2018

PESTICIDES RESIDUES IN FOOD

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

www.agriculture.gov.ie
@agriculture_ie

Department of Agriculture, Food and the Marine

Report of the National Pesticide Residues Control Programme

2018

TABLE OF CONTENTS

1. SUMMARY REPORT 1

2. BACKGROUND 3

3 PLANNING THE PROGRAMME 5

3.1 Programme design 5

4 SAMPLING 7

4.1 Food of plant origin 7
4.2 Food of animal origin 7
4.3 Infant formula 8

5 TESTING FOR PESTICIDE RESIDUES 9

5.1 Analytical procedures 9
5.2 Quality assurance 9

6 RESULTS 11

6.1 Summary of the analytical results 11
6.2 Key findings of the fruit and vegetable sample results 15
6.3 Key findings of the cereal sample results 16
6.4 Key findings of the food of animal origin sample results 17
6.5 Key findings of baby food sample results 18
6.6 Key findings of targeted and follow up sample results 19
6.7 Key findings of import control sample results 20

7 MRL BREACHES 21

7.1 Types of breaches 21
7.2 Risk Assessments 23

8 ENFORCEMENT ACTIONS 25

8.1 Enforcement actions on domestic samples 25
8.2 Enforcement actions on imported samples 25
8.3 Concluding remarks 27

9 ANNEXES 28

9.1 ANNEX I Scopes and Reporting Level (mg/kg) of the analytical methods used 28
9.2 ANNEX II Abbreviations 41
9.3 ANNEX III Glossary of terms 42

LIST OF TABLES

Table 1: Summary results of fruit samples 12
Table 2: Summary of fruit samples taken in the surveillance programme 13
Table 3: Summary results of vegetable, fungi and other plant product samples 14
Table 4: Summary of vegetable and fungi samples taken in the surveillance programme 14
Table 5: Summary results of cereal samples 15
Table 6: Summary of cereal samples taken in the surveillance programme 16
Table 7: Summary results of food of animal origin samples 16
Table 8: Summary of food of animal origin samples taken in the surveillance programme... 16
Table 9: Summary results of baby food samples 17
Table 10: Summary of baby food samples taken in the surveillance programme 17
Table 11: Summary results of targeted and follow up enforcement samples 18
Table 12: Summary of targeted and follow up samples taken in the enforcment programme.. 18
Table 13: Summary results of import control samples 19
Table 14: Summary of import control samples taken in the enforcment programme 19
Table 15: Summary of all food types with residues and MRL breaches in 2018 21
Table 16: Details of the MRL breaches in 2018 22

1. SUMMARY REPORT

This report on the National Pesticide Residues Control Programme, carried out in 2018 by the Department of Agriculture, Food and the Marine (DAFM), provides details on pesticide residues detected in food commodities available on the Irish market. The Programme enforces EU legislation establishing the maximum permitted concentration of pesticide residues in food, or Maximum Residue Levels (MRLs), and aims to ensure that consumers are not exposed to unacceptable risks from pesticide residues.

The Programme for 2018 planned for the analysis of 1,427 consignments of fruit, vegetables, cereal, animal products and baby foods for up to 470 pesticides and metabolites as well as 7 PCB marker compounds to check for compliance with EU and national legislation for plant protection and veterinary products. The programme consisted of 2 strategies: a *surveillance strategy* consisting of the random sampling of food commodities; and an *enforcement strategy* involving the sampling of food commodities from specific sources where non-compliance with pesticide legislation was suspected or had been detected previously.

The Programme was agreed with the Food Safety Authority of Ireland and sent to the EU Commission as required by European legislation. Sampling of domestic and imported foodstuffs was conducted at wholesalers, retailers, grain mills or at meat plants.

The 1,335 samples taken in 2018 fell slightly short of the planned number. The sampling requirements of the co-ordinated EU monitoring programme were fulfilled. The samples, comprising of 804 fruits and vegetables, 63 cereals, 411 foods of animal origin and 57 baby foods, were taken and analysed for pesticide and chemical residues at the Pesticide Control Laboratory in Backweston, County Kildare. The laboratory has continued to maintain and extend its accreditation status with the Irish National Accreditation Board.

Overall 97.8% of the 1,335 samples analysed were free of quantifiable residues or contained residues within the legally permitted levels. No residues were detected in 58.2% of the samples, another 39.6% of samples contained residues at levels which were in compliance with the EU legislation and 2.2% (30 samples) contained residues exceeding the MRLs. Taking into account the analytical measurement uncertainty, 1.2% of the samples (16 samples) clearly exceeded these legal limits (non-compliance).

18% of the fruit and vegetable samples analysed were of domestic origin and the rest were imported from the EU and elsewhere. 97.1% of the fruit and vegetables samples either contained no residues or contained residues within the legally permitted levels (36.9% contained no residues and 60.2% of samples contained residues at levels which were in compliance with the EU legislation). The remaining 2.9% contained residues exceeding the MRLs, however when analytical measurement uncertainty is taken into account this falls to 1.5%.

In the case of the cereal samples, 43% were of domestic origin. 88.9% of the cereal samples either contained no residues or contained residues within the legally permitted levels. No residues were detected in 44.4% of the samples and a further 44.4% of the cereal samples had residues in compliance with the EU legislation. The remaining 11.1% (all rice samples) contained residues exceeding the MRLs, however when analytical measurement uncertainty is taken into account this falls to 6.3%.

All except one of the food of animal origin samples originated domestically and all of the samples either contained no residues or contained residues within the legally permitted levels. No residues were detected in 96.1% of the samples, and the remaining 3.9% of the samples had residues in compliance with the EU legislation.

No pesticide residues were detected in any of the baby food samples.

In 2018 eighteen samples were taken under EU Regulations dealing with increased inspection of targeted food commodities from certain countries. No residues were detected in 22.2% of the samples and 72.2% of the samples had residues in compliance with the EU legislation. There were one MRL breach (5.6%) found in 2018.

In all cases where non-compliant residues are detected, consumer risk assessments, based on the residue level found and national food consumption data are carried out to estimate the risk to consumers and to guide the follow-up action to be taken. In 2018, no breach was found to have an unacceptable risk to consumers.

All breaches involving produce of domestic origin were investigated to establish the reasons for the breaches and for appropriate follow-up. In addition, all produce with MRL breaches, both domestic and imported, were listed for targeted sampling as part of the follow-up enforcement strategy. Seven such targeted samples were identified and taken in 2018.

2. BACKGROUND

Pesticides comprise plant protection products and biocides. Plant protection products are required to protect crops and plant products from damage caused by insects, fungi, weeds and other pests. Production and distribution of sufficient volumes of food to meet consumer demands of quality at reasonable price is not possible without their use. Biocidal products are essential for disinfection of surfaces, implements and machinery used in the food industry and to inhibit the action of a range of harmful organisms.

The manner of use of many plant protection and biocidal products requires their release into the environment, resulting in potential exposure of workers, consumers and the general public to such products or to residual traces remaining in food. It is therefore necessary that such products be tightly regulated.

Pesticide residues are regulated in Ireland through the implementation of European legislation, Regulation (EC) No. 396/2005, which establishes EU Maximum Residues Levels (MRLs) for all pesticides in and on fruit and vegetables, cereals and in food of animal origin. MRLs are the maximum permissible level of pesticide residue allowed in or on a crop, where crops have been treated in line with good agricultural practice (GAP) MRLs are unlikely to be exceeded. Regulation (EC) No. 37/2010 establishes other MRLs for certain pesticides used as veterinary products. Commission Directives 2006/125/EC and 2006/141/EC establish certain MRLs for food intended for babies and young infants.

Pesticides are further controlled through legislation implementing Regulation (EC) No. 1107/2009, which requires that all plant protection products must be registered before being placed on the market. The Irish registration system specifies the timing, frequency, rates and the crops on which the pesticide may be used. Use of non-registered pesticides is an offence.

Where an MRL is exceeded, a dietary intake calculation is carried out to determine if the residue presents a risk to consumers, both adult and children. The results of the assessments are provided to the FSAI to coordinate a harmonised enforcement approach. Where warranted, for example when the pesticide intake exceeds specified toxicological endpoints; a Rapid Alert is issued by the FSAI and officers of the Pesticide Control Division (PCD) of the Department of Agriculture, Food and the Marine (DAFM) take appropriate enforcement action. This may involve removal of the produce concerned from the market and its destruction at the owner's expense. The Minister may also prosecute offenders or apply administrative fines.

All European Union (EU) countries are required to have their own national monitoring plans and to publish their results. The '*Report of the National Pesticide Residues Control Programme 2018*' provides details of the results obtained during 2018 from a national programme monitoring for the presence of pesticide residues in and on food. The results were also sent to the European Food Safety Authority and will be used as part of an EU wide annual report.

