarian
GP-0718-lgcqd9	10-20	YES (Fields)	NO	-	NO	NO
GP-0718-wx6yrg	10-20	YES (Fields)	NO	YES	YES (2x/year)	NO
GP-0718-x3kmiu	20-40	NO	NO	-	NO	NO
GP-0718-mqx0lu	20-40	NO	NO	-	NO	Vegetarian
GP-0718-wv4p5c	20-40	YES (Fields)	NO	NO	NO	NO
GP-0718-cq01yp	20-40	NO	NO	NO	NO	NO
GP-0718-gdxnni	20-40	NO	NO	NO	NO	NO
GP-0718-ih3ezr	20-40	NO	NO	NO	NO	NO
GP-0718-k3kcuz	20-40	NO	NO	NO	NO	NO
GP-0718-kyuvw4	20-40	NO	NO	NO	NO	NO
GP-0718-nno2wl	20-40	NO	NO	NO	NO	NO
GP-0718-tafbh4	20-40	NO	NO	NO	-	NO
GP-0718-eaxf16	20-40	YES (Fields)	NO	NO	NO	NO
GP-0718-11jay5	40-60	NO	NO	NO	NO	NO
GP-0718-gpu7st	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-v5ipf5	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-840h78	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-vu5zvj	40-60	YES (Fields)	NO	YES	YES (2x/year)	NO
GP-0718-yxb5x8	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-tycu0b	40-60	YES (Fields/New forest)	YES	YES	YES (Glyphosate)	NO
GP-0718-gzcpfn	60+	NO	NO	NO	NO	NO

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13.2.2. Analysis results for Denmark

Individual results for each sample are presented in the tables below.

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-11jay5	GP-0718-gpu7st	GP-0718-hnivyl	GP-0718-8nw7x2
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	20,7	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	14,6	< LQ	17,9
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	< LQ	< LQ	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	2	3	1
Number detected pesticide(s)		0	1	2	0
Number quantified pesticide(s)		0	1	1	1
Min. quantified concentration (pg/mg)		-	14,6	20,7	17,9
Max. quantified concentration (pg/mg)		-	14,6	20,7	17,9
Sum of quantified pesticide (pg/mg)		-	14,6	20,7	17,9

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-wv4p5c	GP-0718-tq3a3w	GP-0718-v5ipf5	GP-0718-ezhshv
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	< LQ
Propiconazole	20,0	N.D.	21,4	N.D.	< LQ
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1	0	2
Number detected pesticide(s)		0	0	0	2
Number quantified pesticide(s)		0	1	0	0
Min. quantified concentration (pg/mg)		-	21,4	-	-
Max. quantified concentration (pg/mg)		-	21,4	-	-
Sum of quantified pesticide (pg/mg)		-	21,4	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-mqx0lu	GP-0718-x3kmiu	GP-0718-lgcqd9	GP-0718-tycu0b
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	48,1	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	< LQ
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1	0	1
Number detected pesticide(s)		0	0	0	1
Number quantified pesticide(s)		0	1	0	0
Min. quantified concentration (pg/mg)		-	48,1	-	-
Max. quantified concentration (pg/mg)		-	48,1	-	-
Sum of quantified pesticide (pg/mg)		-	48,1	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-840h78	GP-0718-cq01yp	GP-0718-eaxf16	GP-0718-gdxnni
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	< LQ
Propiconazole	20,0	N.D.	N.D.	20,4	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	0	1	1
Number detected pesticide(s)		0	0	0	1
Number quantified pesticide(s)		0	0	1	0
Min. quantified concentration (pg/mg)		-	-	20,4	-
Max. quantified concentration (pg/mg)		-	-	20,4	-
Sum of quantified pesticide (pg/mg)		-	-	20,4	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-gzcpfn	GP-0718-ih3ezr	GP-0718-k3kcuz	GP-0718-kyuvw4
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	150.0	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	0	0	0
Number detected pesticide(s)		0	0	0	0
Number quantified pesticide(s)		1	0	0	0
Min. quantified concentration (pg/mg)		150.0	-	-	-
Max. quantified concentration (pg/mg)		150.0	-	-	-
Sum of quantified pesticide (pg/mg)		150.0	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-nno2wl	GP-0718-rtwfre	GP-0718-tafbh4	GP-0718-vu5zvj
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	10.3
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	< LQ	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	0	1	1
Number detected pesticide(s)		0	0	1	0
Number quantified pesticide(s)		0	0	0	1
Min. quantified concentration (pg/mg)		-	-	-	10,3
Max. quantified concentration (pg/mg)		-	-	-	10,3
Sum of quantified pesticide (pg/mg)		-	-	-	10,3

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Compounds	LQ	Results (pg/mg)	
	(pg/mg)	GP-0718-wx6yrg	GP-0718-yxb5x8
Bifenthrin	10,0	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.
Diuron	4,0	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.
Fipronil	4,0	51,6	N.D.
Ioxynil	100,0	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.
Linuron	400,0	N.D.	N.D.
Malathion	40,0	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.
Number detected & quantified pesticide(s)		1	0
Number detected pesticide(s)		0	0
Number quantified pesticide(s)		1	0
Min. quantified concentration (pg/mg)		51.6	-
Max. quantified concentration (pg/mg)		51.6	-
Sum of quantified pesticide (pg/mg)		51.6	-

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13.3. Results for Italy

A total of 24 samples from Italian volunteers was analysed.

