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National summary reports on pesticide residue analysis performed in 2014

European Food Safety Authority (EFSA)

Abstract

In accordance with Article 31 of Regulation (EC) No 396/2005, European Union (EU) Member States have to communicate to the European Food Safety Authority (EFSA) the results of their official controls on pesticide residues in food. In the framework of this communication, the EU Member States, Iceland and Norway provided a short summary report outlining the main findings of the control activities during the reference year. This technical report is the compilation of the contributions of the reporting countries.

Keywords: pesticide residues, food, Regulation (EC) No 396/2005, pesticide monitoring 2014

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Summary

In the framework of the preparation of the annual report on pesticide residues under Regulation (EC) No 396/2005, the EU Member States, Norway and Iceland reported the results of the official controls to the European Commission, EFSA and other Member States using the standardised reporting format (EFSA, 2015).

EFSA prepared the scientific report summarising the results of the pesticide monitoring activities in the reporting countries (EFSA, 2016). In addition to the results, all but one of the reporting countries provided additional information and a summary of the national results in a separate document. These national summary reports contained information on the competent authorities responsible for the implementation of pesticide monitoring at a national level, the objectives and design of their national monitoring programme, highlighting the specific characteristics and priorities of the national control plans, and the overall results of the national control programmes. The reporting countries also summarised the results, and provided further information on follow-up actions taken and possible reasons for samples that were found to be non-compliant with the legal limits. Some reporting countries included a trend analysis in which the 2014 results were compared with the results of previous years. The national summary reports also addressed quality assurance aspects, such as the accreditation status of the laboratories responsible for official controls, and their participation in proficiency tests.

This technical report is a compilation of the national summary reports, which is prepared to complement the 2014 EU report on pesticide residues in food (EFSA, 2016).

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Background

European Union (EU) Member States have to submit to the European Food Safety Authority (EFSA) the results of controls on pesticide residues in food. In addition to the results that are reported according to the standardised reporting format (EFSA, 2015), Member States provided a short summary report outlining the main findings of the samples analysed during the reference period.

Terms of reference

In accordance with Article 31 of Regulation (EC) No 396/2005, Member States shall submit their updated national control programme for pesticide residues to EFSA and publish all results of the national residue monitoring on the Internet. EFSA shall prepare a technical report compiling the national summary reports provided by the reporting countries[1]. In order to harmonise the whole document layout and to align it according to the EFSA technical reports' style, EFSA made minor changes in the documents provided by the reporting counties; however, the content of the original national summary reports were not amended.

The technical report is complementary to the Scientific Report regarding the findings of the 2014 control year (EFSA, 2016).

[1] In order to harmonise the whole document layout and to align it according to the EFSA technical reports' style, EFSA made minor changes in the documents provided by the reporting counties; however, the content of the original, idividual national reports was not amended.

1. Introduction

This report is a compilation of the national summary reports as provided to EFSA by the national competent authorities (see Appendix A of EFSA, 2016).

It is noted that there might be a discrepancy between the information provided in the national summary reports and the information published in the 2014 European Union Report on Pesticide Residues (EFSA, 2015), because EFSA included additional data-cleaning steps to ensure that the results reported by the 30 countries are comparable. Thus, these data-cleaning steps might have an impact on the overall results, such as the maximum residue limits (MRL) compliance rates.

2. Austria

2.1. Objective and design of the national control programme

2.1.1. Responsibilities

National pesticide monitoring is conducted according to a nationwide sampling plan designed by the Austrian Agency for Health and Food Safety in cooperation with the Austrian Federal Ministry of Health. The plan is based on data concerning dietary consumption, the production and import of fruits, vegetables and food of animal origin, and takes into account the results of earlier monitoring programmes, as well as analytical possibilities. Furthermore, the national monitoring programme covers the coordinated programme of the European Commission (EC). In addition, routine samples were taken from the Austrian market by the responsible bodies.

2.1.2. Design of programmes (priorities, targeting, criteria for the percentage of samples to be taken from the organic sector)

The collected data are representative of the Austrian market. Based on the results of previous years, however, a higher risk for pesticide residues was identified for some commodities. These commodities were especially targeted in the monitoring programme and chosen for further examination, with the aim of reflecting the results of previous years. This year, emphasis was again laid on the sampling of fruits, vegetables and food of animal origin from organic farming. This type of 'partially targeted' monitoring is foreseen for future years.

2.1.3. Sampling: personnel, procedures and sampling points

Samples were taken by trained officials from the local Food Inspection Service (Lebensmittelaufsicht) in accordance with Commission Directive 2002/63/EC, which is implemented in the internal quality assurance system of the officials. The samples were predominantly taken at the retail or wholesale level.

2.1.4. Analytical methods used

The analytical methods adopted were those published by the Dutch federal laboratories ('Analytical Methods for Pesticide Residues in Foodstuffs', 6th Ed., General Inspectorate for Health Protection, Ministry of Public Health, Welfare and Sport (The Netherlands, 1996)) and validated in the laboratories. Samples were analysed for a maximum of 585 substances (part sums included). Multi-residue methods (MRM) were based on the quick, easy, cheap, effective, rugged and safe (QuEChERS) method, combined with gas chromatography with tandem mass/mass spectrometry (GC-MS/MS), gas chromatography with electron capture detector (GC-ECD), gas chromatography with nitrogen phosphorus detector (GC-NPD), gas chromatography with flame photometric detector (GC-FPD) and liquid chromatography with tandem mass/mass spectrometry (LC-MS/MS). Single-residue methods were used for dithiocarbamate (GC-MS), bromide (GC-ECD), glyphosate/glufosinate (LC-MS/MS), ethephon (LC-MS/MS) and phenoxy acids (LC-MS/MS).

2.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, 929 samples of fresh fruits, vegetables and plant products were analysed under the coordinated programme, the national pesticide monitoring programme and as routine samples. In addition, other products such as cereals (94 samples), processed products (559 samples), animal products (545 samples), fish products (37 samples) and baby food (98 samples) were analysed. In sum, 2,262 samples were examined for pesticide residues.

In total, 53.9% of all samples originated from Austria, 22.8% came from the European market, 19.3% came from third countries and the rest were of unknown origin. The percentages of surveillance samples with residues above the MRL were 1.2%, 1.4%, 5.6% and 3.6%, respectively (without taking measurement uncertainty into account).

No pesticide residues could be detected in 38.8% of the samples (surveillance and enforcement) of

fruit and vegetables (denoted as 'Sum of fruits and nuts, vegetable, other plant products' in the validation report); 54.8% of the samples had residues below or at the MRL. Disregarding measurement uncertainties, 5.6% of the samples of fruits and vegetables contained one or more pesticide(s) numerically above the MRL (51 samples). If, however, measurement uncertainty is taken into account, the number of unprocessed or processed samples of fruits and vegetables containing pesticide residues above the MRL, and thus being non-compliant, is reduced to 36 samples (3.9%). The non-compliance rate for all samples taken was 1.6%.

More than one pesticide was found in 380 samples (22%). The maximum number of different pesticides found in one sample was 20 (in one sample of tea).

Sixty-seven samples were taken as enforcement samples, of which five contained pesticide residues above the MRL and were non-compliant.

2.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, 37 samples (1.6%, all commodities) were non-compliant with the EU MRL, taking into account the measurement uncertainty. For these samples, administrative actions were set by the responsible officials from the local food inspection service.

Table 1: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	13	RASFF Reference 2014.0630 2014.0648 2014.0673 2014.0696 2014.0723 2014.0726 2014.0733 2014.1090 2014.BEP 2014.1533 2014.1681 2014.AHD 2014.BSE Nine samples of tea, two samples of chilli pepper, one sample of tomatoes and one of sample figs
Administrative sanctions (e.g. fines)	24	

RASFF: Rapid Alert System for Food and Feed.

Table 2: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
Not known	Acetamiprid (pistachio)	1	-
Not known	Acetamiprid (pomegranate)	1	-
Not known	Acetamiprid (tea)	4	-
Not known	Anthraquinone (tea)	11	-
Not known	Buprofezin (tea)	1	-
Not known	Carbaryl (peppers)	1	-
Not known	Carbendazim and benomyl (passion fruit)	1	-
Not known	Carbendazim and benomyl (rice)	1	-

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
Not known	Carbendazim and benomyl (tea)	1	-
Not known	Chlorpyrifos-methyl (linseed)	1	-
Not known	Dichlofluanid (celeriac)	1	-
Not known	Dicofol [sum] (peppers)	1	-
Not known	Dimethoate [sum] (figs)	1	-
Not known	Dimethomorph (Brussels sprouts)	1	-
Not known	Dithiocarbamates (potatoes)	1	-
Not known	Dithiocarbamates (spinach)	1	-
Not known	Etofenprox (mangoes)	1	-
Not known	Fipronil [sum] (tea)	1	-
Not known	Hexachlorobenzene (pumpkin seeds)	1	-
Not known	Imidacloprid (tea)	6	-
Not known	Iprodione (celeriac)	4	-
Not known	Iprodione (spinach)	1	-
Not known	Iprodione (celeriac)	1	-
Not known	Isocarbophos (tea)	1	-
Not known	Lufenuron (celeriac)	1	-
Not known	Malathion [sum] (mandarins)	1	-
Not known	Methomyl and thiodicarb [sum] (passion fruit)	1	-
Not known	Midacloprid (tea)	1	-
Not known	Permethrin [sum of isomers] (tea)	1	-
Not known	Prochloraz [sum] (peppers)	1	-
Not known	Pyraclostrobin (spinach)	1	-
Not known	Tolfenpyrad (tea)	1	-
Not known	Tolylfluanid [sum] (apples)	1	-

MRL: maximum residue limits.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.

2.4. Quality assurance

Analysis of the coordinated programme, national monitoring programme and routine samples was conducted by the Institute for Food Control Innsbruck of the Austrian Agency for Health and Food Safety. One additional laboratory in Vienna [Regional Institute for Food Control in Vienna (LUA3)] analysed the routine samples. All laboratories received accreditation in 1998 and the pesticide analysis methods remain accredited.

Table 3: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
AT	Austrian Agency for Health and Food Safety (Institutes and Competence Centres)	AGES	1/11/1998	BMWA	EUPT-SM-06 (Pepper) EUPT-FV-16 (Pepper) EURL-CEFAO 20.PT-1- (Bovine kidney) EURL-CEFAO 20.PT-2- (Bovine kidney) EUPT-AO-09 Sample 2014-069 (Frozen liquid whole egg) EUPT-CF8 (Wheat) EUPT-SRM9 (Milk) EUPT-CF8 (Wheat) EUPT-FV-T02 (Tea)
AT	Regional Institute for Food Control in Vienna	LUA3	1/11/1998	BMWA	EUPT-SRM8 (Potatoes) FAPAS PT 0591 (Oil) FAPAS PT 0599 (Oil) EUPT-FV-16 (Peppers) Pesticides IMEP-37 (Grapes) Universidad de Almería, EUPT-FV-15 (Potatoes) RV EU-RT-FV-16 (Standard Solutions)

3. Belgium

3.1. Objective and design of the national control programme

The use of plant-protection products during the production of fruit, vegetables and cereals can lead to the presence of residues in food and feed. Maximum residue levels (MRL) are set in European legislation2 in order to check the good use of plant-protection products (use of authorised products according to their authorisation) and to protect consumers. Food or feed that does not comply with the MRL cannot be put on the market. A residue content exceeding the MRL is a sign of the incorrect use of a plant-protection product, but does not necessarily pose a risk to the health of consumers.

The approach used by the Federal Agency for the Safety of the Food Chain (FASFC) for the control of pesticide residues is risk based. The programme was drawn up following the general statistical approach developed within the FASFC (Maudoux et al., 2006). Several factors have been taken into account: the toxicity of the active substances, food consumption statistics, food commodities with a high residue/non-compliance rate in previous monitoring years, origin of food (domestic, EU or third country), Rapid Alert System for Food and Feed (RASFF) notifications and all other useful information.

All groups of fruits and vegetables are included in the programme and a rotation programme was applied for less important commodities. The coordinated control programme3 of the European Commission and some targeted sampling (mainly targeted sampling at border controls according to Regulation (EC) No 669/20094) were also included in the national programme.

Adjustments to the programme can be made during the course of the year so that emerging problems can be dealt with.

The FASFC determines the target pesticides for each sample type according to a risk-based approach. The criteria considered are active substances authorised in Belgium, the results of previous control programmes in Belgium and other Member States, RASFF messages and analytical possibilities.

Sampling is carried out in accordance with Directive 2002/63/EC5, which was implemented in Belgian legislation. Samples are analysed in ISO 17025 accredited laboratories using multi-residue methods (MRM) and single-residue methods (SRM), which in 2014 allowed the detection of more than 550 pesticide residues.

3.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, 3,823 samples of fruits, vegetables, cereals, animal products and processed products (including baby food) were taken by the FASFC and analysed for the presence of pesticide residues. The products analysed were of Belgian origin (39%), European Union (EU) origin (18%), non-EU origin (35%) and unknown origin (8%).

Of the samples analysed, 95.5% were compliant with the pesticide residues legislation. Table 4 summarises the results per group of products with respect to the sampling strategy.

[2]Regulation (EC) No 396/2005 of the EU Parliament and the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin.

[3] Commission implementing Regulation (EU) No 788/2012 of 31 August 2012 concerning a coordinated multiannual control programme of the Union for 2013, 2014 and 2015 to ensure compliance with maximum residue levels of pesticides and to assess consumer exposure to pesticide residues in and on food of plant and animal origin.

[4] Regulation (EC) No. 669/2009 of 24 July 2009 implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin.

[5] Commission Directive 2002/63/EC of 11 July 2002 establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC.