3 PLANNING THE PROGRAMME

The national pesticide residue control programme for pesticide residues is undertaken by the PCD (Pesticide Control Division) with laboratory support provided by the Pesticide Control Laboratory (PCL) of the Department of Agriculture, Food and Marine. The programme implements the requirements of Regulation (EC) No. 396/2005, and takes into account the requirements set out in the EU *"coordinated multi-annual Community control programme for 2018, 2019 and 2020 to ensure compliance with maximum levels of, and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin"*, (Commission Implementing Regulation (EU) No. 2017/660). The requirement of the monitoring of food of animal origin for Directive 96/23/EC is also taken into consideration with respect to the determination of organochlorine and organophosphorus pesticides.

The annual control programme is carried out in accordance with contractual arrangements between the DAFM and the FSAI[1] and involves sampling of imported and domestic produce.

The programme ensures that consumers are not exposed to unacceptable pesticide residue levels in and on food, that plant protection products are correctly applied, and that the unauthorised use of such products in Ireland is controlled.

3.1 Programme design

The programme is designed to monitor different food groups for which MRLs have been established: fruit and vegetables, cereals, food of animal origin and baby food. It involves sampling of produce at distribution outlets, collection, storage, processing or slaughter premises and the analysis of those samples for the presence of residues of up to 470 pesticides and metabolites as well as 7 PCB congeners.

The planned number of samples for the 2018 control programme was agreed with the FSAI. The programme is the primary means of ensuring that plant protection products (pesticides) are used in accordance with *Good Agricultural Practice* and is essential if the misuse of registered products and the use of non-registered products are to be eliminated. Plant protection products, registered under Regulation (EC) No. 1107/2009, can be misused in various ways, e.g. use of excessive dose rates, failure to respect the minimum periods specified between last application and harvest (i.e. pre-harvest intervals) and use for purposes for which they are not authorised (i.e. non-registered uses). When plant protection products are used in accordance with *Good Agricultural Practice*, unacceptable levels of residues should not occur in treated produce.

The pesticide residue monitoring programme for Ireland takes account of the following:

i. the co-ordinated EU monitoring programme
ii. the dietary importance of the foodstuff from a consumer point of view

[1] Service Contract from 2016 between the Food Safety Authority of Ireland and the Department of Agriculture, Food and the Marine

iii. the residue history of different sample types
iv. monitoring results obtained by other Member States
v. the manner in which the food is handled/processed prior to consumption
vi. the monitoring programme for food business operators
vii. the capacity of the laboratory to analyse samples.

4 SAMPLING

4.1 Food of plant origin

Samples were taken using the sampling method outlined in a Commission Directive[2] on the sampling of products of plant origin for the official control of pesticide residues.

The sampling programme consists of 2 strategies, as follows:

- *Surveillance sampling* of fruit and vegetables processed and organically labelled products.
  The surveillance sampling strategy involves sampling, in an objective manner and independent of the origin, of the food commodities that are available on the Irish market

- *Enforcement sampling* from import controls and follow up to non-compliant samples, such as MRL breaches.

The enforcement sampling strategy involves sampling of food commodities from specific sources where non-compliance with pesticide legislation is suspected or has been detected previously. It includes Import Controls Regulation (EC) No. 669/2009 which lists commodities and countries of origin for additional targeted sampling.

Authorised officers from the Pesticide Control Division (PCD) carry out the sampling of food of plant origin and cereals in accordance with the Commission Sampling Directive 2002/63/EC. This Directive for instance, describes that a minimum of 1 kg or 10 units of a food commodity be taken from a consignment which then constitutes a laboratory sample. The samples are sealed with unique sample identity numbers and brought to the laboratory for analysis.

4.2 Food of animal origin

Random samples of bovine, porcine, ovine, poultry, equine, and venison kidney fat samples are taken at various meat processing plants around the country in accordance with the monitoring plan organised by the Veterinary Medicine Unit of DAFM. The fat samples are taken from individual animals at meat plants by officers of the Veterinary Inspectorate.

In the case of milk, representative samples of particular bulk consignments from milk dairies were taken by officers of the Dairy Inspectorate.

The planned number for food of animal origin was decided in conjunction with the Veterinary Medicine Unit of DAFM, as part of the National Residue Plan required under Directive 96/23/EC[3]. Other types of food of animal produce such as liver and poultry meat were sampled at retail outlets to meet the requirements of the EU multiannual control programme for 2018.

---

[2] Commission Directive 2002/63(EC)
[3] Council Directive 96/23/EC 29th April 1999 OJ No L125/10

4.3 Infant formula

The samples were taken by officers of the Diary Science Laboratory of DAFM. The legislation and the MRLs governing these infant samples are set in Commission Directive 2006/141/EC[4] with MRLs different to those established for the foods of plant and animal origin.

[4] Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae, 30.12.2006 OJ No L 401

5 TESTING FOR PESTICIDE RESIDUES

5.1 Analytical procedures

All the samples are brought to the Pesticide Control Laboratory which is based at the DAFM Laboratory campus in Backweston, Co. Kildare.

On receipt, the samples are logged into the laboratory system and prepared for residue analysis. The fruit and vegetable samples are blended or ground with dry ice (solid carbon dioxide), put into labelled sample bags and stored in a freezer at -18 ^{o}C prior to extraction and analysis.

At the extraction stage, the ground up sample is taken out and a measured amount is extracted with organic solvents, cleaned up if required and injected into one of two chromatographic systems- GC/MS/MS (gas chromatography with tandem mass spectrometry) and/or LC/MS/MS (liquid chromatography with tandem mass spectrometry).

These analytical techniques allow a large number of pesticide residues to be analysed at the same time. For these multi residue methods (MRM), mixes containing many pesticide standards are injected onto the chromatographic columns and the details of the individual standards eluting from the columns are recorded as unique mass spectral data.

When a residue in a laboratory sample is identified by matching the retention time and the mass spectrum pattern with a standard, the amount of the residue in the sample is then quantified by running it against a series of standard mixtures of known concentrations. A select number of samples are also analysed for other pesticides which cannot be analysed using the multi-residue methods outlined above. These single residue methods (SRM) which may employ different extraction methods are used to analyse such pesticides as amitraz, glyphosate, paraquat and dithiocarbamates.

References to the analytical methods used in the laboratory are provided in Annex II at the back of this report.

Some pesticides break down to give metabolites and in several cases these are summed to give a combined residue result and compared against the MRL using the residue definition established in legislation. An example is DDT which can consist of up to 6 breakdown products: o,p'-DDD, p,p'-DDD, o,p'-DDE, p,p'-DDE, o,p'-DDT and p,p'-DDT. The residue definition is the sum of these products expressed as DDT. The overall number of 470 pesticides analysed for in 2018 refers to the compounds analysed including metabolites as listed in Annex III**.**

5.2 Quality assurance

It is obligatory that all Official Control laboratories in the EU involved in the testing for pesticide residues be accredited.

In 2018, the PCL was audited by the Irish National Accreditation Board and its accreditation status to the ISO 17025 standard was confirmed and extended. The pesticides in the scope of the accreditation may be viewed on the Irish National Accreditation Board website at www.inab.ie. The PCL registration number is 121T.

The laboratory participated in all four of the EU Proficiency studies organised, on behalf of the EU Commission, by the European Union Community Reference Laboratories (EU-RL) in the pesticide area. Routine quality assurance procedures are followed within the laboratory in accordance with the requirements specified to maintain accreditation to the ISO 17025 standard.

All food of animal origin samples were also analysed for pesticides, metabolites and PCB marker congeners. PCBs are persistent environmental contaminants which in the past were released into the environment from industrial sources, but whose use has been discontinued for many years. They are included in the control programme as marker substances because of concerns related to their presence in food and their association with dioxins (chlorinated dibenzo-dioxins and furans).

6 RESULTS

6.1 Summary of the analytical results

A total of **1,335** samples were taken for analysis under two different types of sampling –

- **1,302** samples were selected under the surveillance strategy
- **33** samples were taken in a targeted manner under the enforcement strategy.

The following tables (1 to 18) provide summary details of all the samples taken in 2018 grouped by the food categories. These categories are based on the way the commodities are arranged and grouped in Annex I of the Residue Regulation (EC) No. 396/2005. The tables include information on the number of samples containing pesticides residues, country of origin and the most commonly detected pesticide in that food category.

Where results are included they are expressed in mg/kg and are rounded to different significant figures depending on the concentration. These rounding rules do not reflect the precision of the methods but are used by regulatory laboratories in pesticide residues to harmonise the rounding and reporting of pesticide residue results in the EU.