13.3.1. Samples information for Italy

The following tables summarise samples information for Italy.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-8t92x6	27/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-eyl6nb	02/08/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-x6w5hw	02/08/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-1ex7bs	27/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-wre6hs	31/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-5sg41a	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-mdzs5q	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-9vq3br	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-itsmos	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-4whcu1	27/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-apuyll	27/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-rgxfld	31/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-luixmy	17/08/2018	26/07/2018	3	12/04/2018	to	11/07/2018
GP-0718-6if3vb	25/09/2018	12/09/2018	3	30/05/2018	to	28/08/2018
GP-0718-d7n6a0	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-4yfqjr	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-58btok	31/07/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-c37xpe	27/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-va3b7e	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-yrc9dp	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-445bhq	31/07/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-nl8egf	08/08/2018	31/07/2018	3	17/04/2018	to	16/07/2018
GP-0718-x7gwp9	28/08/2018	12/08/2018	3	29/04/2018	to	28/07/2018
GP-0718-ral7q2	28/08/2018	10/08/2018	3	27/04/2018	to	26/07/2018

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ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-8t92x6	0-10	NO	NO	NO	NO	NO
GP-0718-eyl6nb	0-10	NO	NO	NO	NO	NO
GP-0718-x6w5hw	0-10	NO	NO	NO	NO	Vegetarian
GP-0718-1ex7bs	0-10	YES (Fields)	NO	-	NO	NO
GP-0718-wre6hs	0-10	YES (Vineyard/ Olive grove)	NO	NO	NO	NO
GP-0718-5sg41a	10-20	NO	NO	-	NO	NO
GP-0718-mdzs5q	10-20	NO	NO	-	NO	NO
GP-0718-9vq3br	10-20	NO	NO	-	NO	NO
GP-0718-itsmos	20-40	NO	NO	-	NO	Mediterranean
GP-0718-4whcu1	20-40	YES (Fields)	YES	NO	NO	NO
GP-0718-apuyll	20-40	YES (Fields)	YES	NO	NO	NO
GP-0718-rgxfld	20-40	YES (Fields)	NO	NO	NO	NO (Garden)
GP-0718-luixmy	20-40	YES (Fields)	YES	NO	NO	NO
GP-0718-6if3vb	20-40	YES (Tomatoes)	NO	NO	NO	NO
GP-0718-d7n6a0	40-60	NO	NO	-	NO	Pescetarian
GP-0718-4yfqjr	40-60	NO	NO	-	NO	Vegetarian
GP-0718-58btok	40-60	YES (Vineyard/Olive grove)	NO	YES	NO	Vegetarian
GP-0718-c37xpe	40-60	YES (Vineyard/Orchard/ Olive grove)	NO	-	NO	NO
GP-0718-va3b7e	60+	YES (Fields/Vineyard/ Orchard)	NO	-	NO	NO
GP-0718-yrc9dp	60+	YES (Fields/Vineyard/ Orchard)	NO	-	NO	NO
GP-0718-445bhq	60+	YES (Vineyard/Olive grove)	NO	YES	NO	Vegetarian
GP-0718-nl8egf	60+	NO	NO	-	NO	NO
GP-0718-x7gwp9	60+	NO	NO	NO	NO	Vegetarian
GP-0718-ral7q2	60+	YES (Vineyard/Orchard)	NO	NO	NO	NO

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13.3.2. Analysis results for Italy

Individual results for each sample are presented in the tables below.