Table 4: Summary results

Sampling strategy	Samples	Analysed	Without residues (%)	With residues at or below MRL (%)	> MRL (%)	>MRL (non-compliant) (%)	Compared with 2013 (non-compliant)
Surveillance	Fruit, vegetables, cereals and other products of plant origin	2019	31.7	63.1	5.2	2.5	1.4 (↑)
	Processed products (food)	221	61.5	38	0.5	0	0 (=)
	Animal products[6]	601	83.7	16.8	0	0	0 (=)
	Baby food	92	91.3	3.3	5.4	3.3	0 (↑)
	Feed	86	62.8	32.6	4.6	4.6	2.1 (↑)
		3019	46.9	49.3	3.8	1.9	1.6 (↑)
Enforcement	Fruit, vegetables, cereals and other products of plant origin[7]	800	27.7	51.6	20.7	14.3	9 (↑)
	Animal products[8]	2	50	50	0	0	0 (=)
	Feed	2	0	100	0	0	0 (=)
		804	27.6	51.6	20.8	14.2	9 (↑)
TOTAL		3823	43	49.7	7.3	4.5	3.7 (↑)

MRL: maximum residue levels; ↑: increase; =: unchanged.

3.2.1. Surveillance sampling

Three thousand and nineteen surveillance samples were analysed within the context of the control programme, of which 98.1% were compliant with the legislation in force.

The rate of non-compliance in fruit, vegetables, cereals and other products of plant origin is higher than in 2013 (+1.1%).

[6] Some animal products were analysed within the framework of Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products.
[7] Including samples analysed in the framework of Regulation (CE) No 669/2009.
[8] Some animal products were analysed in the framework of Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products

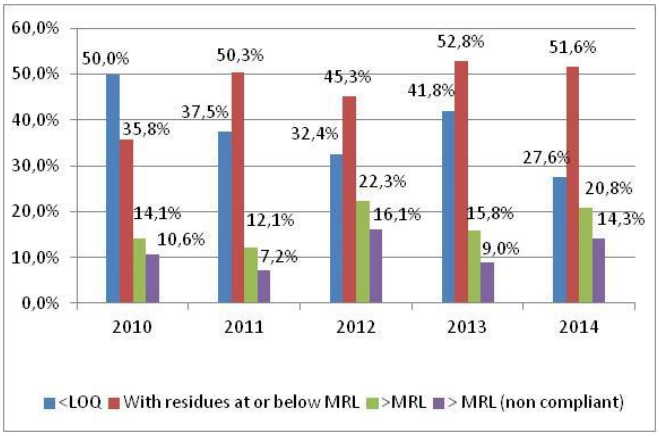


Figure 1: Overview of the evolution of the results for fruit, vegetables, cereals and other products of plant origin from 2010 to 2014 (surveillance samples)

As in previous years, proportionally more MRL violations were observed in non-EU products (5.1%) than in products grown in the EU (1.1%) (see table A0 of the report).

Passion fruits, pitayas, tea and chilli peppers imported from third countries showed the highest rate of non-compliance. Main non-compliances in Belgian products were observed in turnips, celery and parsley (see also Table 5).

Three samples of baby food (3.3% of the samples analysed) contained disinfectant residue above the MRL of 0.01 mg/kg specified in the specific legislation on baby food.

All the animal and processed products were compliant.

A list of the MRL exceedances can be found in table D of the summary report.

3.2.2. Enforcement sampling

Eight hundred and four enforcement samples were analysed in the case of suspicion about the non-compliance of a product with EU MRLs. These products were mainly targeted products analysed according to Regulation (EC) No 669/2009 (coming mainly from Thailand, the Dominican Republic, Egypt and China) and products analysed within the context of following up violations found previously. Of the samples analysed, 85.7% were compliant with the legislation.

Main MRL violations were observed in products from the Dominican Republic, Cambodia and Uganda (see table A5 of the report).

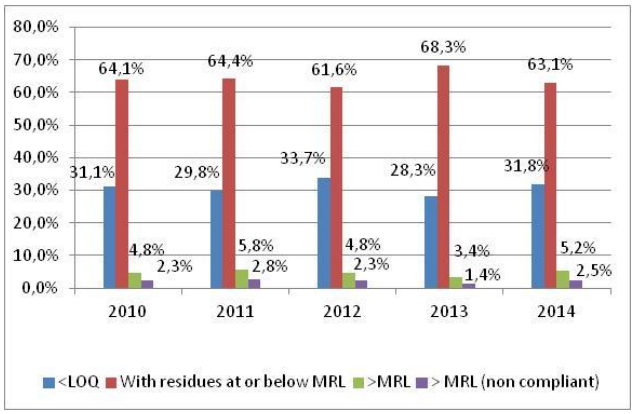


Figure 2: Overview of the evolution of the results for fruit, vegetables, cereals and other products of plant origin from 2010 to 2014 (enforcement samples).

3.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

When non-compliant samples are identified, the batch is seized, if available, and prevented from entering the market. An assessment of the risk to consumers is performed for all non-compliant samples and the appropriate measures such as recall and Rapid Alert System for Food and Feed (RASFF) notification are taken9 according to the risk posed by the non-compliant product to the consumer.

Follow-up action is taken to verify the violation and to identify its cause. When non-compliant samples are identified, the producer or importer is subject to enhanced control and an official report is drawn up and sent to the legal department of the FASFC, which proposes a fine. If the fine is not paid, or in the case of repeat offences, the matter is taken to court.

The reasons for MRL violations in Belgian products are investigated as far as possible (Table 5). Non-compliances in imported products cannot be investigated, but are mainly related to the use of plant-protection products that are not authorised in the EU and for which no import tolerances have been set.

Fifty-four RASFF messages were issued by Belgium in 2014 for pesticide residues in food and feed[10] within the framework of the FASFC control plan or auto-controls carried out by business operators.

[9] The actions to be taken when an MRL is exceeded are described in a procedure available on the FASFC website (http://www.afsca.be/publicationsthematiques/inventaire-actions.asp).
[10] http://ec.europa.eu/food/food/rapidalert/rasff_portal_database_en.print.htm

Table 5: Possible reasons for MRL non-compliances in products of Belgian origin

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Dimethoate (celery)	2	-
	Dimethoate (scarole)	1	
	Chlorpyrifos (turnip)	1	
	Chlorothalonil (scarole)	1	
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Dimethoate (turnip)	3	-
	Dimethoate (cauliflower)	1	
	Spinosad (celeriac)	1	
	Spinosad (strawberry)	1	
	Chlorpropham (fennel)	1	
	Prosulfocarb (parsley)	1	
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	Mepronil (parsley)	1	-
Reason unknown	Dichlorvos (cucumber)	1	-
	Chlorpyrifos (parsley)	1	
	Chlorpropham (parsley)	1	

GAP: good agricultural practice; PHI:pre harvest interval.
(a): Report name as specified in the MatrixTool.(b): Number of cases.
(c): Applicable only for food products produced in the EU.

3.4. Quality assurance

Seven ISO 17025 accredited laboratories analysed pesticide residues within the framework of the 2014 FASFC control programme.

Table 6: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Belgium	Fytolab C.V.B.A (now Primoris Belgium cvba)	FYTOLAB	31/7/2014	BELAC	EUPT-CF8 2014 (wheat flour); EUPT-AO-09 (frozen whole egg); EUPT-FV-16 (green pepper); EUPT-SM06 (sweet pepper); EUPT-SRM9 (cow's milk); APLAC PT T094 (freeze-dried kimchi cabbage); COIPT14 (olive oil); Testqual 54 (pear) [dithiocarbamates]; EUPT-FV-T02 (tea)
Netherlands	Laboratorium Zeeuws-Vlaanderen BV	ZEEUWS	27/11/2013	RvA	FAPAS CSL – Test 19164 (red grape puree) [Ethephon]; EUPT-CF8 2014 (wheat flour); FAPAS CSL – Test 19168 (orange); EUPT-FV-16 (green pepper); FAPAS CSL – Test 1593 (spinach puree) [nitrate]; APLAC PT T094 (freeze-dried kimchi cabbage); BNN Lach & Bruns (kumquat); BNN Lach & Bruns (amaranth); FAPAS CSL – Test 19171 (lemon); FAPAS CSL – Test 19178 (strawberry); FAPAS CSL – Test 19182 (mint); FAPAS CSL –

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
					Test 0989 (wheat); FAPAS CSL – Test 0990 (oats); FAPAS CSL – Test 15100 (rucola); QS-B (potato); QS-C (plum); PROOF-ACS P1410 (basilicum and courgette) [chlorate, perchlorate]; PROOF-ACS P1411 (kaki and cucumber) [phosphonic acid]; PROOF-ACS P1402 (paprika powder); PROOF-ACS P1403 (apple, apricot, cherry) [dithianon]; Relana (blackberry)
Belgium	WIV-ISP (Pesticiden)	WIV-PEST	19/4/2013	BELAC	EUPT-CF8 2014 (wheat flour); EUPT-AO-09 (frozen whole egg); EUPT-FV-16 (green pepper); EUPT-SRM9 (cow's milk) [2,4-D; BAC; chlormequat, cyromazine, fluazifop, maleïnehydrazide, mepiquat]; EUPT-T02 (tea); APLAC T T094 (freeze-dried kimchi cabbage)
Germany	LUFA-ITL GmbH	LUFA	21/10/2013	DAkkS	EUPT-CF8 2014 (wheat flour); EUPT-AO-09 (frozen whole egg); EUPT-FV-16 (green pepper); EUPT-SRM9 (cow's milk) [2,4-D; BAC, chlormequat, chlorthalonil, chlorate, cyromazine, DDAC, fluazifop, glyphosate, haloxyfop; maleïnehydrzaide, mepiquat, perchlorate]
Belgium	Federaal Laboratorium voor de Voedselveiligheid Tervuren	FLVVT	24/5/2013	BELAC	EUPT-CF8 2014 (wheat flour); EUPT-AO-09 (frozen whole egg)
Belgium	Laboratoire Fédéral pour la Sécurité Alimentaire Liège	LFSAL	24/05/2013	BELAC	FAPAS CSL – Test 0595 (butter); FAPAS CSL – Test 1598 (lettuce Puree) [Nitrate]; FAPAS CSL – Test 0597 (milk powder); FAPAS CSL – Test 05100 (oily fish); FAPAS CSL – Test 05102 (infant formula); EUPT-AO-09 (frozen whole egg); BIPEA-19 G-2014/04 (Miel - Avril 2014); BIPEA-19 G-2014/06 (Miel - Juin 2014); BIPEA-19 G-2014/10 (Miel - Octobre 2014); BIPEA-19 G-2014/12 (Miel - Decembre 2014); FAPAS CSL – Test 15100 [rocket (rucola) puree] [nitrate]; FAPAS CSL – Test 1593 (spinach puree) [nitrate]
Belgium	CER Groupe-Département Santé	CER	31/1/2013	BELAC	EUPT-AO-09 (frozen whole egg)

BELAC: Belgium Accreditation Council; RvA: Dutch Accreditation Council; DAkkS: German Accreditation Body.

3.5. Processing factors

Processing factors are applied when necessary to verify the compliance of processed products with EU MRLs according to Article 20 of Regulation (EC) No 396/2005. Processing factors were mainly applied to cover the dehydration of herbs and fruits that were part of tea and infusions.

3.6. Additional information

In 2014, 19 organic food and feed products were analysed by the FASFC. Pesticide residues were detected in three samples: potatoes (chlorpropham), rice (deltamethrin) and a feed product (chlorpropham). All of them complied with the MRL set out in Regulation (EC) No 396/2005.

4. Bulgaria

4.1. Objective and design of the national control programme

The Bulgarian Food Safety Agency (BFSA) within the Ministry of Agriculture and Food is the competent authority for the enforcement of pesticide residues monitoring in Bulgaria and is responsible for drawing up the national monitoring programme for pesticide residues in and on products of animal and plant origin. Therefore, the BFSA is responsible for implementation of the coordinated multi-annual control programme of the EU and taking samples in terms of Commission Regulation (EU) No 788/2012 of 31 August 2012 for 2013, 2014 and 2015. A coordinated multi-community monitoring programme is included in the national programme on pesticide residues monitoring.

The sampling plan for pesticide residues monitoring is always drawn up for one calendar year. The plan is elaborated by the BFSA headquarters and it is distributed to the Regional Food Safety Directorates, which are responsible for its implementation.

In addition to the samples listed in Regulation (EU) No 788/2012, Republic of Bulgaria analysed samples of lettuce, apples, tomatoes, grapes, peppers, cabbage, peaches, cherries, courgettes, aubergines, mushrooms, baby food (cereal- and vegetable-based purees), feed materials and leaf samples for the identification of products used in plant protection.

The national control programme for pesticide residues in food of plant and animal origin 2014 was based on several factors of high importance listed below:

- relevance of the food products in the diet of the Bulgarian population;
- food commodities not included in European Union (EU)-coordinated programme;
- relevance of the food products in the national agricultural production;
- food products with a high Rapid Alert System for Food and Feed (RASFF) notification rate;
- food relevant for sensitive consumers;
- food products with high non-compliance rate identified in previous years.

The national control programme was based on the factors of low importance listed below:

- countries with a high non-compliance rate in the past;
- sampling of products during the main marketing season/outside the main marketing season;
- unprocessed or processed products;
- organic or conventional products;
- sample origin reflecting the geographic distribution of the food products consumed.

4.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, 3,428 samples were analysed: 3,284 fruits and nuts, vegetables and other plant products; 28 processed products; 60 cereals; 26 baby foods; and 30 animal products – products of domestic and non-domestic origin in the national and coordinated monitoring programmes. Of these, 210 samples had residues below the maximum residue limits (MRL) (6.1%) and 72 samples exceeded the MRL (2.1%).

As a comparison, in 2013, 3,237 samples were analysed: 166 samples had residues below the MRL (5.1%) and 64 samples exceeded MRL (2.0%). In 2012, 3,174 samples were analysed: 198 samples had residues below the MRL (6.2%) and 60 samples exceeded the MRL (1.9%). In 2011, 4,516 samples were analysed: 245 samples had residues below the MRL (5.4%) and 108 samples exceeded the MRL (2.4%).

In 2014, the percentage of samples with residues below the MRL (6.1%) was increased in comparison with 2013 (5.1%), decreased slightly in comparison with 2012 (6.2%), and increased in

comparison with 2011 (5.4%).

In 2014, the percentage of samples with residues above the MRL was increased slightly (2.1%) in comparison with 2013 (2.0%) and 2012 (1.9%), and decreased in comparison with 2011 (2.4%).

4.2.1. Strategy: enforcement

In total, 2,949 samples enforcement samples were taken, of which 58 contained pesticide residues above the MRL (2.0%). All samples were of third country (TC) origin.