Table 1: Summary results of fruit samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	Ireland	EU	TC	Unknown
American persimmons	**2**	2	0	0	0	1	1	0
Apples	**61**	9	51	1	7	35	19	0
Avocados	**12**	10	2	0	0	2	10	0
Bananas	**26**	4	22	0	0	0	26	0
Blueberries	**7**	4	3	0	0	0	7	0
Cherries	**3**	1	2	0	1	1	1	0
Cranberries	**1**	1	0	0	0	0	0	1
Figs	**1**	1	0	0	0	0	1	0
Grapefruits	**18**	0	17	1	0	4	14	0
Kiwi fruits	**6**	3	3	0	0	6	0	0
Lemons	**8**	2	6	0	0	7	1	0
Limes	**4**	0	4	0	0	0	4	0
Mandarins	**51**	0	51	0	0	6	45	0
Mangoes	**12**	5	6	1	0	0	12	0
Oranges	**47**	18	28	1	0	9	20	18
Papayas	**3**	1	2	0	0	0	3	0
Passionfruits	**2**	0	1	1	0	0	2	0
Peaches	**12**	0	12	0	0	12	0	0
Pears	**39**	2	36	1	0	29	10	0
Pineapples	**4**	0	4	0	0	0	4	0
Plums	**7**	0	7	0	0	3	4	0
Pomegranates	**5**	2	2	1	0	1	4	0
Raspberries	**5**	4	1	0	0	2	3	0
Strawberries	**17**	1	15	1	6	9	2	0
Table grapes	**31**	2	29	0	0	6	25	0
Wine grapes	**10**	6	4	0	0	5	5	0
Total	**394**	**78**	**308**	**8**	**14**	**138**	**223**	**19**

Table 2: Summary of fruit samples taken in the surveillance programme

Fruit samples with pesticide residues detected	• 394 fruit surveillance samples were analysed • 19.8% had no residues detected above the LOQ • 78.2% had residues detected above the LOQ and below the MRL • 2.0% had residues detected above the MRL
Origin of samples	• 3.6% of fruit samples were of Irish origin • 35.0% were from EU countries and 56.6% from outside the EU • The origin could not be confirmed for 4.8% due to the processed nature of the product sampled
Most frequently detected pesticides	• Detection rates in all fruit samples: imazalil 30%, thiabendazole 25%, fludioxonil 24%, pyrimethanil 23%, boscalid 13%
Maximum number of multiple residues	• 12 pesticides were found in a pear sample from Portugal
Pesticide residues above the MRL	• 8 samples exceeded the MRL. Details are in chapter 7 of this report

Table 3: Summary results of vegetable, fungi and other plant product samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	IE	EU	TC	Unknown
Asparagus	**5**	5	0	0	0	2	3	0
Aubergines	**19**	12	7	0	0	19	0	0
Beans (with pods)	**10**	6	2	2	2	1	7	0
Beetroots	**1**	1	0	0	1	0	0	0
Broccoli	**23**	18	5	0	4	18	1	0
Brussels sprouts	**3**	1	2	0	3	0	0	0
Carrots	**13**	5	8	0	8	3	2	0
Cauliflowers	**5**	4	1	0	0	5	0	0
Celeries	**3**	2	1	0	1	2	0	0
Chards	**1**	0	1	0	0	1	0	0
Chives	**1**	0	1	0	0	0	1	0
Courgettes	**5**	3	2	0	0	5	0	0
Cucumbers	**9**	5	4	0	2	7	0	0
Cucurbits with peel	**3**	2	0	1	0	3	0	0
Cultivated fungi	**17**	6	11	0	15	2	0	0
Fennels	**2**	0	2	0	0	1	1	0
Head cabbages	**6**	5	1	0	4	2	0	0
Kales	**9**	5	2	2	7	2	0	0
Lamb's lettuces	**1**	1	0	0	0	1	0	0
Leeks	**10**	8	1	1	10	0	0	0
Lettuces	**29**	14	15	0	9	20	0	0
Melons	**25**	6	19	0	0	9	16	0
Onions	**4**	4	0	0	0	4	0	0
Parsley	**1**	0	1	0	0	1	0	0
Parsnips	**9**	3	6	0	9	0	0	0
Peas (with pods)	**11**	3	6	2	0	0	11	0
Peas (without pods)	**12**	11	1	0	0	0	1	11
Potatoes	**36**	16	19	1	29	7	0	0
Rhubarbs	**1**	1	0	0	1	0	0	0
Rucola	**3**	1	2	0	0	3	0	0
Shallots	**1**	1	0	0	0	1	0	0
Spinaches	**7**	2	5	0	1	6	0	0
Spring onions	**3**	1	1	1	1	0	2	0
Swedes	**7**	7	0	0	7	0	0	0
Sweet peppers	**21**	7	14	0	1	20	0	0
Sweet potatoes	**12**	5	5	2	0	3	9	0
Tomatoes	**10**	5	5	0	4	6	0	0
Turnips	**5**	5	0	0	4	1	0	0
Watercresses	**1**	1	0	0	0	1	0	0
Beans (dry)	**2**	2	0	0	0	0	0	2
Ginger	**2**	1	0	1	0	0	2	0
Lentils (dry)	**5**	1	4	0	0	0	0	5
Olives for oil	**14**	14	0	0	0	6	0	8
Rapeseeds	**4**	1	3	0	2	0	0	2
Sunflower seeds	**2**	2	0	0	0	0	0	2
Teas	**4**	4	0	0	0	0	0	4
Total	**377**	**207**	**157**	**13**	**125**	**162**	**56**	**34**

Table 4: Summary of vegetable, fungi and other plant product samples taken in the surveillance programme

Vegetable and fungi samples with pesticide residues detected	• 377 vegetable, fungi and other plant product surveillance samples were analysed • 54.9% had no residues detected above the LOQ • 41.6% had residues detected above the LOQ and below the MRL • 3.4% had residues detected above the MRL
Origin of samples	• 33.2% of vegetable, fungi and other plant product were of Irish origin • 43.0% were from EU countries and 14.9% from outside the EU • The origin could not be confirmed for 9.0% of the product sampled due to the processed nature of the product sampled
Most frequently detected pesticides	• Boscalid was detected in 8% of the samples
Maximum number of multiple residues	• 8 pesticides were found in a lettuce sample from Spain
Pesticide residues above the MRL	• 13 samples exceeded the MRL. Details are in chapter 7 of this report

6.2 Key findings of the fruit and vegetable sample results

In the 2018 programme a total of 771 fruit and vegetable samples were analysed using the surveillance or random sampling strategy. When compared to previous years, the number of samples with residues detected above the MRL (2.7%) has increased from 2017 (1.8%) but was lower than 2016 (4.0%). The number of fruit and vegetable samples with detectable residues above the LOQ was 54.9%.

As in the previous 3 years, imazalil which is mainly used to prevent decay of citrus during storage and transportation was the most commonly detected pesticide in the fruit and vegetables samples during 2018.

Table 5: Summary results of cereal samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	IE	EU	TC	Unknown
Barley	**20**	13	7	0	20	0	0	0
Oat	**8**	7	1	0	0	0	0	8
Rice	**20**	8	5	7	0	0	2	18
Wheat	**15**	0	15	0	7	8	0	0
Total	**63**	**28**	**28**	**7**	**27**	**8**	**2**	**26**

Table 6: Summary of cereal samples taken in the surveillance programme

Cereal samples with pesticide residues detected	• 63 cereal samples were analysed • 44.4% had no residue detected above the LOQ • 44.4% had residues detected above the LOQ and below the MRL • 11.1% with residues above the MRL
Origin of samples	• 42.9% of cereal samples were of Irish origin • 12.7% were from EU countries and 3.2% from outside the EU • The origin could not be confirmed for 41.3% of the product sampled due to the processed nature of the product sampled
Most frequently detected pesticide	• Chlormequat was detected in 26% of the cereal samples analysed using the selective method for that compound
Maximum number of multiple residues	• 8 pesticides were found in a rice sample from India
Pesticide residues above the MRL	• 7 samples exceeded the MRL. Details are in chapter 7 of this report

6.3 Key findings of the cereal sample results

In the 2018 programme a total of 63 cereal samples were analysed using the surveillance or random sampling strategy. When compared to previous years, the number of samples with residues detected above the MRL (11.1%) has increased. These all related to rice and were mainly due to a lowering of the MRL for tricyclazole. The number of cereal samples with detectable residues above the LOQ was 44.8%.

42.9% of the cereal samples taken were of domestic origin. Chlormequat was detected in 26% of the cereal samples analysed using the selective method for that compound. Glyphosate was detected in one cereal sample.