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-va3b7e	GP-0718-yrc9dp	GP-0718-1ex7bs	GP-0718-4whcu1
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	4,8	N.D.	13,6	14,4
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	< LQ	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	< LQ	< LQ
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	< LQ
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	0	2	3
Number detected pesticide(s)		1	0	1	2
Number quantified pesticide(s)		1	0	1	1
Min. quantified concentration (pg/mg)		4,8	-	13,6	14,4
Max. quantified concentration (pg/mg)		4,8	-	13,6	14,4
Sum of quantified pesticide (pg/mg)		4,8	-	13,6	14,4

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-8t92x6	GP-0718-apuyII	GP-0718-c37xpe	GP-0718-445bhq
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	< LQ	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	20,8	N.D.	831,1
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	< LQ	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	< LQ
Propiconazole	20,0	N.D.	< LQ	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	2	0	2
Number detected pesticide(s)		2	1	0	1
Number quantified pesticide(s)		0	1	0	1
Min. quantified concentration (pg/mg)		0,0	20,8	-	831,1
Max. quantified concentration (pg/mg)		0,0	20,8	-	831,1
Sum of quantified pesticide (pg/mg)		0,0	20,8	-	831,1

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-4yfqjr	GP-0718-58btok	GP-0718-5sg41a	GP-0718-9vq3br
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	< LQ	< LQ
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	560,6	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	818,3	N.D.	N.D.
Propiconazole	20,0	N.D.	< LQ	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	3	1	1
Number detected pesticide(s)		0	1	1	1
Number quantified pesticide(s)		0	2	0	0
Min. quantified concentration (pg/mg)		-	560,6	-	-
Max. quantified concentration (pg/mg)		-	818,3	-	-
Sum of quantified pesticide (pg/mg)		-	1378,9	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-d7n6a0	GP-0718-itsmos	GP-0718-mdzs5q	GP-0718-rgxfld
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	< LQ	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	112,8	5,9
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	< LQ	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	249,0	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	2	2	1
Number detected pesticide(s)		0	2	0	0
Number quantified pesticide(s)		0	0	2	1
Min. quantified concentration (pg/mg)		-	-	112,8	5,9
Max. quantified concentration (pg/mg)		-	-	249,0	5,9
Sum of quantified pesticide (pg/mg)		-	-	361,9	5,9

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-wre6hs	GP-0718-eyl6nb	GP-0718-x6w5hw	GP-0718-nl8egf
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	< LQ	44,9	220,1	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	< LQ	N.D.	< LQ	N.D.
Propiconazole	20,0	N.D.	< LQ	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	2	2	0
Number detected pesticide(s)		2	1	1	0
Number quantified pesticide(s)		0	1	1	0
Min. quantified concentration (pg/mg)		-	44,9	220,1	-
Max. quantified concentration (pg/mg)		-	44,9	220,1	-
Sum of quantified pesticide (pg/mg)		-	44,9	220,1	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-luixmy	GP-0718-ral7q2	GP-0718-x7gwp9	GP-0718-6if3vb
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	8,1	N.D.	N.D.	N.D.
Diuron	4,0	13,9	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	< LQ	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		3	0	0	0
Number detected pesticide(s)		1	0	0	0
Number quantified pesticide(s)		2	0	0	0
Min. quantified concentration (pg/mg)		8,1	-	-	-
Max. quantified concentration (pg/mg)		13,9	-	-	-
Sum of quantified pesticide (pg/mg)		22,0	-	-	-

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13.4. United Kingdom (Wales)

A total of 13 samples from Welsh volunteers was analysed.

13.4.1. Samples information for United Kingdom (Wales)

The following tables summarise samples information for Italy.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-4vjr91	26/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-h1boch	27/07/2018	18/07/2018	2	04/05/2018	to	03/07/2018
GP-0718-uz62ps	26/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-j4rp84	31/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-0boej7	26/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-04ersz	21/08/2018	10/08/2018	3	27/04/2018	to	26/07/2018
GP-0718-p7js44	27/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-77f1gk	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-r6r2ry	26/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-oqcwxo	27/07/2018	02/08/2018	3	19/04/2018	to	18/07/2018
GP-0718-kft9tc	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-752zux	27/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-t6468l	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018

ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-4vjr91	0-10	NO	NO	-	NO	NO
GP-0718-h1boch	0-10	NO	NO	-	NO	NO
GP-0718-uz62ps	0-10	YES (Fields)	NO	NO	NO	NO
GP-0718-j4rp84	10-20	NO	NO	NO	NO	NO
GP-0718-0boej7	10-20	YES (Fields)	NO	NO	NO	NO
GP-0718-04ersz	10-20	NO	NO	NO	NO	NO
GP-0718-p7js44	20-40	NO	NO	-	NO	NO
GP-0718-77f1gk	40-60	NO	NO	NO	NO	NO
GP-0718-r6r2ry	40-60	NO	NO	-	NO	Vegetarian
GP-0718-oqcwxo	40-60	NO	NO	NO	NO	NO
GP-0718-kft9tc	60+	NO	NO	-	NO	Pescetarian
GP-0718-752zux	60+	NO	NO	NO	NO	NO
GP-0718-t6468l	60+	YES (Vineyard / Orchards)	YES (Garden)	YES	YES (Mice / Rats)	NO

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13.4.2. Analysis results for United Kindom (Wales)

Individual results for each sample are presented in the tables below.