As a comparison, in 2013, of 2,975 enforcement samples taken, 45 contained pesticide residues above the MRL (1.5%). In 2012, of 2,878 enforcement samples taken, 55 contained pesticide residues above the MRL (1.9%). In 2011, of 4,055 enforcement samples taken, 97 contained pesticide residues above the MRL (2.4%).

The percentage of samples exceeding the MRL (enforcement strategy) increased in 2014 (2.0%) compared with 2013 (1.5%) and 2012 (1.9%), and decreased compared with 2011 (2.4%).

4.2.2. Strategy: surveillance

In total, 479 surveillance samples were taken, of which 14 contained pesticide residues above the MRL (2.92%). Of the 14 samples: eight were of domestic production, four were of EU production and two were of TC origin.

In comparison with 2013, of 262 surveillance samples taken, 19 contained pesticide residues above the MRL (7.25%). Of the 19 samples: 17 were of domestic production, 1 was of EU production and 1 was of TC origin.

In comparison with 2012, of 296 surveillance samples taken, 5 contained pesticide residues above the MRL (2.3%). All five samples were of domestic production.

In comparison with 2011, of 461 surveillance samples taken, in line with Regulation (EC) No 915/2010), 11 contained pesticide residues above the MRL (5.9%); nine were of domestic production and two were of TC origin.

The percentage of samples exceeding the MRL (surveillance strategy) decreased in 2014 (2.92%) compared with 2013 (7.25%), increased slightly compared with 2012 (2.3%) and decreased compared with 2011 (5.9%).

Table 7: Summary results

Year	Total	Below MRL (%)	Above MRL (%)	Enforcement above MRL (%)	Surveillance above MRL (%)
2014	3428	6.1	2.1	2.0	2.9
2013	3237	5.1	2.0	1.5	7.3
2012	3174	6.2	1.9	1.9	2.3
2011	4516	5.4	2.4	2.4	5.9

4.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 8: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	52	50 samples (peppers) of TC origin (Turkey); one sample (oranges) of EEA origin (Greece); one sample (grapes) domestic origin
Administrative sanctions (e.g. fines)	2	One sample (carrots) domestic origin; one sample (grapes) domestic origin
Lot recalled from the market	5	One sample (cucumbers) of TC origin (Macedonia); one sample (carrots) of TC origin (Turkey); one sample (mandarins) of EEA origin (Greece); one sample (baby food for infants and young children) domestic origin; one sample (lettuce) domestic origin
Rejection of a non-compliant lot at the border	-	-
Destruction of non-compliant lot	-	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin		
Warnings to responsible food business operator	4	One sample (oranges) of EU origin (Greece); one sample (peaches) domestic origin; two samples (lettuce) domestic origin
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions – Lot not released on the market	1	One sample (wheat) domestic origin

TC: third country.

Table 9: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of a pesticide not approved in the EU[c]	Trifluralin (carrot)	1	-
	Carbendazim and benomyl (lettuce)	2	
GAP not respected: use of an approved pesticide not authorised on the specific crop[c]	Chlorpyrifos (carrot)	1	-
	Chlorpyrifos (cucumber)	1	
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Dimethoate (mandarins)	1	-
	Dimethoate (peach)	1	
	Captan (grape)	1	
	Chlorpyrifos (wheat)	1	
	Fosmet (orange)	1	
	Folpet (grape)	1	
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	Chlorpyrifos (lettuce)	1	-
Cross-contamination: spray drift or other accidental contamination	-	-	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes of the MRL	Fenvalerate (orange)	1	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	-	-	-

GAP: Good Agricultural Practice; PHI: Pre Harvest Interval.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

4.4. Quality assurance

Table 10: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
BG	Central Laboratory for Chemical Testing and Control	CLCTC	21/2/2003	Executive Agency; 'Bulgarian Accreditation Service'	EUPT-FV-16: inter-laboratory comparison conducted by the EURL for pesticide residues in fruit and vegetables in Almería, Spain – pesticide residues in sweet peppers EURL-CF8: inter-laboratory comparison conducted by the EURL for pesticide residues in cereals and feed – pesticide residues in matrix wheat
BG	Central Laboratory for Veterinary Sanitary Expertise and Ecology	CLVCE	10/1/2004	Executive Agency; 'Bulgarian Accreditation Service'	Pesticide in food (egg) EUPT-AO-09, EURL – Food of animal origin and commodities with high fat content – Chemisches und Veterinäruntersuchungsamt (CVUA) Freiburg, Postfach 100462, D-79123 Freiburg, Germany
BG	Fytolab Bulgaria	FYTBG	18/10/2010	BELAC; Belgian Accreditation Council	EUPT-CF8: European Union Proficiency test on incurred and spiked pesticide residues in wheat FAPAS Proficiency Test 0988: pesticides in maize flour FAPAS Proficiency Test 19172: Pesticides in sweet (bell) pepper puree FAPAS Proficiency Test 19176: pesticides in apricot puree
BG	Eurolab	EuroLab	27/11/2012	Executive Agency; 'Bulgarian Accreditation Service'	EUPT-FV-16: European Union Reference Laboratory for Pesticide Residues in Fruit & Vegetables, Universidad de Almería Ring Test Certified Standard Solutions EUPT-FV-16: European Union Ring Test Certified Standard Solutions FV-16

5. Croatia

5.1. Objective and design of the national control programme

The national monitoring programme for pesticide residues in and on food in 2014 was prepared and coordinated by the competent Directorate of the Ministry of Agriculture – Food Quality and Phytosanitary Policy Directorate, Sector of Phytosanitary Policy, Service for Plant Protection Products, Department for Sustainable Use of Pesticides.

Other national authorities and institutions involved in the implementation of the programme in 2014 were as follows:

- responsible for sampling: Ministry of Health – Sanitary Inspection and Ministry of Agriculture – Agricultural and Veterinary Inspection;
- laboratories: the Croatian National Institute of Public Health (analyses of samples of plant origin) and the Croatian Veterinary Institute (analyses of samples of animal origin);
- risk assessment: the Croatian Centre for Agriculture, Food and Rural Affairs – Institute for Plant Protection carries out an assessment of risks to consumers in all cases of maximum residue limits (MRL) exceedance;
- Croatian Rapid Alert System for Food and Feed (RASFF): the Food Safety Service of the Sector for Veterinary Public Health and Food Safety in the Directorate for Veterinary Affairs and Food Safety in the Ministry of Agriculture is responsible for the management of the RASFF at the national level.

Products were selected in accordance with Commission Regulation (EU) No 788/2012 concerning a coordinated multi-annual control programme of the EU. Products were also selected based on their importance in the diet of the population of the Republic of Croatia, pesticide residues found in previous monitoring programmes, products that have not yet been covered by the programme and products that, because of their lower accessibility on the market, were not sampled in the planned number in previous years. For each of the product types under Regulation (EU) No 788/2012 during sampling in 2014, one sample from organic production (organic origin) was analysed. Baby food was also sampled.

Sampling was carried out by the Sanitary Inspection in four phases in April/May, May/July, August/October and November/December. Agricultural Inspection also had a sampling plan in four phases, with the sampling time adjusted to the agricultural production, harvest and picking. Agricultural Inspection undertook sampling in April/May, June/July, August/September and September/October. Veterinary Inspection sampling took place throughout the year and in agreement with the Croatian Veterinary Institute.

The Sanitary Inspection of the Ministry of Health (for products of plant and animal origin) undertook sampling in large shopping centres, central distribution warehouses, wholesale markets and cold stores; comprehensive batches were more available in shops and at markets. Agricultural inspectors took samples of plant origin from agricultural warehouses on farms or, for agricultural products intended for market, from places of storage, places of packaging or shipping, or places where products were temporarily stored after harvest/picking. Veterinary inspectors took samples from slaughterhouses for products of animal origin intended for market.

The total number of planned samples was 396. For each period, sampling of approximately one quarter (99 samples) of the total number of planned samples was undertaken, in addition to 24 or 18 samples for each product from the programme. The largest number of samples was planned in the period April/October and the lowest in the period November/December.

For the purpose of covering domestic production and import, it was planned to sample approximately 50% of the food produced in the Republic of Croatia and approximately 50% of the food from the EU and third countries, depending on the possibilities and the market situation in each area. Since 2014, the national monitoring programme for pesticide residues in and on food has also included products of animal origin.

Samples of plant origin were prepared in accordance with the standard HRN EN 12393:1998 and 247 active substances were analysed using the MRM. Samples of animal origin were analysed for 32 active substances using the in-house MRM.

5.2. Key findings, interpretation of the results and comparability with the previous year results

Within the scope of the national monitoring programme for pesticide residues in and on Food in 2014, no samples had levels of pesticide residues that exceeded the MRL values established by Regulation (EU) No 396/2005.

No pesticide residues (above the limit of detection) were found in 323 (86%) samples, whereas in 51 (14%) samples, pesticide residues below the MRL were found. Exceedance of MRL values was not found. Of the 51 samples with pesticides below the MRL, 29 contained the residues of more than one pesticide below the MRL.

Table 11: Summary results

Product type	Number of analysed samples	Number of samples with residues above the reporting level (LOQ)	Percentage samples below reporting level (LOQ)	Number of samples where pesticide residues MRL value was exceeded
Beans with pods	17	4	76.5	0
Beans (without pods)	3	0	100	0
Peas (without pods)	4	1	75	0
Carrots	24	6	75	0
Cucumbers	24	9	62.5	0
Oranges	16	14	12.5	0
Pears	23	8	65.2	0
Potatoes	23	3	87	0
Rice	22	1	95.5	0
Spinach (fresh or frozen)	24	2	91.7	0
Wheat	43	0	100	0
Poultry muscle	21	2	90.5	0
Bovine liver	10	0	100	0
Poultry liver	8	0	100	0
Swine liver	2	0	100	0
Bananas	23	4	82.6	0
Cauliflower	24	2	91.7	0
Strawberries	23	14	39.1	0
Mandarins	8	0	100	0
Baby food	34	0	100	0
TOTAL	376	70	84.4	0

LOQ: limit of quantification; MRL: maximum residue limits.

5.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 12: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	-	-
Administrative sanctions (e.g. fines)	-	-
Lot recalled from the market	-	-
Rejection of a non-compliant lot at the border	-	-
Destruction of non-compliant lot	-	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	-	-
Warnings to responsible food business operator	-	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions	-	Since no exceedance of MRL was found in any of the samples, there was no need to take action.

Table 13: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of a pesticide not approved in the EU[(c)]	Carbosulfan/chlorfenapyr (beans with pod)	1	The residues found were below the MRL, almost at the limit of detection, so it is possible that these are pesticides from the previous culture or environmental pollution
	Chlorfenapyr (carrot)	1	0.01 mg/kg (LOD)
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Fenpyroximate (cucumber)	1	
	Tebufenpyrad (potato)	1	Samples originating from Croatia. Active substances are not authorised on the listed crops in Croatia
	Lufenuron (pear)	1	
	Cyprodinil (carrot)	1	
	Cyprodinil (cucumber)	1	
	Clofentezine (strawberry)	1	
	Thiacloprid (strawberry)	2	
	Acetamiprid (strawberry)	1	
	Fenazaquin (strawberry)	1	
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	-	-	-
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Cross-contamination: spray drift or other accidental contamination	-	-	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Natural occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes in the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	-	-	-

GAP: good agricultural practice; PHI: pre harvest interval; MRL: maximum residue limits; LOD: limit of detection.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

5.4. Quality assurance

Table 14: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Croatia	Croatian National Institute of Public Health	HZJZ	6/12/2013	Croatian Accreditation Agency	EUPT-FV-15 (Fruit and vegetable) EUPT-CF8 (Cereals)
	Croatian Veterinary Institute Laboratory for Residue Control	HVI	First: 14/5/ 2013 Last: 23/3/2015		2014: pesticides in honey; BIPEA, France 2014: pesticides in corn; FAPAS, UK 2014: pesticides in eggs; EURL-AO Freiburg, Germany

5.5. Processing factors

In Croatia's national programme 2014 there were no samples for which processing factors were used.

6. Cyprus

6.1. Objective and design of the national control programme

The Ministry of Health is the competent authority for the enforcement of pesticide residues legislation and the execution of the national monitoring and surveillance programmes. The enforcement of legislation and sampling is allocated to the Department of Medical and Public Health Services (MPHS). The Pesticide Residues Lab (PR-SGL) of the State General Laboratory, a Department of the Ministry of Health is the official laboratory for the monitoring and surveillance of pesticide residues in food of plant and animal origin. The PR-SGL, in cooperation with the MPHS, design and implement the monitoring programme for both the local market and imports. The PR-SGL in cooperation with the Department of Agriculture of the Ministry of Agriculture, Rural Development and Environment, design the control plan for organic products.

Sampling is focused at key points in the food chain: market, import, processing, primary storage producers, etc.

The sampling regime is based on a combination of 'at random' sampling and target-oriented sampling focusing towards problematic pesticides/food combination. This combination is, in a way, biased towards problematic products and might give higher violation rates. Nevertheless, it may provide a higher degree of consumer protection and cost-effectiveness. The main criteria used in the sampling design are: European Union (EU)-coordinated programme; violations from previous years; information from the Rapid Alert System for Food and Feed (RASFF); consumption rate, especially for children; and the needs of import control.

The increase in the number of compounds monitored is continuous. The increase in the pesticides included in the monitoring programme is mainly defined by the requirements of the EU-coordinated programme. It should be noted, however, that laboratory capacity and analysis costs are the main factors influencing the inclusion of new pesticides in the national monitoring plan.

6.2. Key findings, interpretation of the results

In 2014, 821 samples were analysed. The sampling rate was 92 samples per 100,000 inhabitants.

6.2.1. Samples of plant origin

The number of samples of plant origin analysed was 590, of which 169 were fruits, 245 were vegetables and 71 were cereals. Twenty samples of black and green tea and ten samples of herbal infusions including dried mint were analysed within the framework of a survey study. Tea and coffee samples were also analysed within the framework of import control. In total, 27.8% of the samples of plant origin were imported from third countries (TC). Residues were detected in 48.3% of the samples of plant origin.