Table 7: Summary results of food of animal origin samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	IE	EU	TC	Unknown
Eggs (chicken)	**29**	29	0	0	29	0	0	0
Fat (bovine)	**120**	115	5	0	120	0	0	0
Fat (equine)	**8**	8	0	0	8	0	0	0
Fat (other farm animals)	**12**	12	0	0	12	0	0	0
Fat (poultry)	**25**	25	0	0	25	0	0	0
Fat (sheep)	**82**	73	9	0	82	0	0	0
Fat (swine)	**61**	59	2	0	61	0	0	0
Honey	**12**	12	0	0	11	0	1	0
Milk (cattle)	**58**	58	0	0	58	0	0	0
Milk (goat)	**4**	4	0	0	4	0	0	0
Total	**411**	**395**	**16**	**0**	**410**	**0**	**1**	**0**

Table 8: Summary of food of animal origin samples taken in the surveillance programme

Food of animal origin samples with pesticide residues detected	• 411 food of animal origin samples were analysed • 96.1% had no residue detected above the LOQ • 3.9% had residues detected above the LOQ and below the MRL
Origin of samples	• 99.8% of the food of animal origin samples were of Irish origin
Most frequently detected pesticide	• 2-phenylphenol and diazinon were each detected in 5 food of animal origin samples
Maximum number of multiple residues	• 2 pesticides were found in one bovine fat sample from Ireland
Pesticide residues above the MRL	• No food of animal origin sample with residues detected above the MRL

6.4 Key findings of the food of animal origin sample results

The percentage of food of animal origin samples with detectable residues remained relatively stable at or below 4% over the past three years despite an increase in the analytical scope and the increased sensitivity of the methods used for these samples. There were no samples where the MRL was exceeded. 99.8% of the food of animal origin samples taken were of domestic origin.

Table 9: Summary results of baby food samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	IE	EU	TC	Unknown
Baby foods other than processed cereal-based foods	**10**	10	0	0	10	0	0	0
Follow-on formulae	**9**	9	0	0	9	0	0	0
Infant formulae	**28**	28	0	0	28	0	0	0
Processed cereal-based foods for infants and young children	**10**	10	0	0	10	0	0	0
Total	**57**	**57**	**0**	**0**	**57**	**0**	**0**	**0**

Table 10: Summary of baby food samples taken in the surveillance programme

Baby food samples with pesticide residues detected	• 57 baby food samples were analysed • 100% had no residue detected above the LOQ
Origin of samples	• 100% of the baby food samples were of Irish origin
Most frequently detected pesticide	• No pesticides detected
Maximum number of multiple residues	• No pesticides detected
Pesticide residues above the MRL	• No baby food sample with residues detected above the MRL

6.5 Key findings of baby food sample results

In line with previous years there continued to be no residues detected in the infant and follow-on formula samples analysed in 2018.

Table 11: Summary results of targeted and follow up enforcement samples

Commodity	Residues detected				Origin of samples			
	Total	<LOQ	>LOQ & <MRL	>MRL	IE	EU	TC	Unknown
Raisin	1	1	0	0	0	0	1	0
Wine	2	2	0	0	0	0	1	0
Pea without pod	1	1	0	0	0	0	2	0
Coconut	2	2	0	0	0	0	2	0
Head cabbage	2	1	1	0	2	0	0	0
Cultivated fungi	1	0	1	0	1	0	0	0
Lettuce	2	0	2	0	2	0	0	0
Potato	1	0	1	0	1	0	0	0
Swede	1	0	0	1	1	0	0	0
Kale	1	0	1	0	1	0	0	0
Winter squash	1	1	0	0	0	1	0	0
Total	**15**	**8**	**6**	**1**	**8**	**1**	**6**	**0**

Table 12: Summary of targeted and follow up samples taken in the enforcement programme

Enforcement samples with pesticide residues detected	• 15 targeted and follow-up enforcement samples were analysed • 53.3% had no residue detected above the LOQ • 40.0% had residues detected above the LOQ and below the MRL • 6.7% had residues detected above the MRL
Origin of samples	• 53.3% of enforcement samples were of Irish origin • 6.7% were from EU countries and 40.0% from outside the EU
Most frequently detected pesticide	• Not relevant due to diverse range of commodities
Maximum number of multiple residues	• 6 pesticides were found in a lettuce sample from Ireland
Pesticide residues above the MRL	• 1 sample exceeded the MRL. Details are in chapter 7 of this report

6.6 Key findings of targeted and follow up sample results

Where 2017 samples were found to exceed a statutory MRL the relevant food commodities were targeted for analysis in 2018. In addition a number of organic samples imported into the country were targeted for testing. Fifteen samples were taken and 1 sample exceeded an MRL.

Table 13: Summary results of import control samples

Commodity	**Residues detected**				**Origin of samples**			
	Total	**<LOQ**	**>LOQ & <MRL**	**>MRL**	**IE**	**EU**	**TC**	**Unknown**
Lemons	1	0	1	0	0	0	1	0
Strawberries	16	3	12	1	0	0	16	0
Sweet peppers	1	1	0	0	0	0	1	0
Total	**18**	**4**	**13**	**1**	**0**	**0**	**18**	**0**

Table 14: Summary of import control samples taken in the enforcement programme

Enforcement samples with pesticide residues detected	• 18 import control samples were analysed • 22.2% had no residue detected above the LOQ • 72.2% had residues detected above the LOQ and below the MRL • 5.6% had residues detected above the MRL
Origin of samples	• 100.0% of import control samples were from outside the EU
Most frequently detected pesticide	• Not relevant due to diverse range of commodities
Maximum number of multiple residues	• 7 pesticides were found in a strawberry sample from Egypt
Pesticide residues above the MRL	• 1 sample exceeded the MRL. Details are in chapter 7 of this report

6.7 Key findings of import control sample results

In 2018 18 samples were taken under EU Regulations dealing with increased inspection of targeted food commodities from certain countries. No residues were detected in 22.2% of the samples and 72.2% of the samples had residues in compliance with the EU legislation. There was one MRL breach (5.6%) found in 2018.

7 MRL BREACHES

7.1 Types of breaches

Thirty (2.2%) of the 1,335samples taken in 2018 were found to contain residues above the Maximum Residue Levels set in Regulation (EC) 396/2005. Taking into account the analytical measurement uncertainty1.2% of the samples (16 samples) clearly exceeded these legal limits (non-compliance).

Table 15 shows the breakdown of the residues found in all samples by food types, total sample number and % of samples without residues above the LOQ, residues below the MRL and the number exceeding the MRL from the two sampling programmes.

Table 15: Summary of all food types with residues and MRL breaches in 2018

Sampling programmes	Food types	Numbers	< LOQ		<MRL		> MRL	
Surveillance	Fruit Veg	771	285	37.0%	465	60.3%	21	2.7%
Surveillance	Cereal	63	28	44.4%	28	44.4%	7	11.1%
Surveillance	Animal origin	411	395	96.1%	16	3.9%	0	0.0%
Surveillance	Baby food	57	57	100.0%	0	0.0%	0	0.0%
Enforcement	Fruit Veg	15	8	53.3%	6	40.0%	1	6.7%
Import Controls	Fruit Veg	18	4	22.2%	13	72.2%	1	5.6%
Total		**1335**	**777**	**58.2%**	**528**	**39.6%**	**30**	**2.2%**

Table 16 lists all the breaches with details of the origin, commodity, and pesticide detected above the MRL and the residues found.

Table 16: Details of the MRL breaches in 2018

	Source	Commodity	Pesticide	Residue	MRL
Surveillance					
Ireland	Ireland	Kales	Pymetrozine	0.28	0.2
			Fenvalerate	0.024	0.02
		Kales	Thiacloprid	1.1	0.4
		Leeks	Fenpropimorph	0.011	0.01
		Potatoes	Fluazinam	0.039	0.02
EU	Portugal	Pears	Folpet	0.043	0.03
	Spain	Cucurbits with peel	Dieldrin	0.036	0.03
Third Country	Brazil	Apples	Fenhexamid	0.015	0.01
		Mangoes	Flutriafol	0.016	0.01
	China	Ginger	Metalaxyl	0.057	0.05
	Colombia	Passionfruits	Chlorothalonil	0.059	0.01
			Dimethomorph	0.025	0.01
	Egypt	Oranges	Propargite	0.049	0.01
		Strawberries	Propargite	0.025	0.01
	Guatemala	Beans (with pods)	BAC 12	3.8	0.1
			BAC 14	5.9	0.1
			BAC 16	0.42	0.1
		Peas (with pods)	Omethoate	0.027	0.01
			Dimethoate	0.087	0.01
	India	Rice	Tricyclazole	0.33	0.01
			Carbendazim	0.028	0.01
			Thiamethoxam	0.026	0.01
	Kenya	Beans (with pods)	Acephate	0.19	0.01
			Methamidophos	0.052	0.01
	Mexico	Spring onions	Chlorantraniliprole	0.052	0.01
	Peru	Peas (with pods)	BAC 12	0.093	0.1
			BAC 14	0.033	0.1
	South Africa	Grapefruits	Bromopropylate	0.015	0.01
	Turkey	Pomegranates	Acetamiprid	0.028	0.01
			Azoxystrobin	0.033	0.01
			Fenvalerate	0.11	0.02
	United States	Sweet potatoes	Chlorpropham	0.022	0.01
		Sweet potatoes	Permethrin	0.067	0.05
Unknown	Unknown	Rice	Tricyclazole	0.015	0.01
		Rice	Tricyclazole	0.019	0.01
		Rice	Tricyclazole	0.021	0.01
		Rice	Tricyclazole	0.033	0.01
		Rice	Tricyclazole	0.017	0.01
		Rice	Tricyclazole	0.17	0.01
			Thiamethoxam	0.016	0.01
Enforcement					
Ireland	Ireland	Swedes	Chlorthal-dimethyl	0.035	0.01
EU	Egypt	Strawberries	Carbendazim	0.27	0.1

7.2 Risk Assessments

7.2.1 Acute assessment

An acute risk assessment for Irish consumers, adults and children, was conducted for each MRL exceedance detected in 2018.