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-77f1gk	GP-0718-kft9tc	GP-0718-0boej7	GP-0718-uz62ps
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	8,1	400,6	266,8
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	< LQ	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	8,5	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	1	1	1
Number detected pesticide(s)		1	0	0	0
Number quantified pesticide(s)		1	1	1	1
Min. quantified concentration (pg/mg)		8,5	8,1	400,6	266,8
Max. quantified concentration (pg/mg)		8,5	8,1	400,6	266,8
Sum of quantified pesticide (pg/mg)		8,5	8,1	400,6	266,8

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-r6r2ry	GP-0718-t6468l	GP-0718-4vjr91	GP-0718-752zux
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	< LQ
Fipronil	4,0	63,1	N.D.	67,7	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	258,9	N.D.	1075,8	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	0	2	1
Number detected pesticide(s)		0	0	0	1
Number quantified pesticide(s)		2	0	2	0
Min. quantified concentration (pg/mg)		63,1	-	67,7	-
Max. quantified concentration (pg/mg)		258,9	-	1075,8	-
Sum of quantified pesticide (pg/mg)		321,9	-	1143,5	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-p7js44	GP-0718-h1boch	GP-0718-oqcwxo	GP-0718-j4rp84
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	< LQ	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	< LQ	6,8	12,4
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	5,6	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	2	2	1
Number detected pesticide(s)		0	2	0	0
Number quantified pesticide(s)		0	0	2	1
Min. quantified concentration (pg/mg)		-	-	5,6	12,4
Max. quantified concentration (pg/mg)		-	-	6,8	12,4
Sum of quantified pesticide (pg/mg)		-	-	12,4	12,4

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Compounds	LQ (pg/mg)	Results (pg/mg) GP-0718-04ersz
Bifenthrin	10,0	N.D.
Boscalid	40,0	N.D.
Chlorotoluron	4,0	N.D.
Chlorpyrifos-ethyl	10,0	N.D.
Chlorpyrifos-methyl	20,0	N.D.
Cypermethrin	100,0	N.D.
Cyproconazole	20,0	N.D.
Deltamethrin	200,0	N.D.
Dimethoate	4,0	N.D.
Dimethomorph	4,0	N.D.
Diuron	4,0	N.D.
Epoxiconazole	10,0	N.D.
Fenamidone	4,0	N.D.
Fipronil	4,0	1122,1
Ioxynil	100,0	N.D.
Iprovalicarb	4,0	N.D.
Isoproturon	4,0	N.D.
Lambda-Cyhalothrin	40,0	N.D.
Linuron	400,0	N.D.
Malathion	40,0	N.D.
Myclobutanil	10,0	N.D.
Pendimethalin	40,0	N.D.
Permethrin	100,0	N.D.
Propiconazole	20,0	N.D.
Propyzamide	200,0	N.D.
Pyrimethanil	4,0	4,2
Spiroxamine	4,0	N.D.
Tebuconazole	4,0	N.D.
Tetraconazole	10,0	N.D.
Triadimenol	20,0	N.D.
Number detected & quantified pesticide(s)		2
Number detected pesticide(s)		0
Number quantified pesticide(s)		2
Min. quantified concentration (pg/mg)		4,2
Max. quantified concentration (pg/mg)		1122,1
Sum of quantified pesticide (pg/mg)		1126,3

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13.5. France

A total of 25 samples from French volunteers was analysed.

13.5.1. Samples information for France

The following tables summarise samples information for France.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-egbda3	02/08/2018	-	3	-	to	-
GP-0718-kfxyng	25/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-ywqghc	26/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-zhhttf	27/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-twfc4x	02/08/2018	26/07/2018	3	12/04/2018	to	11/07/2018
GP-0718-vsaz2h	20/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-6e359u	03/10/2018	01/10/2018	3	18/06/2018	to	16/09/2018
GP-0718-fmpkle	20/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-jpb6tj	23/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-skwhsa	23/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-kgfa8r	24/07/2018	21/07/2018	3	07/04/2018	to	06/07/2018
GP-0718-xbv717	25/07/2018	21/07/2018	2	07/05/2018	to	06/07/2018
GP-0718-vneire	23/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-ohimfz	23/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-qcg5nm	25/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-bzncrc	25/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-cd2ju1	03/10/2018	02/10/2018	2	19/07/2018	to	17/09/2018
GP-0718-i47ipg	03/10/2018	02/10/2018	3	19/06/2018	to	17/09/2018
GP-0718-omokwl	20/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-6qd0m1	23/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-1jxnfk	03/10/2018	01/10/2018	3	18/06/2018	to	16/09/2018
GP-0718-stnlcg	03/10/2018	01/10/2018	3	18/06/2018	to	16/09/2018
GP-0718-tnhjux	03/10/2018	01/10/2018	2	18/07/2018	to	16/09/2018
GP-0718-utv1h2	03/10/2018	01/10/2018	3	18/06/2018	to	16/09/2018
GP-0718-f5k43k	08/08/2018	01/08/2018	3	18/04/2018	to	17/07/2018