The number of organic farming samples analysed was 46, of which three were found to be positive for pesticide residues: dried black-eye beans with two pesticides, malathion and chlorpyrifos at concentrations of 0.013 and 0.028 mg/kg, respectively; dried mint with two pesticides, pendimethanil and chlorpyrifos at concentrations 0.029 and < 0.01 mg/kg, respectively; and zea flour with pirimiphos methyl at a concentration of < 0.01 mg/kg.

The percentages of samples exceeding maximum residue limits (MRL) was 5.6%, and 2.9% were considered as legal violations. Residues of more than one pesticide were found in the 30.3% of the samples.

The most frequently found multi-residue method (MRM) pesticides in 2014 were cypermethrin in 9.6% of samples, chlorpyrifos in 8.3% of samples and boscalid in 7.7% of samples.

6.2.2. Samples of animal origin

In 2014, 231 samples of animal origin were analysed for pesticide residues: 42 egg samples, 60 milk samples, 68 meat samples, 15 liver samples, 23 fish samples, 13 honey samples and 10 samples of baby food, infant formula and follow-on formula. The baby food samples, 15 poultry samples and 15 liver samples were analysed for various pesticides covering the requirements of the Community

monitoring plan. The remainder of the samples were analysed under the national monitoring plan in order to fulfil the requirements of EU Directive 96/23.
In total, 19 samples (4 meat, 8 fish and 7 milk), were positive for dichlorodiphenyltrichloroethane (DDT) at very low levels, much lower than the MRL. Three egg samples and two fish samples were found to be positive for hexachlorobenzene and one milk sample was positive for hexachlorocyclohexane (HCH) beta-isomer at very low levels (< 0.01 mg/kg). One liver sample was positive for chlorobenzilate and eight honey samples were positive for coumaphos at levels below the MRL. Evaluation of the results for honey was performed in accordance with the provisions of Regulation (EU) No 37/2010.

6.3. Non-compliant samples: possible reasons and actions taken

In 2014, 5.6% of the samples of plant origin were found to be non-compliant with the EU MRL, and 2.9% of the samples were considered as legal violations (meaning that they were found as non-compliant with the legal limits taking into account the measurement uncertainty). The following follow-up actions were taken in cases of non-compliant samples.

Table 15: Actions taken for non-compliant samples

Number of non-compliant samples	Action taken	Note
16	Warnings	-
17	Warnings and administrative sanctions	-
7	RASFF notification	-

RASFF: Rapid Alert System for Food and Feed.

Table 16: Possible reasons for MRL non-compliances

Product	Residue	Reason for MRL non-compliance	Note
Mint (dried)	Chlorpyrifos Profenofos	-	Import product from TC, EU GAP not respected
Rice	Acephate Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) Methamidophos	-	Import product from TC, EU GAP not respected
Pomegranates	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	-	Import product from TC, EU GAP not respected
Vine leaves	Triadimefon and triadimenol (sum of triadimefon and triadimenol)	Not proper use	-
Vine leaves	Triadimefon and triadimenol (sum of triadimefon and triadimenol)	Not proper use	-
Vine leaves	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Not proper use	-
	Myclobutanil	Not proper use	
	Thiophanate-methyl	Not proper use	
Peaches	Chlorpyrifos	Not proper use	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Not authorised use	
Peaches	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Not proper use	-
Table grapes	Cypermethrin (cypermethrin including other mixtures of constituent isomers (sum of isomers)	Not proper use	-
Cherries	Permethrin (sum of isomers)	Not authorised PPP	-
	Tetramethrin	Not authorised PPP	
Olives	Chlorpyrifos	-	Import product from TC, EU GAP not respected
Beans with pods	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram)	Not proper use	

Product	Residue	Reason for MRL non-compliance	Note
Table grapes	Chlorpyrifos	Not proper use	-
Table grapes	Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)]	Not proper use	-
Table grapes	Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)]	Not proper use	-
Olives	Diazinon	-	Import product from TC, EU GAP not respected
Olives	Chlorpyrifos	-	Import product from TC, EU GAP not respected
Rice	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) Methamidophos	-	Import product from TC, EU GAP not respected
Olives	Chlorpyrifos Fenitrothion	-	Import product from TC, EU GAP not respected
Cucumbers	Formetanate: sum of formetanate and its salts expressed as formetanate (hydrochloride)	Not proper use	-
Cucumbers	Captan	Not authorised use	-
Spinach	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram)	Not proper use	-
Spinach	Chlorpyrifos	Not authorised use	-
	Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)]	Not proper use	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Not authorised use	
Spinach	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Not authorised use	-
TEFF grain	Propoxur	-	Import product from TC, EU GAP not respected
Green tea	Buprofezin	-	Import product from TC, EU GAP not respected

Product	Residue	Reason for MRL non-compliance	Note
Beans dry	Malathion (sum of malathion and malaoxon expressed as malathion)	-	Import product from TC, EU GAP not respected
Pears	Chlormequat	-	Import product from EU
Pears	Chlormequat	-	Import product from EU
Mint dry	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Not authorised use	-
	Chlorpyrifos	Not authorised use	
	Profenofos	Not authorised PPP	
Fresh potatoes	Cyromazine	Not authorised use	
Frozen strawberries	Procymidone	-	Import product from TC, EU GAP not respected
Olives	Diazinon Methoxyfenozide	-	Import product from TC, EU GAP not respected

TC: third country; GAP: good agricultural practice; PPP: plant protection products.

6.4. Quality assurance

The PR-SGL has been accredited by the Greek Accreditation body ESYD since 2002 in accordance with EN 45001, since June 2003 in accordance with ISO/IEC 17025 and since July 2006 in accordance with ISO/IEC 17025/2005. The PR-SGL applies quality control procedures, which are in line with the provisions of 'Method Validation and Quality Control Procedures for Pesticides Residues Analysis in Food and Feed'.

Table 17: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
CY	State General Laboratory of Ministry of Health	SGL_CYPRUS_FP	2002	ESYD, Greece	PT2014: EUPT-SRM09, EUPT-AO-09, EUPT-FV-16, EUPT-CF08

7. Czech Republic

7.1. Objective and design of the national control programme

Pesticide residues monitoring in foodstuffs in the Czech Republic is guided by the Multiannual Control Plan for the Control of Pesticide Residues in CR submitted by the Ministry of Health Care, in cooperation with the Ministry of Agriculture and other supervisory bodies [Czech Agriculture and Food Inspection Authority (CAFIA) and State Veterinary Administration of the Czech Republic (SVA)]. A coordinated multi-community monitoring programme is included in the plan as required by the European Parliament and Regulation (EC) No 396/2005.

The requirements of a multi-annual control plan are included in the control plans of supervisory authorities (CAFIA and SVA) competent to monitor pesticide residues in foodstuffs of plant and animal origin.

The sampling plan for pesticide residues monitoring is always drawn up for one calendar year. The plan is elaborated by the headquarters of the CAFIA/SVA as an internal provision and is distributed to the CAFIA/SVA regional inspectorates which are responsible for its implementation.

7.1.1. Criteria used for drawing up the programme

Selection of commodities

The following criteria have been used in the selection of commodities listed in the national programme on pesticide residues control:

- overall food consumption in the Czech Republic
  - (http://www.czso.cz/csu/tz.nsf/i/vychazi_spotreba_potravin_v_roce_2007);
- the consumption food basket
  - (http://www.szu.cz/tema/bezpecnost-potravin; http://www.chpr.szu.cz/spotreba-potravin.htm);
- the results of official controls and monitoring of pesticide residues in previous years
  - (http://www.svscr.cz; http://www.szpi.gov.cz/;www.ukzuz.cz);
- foodstuffs intended for high-risk groups (namely infant formula and foods for young children);
- products having specific stricter rules on the use of pesticides (organic products);
- reports in the Rapid Alert System for Food and Feed (RASFF);
- the annual report of the European Commission (EC)
  - (http://ec.europa.eu/food/food/rapidalert/index_en.htm);
- Commission Implementing Regulation (EU) No 788/2012 of 31 August 2012 concerning the coordinated multi-annual control programme of the EU for 2013, 2014 and 2015 to ensure compliance with maximum levels of pesticides and to assess consumer exposure to pesticide residues in and on food of plant and animal origin;
- final reports on results of monitoring at the Community level
  - (http://ec.europa.eu/food/fvo/specialreports/pesticides_index_en.htm); (http://www.efsa.europa.eu/en/publications/efsajournal.htm).

Number of samples

The number of samples is set so as to determine the characteristic profiles of pesticide residues in the selected commodities and to map trends in the presence of pesticide residues and their levels in the analysed commodities with respect to statistical evaluation. The coordinated multi-annual programme of the European Union (EU) laid down in Commission Implementing Regulation (EU) No 788/2012

forms a part of this control programme.
The number of samples is set as a minimum. It is possible to change and update the number of samples according to the current situation.

Pesticide residues to be analysed

The following factors have been considered in the selection of pesticide residues to be analysed:

- the most frequently used pesticides (source: State Plant Administration of the Czech Republic database)
  - the database of used plant-protection preparations is managed by the State Plant Administration. The database contains active substances and their used amounts as both the total amount and the amounts used for main agricultural crops;
- the results of official controls and monitoring of pesticide residues in previous years
  - (http://www.svscr.cz; http://www.szpi.gov.cz/);
- information in the RASFF – EC annual reports
  - (http://ec.europa.eu/food/food/rapidalert/index_en.htm);
- Commission Implementing Regulation (EU) No 788/2012 of 31 August 2012 concerning the coordinated multiannual control programme of the Union for 2013, 2014 and 2015 to ensure compliance with maximum levels of pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin;
- the final report on EC monitoring results
  - (http://ec.europa.eu/food/fvo/specialreports/pesticides_index_en.htm);
- the consumer food basket
  - (http://www.szu.cz/tema/bezpecnost-potravin; http://www.chhpr.szu.cz/spotreba-potravin.htm);
- toxicological profiles of pesticides (National Institute of Public Health, Prague);
- laboratory capacity.

7.2. Key findings, interpretation of the results and comparability with the previous year results

In the official inspections in 2013, 1,582 samples were taken to determine pesticide residues. A positive finding of one of the analysed effective substances was detected in 956 samples (60%), and the maximum residue levels (MRL) were exceeded in 65 samples (4.1%). Thirty-nine samples (2.5%) were assessed as being non-compliant, i.e. these samples exceeded the MRL even after the uncertainty measurement was taken into account.
The largest percentage of taken samples came from EU countries (57.5%), followed by samples from the Czech Republic (26,5%), and samples from third countries (TC) (11.9). In 4.1% of the samples, the country of origin was not specified.
Organic products comprised 6.5% of the total samples taken compared with 93.5% of foodstuffs produced in a mainstream manner. A positive finding of pesticide residues was detected in 68% of samples taken from mainstream foodstuffs compared with 15% of samples taken from organic foodstuffs.
Fifteen samples were taken from inspections that focused on import from TC, of which 11 were teas from China and one from Hong Kong. The MRL was exceeded in eight tea samples, five samples were assessed as being non-compliant (four samples from China, one from Hong Kong).

Table 18: Summary of samples taken in 2014 by product class

Samples	Total	Without residues	With residues below MRL	Exceeding MRL	Non-compliant
Animal products	50	50	5	0	0
Baby food	12	10	2	0	0
Cereals	70	57	13	0	0
Fish products	5	2	3	0	0
Other products	9	8	1	0	0
Processed products	108	69	39	0	0
Sum of fruits and, nuts, vegetables, other plant products	1328	370	893	65	39
Sum	1582	561	956	65	39

MRL: maximum residue levels.

7.2.1. Vegetables

To determine the pesticide residues, 845 samples of fresh vegetables, including grown mushrooms, were taken. Of all samples, 66% contained one of the effective substances.
In terms of country of origin, the highest proportion of samples were of EU origin (70%); followed by samples of domestically produced fresh vegetables (22%) and samples from TCs (6%). Country of origin was not indicated at 2% of samples.
Of the total number of samples taken, 5.4% of vegetables were produced within ecological (organic) agriculture and 94.6% within mainstream agriculture. The MRL was exceeded in 35 cases and 22 cases were assessed as being non-compliant (samples were non-complying even after the uncertainty measurement was taken into account). Of the 22 non-compliant samples of fresh vegetables, 13 contained chlorates exceeding the MRL.
In the vegetable samples and mushrooms, the most detected active substances were perchlorate (44.8%), azoxystrobin (16.8%), boscalid (15.2%), propamocarb (12.8%) and chlorate (11.7%).

7.2.2. Fruit and nuts

In total, 426 samples of fresh fruit, including nuts, were analysed for the presence of pesticide residues. The largest proportion of the total number of fruit samples were from EU countries (65%), followed by samples from TCs (19%) and the Czech Republic (15%). Information on the country of origin was missing in 1% of samples.
Fruit produced within organic agriculture comprised 4.2% of the total number of samples taken, fruit produced by mainstream manner comprised 95.8%. As regards fruit produced within mainstream agriculture, pesticide residues were detected in 88.5% of the samples taken compared with 16.7% of organic fruit. Three samples of fresh fruit and nuts were assessed as non-compliant: bananas from Ecuador, cashews from India and lychees from Morocco.
The most detected active substances in samples of fresh fruit were: dithiocarbamates (40.6%), boscalid (37.2%), pyraclostrobin (24.9%), chlorpyrifos (21.3%) and acetamiprid (20.3%).

7.2.3. Cereals and cereals products

In total, 125 samples of cereal and cereal products were analysed to detect the presence of pesticide residues. A positive reading for one of the active substances was found in 25.6% of the analysed cereal samples, but MRL was not exceeded.
The largest proportion of cereal samples came from the Czech Republic (62%), followed by EU countries (14%) and TCs (10%). The country of origin was not indicated in 10% of the samples taken.
The most frequently detected active substances in cereals were: chlormequat, chlorpyrifos-methyl pirimiphos-methyl and chlorpyrifos.

7.2.4. Food of animal origin

In 2014, the SVA took a total of 70 samples of the animal origin, 15 of which were found to be positive for pesticide residues. dichlorodiphenyltrichloroethane, hexachlorobenzene, carbendazim, fenpropirimorph and fluazifop were detected in products of animal origin (the situation is similar to the previous years). MRL values were not exceeded in samples of animal origin (as in previous years).