The risk assessment is based on the following factors:

- A large portion consumed over a 24 hour period. A very high percentile, 97.5%, is used from the food surveys.
- Body weight of the consumer.
- A variability factor to account for possible uneven distribution of the residues in a consignment or food lot. A factor of 5 is normally used. The mean residue detected in a laboratory sample is multiplied by this factor and is applied to an average weight of a food unit.
- ARfD - Acute reference dose mg /kg bw - toxicological endpoint over a 24 hour period.
- Residue found in the sample exceeding the MRL.
- Refinement such as peel/pulp factors. In the post-harvest application such as dipping citrus fruit in Imazalil, a refinement factor can be used since most of the pesticide resides on the peel and the laboratory result is based on the whole fruit.

The results of the assessments are provided to the FSAI to coordinate a harmonised enforcement approach.

It should be stressed that these assessments based on the combination of a large food portion, highest residue found and a highly uneven distribution of the residue is a very conservative assessment leading to an overestimation of the real exposure of the Irish consumers to pesticide intakes.

The acute or short term pesticide intake for all products which had breaches indicates that all breaches were below the 100% ARfD and therefore are deemed not to represent a short term intake safety concern.

7.2.2 Chronic Assessment

A chronic risk assessment for Irish consumers, adult and children, is conducted for each MRL exceedance. The calculation of the chronic exposure assessment is based on

- Mean portion of food consumed
- Body weight of the consumer
- ADI (acceptable daily intake)
- Residue found in the sample exceeding the MRL

It is assumed that the consumer is eating the same commodity with the residue leading to the MRL breach on a daily basis over a lifetime. This assessment is an overestimate of the real exposure to pesticides.

There was no chronic intake exceedance for any of the 30 MRL breaches encountered in 2018.

8 ENFORCEMENT ACTIONS

Enforcement action is taken when an unacceptable risk to consumers is identified, or where repeated occurrence of excessive residue levels in commodities from the same source occurs. As part of the enforcement programme, commodities of specific country of origin are targeted for further attention. Targeted sampling of produce in the monitoring plan that has previously been found to be in breach of established MRLs is the prime means of determining whether violations are isolated incidents or are a result of systematic pesticides abuse. The enforcement sampling programme is designed to eliminate such abuses and to ensure that they are not repeated.

8.1 Enforcement actions on domestic samples

The PCD Enforcement Officer investigates MRL breaches in samples of domestic origin. In 2018, five MRL breaches were detected in produce of domestic origin (2 kale, leek, potatoes, and swedes).

With respect to each reported breach, the following summarises the findings of the follow-up investigation;

- Pymetrozine and fenvalerate detected in kale -. Not a breach when measurement uncertainty taken into account. Breach may have resulted from unusual climatic conditions.
- Thiacloprid detected in kale – Grower may have applied product at rate in excess of recommended rate which combined with unusual climatic conditions resulted in a breach.
- Fenpropimorph detected in leeks – Not a breach when measurement uncertainty taken into account. Possible cross contamination from legal spraying of an adjacent crop.
- Fluazinum detected in potatoes – Not a breach when measurement uncertainty taken into account. Possible cross contamination from legal spraying of an adjacent crop.
- Chlorthal-dimethyl detected in swedes – reason for breach could not be established.

As a result of MRL breaches and invalid uses detected in 2018, a number of follow up targeted samples were taken from domestic growers in 2019.

8.2 Enforcement actions on imported samples

With respect to MRL breaches detected in imported samples, it was not always possible to establish the reasons for breaches in the absence of details on the pesticides authorised for use in the countries of origin. Where an imported product contained a residue in excess of an MRL, the authorities in the country of origin and the Irish importer were informed of the MRL breach.

They are also informed that further produce from the same source encountered on the Irish market would be further targeted for analysis and, if necessary, subjected to statutory actions.

Commission Regulation (EC) No. 669/2009 imposes additional controls on imports from third countries known or considered to be a risk from elevated levels of pesticide residues. Annex I to this legislation lists countries and commodities subject to this legislation, and also details sampling and analysis frequencies. Produce subject to these additional controls can only enter the country through Designated Points of Entry, which for Ireland (with respect to pesticide residues) are Dublin Port and Dublin Airport.

Based on the laboratory result (and risk assessment where appropriate), a consignment is either released (no issues arising), redespatched or destroyed under supervision. The latter options come into play when a risk assessment indicates that a health concern cannot be ruled out and/or a MRL is breached with a 50% measurement of uncertainty. In all instances a health concern takes precedence over uncertainty guidelines.

In 2018, 18 consignments were randomly selected and analysed for pesticide residues. One sample was found to breach relevant MRLs and was destroyed under supervision.

8.3 Concluding remarks

The Pesticide Control Laboratory and Pesticide Controls Division of the DAFM, and the FSAI continue to have an on-going dialogue as part of the service contract between both organisations. The intention is to optimise the annual control programme for pesticide residues in food and assess the possible risk of such residues for consumers. The programme will continue to take account of the opinion of the European Commission with respect to the range of crops and pesticides to be included in the programme.

For the immediate future, DAFM will focus on further increasing the capacity of the laboratory to screen for an ever-increasing number of pesticides, using multi and single residue methods over a wider range of food commodities.