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ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-egbda3	0-10	NO	NO	-	NO	NO
GP-0718-kfxyng	0-10	NO	NO	-	NO	NO
GP-0718-ywqghc	0-10	NO	NO	NO	NO	NO
GP-0718-zhhttf	0-10	YES (Fields / Vineyard)	NO	NO	NO	NO
GP-0718-twfc4x	10-20	NO	NO	NO	NO	NO
GP-0718-vsaz2h	10-20	YES (Fields)	NO	NO	NO	NO
GP-0718-6e359u	10-20	NO	NO	NO	NO	NO
GP-0718-fmpkle	20-40	NO	NO	NO	NO	Vegetarian
GP-0718-jpb6tj	20-40	NO	NO	NO	NO	NO
GP-0718-skwhsa	20-40	NO	-	-	-	NO
GP-0718-kgfa8r	20-40	NO	NO	NO	NO	Vegan
GP-0718-xbv717	20-40	YES (Fields / Market gardening)	NO	NO	NO	NO
GP-0718-vneire	40-60	NO	NO	NO	NO	Organic
GP-0718-ohimfz	40-60	NO	NO	NO	NO	NO
GP-0718-qcg5nm	40-60	NO	-	-	NO	NO
GP-0718-bzncrc	40-60	NO	NO	NO	NO	Vegetarian
GP-0718-cd2ju1	20-40	NO	-	-	NO	NO
GP-0718-i47ipg	20-40	NO	-	-	NO	NO
GP-0718-omokwl	40-60	YES (Fields)	NO	NO	NO	NO
GP-0718-6qd0m1	40-60	YES (Fields)	NO	NO	NO	Vegetarian
GP-0718-1jxnfk	40-60	NO	-	-	NO	NO
GP-0718-stnlcg	40-60	NO	NO	NO	YES (moth repellent)	NO
GP-0718-tnhjux	40-60	NO	NO	NO	NO	NO
GP-0718-utv1h2	40-60	NO	NO	NO	NO	ORGANIC
GP-0718-f5k43k	60+	NO	NO	NO	NO	NO

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13.5.2. Analysis results for France

Individual results for each sample are presented in the tables below.

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-fmpkle	GP-0718-omokwl	GP-0718-vsaz2h	GP-0718-6qd0m1
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	< LQ
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	< LQ	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	< LQ
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	22,7
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	0	1	3
Number detected pesticide(s)		0	0	1	2
Number quantified pesticide(s)		0	0	0	1
Min. quantified concentration (pg/mg)		-	-	-	22,7
Max. quantified concentration (pg/mg)		-	-	-	22,7
Sum of quantified pesticide (pg/mg)		-	-	-	22,7

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-jpb6tj	GP-0718-ohimfz	GP-0718-skwhsa	GP-0718-vneire
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	17,5	10,0	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	1	0	0
Number detected pesticide(s)		0	0	0	0
Number quantified pesticide(s)		1	1	0	0
Min. quantified concentration (pg/mg)		17,5	10,0	-	-
Max. quantified concentration (pg/mg)		17,5	10,0	-	-
Sum of quantified pesticide (pg/mg)		17,5	10,0	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-kgfa8r	GP-0718-bzncrc	GP-0718-kfxyng	GP-0718-qcg5nm
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	54,4	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	< LQ	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	2	0	0
Number detected pesticide(s)		0	1	0	0
Number quantified pesticide(s)		0	1	0	0
Min. quantified concentration (pg/mg)		-	54,4	-	-
Max. quantified concentration (pg/mg)		-	54,4	-	-
Sum of quantified pesticide (pg/mg)		-	54,4	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-xbv717	GP-0718-ywqghc	GP-0718-zhhttf	GP-0718-egbda3
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	170,6	< LQ	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	1	1	0
Number detected pesticide(s)		0	0	1	0
Number quantified pesticide(s)		0	1	0	0
Min. quantified concentration (pg/mg)		-	170,6	-	-
Max. quantified concentration (pg/mg)		-	170,6	-	-
Sum of quantified pesticide (pg/mg)		-	170,6	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-twfc4x	GP-0718-f5k43k	GP-0718-1jxnfk	GP-0718-6e359u
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	< LQ	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	9,4	N.D.	5,9	33,5
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	< LQ	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	2	1	1
Number detected pesticide(s)		0	2	0	0
Number quantified pesticide(s)		1	0	1	1
Min. quantified concentration (pg/mg)		9,4	-	5,9	33,5
Max. quantified concentration (pg/mg)		9,4	-	5,9	33,5
Sum of quantified pesticide (pg/mg)		9,4	-	5,9	33,5