7.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Of the total number of samples taken in 2014, the MRL was exceeded in 65 samples, 39 of which were assessed as being non-compliant even after the uncertainty measurement was taken into account.
The following commodity groups were affected: fresh vegetables (20 non-compliant samples), fresh fruit and nuts (3 non-compliant samples), fresh herbs (3 non-compliant samples), tea (green) (7 non-compliant samples) and spices (1 non-compliant sample). The substances involved were: chlorpyrifos in Pekingese cabbage from Poland (2014.15096), iprodione in lettuce from Poland (2014.1730) and flonicamid in tomatoes from Poland (2014.1653) – these cases were reported to the RASFF.
Five samples taken for more rigorous official inspection and originating from China were assessed as non-compliant. All samples were reported to the RASFF system (notifications 2014.BVC, 2014.AXI, 2014.AXH, 2014.AXD, 2015.AJG). Three further samples of tea originating from China complied only after the uncertainty measurement was taken into account.

Table 19: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	8	RASFF Reference: 2015.AJG (Green Tea from Hong Kong) 2014.AXD (Green Tea from China) 2014.AXH (Sechuan Green Tea from China) 2014.AXI (Formosa Oolong from China) 2014.1509 (Chinese cabbage from Poland) 2014.1653 (Tomato from Poland) 2014.BVC (Jasmine Tea from China) 2014.1730 (Lettuce from Poland)
Administrative sanctions (e.g. fines)	23	Not applicable
Lot recalled from the market	10	Not applicable
Rejection of a non-compliant lot at the border	5	Teas from China (4) and Hong Kong (1)
Destruction of non-compliant lot	1	Not applicable
Warnings to responsible food business operator	6	Not applicable
Lot not released on the market	7	Not applicable
Other actions	2	Any other lot has to be analysed by the operator before release to the market

Table 20: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of a pesticide not approved in the EU[c]	Chlorates (carrot)	5	-
	Chlorates (tomato)	3	
	Chlorates (cashew nuts)	1	
	Chlorates (celeriac)	2	
	Chlorates (parsley)	1	
	Chlorates (lettuce)	1	
	Chlorates (spinach)	1	
	Chlorates (menthe)	1	
	Chlorates (bananas)	1	
	Dinotefuran (tomato)	2	
GAP not respected: use of an approved pesticide not authorised on the specific crop[c]			-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Chlorpyrifos/Chinese cabbage	1	-
	Iprodione (lettuce)	1	
	Propamocarb (spring onion)	1	
	Prothioconazole (spring onion)	1	
	Flonicamid (tomato)	1	
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	Penconazole (sage)	1	-
	Endosulfan (thyme)	1	
	Profenofos (lychee)	1	
	Acetamiprid (tea)	3	
	Buprofezin (tea)	3	
	Carbendazim and benomyl (tea)	2	
	Dimethoate (tea)	1	
	Dinotefuran (tea)	2	
	Fenbuconazole (tea)	1	
	Fipronil (tea)	2	
	Flubendiamide (tea)	2	
	Chlorantraniliprole (tea)	2	
	Chlorpyrifos (tea)	2	
	Imidacloprid (tea)	4	
	Lufenuron (tea)	2	
	Methoxyfenozide (tea)	2	
	Procymidone (tea)	1	
	Profenofos (tea)	1	
	Tebuconazole (tea)	1	

GAP: good agricultural practice; PHI: pre harvest interval.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

7.4. Quality assurance

Table 21: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Czech Republic	Czech Agriculture and Food Inspection Authority (CAFIA)	Praha 5	2002 EN ISO/IEC 17025 (1993 EN 45001)	Czech Accreditation Institute (CAI), Prague, Czech Republic	EUPT-SM06, EUPT-FV-16, EUPT-SRM9, EUPT-CF8, EUPT-FV-T02, FAPAS 0599
Czech Republic	State Veterinary Institute Prague	V01	First accreditation 1997; valid accreditation issued 21/3/2011 and 21/6/2012	Czech Accreditation Institute (CAI), Prague, Czech Republic	EUPT-AO-09

7.5. Processing factors

Table 22: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)]	Olives	Olive oil	5	Processing factor was applied according to Commission Implementing Regulation (EU) No. 788/2012
Lambda-cyhalothrin	Olives	Olive oil	5	Processing factor was applied according to Commission Implementing Regulation (EU) No. 788/2012
Chlorpyrifos-methyl	Wheat	Bakery product	0.7	Processing factor was calculated from content of wheat in bakery product
Chlorpyrifos-methyl	Wheat	Bakery product	0.7	Processing factor was calculated from content of wheat in bakery product
Chlorpyrifos	Marjoram	Marjoram (dry)	5.6	Processing factor was calculated from difference of water content in fresh and dry marjoram
Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Marjoram	Marjoram (dry)	5.6	Processing factor was calculated from difference of water content in fresh and dry marjoram
Lambda-cyhalothrin	Marjoram	Marjoram (dry)	5.6	Processing factor was calculated from difference of water content in fresh and dry marjoram

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

8. Denmark

8.1. Objective and design of the national control programme

The National Food Institute, Technical University of Denmark, designed the monitoring programme in cooperation with the Danish Veterinary and Food Administration. Since 2006 the sampling plan has been based on dietary consumption pattern with regard to pesticide intake from two previous reports that analysed monitoring data from 1998–2003 and 2004–2011 (Poulsen et al., 2005; Petersen et al., 2013). These reports showed that 25 commodities were responsible for > 95% of the intake of pesticide residues (Top25 commodities). These commodities were included in the sampling plan along with commodities included in the European Union (EU)-coordinated control programme. The focus on the Top25 commodities will provide a better basis for comparison between years, so that trends in pesticide residues found may be analysed. In addition to these samples, a broad range of commodities common on the Danish market was analysed, including processed foods, food for infants and organically grown products. Most sampling projects were designed to cover surveillance as well as control in combination and the sampling strategy for these samples is listed as objective or selective sampling. One project was set up to cover sampling and analysis according to Regulation (EC) No 669/2009. Another project was sampled by a special task force for suspect sampling and included sampling of direct import via Copenhagen Airport. Sampling strategy for these two projects is listed as suspect sampling.

Samples of animal origin were not analysed for all pesticides included in the coordinated programme due to a lack of validated analytical methods for all relevant pesticides.

Sampling was performed by authorised personnel from the Danish Veterinary and Food Administration. Directive 2002/63/EC on sampling procedures for the control of pesticide residues is implemented in Danish legislation. All samples for control of the maximum residue limits (MRL), except the directly imported samples, were sampled on the market, primarily at wholesalers or importers. Meat was sampled at slaughterhouses.

Reporting includes samples analysed for pesticides from projects, based on Directive 96/23.

Most samples of fruit and vegetables were analysed for approximately 280 pesticides (counted as residue definitions). In addition, part of the samples (720 samples) were analysed for dithiocarbamates and others for bromide ion (20 samples). Because of the methodology applied, it was not possible to distinguish between the specific dithiocarbamates included in the residue definition for enforcement.

In addition to the above quantitative methods, a new validated screening method using LC-QTOF was tested on approximately 100 samples of fruit, vegetables and cereals already analysed by the quantitative methods. The screening method included 167 substances not included in the other methods. Most substances were pesticides, but a few were safeners and other formulation additives.

Most cereal samples were analysed for approximately 200 pesticides (counted as residue definitions).

8.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, a total of 2,320 surveillance samples of fruit, vegetables, cereals, processed products, baby food and animal products were analysed. Furthermore, 128 samples were taken from direct import from third countries (TC) at the Copenhagen Airport and 62 samples were taken in the frame of Regulation (EC) No 69/2009. Samples from these two projects are listed as suspect sampling. Results from these two projects are reported separately and are not included in the following general statistics.

Of the 2,320 samples, 815 were produced in Denmark and 1,505 were produced in other EU countries and outside the EU. There were 1,642 samples of fruit and vegetables, 278 samples of cereals, 242 samples of animal origin, 151 samples of processed foods and 7 samples of baby food.

One hundred and nineteen (7%) of the fruit and vegetable samples and 53 (19%) of the cereal samples were organically produced.

Pesticide residues were found in 68% of the conventionally grown fruit, 41% of the conventionally grown vegetables and in 41% of the conventionally grown cereal samples. Residues exceeding the MRL were found in 1.5% of the conventionally grown fruit and vegetables samples (23 samples). Of these, 16 samples (1.1%) had non-compliant residues. No residue exceeding the MRL was found in cereals produced in Denmark and other EU countries, whereas three examples exceeding the MRL were found in samples produced outside the EU. As in 2013, no sample of baby food or processed commodities exceeded the MRL.

For fruits, pesticide residues were found in 73% and 69% of the samples produced in and outside the EU, respectively, whereas pesticide residues were found in only 45% of the samples from Denmark. For vegetables, residues were found in 52% and 46% of the samples produced in and outside the EU, respectively, whereas residues were found in 25% of the samples from Denmark.

The frequency of conventionally grown samples exceeding the MRL was 1.8% and 2% for fruit produced in and outside the EU, respectively. For vegetables, the frequency of samples exceeding the MRL was 1.2% and 4% for vegetables originating in and outside the EU, respectively. The frequency of residues in Danish-grown fruit was zero, whereas the frequency of Danish grown vegetables exceeding the MRL was 0.4%.

A total of 190 samples (from conventionally as well as organically grown crops) were taken using the sampling strategy 'Suspect'. Non-compliant residues were found in 26 samples.

Residues were found in five organically produced samples: spinosad (0.04 mg/kg) was found in one sample of cucumber from Spain, spinosad (10 mg/kg, 2.8 mg/kg) was found in two samples of spinach from Italy, dimethomorph (0.015 mg/kg) was found in one sample of rosemary from Israel and permethrin was found in one sample of wheat flour from Italy (0.01 mg/kg).

Because spinosad use is allowed in organically produced food, it was concluded the residues found in cucumber and spinach were in accordance with the rules for organic production.

Based on information from the Israeli exporter, it was concluded that the residue of dimethomorph in rosemary was not in accordance with the rules for organic production.

The residue of permethrin in wheat flour was evaluated as being due to contamination. Therefore, it was concluded that this sample was produced in accordance with the rules for organic production.

8.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, residues were found to exceed the EU MRL in 1.5% of the samples (26 samples) taken using an objective or selective sample strategy. Of these samples, 1.0% (17 samples) was found to be non-compliant with the EU MRL.

For samples taken using a suspect sampling strategy, residues in 13.7% (26 samples) were found to exceed the EU MRL. Of these, 11.6% (22 samples) were found to be non-compliant with the EU MRL.

The follow-up actions listed in Table 23 were taken for samples that were found non-compliant with the EU MRL (measurement uncertainty taken into consideration).

Table 23: Actions taken for non-compliant samples

Number of non-compliant samples objective sampling (suspect sampling)	Action taken	Note
1	Lot not released on the market. Rapid Alert Notification	One sample of carrots from Albania with a content of dieldrin of 0.3 mg/kg (RASFF Reference: 2014.0201 – Information for attention)
1	Warning. Lot recalled from the market. Rapid Alert Notification	One sample of popcorn from Argentina with a dichlorvos content of 1.5 mg/kg (RASFF Reference: 2014.1234-add Information for attention)
1 (1 suspect, lot recalled from the market)	Lot not released on the market. Lot recalled from the market	-
1 (1 suspect)	Warning	-
1 (4 suspect)	Other action	-
12 (6 suspect)	No action	-
10 suspect	Administrative consequences	-

8.4. Quality assurance

Table 24: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
DK	National Food Institute, Technical University of Denmark	DTU Food	20/4/1995 (DANAK #350)	DANAK, Denmark	EUPT-FV-16, EUPT-SM06, EUPT-AO-09, EUPT-SRM9, FAPAS 0991 Organiser of EUPT-CF8
DK	Danish Veterinary and Food Administration	FVST	30/9/ 2008 (DANAK #405)	DANAK, Denmark	EUPT-CF8, EUPT-FV-16, EUPT-AO-09, EUPT-SRM9, RIKILT PT334 2014, FAPAS 19167, FAPAS 19172, FAPAS 19162, FAPAS 19182, FAPAS 19183, FAPAS 19176, FAPAS 05100, FAPAS 19156, FAPAS 0986, FAPAS 0987, FAPAS 0989, FAPAS 0990, FAPAS 0992, APLAC T094

8.5. Additional information

The analytical methods were developed and/or validated by the National Food Institute, Technical University of Denmark. Most samples were analysed at the laboratory of the Danish Veterinary and Food Administration in Ringsted. Both laboratories are accredited for pesticide analysis in compliance with EN 45001/ISO 17025 by the Danish Accreditation body, DANAK. Furthermore, the laboratories participated in the relevant food analysis performance assessment scheme (FAPAS) proficiency test and in all EU proficiency tests.

'Guidelines concerning quality control procedures for pesticide residue analysis' were been applied for all methods. Mass selective confirmation was performed for part of the gas chromatography (GC) multi-methods and for the liquid chromatography/tandem mass spectrometry (LC/MS-MS) methods for fruit and vegetables. Analytical uncertainty is not applied in monitoring reports, but is always applied in case of enforcement actions.

Each year, the National Food Institute, Technical University of Denmark, and the Danish Veterinary and Food Administration prepare a report on pesticide residues in foods on the Danish market. Since 1 January 2011, the annual pesticide report has been supplemented with the regular publication of control data from each quarter. The quarterly reporting comprises results from samples of fresh and frozen fruit and vegetables as well as cereals – both conventionally and organically grown. The National Food Institute, Technical University of Denmark, prepares and publishes the quarterly reports.

A risk assessment was performed of all findings above the MRL by the National Food Institute. It was concluded in all cases that there was no risk to consumers except for two samples taken as objective sampling. One sample was popcorn from Argentina with a dichlorvos content of 1.5 mg/kg [Rapid Alert System for Food and Feed (RASFF) Reference: 2014.1234] and the other was a sample of carrots from Albania with a dieldrin content of 0.3 mg/kg (RASFF Reference: 2014.0201). In addition, all samples in which more than one pesticide residue were found were evaluated by the Hazard Index method, using the sum of each residue in relation to the acceptable daily intake (ADI) and acute reference dose (ARfD), respectively, taking into account the estimated consumption of the sample commodity for an adult and a child. For all samples taken in 2014 with multiple residues, it was concluded that the residues were not expected to result in any risk to the consumer.