9 ANNEXES

9.1 ANNEX I Scopes and Reporting Level (mg/kg) of the analytical methods used

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
1	1-Naphthylacetamide	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
2	2,4,5-T	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
3	2,4-D	LC	0.02	N	0.02	N	0.02	N	0.02	N	0.02	N	0.02	N
4	2,4-DB	LC	0.067	N	0.07	N	0.067	N	0.067	N	0.067	N	0.067	N
5	4,4-Dichlorobenzophenone	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
6	Abamectin	LC	0.01	N	0.1	Y	0.01	N	0.1	N	0.1	N	0.01	Y
7	Acephate	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
8	Acephate	GC	0.01	Y	0.01	Y	0.005	Y	0.005	N	0.005	N	0.005	N
9	Acetamiprid	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
10	Acetochlor	LC	0.02	Y	0.02	Y	0.02	N	0.02	N	0.02	N	0.01	Y
11	Acibenzolar-S-methyl	LC	0.05	N	0.05	N	0.05	N	0.05	N	0.05	N	0.05	N
12	Aclonifen	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
13	Acrinathrin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
14	Alachlor	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
15	Aldicarb	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
16	Aldicarb-sulfone	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
17	Aldicarb-sulfoxide	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
18	Aldrin	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.003	Y
19	Ametryn	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
20	Amidosulfuron	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
21	Aminocarb	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
22	Anthraquinone	GC	0.05	N	0.05	N			0.05	N	0.05	N	0.05	N
23	Asulam	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
24	Atrazine	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
25	Atrazine-desethyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
26	Atrazine-desisopropyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
27	Azaconazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
28	Azamethiophos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
29	Azinphos-ethyl	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
30	Azinphos-methyl	GC	0.01	Y	0.01	Y	0.01	Y	0.005	Y	0.005	N	0.005	N
31	Azoxystrobin	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
32	Azoxystrobin	GC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
33	BAC10	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
34	BAC12	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
35	BAC14	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
36	BAC16	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
37	Benalaxyl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
38	Bendiocarb	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
39	Bentazone	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
40	Benthiavalicarb-isopropyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
41	Benzoximate	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
42	Bifenthrin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
43	Binapacryl	GC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	N
44	Bioresmethrin	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
45	Biphenyl	GC	0.05	Y	0.01	Y	0.025	Y	0.05	N	0.05	N	0.01	Y
46	Bitertanol	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
47	Bixafen	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
48	Boscalid	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
49	Boscalid	LC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
50	Bromacil	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
51	Bromophos-ethyl	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
52	Bromophos-methyl	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	N
53	Bromopropylate	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
54	Bromoxynil	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	N
55	Bromuconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
56	Bupirimate	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
57	Buprofezin	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
58	Butocarboxim Sulfoxide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
59	Butoxycarboxim	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.02	Y
60	Cadusafos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.003	Y
61	**Captofol**	**GC**	0.01	N	0.01	N	0.005	N	0.01	N	0.01	N	0.01	N
62	**Captan**	**GC**	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
63	Carbaryl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
64	Carbendazim	LC	0.01	Y	0.02	Y	0.02	N	0.02	N	0.02	N	0.01	Y
65	Carbofuran	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
66	Carbofuran 3 Hydroxy	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
67	Carbosulfan	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
68	Carboxin	LC	0.01	N	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
69	Carfentrazone-ethyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
70	Chlorantraniliprole	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
71	Chlorbromuron	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
72	Chlorbufam	GC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
73	Chlordane-cis	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.05	Y
74	Chlordane-trans	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.05	Y
75	Chlorfenapyr	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
76	Chlorfenvinphos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
77	Chlorfluazuron	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
78	Chloridazon	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
79	Chlorobenzilate	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
80	Chlorothalonil	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
81	Chlorotoluron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
82	Chloroxuron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
83	Chlorpropham	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
84	Chlorpyrifos methyl	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
85	Chlorpyriphos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	Y
86	Chlorsulfuron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.05	Y
87	Chlorthal-dimethyl	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
88	Chlozolinate	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.05	Y
89	Clethodim	LC	0.01	N	0.01	N			0.01	N	0.01	N	0.01	Y
90	Clodinafop-propargyl	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
91	Clofentezine	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
92	Clomazone	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
93	**Clopyralid**	**LC**	0.05	N	0.05	N	0.05	N	0.05	N	0.05	N	0.05	N
94	Clothianidin	LC	0.01	N	0.01	Y			0.01	N	0.01	N	0.01	Y
95	Coumaphos	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
96	Cyanazine	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
97	Cyanofenphos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
98	Cyanophos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
99	Cyazofamid	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
100	Cyclanilide	LC	0.1	Y	0.1	N			0.1	N	0.1	N	0.1	N
101	Cycloate	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
102	Cycloxydim	LC	0.05	Y	0.05	Y			0.05	N	0.05	N	0.05	Y
103	Cyfluthrin	GC	0.01	Y	0.01	Y	0.02	Y	0.02	Y	0.01	N	0.05	Y
104	Cyhalothrin-lambda	GC	0.01	Y	0.02	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
105	Cymiazol	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
106	Cymoxanil	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
107	Cypermethrin	GC	0.02	Y	0.02	Y	0.01	Y	0.02	N	0.02	N	0.1	Y
108	Cyproconazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
109	Cyprodinil	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
110	DDAC	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
111	DEET	LC	0.05	Y	0.05	Y	0.05	N	0.05	N	0.05	N	0.05	Y
112	Deltamethrin	GC	0.01	Y	0.01	Y	0.02	Y	0.01	N	0.01	N	0.05	Y
113	Demeton-S-me-sulfone	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.003	Y
114	Demeton-S-methyl-sulfoxide	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
115	Desmedipham	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
116	Diazinon	GC	0.01	Y	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
117	Dichlobenil	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
118	Dichlofenthion	LC	0.05	N	0.01	Y	0.05	N	0.05	N	0.05	N	0.05	Y
119	Dichlofluanid	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
120	Dichlorprop	LC	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
121	Dichlorvos	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
122	Diclobutrazol	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
123	Dicloran	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
124	Dicofol	GC	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
125	Dicrotophos	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
126	Dieldrin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.003	Y
127	Diethofencarb	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
128	Difenoconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
129	Diflubenzuron	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
130	Diflufenican	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
131	Dimethenamid	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
132	Dimethoate	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
133	Dimethomorph	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
134	Dimoxystrobin	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
135	Diniconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
136	Dinitramine	LC	0.1	N	0.1	N	0.1	N	0.1	N	0.1	N	0.1	N
137	Dinoseb	LC	0.02	Y	0.01	Y			0.02	N	0.02	N	0.01	Y
138	Dinoterb	LC	0.02	Y	0.01	Y			0.02	N	0.02	N	0.02	Y
139	Dioxacarb	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
140	Diphenamid	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
141	Diphenylamine	GC	0.05	Y	0.05	N	0.025	Y	0.05	N	0.05	N	0.01	Y
142	Ditalimfos	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
143	Diuron	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
144	DMSA	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
145	DMST	LC	0.02	Y	0.02	N	0.02	N	0.02	N	0.02	N	0.02	Y
146	DNOC	LC	0.01	Y	0.01	N			0.02	N	0.02	N	0.02	Y
147	Dodine	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
148	Emamectin B1a	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
149	Endosulfan sulfate	LC	0.02	Y	0.02	N	0.02	Y	0.02	N	0.02	N	0.01	Y
150	Endosulfan-alpha	GC	0.01	N	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
151	Endosulfan-beta	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
152	Endosulfan-ether	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
153	Endosulfan-lacton	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
154	Endosulfan-sulfate	GC	0.02	Y	0.02	N	0.02	Y	0.02	N	0.02	N	0.02	N
155	Endrin	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.003	Y
156	EPN	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
157	Epoxyconazole	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
158	Esfenvalerate	LC	0.01	Y			0.05	Y					0.01	Y
159	EPTC	LC	0.1	N	0.1	N	0.1	N	0.1	N	0.1	N	0.1	N
160	Ethiofencarb	LC	0.05	Y	0.05	N	0.05	Y	0.05	N	0.05	N	0.05	Y
161	Ethiofencarb-sulfone	LC	0.05	Y	0.05	N	0.05	N	0.05	N	0.05	N	0.05	Y
162	Ethiofencarb-sulfoxide	LC	0.05	Y	0.05	N	0.05	Y	0.05	N	0.05	N	0.05	Y
163	Ethion	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
164	Ethirimol	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
165	Ethofumesate	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
166	Ethoprophos	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.003	Y
167	Etofenprox	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
168	Etoxazole	GC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.05	Y
169	Etridazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
170	Etrimfos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
171	Famoxadone	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
172	Fenamidone	GC	0.01	Y	0.02	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
173	Fenamiphos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
174	Fenamiphos-sulfone	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
175	Fenamiphos-sulfoxide	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
176	Fenarimol	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
177	Fenazaquin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
178	Fenbuconazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
179	Fenchlorphos	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
180	Fenhexamid	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
181	Fenitrothion	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
182	Fenoprop (2,4,5-TP)	LC	0.05	N	0.05	N			0.05	N	0.05	N	0.05	N
183	Fenothiocarb	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
184	Fenoxaprop-ethyl	LC	0.05	N	0.05	Y	0.05	N	0.05	N	0.05	N	0.05	Y
185	Fenoxycarb	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
186	Fenpiclonil	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
187	Fenpropathrin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
188	Fenpropidin	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
189	Fenpropimorph	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
190	Fenpyroximate	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N
191	Fensulfothion	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.003	N
192	Fenthion	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
193	Fenthion Sulfone	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
194	Fenthion Sulfoxide	LC	0.01	N	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
195	Fenuron	LC	0.05	N	0.05	Y	0.05	N	0.05	N	0.05	N	0.05	Y
196	Fenvalerate	GC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
197	Fipronil	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.003	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**
198	Fipronil desulfynil	LC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	0.01	**N**	**0.003**	**Y**
199	Fipronil sulfide	LC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	0.01	**N**	**0.003**	**Y**
200	Fipronil sulfone	LC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	0.01	**N**	**0.003**	**Y**
201	Flamprop-isopropyl	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
202	Flazasulfuron	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
203	Flonicamid	LC	**0.01**	**N**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
204	Florasulam	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
205	Fluazifop	LC	**0.02**	**Y**	**0.01**	**Y**	**0.02**	**N**	**0.02**	**N**	0.02	**N**	**0.02**	**N**
206	Fluazifop-P-butyl	LC	**0.01**	**Y**	**0.01**	**Y**			**0.02**	**N**	0.02	**N**	**0.01**	**Y**
207	Fluazinam	LC	**0.01**	**Y**	**0.01**	**Y**			**0.02**	**N**	0.02	**N**	**0.01**	**Y**
208	Flubendiamide	LC	**0.01**	**N**	**0.01**	**Y**			**0.01**	**N**	0.01	**N**	**0.01**	**Y**
209	Flucycloxuron	LC	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
210	Flucythrinate	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
211	Fludioxonil	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
212	Fludioxonil	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
213	Flufenacet	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
214	Flufenoxuron	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
215	Fluopicolide	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
216	Fluopyram	LC	**0.02**	**N**	**0.02**	**Y**	**0.02**	**N**	**0.02**	**N**	0.02	**N**	**0.02**	**Y**
217	Fluquinconazole	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**N**
218	Flurochloridone	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
219	Flurtamone	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
220	Flusilazole	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
221	Flutolanil	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
222	Flutriafol	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
223	Fluvalinate-tau	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
224	Fluxapyroxad	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
225	**Folpet**	**GC**	**0.01**	**N**	**0.01**	**N**			**0.01**	**N**	0.01	**N**	**0.01**	**N**
226	Fonofos	GC	**0.01**	**Y**	**0.01**	**N**	**0.005**	**Y**	**0.005**	**Y**	0.01	**N**	**0.01**	**Y**
227	Forchlorfenuron	LC	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
228	Formothion	GC	**0.01**	**N**	**0.01**	**N**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**N**
229	Fosthiazate	LC	**0.01**	**N**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
230	Fuberidazole	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
231	Furalaxyl	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
232	Furathiocarb	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
233	Furmecyclox	LC	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	0.01	**N**	**0.01**	**Y**
234	Haloxyfop	LC	**0.02**	**Y**	**0.01**	**Y**			**0.02**	**N**	0.02	**N**	**0.02**	**N**
235	Haloxyfop-methyl	LC	**0.01**	**Y**	**0.01**	**Y**	**0.02**	**N**	**0.02**	**N**	0.02	**N**	**0.01**	**Y**
236	HCH-alpha	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	0.005	**N**	**0.005**	**N**
237	HCH-beta	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	0.01	**N**	**0.01**	**Y**