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-cd2ju1	GP-0718-i47ipg	GP-0718-stnlcg	GP-0718-tnhjux
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	14.7	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	4.1	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	< LQ	< LQ	< LQ	3941.9
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	3	1	1
Number detected pesticide(s)		0	1	1	0
Number quantified pesticide(s)		0	1	0	1
Min. quantified concentration (pg/mg)		-	4.1	-	3941.9
Max. quantified concentration (pg/mg)		-	14.7	-	3941.9
Sum of quantified pesticide (pg/mg)		-	18.7	-	3941.9

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Compounds	LQ (pg/mg)	Results (pg/mg) GP-0718-utv1h2
Bifenthrin	10,0	N.D.
Boscalid	40,0	N.D.
Chlorotoluron	4,0	N.D.
Chlorpyrifos-ethyl	10,0	101.1
Chlorpyrifos-methyl	20,0	N.D.
Cypermethrin	100,0	N.D.
Cyproconazole	20,0	N.D.
Deltamethrin	200,0	N.D.
Dimethoate	4,0	N.D.
Dimethomorph	4,0	N.D.
Diuron	4,0	N.D.
Epoxiconazole	10,0	N.D.
Fenamidone	4,0	N.D.
Fipronil	4,0	N.D.
Ioxynil	100,0	N.D.
Iprovalicarb	4,0	N.D.
Isoproturon	4,0	N.D.
Lambda-Cyhalothrin	40,0	N.D.
Linuron	400,0	N.D.
Malathion	40,0	N.D.
Myclobutanil	10,0	N.D.
Pendimethalin	40,0	N.D.
Permethrin	100,0	< LQ
Propiconazole	20,0	N.D.
Propyzamide	200,0	N.D.
Pyrimethanil	4,0	N.D.
Spiroxamine	4,0	N.D.
Tebuconazole	4,0	N.D.
Tetraconazole	10,0	N.D.
Triadimenol	20,0	N.D.
Number detected & quantified pesticide(s)		2
Number detected pesticide(s)		1
Number quantified pesticide(s)		1
Min. quantified concentration (pg/mg)		101.1
Max. quantified concentration (pg/mg)		101.1
Sum of quantified pesticide (pg/mg)		101.1

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13.6. Belgium

A total of 26 samples from Belgian volunteers was analysed.

13.6.1. Samples information for Belgium

The following tables summarise samples information for Belgium.

ID	Receipt date (DD/MM/YYYY)	Sampling date (DD/MM/YYYY)	Analyzed length (cm)	Time period covered by analysis (DD/MM/YYYY)		
GP-0718-rsuy6q	31/07/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-v4pnxr	08/08/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-ufvoxn	06/09/2018	24/07/2018	3	10/04/2018	to	09/07/2018
GP-0718-u6bj4u	02/10/2018	01/10/2018	3	19/06/2018	to	17/09/2018
GP-0718-hueq1p	26/07/2018	23/07/2018	3	09/04/2018	to	08/07/2018
GP-0718-6sxpig	24/08/2018	31/07/2018	3	17/04/2018	to	16/07/2018
GP-0718-s0r64m	26/07/2018	20/07/2018	3	06/04/2018	to	05/07/2018
GP-0718-fr6ack	21/08/2018	08/08/2018	2	25/05/2018	to	24/07/2018
GP-0718-ixsl2d	24/08/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-krf9ey	24/08/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-x3dyyh	24/07/2018	15/07/2018	3	01/04/2018	to	30/06/2018
GP-0718-87vsp3	26/07/2018	20/07/2018	2	06/05/2018	to	05/07/2018
GP-0718-cgoese	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-28b8a3	31/07/2018	22/07/2018	3	08/04/2018	to	07/07/2018
GP-0718-xf42hd	24/08/2018	01/08/2018	3	18/04/2018	to	17/07/2018
GP-0718-qdbhs3	24/08/2018	17/07/2018	3	03/04/2018	to	02/07/2018
GP-0718-8tcs30	24/08/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-o4blmn	24/07/2018	18/07/2018	2	04/05/2018	to	03/07/2018
GP-0718-6fmq93	22/08/2018	18/08/2018	3	05/05/2018	to	03/08/2018
GP-0718-wn64dv	06/09/2018	21/08/2018	3	08/05/2018	to	06/08/2018
GP-0718-zz3ovs	02/10/2018	27/09/2018	3	14/06/2018	to	12/09/2018
GP-0718-3imxey	24/08/2018	28/07/2018	3	14/04/2018	to	13/07/2018
GP-0718-4p15mz	24/07/2018	18/07/2018	3	04/04/2018	to	03/07/2018
GP-0718-jrjjw2	26/07/2018	19/07/2018	3	05/04/2018	to	04/07/2018
GP-0718-lz3mlp	17/09/2018	16/08/2018	3	03/05/2018	to	01/08/2018
GP-0718-t8uup2	27/09/2018	17/09/2018	3	04/06/2018	to	02/09/2018