9. Estonia

9.1. Objective and design of the national control programme

The Veterinary and Food Board (VFB) is responsible for drawing up the pesticide residue-monitoring programme, which contains two parts. One part is the coordinated multi-annual control programme of the European Union (a legal requirement from Commission Regulation (EU) No 788/2012) and it gives the list of commodities and pesticide residues to be analysed and the number of samples to be taken for the year 2014. The other part of the pesticide residue monitoring programme is the national control programme. It contains two inputs prepared by two different competent authorities, the VFB and the Agricultural Board (AB).

The VFB is a competent authority for food safety and is responsible for implementation of the coordinated multi-annual control programme of the European Union (EU) and taking samples in terms of Commission Regulation (EU) No 788/2012. The VFB is also responsible for taking samples in terms of the national control programme, which contains commodities that are important for local consumption (e.g. potatoes, rapeseed, head cabbage) and commodities in which the maximum residue levels (MRL) have been exceeded in previous years. Because of a reduction in financial resources, it is not always possible to include these commodities in the sampling plan every year.

For the AB, taking samples forms part of their supervision of compliance in using plant-protection products at primary production level and contains most cultivated crops. The AB's sampling is based on evaluated risks and the results of the previous year's sampling in the annual control plan. The results are also included in the national control programme.

In 2014, the VFB took 190 samples and the AB took 90 samples (total 280 samples). Twenty-five different food commodities were analysed.

9.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, there were four cases of MRL exceedance. The matrices in which exceedances were detected were carrots, rice, tea and vine leaves (grape leaves). During previous years, there have been infringements with broccoli, apricots, sweet pepper, peaches, table grapes, beans, spinach, strawberries and tea.

The level of non-compliance (results above MRL after taking into account the measurement uncertainty) has remained low. In 2010, 2.1% of samples were non-compliant, in 2011 this decreased to 0.7% of all samples, and in 2012 there was one non-compliant sample (0.4% of the total). In 2013, 2.6% of all samples were non-compliant and in 2014, 1.4% of all samples (four samples).

The overall percentage of samples with no residues has remained near 50% over the years. In 2010, 152 of 286 samples (53.1%) had no residues, in 2011, the number was 175 of 268 samples (65.3%), in 2012, the number was 146 of 281 samples (51.9%),in 2013, the number was 137 of 268 samples (51.1%) and in 2014, the number was 168 of 280 samples (60.0%).

The total number of samples analysed, the number of samples with no detected residues, the number of samples with detected residues above the limit of quantification (LOQ) and below or equal to MRL (results above MRL after taking into account the measurement uncertainty) and the number of samples with residues above MRL since 2010 are represented in Table 25.

Table 25: Summary results

Sampling year	Total number of taken samples	Percentage of samples with no residues	Residues detected > LOQ and ≤ MRL level (%)	Residues > MRL level (%)
2010	286	53.1	44.8	2.1
2011	268	65.3	34.0	0.7
2012	281	51.9	47.7	0.4
2013	268	51.1	46.3	2.6
2014	280	60.0	38.6	1.4

LOQ: limit of quantification; MRL: maximum residue limits.

9.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, a total of 280 samples were taken, of which four (1.4%) were non-compliant because they exceeding the MRL.

Matrices in which exceedances were detected were: carrots, rice, oranges, tea and vine leaves (grape leaves). One sample of rice from Cambodia (sample code 14-001205 JSL/TK) contained phenthoate residues above the MRL. One sample of carrots from Estonia (sample code 14-015058 JSL/TK) contained dimethoate (sum) residues above the MRL. One sample of tea from China taken at import control contained multiple residues (buprofezin, chlorpyrifos, isofenphos-methyl, procymidone, acetamiprid and imidacloprid) above MRL and this tea consignment was sent back. In addition, one sample of grape leaves (vine leaves) from Turkey, which was taken at import control, had many pesticide residues exceeding the MRL, namely, boscalid, chlorpyrifos, dimethomorph, kresoxim-methyl, metrafenone, pyraclostrobin and pyrimethanil. This consignment was destroyed.

Table 26: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	2	Tea from China, vine leaves from Turkey
Administrative sanctions (e.g. fines)	0	-
Lot recalled from the market	2	-
Rejection of a non-compliant lot at the border	2	Tea from China (sent back, RASFF notification); vine leaves from Turkey (destruction, RASFF notification)
Destruction of non-compliant lot	1	Vine leaves from Turkey (destruction, RASFF notification)
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	0	-
Warnings to responsible food business operator	3	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	0	-
Other actions	0	-

Table 27: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of a pesticide not approved in the EU[c]	Phenthoate (rice)	1	-
	Isofenphos-methyl (tea)	1	
GAP not respected: use of an approved pesticide not authorised on the specific crop[c]	-	0	-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	-	0	-
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	0	-
Cross-contamination: spray drift or other accidental contamination	-	0	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	0	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	0	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	-	0	-
Changes of the MRL	-	0	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	Phenthoate (rice)	1	-
	Isofenphos-methyl (tea)	1	

GAP: good agricultural practice; MRL: maximum residue limits.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

9.4. Quality assurance

According to Regulation (EC) No 882/2004, the competent authority shall designate laboratories that may carry out the analysis of samples taken during official controls. The designated laboratories are assessed and accredited in accordance with EN ISO/IEC 17025 on 'General requirements for the competence of testing and calibration laboratories'. The laboratories are accredited by the Estonian Accreditation Centre (EAC) and designated by the VFB for all analytical methods (and residues within these methods) used for official control of pesticide residues in food.

EC guideline SANCO/12495/2011 'Method Validation and Quality Control procedures for Pesticide Residues Analysis in Food and Feed' was implemented as far as practicable for 2014.

Three accredited and designated laboratories analyse pesticide residues: the Tartu Laboratory of Estonian Health Board (HB), the Central Chemistry Laboratory of the Health Board (HBC) and Agricultural Research Centre Laboratory for Residues and Contaminants in Saku (ARC).

HB and HBC analyse commodities of animal and non-animal origin; ARC analyses commodities of non-animal origin.

In 2014, HB and ARC participated in the pesticide residues control programme. They analysed pesticide residues in food samples taken by the VFB and AB (Table 28).

Table 28: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Estonia	Laboratory for Residues and Contaminants, Agricultural Research Centre	L003	18/6/1996	EAC; Estonian Accreditation Centre	EURL/NRL EUPT-C7 EURL/NRL EUPT-FV-SM05 EURL/NRL EUPT-FV-15 EURL/NRL EUPT-SRM8 FAPAS 19143
Estonia	Tartu Laboratory of Estonian Health Board	L019	28/12/1999	EAC; Estonian Accreditation Centre	EUPT-FV-15 EURL PT AO0 EU PT SRM 8

10. Finland

10.1. Objective and design of the national control programme

The Finnish pesticide residue control programme is coordinated by Finnish Food Safety Authority Evira and carried out together with the Finnish Customs, Helsinki Environment Centre and National Supervisory Authority for Welfare and Health (Valvira).

The control programme consists of two parts: the European Union (EU)-coordinated multi-annual control programme (Commission Regulation (EU) No 788/2012) and the national control programme based on the dietary intake patterns of Finnish consumers. The control programme consists of two strategies: surveillance of plant and animal origin randomly sampled for the presence of pesticide residues and enforcement of pesticide residue legislation, for example, where targeting of samples with a history of non-compliances and commodities listed in Regulation (EC) No 669/2009 for pesticide residues.

When defining the food products to be analysed in the national control programme high or low importance was given to the factors listed below:

- EU Commission Regulation concerning a coordinated multi-annual control programme of the EU;
- relevance of a food product in national diet and in national agricultural production;
- food products with high non-compliance rates identified in previous years;
- high Rapid Alert System for Food and Feed (RASFF) notification rate;
- number of organic and conventional products reflects the market shares;
- origin of the food products – domestic, EU or third countries (TC);
- cooperation possibilities in sampling with different contaminant projects;
- needs of the national risk assessment projects.

To define pesticides that should be included in the national control programme the following aspects were taken into consideration:

- pesticides listed in the Regulation concerning a coordinated multiannual control programme are included as far as possible;
- RASFF notifications for a pesticide and the frequency of pesticide findings in the EU monitoring reports are used as selection criteria;
- use pattern of pesticide, pesticides that are commonly used and are known to leave residues in foods are included;
- pesticides that are authorised for use in Finland are included into the programme when relevant;
- toxicity of the active substances is considered, for example many toxic organophosphate compounds that are no longer commonly used are still included (they may occur in samples originating from developing countries);
- cost of analysis – multiple residue methods (MRM) are preferred, as the cost of analysis in the case of single residue methods (SRM) is higher. If many single residue analyses are performed the total number of samples to be analysed is decreased;
- laboratory capacity – SRMs are run as required by the EU-coordinated programme and a limited number of other samples. Instrument and personnel capacity in the laboratories limits the number of single residue analyses.

10.2. Key findings, interpretation of the results and comparability with the previous year results

The total number of samples analysed under the national and EU-coordinated programmes was 2,211, which is 8% lower than the previous year. This total number includes 149 follow-up enforcement samples or samples based on Regulation (EC) No 669/2009. The number of samples taken under the EU-coordinated programme was 233.

The distribution of all the samples by origin was: domestic, 14%; European Economic Area (EEA), 40%; other countries not EEA, 40%; and unknown, 2%.

Residues of one or more pesticide active ingredients were found in 46% of all samples. Exceedances of maximum residue limits (MRLs) were found in 103 samples, and 51 of them were non-compliant (measurement uncertainty taken into consideration; including surveillance and enforcement samples). The percentage of non-compliances (2.3%) decreased slightly compared with the previous year (2.7%). The non-complying lots originated from 18 different countries. The highest number of non-compliances was in Indian products, with 19 lots rejected. Several non-complying samples were found also in products from China (seven). Four non-complying samples originated from EEA countries. All domestic samples were compliant with the regulations.

The number of samples above the MRL was highest in the food groups vegetables, fruits and nuts and other plant products. The product with most exceedances of the MRL was tea (29 samples). Only two cereal samples had exceedance of the MRL. All the samples of animal products and baby food were below the MRL.

This year, 149 enforcement samples were taken from fruits and nuts (97), vegetables (41) and other plant products (11) (of which 10 were tea samples). Only eight enforcement samples were from EEA countries. The number of samples above the MRL for the enforcement samples was nine (6%). Four samples (2.4%) of these were non-complying.

Two hundred and thirty-three samples were taken under the EU-coordinated programme; four of them exceeded the MRL and two of them were non-compliant.

In total, 276 samples from organic production were analysed; 25 samples had residues above reporting limit. In eight samples the residues exceeded the MRL and seven samples were non-compliant.

The number of multi-residue compounds analysed from samples of plant origin was 325 active ingredients and metabolites. Eighty compounds were analysed from animal products.

Table 29: Summary of samples taken by product class and results

Samples	Total	Without residues	%	With residues below MRL	%	Exceeding MRL	%	Non-compliant	%
Animal products[(a)]	33	33	100	0	0	0	0	0	0
Baby food	97	96	99	1	1	0	0	0	0
Cereals[(a)]	106	59	56	46	43	1	0.9	0	0
Processed products	284	219	77	53	19	12	4.2	7	2.5
Sum of fruits and nuts, vegetables, other plant products[(a)]	1691	786	46	815	48	90	5.3	44	2.6
	2211	**1193**	**54**	**915**	**41**	**103**	**4.7**	**51**	**2.3**

MRL: maximum residue limits.
(a): Totals for animal products, cereals and sum of fruits and nuts, vegetables, other plant products are for unprocessed commodities.

Table 30: Summary of samples taken by region of origin

Origin	Samples	%	Exceeding MRL	%	Non-compliant	%
Domestic	299	14	1	0.3	0	0
EEA (EU Member States, Iceland and Norway)	889	40	10	1.1	4	0.4
Other countries not part of EEA	981	44	91	9.3	46	4.7
Unknown	42	2	1	2.4	1	2.4

MRL: maximum residue limits.

Table 31: Summary of organic samples taken by product class and results

Samples	Total	Without residues	%	With residues below MRL	%	Exceeding MRL	%	Non-compliant	%
Baby food	47	47	100	0	0	0	0	0	0
Cereals	18	18	100	0	0	0	0	0	0
Fruits and nuts	107	94	87.9	13	12.1	2	1.9	1	0.9
Other plant products	58	52	89.7	6	10.3	4	6.9	4	6.9
Vegetables	46	38	82.6	8	17.4	2	4.3	2	4.3
	276	249	90.2	27	9.8	8	2.9	7	2.5

MRL: maximum residue limits.

10.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, 2.3% of the samples (51 samples in total) were found to be non-compliant with the EU MRLs. RASFF notifications were issued for eight samples.

The follow-up actions listed in Table 32 were taken in the case of samples non-compliant with the EU MRL (measurement uncertainty was taken into consideration).

Table 32: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	8	Five border rejection and three information notifications
Lot recalled from the market	1	Pumpkin seeds/isofenphos-methyl
Rejection of a non-compliant lot at the border	40	-
Destruction of non-compliant lot		Data not available
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin		Follow-up sampling is regular procedure after rejection but there is no numerical data available
Warnings to responsible food business operator	58	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	11	The lot partly or totally consumed. The remaining part detained and destroyed or sent back to the seller by permission of authorities in the country of origin. Enforcement sampling on next coming import lots
Marketing as organic prohibited	17	Organic-labelled products containing residues

Table 33: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Bupirimate (dill)	1	-
	Imidacloprid (spinach)	1	
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	2-Phenylphenol/tea	3	Possible migration from the packing material
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	Triazophos (tea)	3	-
	Triazophos (jasmine flower)	1	
	Triazophos (Chinese onions)	1	
	Anthraquinone (dried pepper powder)	2	
	Anthraquinone (dried broccoli)	1	
	Propargite (herbal tea)	4	
	Lufenuron (tea)	3	

GAP: good agricultural practice.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

10.4. Quality assurance

Table 34: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
FI	Finnish Customs Laboratory	FI01	9/2/2015	FINAS-Espoo, Finland	EUPT-FV-16, EUPT-CF8, EUPT-FV-SM06, EUPT-FV-T02, FAPAS 19162, BIPEA 05-2619, BIPEA 05-3219, BIPEA 10-0619, BIPEA 05-3119, BIPEA 04-0519, BIPEA 11-0619, BIPEA 06-3019
FI	MetropoliLab Oy	FI02	23/6/2015	FINAS-Espoo, Finland	EUPT-FV-16
FI	Finnish Food Safety Authority	FI03	29/11/2013	FINAS-Espoo, Finland	EUPT-SRM9, EUPT-AO-09, FAPAS 0595

10.5. Processing factors

Table 35 lists the processing factors used by national competent authorities to verify the compliance of processed products with EU MRLs.