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**
238	HCH-delta	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**Y**
239	Heptachlor	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.003**	**Y**
240	Heptachlor endo-epoxide,trans	GC	**0.01**	**N**	**0.01**	**N**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.003**	**Y**
241	Heptachlor exo-epoxide,cis	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.005**	**N**	**0.003**	**N**
242	Heptenophos	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
243	Hexachlorobenzene	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.003**	**Y**
244	Hexaconazole	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
245	Hexaflumuron	LC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
246	Hexythiazox	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
247	Imazalil	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
248	Imazamox	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
249	**Imazaquin**	**LC**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
250	**Imazethapyr**	**LC**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
251	Imidacloprid	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
252	Indoxacarb	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
253	Iodofenphos	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.005**	**N**	**0.005**	**N**
254	Iodosulfuron-methyl	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
255	Ioxynil	LC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
256	Iprodione	GC	**0.01**	**Y**	**0.01**	**N**			**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
257	Iprovalicarb	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
258	Isazophos	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
259	Isocarbofos	GC	**0.01**	**Y**	**0.01**	**Y**			**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
260	Isodrin	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
261	Isofenphos	LC	**0.01**	**Y**	**0.02**	**Y**	**0.01**	**Y**	**0.02**	**N**	**0.02**	**N**	**0.01**	**Y**
262	Isofenphos	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.02**	**N**	**0.02**	**N**	**0.01**	**Y**
263	Isofenphos-methyl	GC	**0.01**	**Y**	**0.01**	**N**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
264	Isofenphos-oxon	GC	**0.01**	**N**	**0.01**	**N**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**
265	Isoprocarb	LC	**0.01**	**N**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
266	Isoprothiolane	LC	**0.01**	**N**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
267	Isoproturon	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
268	Kresoxim-methyl	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
269	Lenacil	GC	**0.01**	**Y**	**0.05**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
270	Lindane	GC	**0.01**	**Y**	**0.01**	**Y**	**0.005**	**Y**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**Y**
271	Linuron	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
272	Lufenuron	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
273	Malaoxon	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
274	Malathion	LC	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
275	Mandipropamid	LC	**0.01**	**N**	**0.01**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**
276	MCPA	LC	**0.02**	**Y**	**0.02**	**N**			**0.02**	**N**	**0.02**	**N**	**0.02**	**N**
277	MCPA methyl ester	GC	**0.01**	**Y**	**0.01**	**N**	**0.005**	**Y**	**0.01**	**N**	**0.01**	**N**	**0.01**	**Y**

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
278	MCPB	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	N
279	Mecarbam	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
280	Mecoprop	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	N
281	Mefenpyr-Diethyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
282	Mepanipyrim	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
283	Mephosfolan	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
284	Mepronil	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
285	Mesosulfuron methyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
286	Metalaxyl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
287	Metamitron	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
288	Metazachlor	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
289	Metconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
290	Methacrifos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
291	Methamidophos	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
292	Methamidophos	GC	0.01	N	0.01	Y			0.01	N	0.01	N	0.01	Y
293	Methidathion	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
294	Methiocarb	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
295	**Methiocarb sulfone**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
296	**Methiocarb sulfoxide**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
297	Methomyl	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
298	Methoprene	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
299	Methoxychlor	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.005	N	0.005	N
300	Methoxyfenozide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
301	Metobromuron	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
302	Metolachlor	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
303	Metosulam	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
304	Metoxuron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
305	Metrafenone	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
306	Metribuzin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
307	Metsulfuron-methyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
308	Mevinphos	GC	0.01	Y	0.01	Y	0.005	Y	0.02	Y	0.01	N	0.01	Y
309	Mirex	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
310	Molinate	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
311	Molinate	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
312	Monocrotophos	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
313	Monolinuron	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
314	Myclobutanil	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
315	Napropamide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
316	Naptalam	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
317	Neburon	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
318	Nicosulfuron	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.02	N
319	Nitenpyram	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
320	Nitrofen	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.003	N
321	Nonachlor-trans	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
322	Nuarimol	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
323	Omethoate	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.003	N
324	opDDD	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
325	opDDE	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
326	opDDT	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
327	o-Phenyphenol	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
328	Oxadiazon	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
329	Oxadixyl	GC	0.01	N	0.01	Y			0.01	N	0.01	N	0.01	Y
330	Oxamyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
331	Oxamyl Oxime	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
332	Oxychlordane	GC	0.01	Y	0.01	Y	0.005	Y	0.006	N	0.006	N	0.006	N
333	Oxyfluorfen	LC	0.1	N	0.01	Y	0.1	N	0.1	N	0.1	N	0.1	Y
334	Paclobutrazol	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
335	Paraoxon methyl	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
336	Paraoxon-ethyl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
337	Parathion-ethyl	GC	0.01	Y	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	Y
338	Parathion-methyl	GC	0.01	Y	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
339	PCB28	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
340	PCB52	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
341	PCB101	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
342	PCB118	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
343	PCB138	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
344	PCB153	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
345	PCB180	GC	0.005	N	0.01	Y	0.005	Y	0.01	Y	0.01	N	0.01	Y
346	Penconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
347	Pencycuron	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
348	Pendimethalin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
349	Pentachloroaniline	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
350	Permethrin	GC	0.01	Y	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	Y
351	Pethoxamid	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
352	Phenmedipham	LC	0.01	N	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
353	Phenthoate	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
354	**Phorate**	**GC**	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
355	Phorate Sulfoxide	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
356	Phosalone	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
357	Phosmet	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
358	Phosphamidon	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
359	Phoxim	LC	0.01	N	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
360	**Picloram**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
361	Picoxystrobin	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
362	Piperonyl butoxide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
363	Pirimicarb	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
364	Pirimicarb desmethyl	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
365	Pirimiphos-ethyl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
366	Pirimiphos-methyl	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
367	ppDDD	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
368	ppDDE	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
369	ppDDT	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.005	N	0.005	N
370	Prochloraz	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
371	Procymidone	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
372	Profenofos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
373	Promecarb	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
374	Promethryn	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
375	Prometon	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
376	Propachlor	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
377	Propamocarb	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
378	Propanil	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
379	Propaquizafop	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
380	Propargite	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
381	Propazine	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
382	Propetamphos	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
383	Propham	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
384	Propiconazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
385	Propoxur	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
386	Propoxycarbazone	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
387	Propyzamide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
388	Proquinazid	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
389	Prosulfocarb	LC	0.05	Y	0.05	Y	0.01	N	0.01	N	0.01	N	0.01	Y
390	Prosulfuron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
391	Prothioconazole desthio	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
392	Prothiofos	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
393	Pymetrozine	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
394	Pyraclostrobin	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
395	Pyrazophos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
396	Pyrethrins	LC	0.05	N	0.01	Y	0.05	Y	0.05	N	0.05	N	0.05	Y
397	Pyridaben	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**	**RL**	**Acc**
398	Pyridaben	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
399	**Pyridalyl**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
400	Pyridaphenthion	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
401	Pyrifenox	GC	0.02	Y	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N
402	Pyrimethanil	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
403	Pyriproxifen	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
404	Quinalphos	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
405	Quinoxyfen	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
406	Quintozene	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
407	Quizalofop	LC	0.02	Y	0.01	Y			0.02	N	0.02	N	0.02	N
408	Quizalofop-ethyl	LC	0.01	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
409	Resmethrin	GC	0.1	N	0.05	Y	0.1	Y	0.1	N	0.1	N	0.1	N
410	Rimsulfuron	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.02	Y
411	Rotenone	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
412	Silthiofam	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
413	Simazine	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
414	Simetryn	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
415	Spinosyn A	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
416	Spinosyn D	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
417	Spirodiclofen	LC	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
418	Spirodiclofen	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
419	Spiromesifen	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
420	Spirotetramat	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
421	Spiroxamine	LC	0.01	Y	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	Y
422	Sulfentrazone	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.02	Y
423	Sulfotep	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
424	Sulprofos	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
425	Tebuconazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
426	Tebufenozide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
427	Tebufenpyrad	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
428	Tecnazene	GC	0.01	Y	0.01	Y	0.005	Y	0.005	Y	0.01	N	0.01	Y
429	Teflubenzuron	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
430	Tefluthrin	GC	0.01	N	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	N
431	**Terbufos**	**LC**	0.05	N	0.05	N	0.025	N	0.05	N	0.05	N	0.05	N
432	Terbumeton	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
433	Terbuthylazine	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
434	Terbuthylazine-2-hydroxy	LC	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	Y
435	Terbuthylazine-desethyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
436	Terbutryn	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
437	Tetraconazole	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y