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ID	Age category	Proximity to agriculture zone (type)	Work in agriculture	Known exposure to pesticides	Use of household pesticides	Specific diet type
GP-0718-rsuy6q	0-10	NO	NO	-	NO	NO
GP-0718-v4pnxr	0-10	YES (Fields)	NO	-	NO	Vegetarian
GP-0718-ufvoxn	0-10	YES (Fields)	NO	NO	NO	NO
GP-0718-u6bj4u	0-10	NO	NO	NO	NO	NO
GP-0718-hueq1p	10-20	YES (Fields / Orchard)	NO	YES	NO	NO
GP-0718-6sxpig	10-20	YES (Fields)	NO	NO	NO	NO
GP-0718-s0r64m	10-20	YES (Fields)	NO	YES	NO	Organic
GP-0718-fr6ack	10-20	NO	NO	NO	NO	NO
GP-0718-ixsl2d	20-40	NO	NO	-	NO	Organic + No gluten + No cow milk
GP-0718-krf9ey	20-40	NO	NO	-	NO	NO
GP-0718-x3dyyh	20-40	NO	-	-	NO	NO
GP-0718-87vsp3	20-40	NO	-	-	-	Vegetarian
GP-0718-cgoese	20-40	NO	NO	NO	NO	NO
GP-0718-28b8a3	40-60	YES (Fields)	NO	NO	NO	Vegetarian
GP-0718-xf42hd	40-60	NO	-	-	NO	NO
GP-0718-qdbhs3	40-60	NO	NO	-	NO	NO
GP-0718-8tcs30	40-60	NO	NO	NO	NO	NO
GP-0718-o4blmn	40-60	YES (Fields / Silviculture / Market garden)	NO	-	NO	NO
GP-0718-6fmq93	40-60	NO	-	-	NO	NO
GP-0718-wn64dv	40-60	NO	NO	NO	NO	NO
GP-0718-zz3ovs	40-60	NO	NO	NO	NO	NO
GP-0718-3imxey	60+	YES (Corn)	NO	-	NO	NO
GP-0718-4p15mz	60+	YES (Fields)	NO	NO	NO	Organic+ Vegetarian
GP-0718-jrjjw2	60+	YES (Prairies / Corn)	NO	NO	NO	NO
GP-0718-lz3mlp	60+	NO	NO	NO	NO	NO
GP-0718-t8uup2	60+	YES (Fields)	NO	-	NO	Pescetarian

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13.6.2. Analysis results for Belgium

Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-4p15mz	GP-0718-o4blmn	GP-0718-x3dyyh	GP-0718-87vsp3
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	13,4	6,9	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	< LQ
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	28,4	< LQ	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	5,0
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	2	1	2
Number detected pesticide(s)		0	0	1	1
Number quantified pesticide(s)		1	2	0	1
Min. quantified concentration (pg/mg)		13,4	6,9	-	5,0
Max. quantified concentration (pg/mg)		13,4	28,4	-	5,0
Sum of quantified pesticide (pg/mg)		13,4	35,3	-	5,0

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-s0r64m	GP-0718-jrjjw2	GP-0718-cgoese	GP-0718-v4pnxr
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	< LQ	N.D.	< LQ
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	4,3	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	< LQ
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	< LQ	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	< LQ
Propiconazole	20,0	< LQ	N.D.	N.D.	< LQ
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		1	2	1	4
Number detected pesticide(s)		1	1	1	4
Number quantified pesticide(s)		0	1	0	0
Min. quantified concentration (pg/mg)		-	4,3	-	-
Max. quantified concentration (pg/mg)		-	4,3	-	-
Sum of quantified pesticide (pg/mg)		-	4,3	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-hueq1p	GP-0718-rsuy6q	GP-0718-28b8a3	GP-0718-fr6ack
Bifenthrin	10,0	N.D.	N.D.	< LQ	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	< LQ	< LQ	12,9	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	< LQ	7,0	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	< LQ	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	< LQ	22,2	< LQ	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	< LQ	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		3	4	4	0
Number detected pesticide(s)		3	3	2	0
Number quantified pesticide(s)		0	1	2	0
Min. quantified concentration (pg/mg)		-	22.2	7.0	-
Max. quantified concentration (pg/mg)		-	22.2	12.9	-
Sum of quantified pesticide (pg/mg)		-	22.2	19.9	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-6fmq93	GP-0718-ixsl2d	GP-0718-krf9ey	GP-0718-xf42hd
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	< LQ	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	6,0	7,8	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	1	0	0
Number detected pesticide(s)		1	0	0	0
Number quantified pesticide(s)		1	1	0	0
Min. quantified concentration (pg/mg)		6,0	7,8	-	-
Max. quantified concentration (pg/mg)		6,0	7,8	-	-
Sum of quantified pesticide (pg/mg)		6,0	7,8	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-3imxey	GP-0718-6sxpig	GP-0718-qdbhs3	GP-0718-8tcs30
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	N.D.	N.D.	N.D.	N.D.
Propiconazole	20,0	N.D.	N.D.	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		0	0	0	0
Number detected pesticide(s)		0	0	0	0
Number quantified pesticide(s)		0	0	0	0
Min. quantified concentration (pg/mg)		-	-	-	-
Max. quantified concentration (pg/mg)		-	-	-	-
Sum of quantified pesticide (pg/mg)		-	-	-	-