Table 35: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
All pesticides	Fresh herbs	Dried herbs	10	Factors are used for first estimation, in case of non-compliance, more detailed information is requested from the stakeholder
All pesticides	Fresh vegetables	Dried vegetables	10	
All pesticides	Fresh fruits	Dried fruits	5	

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

11. France

11.1. Objective and design of the national control programme

The programmes of surveillance and control for pesticide residues in plant products are planned and implemented by the Directorate General for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF). Three laboratories analyse samples for the DGCCRF. One of these laboratories is located overseas and deals mainly with local products. The other two analyse all types of plant commodities available on the French market, including raw and processed products.

The programmes cover three strategies of sampling called 'surveillance' for random samplings [notably implementing the European Union (EU)-coordinated programme], 'control' for targeted samplings (based on ~~a~~ strong suspicion of non-compliance or on specific problems, such as the presence of chlordecone in root vegetables) and 'samplings within the framework of Regulation (EC) No 669/2009'.

Samples are taken by inspectors from local services (departments) of the DGCCRF, in compliance with the procedures set by EU regulations.

The National Agency for Sanitary Safety (ANSES) helps define sampling targets. The national plan takes into account:

- the level of risk exposure (calculated according to the frequency of detections of active substances, balanced with matrices of consumption in France and the existence of chronic and acute risks affecting various population categories);
- observations of non-compliance from previous years.

In addition to the samplings initially planned, further products can be analysed in case of Rapid Alert System for Food and Feed (RASFF) notifications or if a non-compliance had been noticed.

The samplings cover raw and processed, organic and non-organic products. They are, for surveillance purposes, representative of national consumption, in particular in terms of origin.

The samples are taken from all stages of the supply chain, but they are taken more often from those responsible for placing the products on the market (wholesaler, importer).

For multi-residues analyses, laboratories use the quick, easy, cheap, effective, rigged and safe (QuEChERS) method (NF IN 15662). Laboratories also follow the recommendations of European reference laboratories when a specific method is updated (e.g. the Quick Polar Pesticides Method 'QuPPe' method).

Both mainland France's laboratories are accredited by the French Committee of Accreditation (COTAIL COAT). The overseas laboratory was accredited at the end of 2012 for the search of chlordecone in products of vegetable origin.

11.2. Key findings, interpretation of the results and comparability with previous year's results

The number of samplings made in 2014 is higher than in 2013 (5,480 compared with 5,163).

The main results are detailed in Table 36.

Table 36: Summary results

	Number of samplings	Percentage > LOQ	Percentage > MRL (before uncertainty)	Percentage non-compliant to MRL
Surveillance	3,064	52.0	3.2	1.5
Control	1,627	36.8	5.7	3.6
Increased level of controls on imports	789	61.9	12.5	6.5
Total	5,480	48.9	5.3	2.8

LOQ: limit of quantification; MRL: maximum residue limits.

The rate of non-compliance is decreasing, compared with 2013 (2.8% against 3.8%).

11.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Over 156 non-compliances were noticed in 2014 and 46 have been notified to the RASFF.

Actions carried out for non-compliant samples are given in Table 37.

Table 37: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	0	No ARfD exceedance has been introduced in another Member State
Administrative sanctions (e.g. fines)	4	Four other affairs are still in progress in front of the courts
Rejection of a non-compliant lot at the border	41	-
Destruction of non-compliant lot	31	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	156	All non-compliances are followed by another sampling
Warnings to responsible food business operator	61	-
Other actions	1	Administrative police measure prescribing the implementation of autocontrols

ARfD: acute reference dose.

Table 38: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of an approved pesticide not authorised on the specific crop	Dimethoate (celery)	1	-
	Pyrimethanil (celery)	1	
	Chlorothalonil (spinach)	1	
	Dimethoate (mandarins)	1	
	Chlorothalonil (parsley)	1	
	Chlorpyrifos (parsley)	2	
	Prometryn (parsley)	1	
	Pencycuron (parsley)	1	

GAP: good agricultural practice.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.

11.4. Quality assurance

Table 39: Participation of laboratories in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
FR	SCL; Laboratoire de Montpellier	SCL34	1997	Comité français d'accréditation; COFRAC	PT 2015: FV-116, CF9, SRM10, SM08, BIPEA
FR	SCL; Laboratoire de Massy	SCL91	1996	Comité français d'accréditation; COFRAC	PT 2015: FV-116, CF9, SRM10, SM08, FAPS
FR	Laboratoire de Jarry	SCL971	2012	Comité français d'accréditation; COFRAC	Test 3/SCL91

11.5. Processing factors

Table 40 shows the processing factors that were used by national authorities to check the compliance of processed products with EU MRLs.

Table 40: Processing factors

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
All pesticides	Cereals	Flour	0.2	-
All pesticides	Cereals	Bran	0.4	-
All pesticides	Fruits	Dried fruits	5	-
All pesticides	Fungi	Dried fungi	10	-
All pesticides	Olive	Olive oil	5	-
All pesticides	Wine grapes	Wine	1	-
All pesticides	Fruits	Fruits juice	1	-

RAC:Raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

12. Germany

12.1. Objective and design of the national control programme

Germany's multi-annual national programme for the control of pesticide residues in and on foodstuffs serves the planning of official controls to make sure that residues in food of animal or plant origin do not lead to inacceptable risks to health. Investigations under this programme aim to evaluate consumers' exposure to pesticide residues and control compliance with legal regulations.

The control programme is jointly developed by the Federal Government and the Federal States (Länder). Each programme covers a period of 3 years and is updated each year and submitted to the commission and the European Food Safety Authority (EFSA) 3 months before the end of the current calendar year at the latest, in accordance with Article 30 (1)2 of Regulation (EC) No 396/2005.

To reach both the aim of evaluating consumer exposure and of monitoring legal compliance, part of the samples are analysed following the provisions set out in a multi-annual national monitoring plan. This plan was specifically conceived to measure pesticide residues and to determine end consumers' exposure on a national scale. Sampling is carried out at random and is based on the conditions of the German market, as regards the origin of samples and their distribution over conventional and organic farming.

A much greater number of samples is taken and analysed on a risk basis and at all levels of trade (import, wholesale, retail, production), on the basis of uniform criteria, which allows integration of the sampling plans developed separately by the Länder into one national sampling plan.

The criteria given below have been set up for the selection of products to be sampled, in order to allow a uniform approach to developing the multi-annual national control plan, and integration of the Länders' plans into a national sampling plan in a transparent manner.

12.1.1. 'Hard' criteria

- Product risk, as defined in a health risk assessment of the respective product (risk to population, risk to sensitive consumer groups, food with potential risks), while considering the product's dietary importance;
- amount of production/import/distribution of the food product in question;
- frequency of non-compliance with residue levels, frequency of complaints;
- frequency of findings (distribution of frequency), frequency of multiple residues;
- findings under the monitoring programme; findings reported in the annual report pursuant to Article 32 of Regulation (EC) No 396/2005.

12.1.2. 'Soft' criteria

- Seasonal particularities (e.g. early strawberries – sampling should be concentrated at the beginning of the season, to allow forecasts of trends in residue findings);
- origin and regional particularities (e.g. regional prevalence of certain crops);
- consideration of findings in controls performed by the Crop Protection Services of the Länder (e.g. findings about improper or unauthorised use of plant-protection products, or suspicion of residues of unauthorised use of plant-protection products or use of banned products);
- information on the public/public perception of pesticide residues;
- type of farming (such as organic/conventional, small-/large-scale cropping);
- efficiency of producers'/suppliers' self-control systems.

Both control programmes, sampling and actual analyses are performed by the competent authorities of the Länder. Analytic results are delivered to the Federal Office of Consumer Protection and Food Safety (BVL). The BVL compiles the data submitted by the Länder, makes an assessment, and sends the data to the European Commission, to EFSA and to the other Member States, in accordance with Article 31(1) of Regulation (EC) No 396/2005. In addition, the programme results are published

annually in a national report about residues of plant-protection products in foodstuffs. This report serves as a basis for discussing risk-minimising measures in the field of food safety.

12.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, in Germany, a total of 19,553 samples (19,114 surveillance and 439 follow-up enforcement samples) were tested for pesticide residues. Of these samples, 8,454 were from products produced in Germany, 5,275 samples came from within the EU, 3,385 were produced outside the EU and 2,439 were of unknown origin. There were 15,061 samples of fruits, vegetables and other plant origin, 984 samples of cereals, 2,038 samples of animal products, 498 samples of baby food and 972 samples of processed products.

The participating laboratories reported a total of 5,830,099 analyses for food samples. The samples were analysed for a total of 827 different pesticides (excluding isomers and metabolites) of which 356 were detected at least in one sample. Residues of 141 individual pesticides exceeded maximum residue limits (MRL).

In 6,867 (35.9%) surveillance samples no pesticide residues could be quantified (2013: 35.8%). In 11,462 (60.0%) surveillance samples pesticide residues were quantified at or below the MRL (2013: 61.8%). In total, 785 (4.1%) surveillance samples contained pesticide residues exceeding the MRL (2013: 2.3%) and 413 (2.2%) samples had residues non-compliant with the MRL (2013: 1.3%).

In 145 (33.0%) follow-up enforcement samples no pesticide residues could be quantified (2013: 35.4%). In 230 (52.4%) follow-up enforcement samples pesticide residues were quantified at or below the MRL (2013: 58.3%). In total, 64 (14.6%) follow-up enforcement samples contained pesticide residues exceeding the MRL (2013: 6.3%) and 47 (10.7%) samples had residues non-compliant with the MRL (2013: 3.8%).

There were 1,869 samples (of 19,553; 9.6%) products produced under the rules of organic farming. In 532 (28.5%) samples pesticide residues could be quantified; 72 (3.9%) organic samples contained pesticide residues exceeding the MRL. The sampling strategies for these products varied between the Federal States. Some have special programmes, whereas others take samples randomly.

Multiple residues were found and quantified in 41.0% of all samples (2013: 39.7%).

12.3. Non-compliant samples: possible reasons and actions taken

In 2014, 2.3% of the samples (460 samples in total) were found to be non-compliant with the EU MRL. Rapid Alert System for Food and Feed notifications were issued for 11 samples.

The follow-up actions detailed in Table 41 were taken in the case of samples non-compliant with the EC MRL (measurement uncertainty taken into consideration).

Table 41: Actions taken for non-compliant samples

Number of non-compliant samples	Action taken	Note
70	Administrative consequences	
11	Rapid Alert Notification	Sample codes: 696287471428063364 303931350730748714 1404429262544453916 4683174744551931609 3741460063376790853 6539711087307635171 6858995903025947620 8589751989251683860 4092722666154708990 3340752235872409492 1133392358832653419
67	Warnings to responsible food business operator	-
3	Destruction of non-compliant lot	-
54	Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	-
15	Lot recalled from the market	-
2	Rejection of a non-compliant lot at the border	-
44	No action	-
191	Other	Forwarded to competent authority
3	Other	Still in progress, waiting for statement from the European Commission

The possible reasons for the MRL exceedances were submitted in only 121 cases from the competent authorities in the Federal States. In all other cases the information was not available.

Table 42: Possible reasons for MRL non-compliances

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
Asparagus	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Aubergines	4-CPA	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Aubergines	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Aubergines	Chlorate	Use of a pesticide on food imported from third countries for which no import tolerance was set		1
Aubergines	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Avocados	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Baby food	BAC, sum of BAC 10, BAC 12, BAC 14 and BAC 16	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Baby food	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Baby food	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		7
Baby food	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Baby food	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		21
Beans (with pods)	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Beans (with pods)	Chlorate	Use of a pesticide on food imported from third countries for which no import tolerance was set		1
Beans (with pods)	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
Beans (with pods)	DDAC-C10	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Beans (with pods)	Phoxim	GAP not respected: use of a pesticide not approved in the EU		1
Beans (with pods)	Thiophanate-methyl	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Beef Liver	Copper	Natural occurrence		3
Blackberries	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Blackberries	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram)	Other	Contamination with gloves during sampling	1
Blackberries	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Broccoli	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		5
Brussels sprouts	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Carrots	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Carrots	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Carrots	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Changes of the MRL/GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Cauliflowers	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Cherries (sweet)	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
Cherries (sweet)	Fenthion (fenthion and its oxygen analogue, their sulfoxides and sulfone expressed as parent)	GAP not respected: use of a pesticide not approved in the EU		1
Courgettes	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		2
Cucumbers	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		2
Cultivated fungi	Mepiquat	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Cultivated fungi	Thiametoxam (sum of thiametoxam and clothianidin expressed as thiametoxam)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Currants (red, black and white)	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Contamination during handling, storage or transport of crop		1
Currants (red, black and white)	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	GAP not respected: use of an approved pesticide not authorised on the specific crop		1
Currants (red, black and white)	Trifloxystrobin	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Escaroles	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Fresh herbs	BAC, sum of BAC 10, BAC 12, BAC 14 and BAC 16	Use of a pesticide on food imported from third countries for which no import tolerance was set		1
Fresh herbs	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		3
Fresh herbs	Chlorate	Use of a pesticide on food imported from third countries for which no import tolerance was set		1
Fresh herbs	Pirimicarb (sum of pirimicarb and desmethyl pirimicarb expressed as pirimicarb)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Ginger	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Head cabbage	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not		1

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
		respected		
Kale	Metobromuron	Cross-contamination: spray drift or other accidental contamination		1
Kiwi	Cyprodinil	GAP not respected: use of an approved pesticide not authorised on the specific crop		1
Leeks	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Lettuce	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Limes	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Limes	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Linseeds	Chlorpyrifos	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Mangoes	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Melons	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Peaches	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Peas (with pods)	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Peas (without pods)	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Peppers	Amitraz (amitraz including the metabolites containing the 2,4-dimethylaniline moiety expressed as amitraz)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
Peppers	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Peppers	Ethephon	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Peppers	Flonicamid (sum of flonicamid, TNFG and TNFA)	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Pineapples	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Pitaya	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Contamination during handling, storage or transport of crop		1
Plums	Permethrin (sum of isomers)	Contamination during handling, storage or transport of crop		1
Pomegranate	Acetamiprid	Use of a pesticide on food imported from third countries for which no import tolerance was set		1
Potatoes	Fluazifop (free acid)	Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)		1
Pumpkins	Hexachlorobenzene	Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)		1
Radishes	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Raisins	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Soya beans	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Strawberries	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		1
Strawberries	Chlorate	Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)		1
Table grapes	Folpet	GAP not respected: use of an approved pesticide not authorised on the specific crop		1

Product	Residue	Reason for MRL non-compliance	Comments	Frequency
Table grapes	Folpet	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Tomatoes	Chlorate	GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected		2
Wild fungi (dried)	Nicotine	Contamination during handling, storage or transport of crop		1
Wine grapes	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	GAP not respected: use of an approved pesticide not authorised on the specific crop		1

GAP: good agricultural practice; PHI: pre harvest interval; MRL: maximum residue limits.