	2018 Scope	Analysis Method	Fruit & Veg.		Cereals		Fats		Milk		Eggs		Infant Formula	
	Scope (mg/kg)		RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc	RL	Acc
438	Tetradifon	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
439	Tetramethrin	GC	0.02	Y	0.02	Y	0.005	Y	0.02	N	0.02	N	0.02	N
440	**TFNA**	**LC**	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
441	**TFNG**	**LC**	0.01	N	0.01	N			0.01	N	0.01	N	0.01	N
442	Thiabendazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
443	Thiacloprid	LC	0.02	Y	0.01	Y	0.02	N	0.02	N	0.02	N	0.01	Y
444	Thiamethoxam	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
445	Thifensulfuron-methyl	LC	0.05	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
446	Thiobencarb	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
447	Thiodicarb	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
448	Thionazin	LC	0.02	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
449	**Thiophanate methyl**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
450	**Thiophanate ethyl**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
451	Tolclofos-methyl	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
452	Tolyfluanid	GC	0.01	Y	0.01	N	0.005	Y	0.01	N	0.01	N	0.01	Y
453	**Topramezezone**	**LC**	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N	0.01	N
454	Triadimefon	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
455	Triadimenol	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
456	Tri-Allat	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
457	Triasulfuron	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
458	Triazophos	LC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
459	**Trichlorfon**	**LC**	0.02	N	0.02	N	0.02	N	0.02	N	0.02	N	0.02	N
460	Triclopyr	LC	0.01	N	0.01	Y			0.01	N	0.01	N	0.01	N
461	Tricyclazole	LC	0.01	N	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	Y
462	Trifloxystrobin	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
463	Triflumizole	LC	0.02	Y	0.01	Y	0.01	Y	0.02	N	0.02	N	0.01	Y
464	Triflumizole	GC	0.02	Y	0.01	Y	0.01	Y	0.02	N	0.02	N	0.01	Y
465	Triflumuron	LC	0.01	Y	0.01	Y			0.01	N	0.01	N	0.01	Y
466	Trifluralin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
467	Triflusulfuron-methyl	LC	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	N	0.01	N
468	Triticonazole	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
469	Vamidothion	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y
470	Vinclozolin	GC	0.01	Y	0.01	Y	0.005	Y	0.01	N	0.01	N	0.01	Y
471	Zoxamide	LC	0.01	Y	0.01	Y	0.01	Y	0.01	N	0.01	N	0.01	Y

Single Residue Methods Scope and Reporting Levels (mg/kg)

	Dithiocarbamates	Fruit & Veg.		IF/FOF		Cereals	
		RL	Acc	RL	Acc	RL	Acc
	Dithiocarbamates	0.05	Y	0.05	Y	0.05	Y

	Glyphosate	**Fruit & Veg.**		**Cereals**										
		RL	**Acc**	**RL**	**Acc**									
	AMPA	**0.08**	**N**	**0.08**	**Y**									
	Ethephon	**0.05**	**N**	**0.04**	**Y**									
	Glufosinate ammonium	**0.08**	**N**	**0.08**	**Y**									
	N-acetyl Glufosinate	**0.08**	**N**	**0.08**	**Y**									
	Glyphosate	**0.08**	**N**	**0.08**	**Y**									
	Quats	**Fruit & Veg.**		**Cereals**										
		RL	**Acc**	**RL**	**Acc**									
	Chlormequat	**0.01**	**Y**	**0.02**	**Y**									
	Cyromazine	**0.02**	**Y**	**0.02**	**Y**									
	Daminozide	**0.01**	**Y**	**0.02**	**Y**									
	Mepiquat	**0.01**	**Y**	**0.02**	**Y**									
	Paraquat	**0.1**	**Y**	**0.05**	**Y**									
	Amitraz	**Fruit & Veg.**		**Honey**										
		RL	**Acc**	**RL**	**Acc**									
	Amitraz	**0.01**	**Y**	**0.01**	**Y**									
	DMF	**0.01**	**Y**	**0.01**	**Y**									
	DMPF	**0.01**	**Y**	**0.01**	**Y**									

9.2 ANNEX II Abbreviations

ADI	Acceptable daily intake
ARfD	Acute Reference Dose
BIP	Border Inspection Post
DAFM	Department of Agriculture, Food and the Marine
EC	European Community
EU	European Union
FSAI	Food Safety Authority of Ireland
IUNA	Irish Universities Nutrition Alliance
LOQ	Limit of Quantitation
mg/kg	milligram per kilogram
MRL	Maximum Residue Level
NCFS	National Children’s Food Survey
OJ	Official Journal of the European Union
PCB	Polychlorinated Biphenyl
PCD	Pesticide Controls Division
PCL	Pesticide Control Laboratory
RASFF	Rapid Alert System for Food and Feed
S.I.	Statutory Instrument
TC	Third Country

9.3 ANNEX III Glossary of terms

Acceptable Daily Intake (ADI)	An ADI is an estimate of the amount of a residue in food or drinking water, expressed on a body weight basis that can be ingested daily over a lifetime without appreciable health risk. The particular vulnerability of infants, children, the elderly and those whose systems are under stress because of ill-health, are taken into account, through application of a safety factor, when ADI values are established. ADI values are based on the no-adverse-effect level in the most sensitive animal species used in the toxicological experiments, or if appropriate data are available, in humans. Invariably, a safety factor to account for inter-species and intra-species variations is applied. Studies used as a basis for the identification of the relevant no-adverse-effect levels and hence for deriving ADI values, are conducted using active substance as manufactured. Accordingly the toxicological effects of impurities present in active substances are included in the assessment. Account is also taken of metabolites that may influence the toxicological significance of the residue reaching the consumer.
Acute Reference Dose (ARfD)	An ARfD is similar in nature to an ADI but it relates to intake of residues at one meal or on one day. The particular vulnerability of infants, children, the elderly and those whose systems are under stress because of ill-health, are taken into account, through application of a safety factor, when ARfD values are established. ARfD values are based on the no-adverse effect level in the most sensitive animal species used in the toxicological experimentation, or if appropriate data are available, in humans. ARfD values are derived from the results of those toxicological studies that are most relevant to short term exposure.
Good Agricultural Practice (GAP)	GAP in the use of a plant protection product (pesticide) includes authorised use under practical conditions necessary for effective control of harmful organisms. It encompasses a range of levels of application up to the highest level authorised, applied in a manner that leaves a residue that is the smallest amount practicable.
Limit of Quantitation (LOQ)	The LOQ is the lowest concentration of a pesticide residue or contaminant that can be identified and quantitatively measured in specified food, agricultural commodity or animal feed, with an acceptable degree of certainty by a method of analysis.

Maximum Residue Level (MRL)	MRL is the maximum concentration of a pesticide residue, expressed in milligrams per kilogram, legally permitted in or on food commodities and animal feeds. MRLs are based on supervised residues trials data that reflect Good Agricultural Practice (GAP). MRLs established for particular food commodities are such that potential consumer exposure to residues is judged to be toxicologically acceptable. MRLs are fixed at or about the limit of determination, where there are no approved uses. MRLs are established on the basis of sound scientific knowledge. They are only established for those pesticides for which acceptable daily intake (ADI) values exist.
Pesticide Residue	Any trace of a pesticide found in a sample, including any specified derivatives such as degradation and conversion products, metabolites and impurities, which are considered to be of toxicological significance and are included in the residue definition

Results included in the above report were generated by the

Pesticide Control Laboratory,

Department of Agriculture, Food and the Marine Laboratories,

Backweston Campus,

Celbridge,

Co. Kildare.

Ireland.

Telephone: (01) 615 7552
Fax: (01) 615 7575
Email: pcs@agriculture.gov.ie