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Compounds	LQ	Results (pg/mg)			
	(pg/mg)	GP-0718-ufvoxn	GP-0718-wn64dv	GP-0718-lz3mlp	GP-0718-zz3ovs
Bifenthrin	10,0	N.D.	N.D.	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	N.D.	< LQ	N.D.
Chlorpyrifos-methyl	20,0	N.D.	N.D.	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.	N.D.	N.D.
Diuron	4,0	N.D.	N.D.	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.	9,9	N.D.
Ioxynil	100,0	N.D.	N.D.	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.	N.D.	N.D.
Isoproturon	4,0	N.D.	6,6	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.	N.D.	N.D.
Linuron	400,0	N.D.	N.D.	N.D.	N.D.
Malathion	40,0	N.D.	N.D.	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.	N.D.	N.D.
Permethrin	100,0	< LQ	< LQ	N.D.	< LQ
Propiconazole	20,0	< LQ	< LQ	N.D.	N.D.
Propyzamide	200,0	N.D.	N.D.	N.D.	N.D.
Pyrimethanil	4,0	N.D.	N.D.	N.D.	N.D.
Spiroxamine	4,0	N.D.	N.D.	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.	N.D.	N.D.
Number detected & quantified pesticide(s)		2	3	2	1
Number detected pesticide(s)		2	2	1	1
Number quantified pesticide(s)		0	1	1	0
Min. quantified concentration (pg/mg)		-	6,6	9,9	-
Max. quantified concentration (pg/mg)		-	6,6	9,9	-
Sum of quantified pesticide (pg/mg)		-	6,6	9,9	-

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Compounds	LQ	Results (pg/mg)	
	(pg/mg)	GP-0718-u6bj4u	GP-0718-t8uup2
Bifenthrin	10,0	N.D.	N.D.
Boscalid	40,0	N.D.	N.D.
Chlorotoluron	4,0	N.D.	N.D.
Chlorpyrifos-ethyl	10,0	N.D.	< LQ
Chlorpyrifos-methyl	20,0	N.D.	N.D.
Cypermethrin	100,0	N.D.	N.D.
Cyproconazole	20,0	N.D.	N.D.
Deltamethrin	200,0	N.D.	N.D.
Dimethoate	4,0	N.D.	N.D.
Dimethomorph	4,0	N.D.	N.D.
Diuron	4,0	N.D.	N.D.
Epoxiconazole	10,0	N.D.	N.D.
Fenamidone	4,0	N.D.	N.D.
Fipronil	4,0	N.D.	N.D.
Ioxynil	100,0	N.D.	N.D.
Iprovalicarb	4,0	N.D.	N.D.
Isoproturon	4,0	N.D.	N.D.
Lambda-Cyhalothrin	40,0	N.D.	N.D.
Linuron	400,0	N.D.	N.D.
Malathion	40,0	N.D.	N.D.
Myclobutanil	10,0	N.D.	N.D.
Pendimethalin	40,0	N.D.	N.D.
Permethrin	100,0	N.D.	< LQ
Propiconazole	20,0	N.D.	54,2
Propyzamide	200,0	N.D.	N.D.
Pyrimethanil	4,0	N.D.	17,3
Spiroxamine	4,0	N.D.	N.D.
Tebuconazole	4,0	N.D.	N.D.
Tetraconazole	10,0	N.D.	N.D.
Triadimenol	20,0	N.D.	N.D.
Number detected & quantified pesticide(s)		0	4
Number detected pesticide(s)		0	2
Number quantified pesticide(s)		0	2
Min. quantified concentration (pg/mg)		-	17,3
Max. quantified concentration (pg/mg)		-	54,2
Sum of quantified pesticide (pg/mg)		-	71,5

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NOTE ABOUT VERSION

Version 2 was edited to correct minor typographic and syntax errors.

Report validated on November 12th, 2018
By Vincent PEYNET, PhD.

=== END OF THE REPORT ===