12.4. Quality assurance

Twenty-nine accredited laboratories took part in the national control programme for 2014 (Table 43).

Table 43: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
DE	Chemisches und Veterinäruntersuchungsamt Freiburg 79114 Freiburg Bissierstr. 5	082102	29/11/2013	DAkkS	EUPT 2014: BIPEA 15-3619, 16-3619, 17-3619; FAPAS PT0594, PT0597, PT0599; SRM9
DE	Chemisches und Veterinäruntersuchungsamt Stuttgart 70736 Fellbach Schaflandstr. 3/2	082107	2/1/2014	DAkkS	EUPT 2014: CF08, FV-16, T02
DE	Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit Dienststelle Oberschleißheim 85764 Oberschleißheim Veterinärstraße 2	092811	29/6/2009 14/11/2014	SAL- Wiesbaden DAkkS	EUPT 2014: AO9
DE	Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit 91058 Erlangen Eggenreuther Weg 43	092821	29/6/2009 14/11/2014	SAL- Wiesbaden DAkkS	EUPT 2014: CF08, FV-16, SM06, T02
DE	Landeslabor Berlin-Brandenburg Dienstsitz Berlin	112001	20/4/2009 19/8/2015	AKS-Hannover DakkS	EUPT 2014: AO9, CF08, FV-16, SRM9

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
	10557 Berlin Invalidenstr. 60				
DE	Landeslabor Berlin-Brandenburg Dienstsitz Frankfurt (Oder) 15236 Frankfurt (Oder) Gerhard-Naumann-Straße 2/3	122104	20/4/2009 19/8/2015	AKS-Hannover DAkkS	EUPT 2014: AO9, CF08, FV-16, SRM9
DE	Landesuntersuchungsamt für Chemie, Hygiene und Veterinärmedizin 28217 Bremen Lloydstraße 4	042101	13/2/2009 8/5/2014	AKS-Hannover DAkkS	EUPT 2014: T02, FAPAS 19184, FV-16
DE	Institut für Hygiene und Umwelt 20539 Hamburg Marckmannstr. 129a	022020	17/10/2013	DAkkS	EUPT 2014: AO-09, BVL (Olive oil), FV-16, T02, SRM9
DE	Landesbetrieb Hessisches Landeslabor FG I.3 Datenmeldestelle 65203 Wiesbaden Glarusstraße 6	062109	27/11/2013	DAkkS	EUPT 2014: FV-16
DE	Landesamt für Landwirtschaft, Lebensmittelsicherheit und Fischerei Mecklenburg-Vorpommern 18059 Rostock Thierfelderstr. 18	132101	31/12/2009 17/3/2014	AKS-Hannover DAkkS	EUPT 2014: AO-09, CF08, FV-16, SRM9, BVL/Quodata-PFAS in Leber/Fisch
~~DE~~	Niedersächsisches Landesamt für Verbraucherschutz und Lebensmittelsicherheit -Lebensmittelinstitut Oldenburg- 26133 Oldenburg Martin-Niemöller-Straße 2	032002	12/9/2008 18/3/2015	AKS-Hannover DAkkS	EUPT 2014: AO-09, CF08, COIPT-14, FV-16, PROOF-ACS GmbH P1411-RT, SM06, SRM9
DE	Chemisches und Lebensmitteluntersuchungsamt 44791 Bochum Westhoffstraße 17	052121	18/6/2014	DAkkS	EUPT 2014: FV-16, CF08
DE	Chemisches und Veterinäruntersuchungsamt Ostwestfalen-Lippe CVUA-OWL 32717 Detmold Westerfeldstr. 1	052203	05/1/2009	SAL- Wiesbaden	EUPT 2014: AO-09, CF08, FV-16; RT-FV-16; SM06; SRM9
DE	Chemisches und Veterinäruntersuchungsamt	052306	5/1/2009	SAL- Wiesbaden	EUPT 2014: AO-09, CV08, FV-16, SM06, T02

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
	Rhein-Ruhr-Wupper CVUA-RRW 47798 Krefeld Deutscher Ring 100		22/5/2014	DAkkS	
DE	Landeshauptstadt Düsseldorf Amt für Verbraucherschutz Chemische und Lebensmitteluntersuchung 40468 Düsseldorf Ulmenstraße 215	052311	16/12/2009	SAL- Wiesbaden	EUPT 2014: FV-16
DE	Kreisverwaltung Mettmann Amt für Verbraucherschutz Chemische und Lebensmitteluntersuchungen 40822 Mettmann Düsseldorfer Str. 26	052319	16/12/2009	SAL- Wiesbaden	EUPT 2014: FV-16
DE	Chemisches und Veterinäruntersuchungsamt Rheinland CVUA-Rheinland 52068 Aachen Blücherplatz 43	052403	9/8/2013	DAkkS	EUPT 2014: CF08, FV-16
DE	Chemisches und Veterinär-untersuchungsamt Münsterland-Emscher-Lippe CVUA-MEL 48147 Münster Joseph-König-Straße 40	052502	24/1/2014	DAkkS	EUPT 2014: AO-09, CF08, FV-16, SM06, SRM9 Interlab-Validation-QuPPe, P1402-RT Gewürzpaprika
DE	Landesuntersuchungsamt Abteilung Tiermedizin 56073 Koblenz Blücherstr. 34	072104	13/2/2014	DAkkS	EUPT 2014: AO-09, CF08, FV-16, SRM9
DE	Landesuntersuchungsamt Institut für Lebensmittelchemie 67346 Speyer Nikolaus-von-Weis-Str. 1	072107	13/2/2014	DAkkS	EUPT 2014: AO-09, CF08, FV-16, SRM9
DE	Landesamt für Soziales, Gesundheit und Verbraucherschutz Abt. G (Lebensmittelchemie) 66115 Saarbrücken Hochstrasse 67	101101	23/4/2009	DAkkS	EUPT 2014: FV-16, T02
DE	Landesuntersuchungsanstalt für das Gesundheits- und	142262	29/11/2013	DAkkS	EUPT 2014: AO-09, FV-16, SRM9, Interlab-Validation-QuPPe, T02

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
	Veterinärwesen Sachsen Standort Dresden 01099 Dresden Jägerstraße 8/10				
DE	Landesamt für Verbraucher-schutz Sachsen-Anhalt Fachbereich 3 Lebensmittelsicherheit 06009 Halle (Saale) Postfach 20 08 57	152200	7/8/2013	DAkkS	EUPT 2014: AO-09, CF08, FAPAS 19162 (tea), FV-16
DE	Landeslabor Schleswig-Holstein (Lebensmittel-, Veterinär- und Umweltuntersuchungsamt) Postfach 2743 24537 Neumünster Max-Eyth-Str. 5	012001	9/10/2013	DAkkS	EUPT 2014: AO-09, CF08, FV-16, SRM9
DE	Thüringer Landesamt für Verbraucherschutz Standort Bad Langensalza 99947 Bad Langensalza Tennstedter Str. 8/9	162104	29/7/2013	DAkkS	EUPT 2014: AO-09, FV-16

13. Greece

13.1. Objective and design of the national control programme

The national control programme of 2014 for pesticide residues (monitoring) as part of the multi-annual control programme was established according to the terms and conditions of Articles 26–35 of Regulation (EC) No 396/2005 of the European Parliament and the Council, of 23 February 2005 on maximum residue levels (MRL) of pesticides in or on food and feed of plant and animal origin, and amending Council Directive 91/414/EEC.

The monitoring programme was designed and coordinated by the Ministry of Rural Development and Food (Directorate of Plant Produce Protection). The programme was based on several risk analysis criteria and parameters: number of samples (domestic and imported) for each product, agricultural produce, cultivation area per culture, expected imports, results from previous years' monitoring programmes, dietary intake contribution of each product, sampling location, community control programme, pesticides used in practice by the farmers, relevant Rapid Alert System for Food and Feed (RASFF) notifications for pesticide residues, personnel and analytical capacity of the official laboratories. It aims at ensuring compliance with maximum levels and assessing consumer exposure in order to achieve a high level of protection and application of good agricultural practice at all stages of production and harvest of agricultural products.

The responsibilities of the laboratories involved, regarding the required number of samples of each commodity and the areas of sampling, were well defined. The laboratories responsible for undertaking the European Union (EU)-coordinated programme were clearly stated. Sampling was carried out by the relevant regional and local authorities.

The sampling strategy was based on a 'from the farm to the fork' rationale, taking into account the specificities of each region of the country. Sampling methods necessary for carrying out such controls of pesticide residues were those detailed in JMD 91972/2003 Directive 2002/63/EC. Samples were taken from domestic production and imports, proportionally, covering points of collection, storage, packing and sale of products of plant origin.

The official laboratories analysing samples for pesticide residues are accredited and participate in the community proficiency tests. The methods of analysis used comply with the criteria set out in relevant EU law provisions and other adopted technical guidelines.

In a case of an MRL exceedance, before any administrative and punitive enforcement action is taken, a default analytical uncertainty of 50% is subtracted from the measured value. If the figure still exceeds the MRL, enforcement action relevant to the case is taken.

13.2. Key findings, interpretation of the results and comparability with the previous year results

Table 44: Summary results

Category	Total no. samples	Number of samples without detectable residues	Number of samples with detectable residues below EU MRLs or for which no MRL is set	Number of samples with residues exceeding EU MRL	Non-compliant samples
Fruits/vegetables/nuts	1,956	1,181	702	73	41
Cereals and pulses	76	59	14	3	2
Plant origin processed	264	226	38	0	0
Baby food	32	32	0	0	0
Food of animal origin	43	43	0	0	0
Others (tea)	5	3	1	1	0
Total no. samples	2,376	1,544	755	77	43

MRL: maximum residue limits.

Table 45: Summary results for non-suspect samples

Category	Total no. samples	Number of samples without detectable residues	Number of samples with detectable residues below EU MRLs or for which no MRL is set	Number of Samples with residues exceeding EU MRL	Non-compliant samples
Fruits/vegetables/nuts	1,879	1,149	661	69	38
Cereals and pulses	74	57	14	3	2
Plant origin processed	262	226	36	0	0
Baby food	32	32	0	0	0
Food of animal origin	43	43	0	0	0
Others (tea)	4	3	0	1	0
Total no. samples	2,294	1,510	711	73	40

MRL: maximum residue limits.

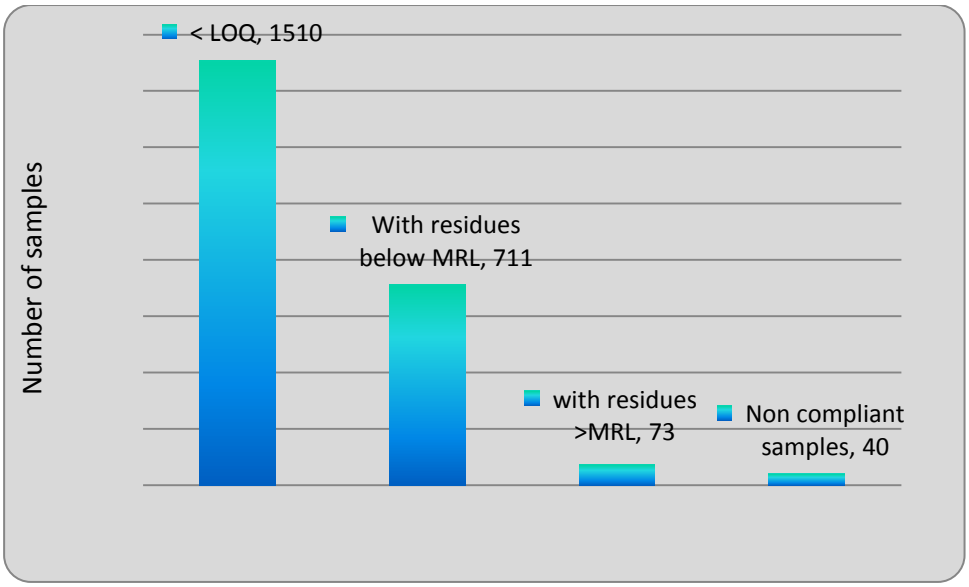


Figure 3: Summary results for non-suspect samples

Table 46: Summary results for suspect samples

Category	Total no. samples	Number of samples without detectable residues	Number of samples with detectable residues below EU MRLs or for which no MRL is set	Number of samples with residues exceeding EU MRL	Non-compliant samples
Fruits/vegetables/nuts	77	32	41	4	3
Cereals and pulses	2	2	0	0	0
Plant origin processed	2	0	2	0	0
Baby food	0	0	0	0	0
Food of animal origin	0	0	0	0	0
Others (tea)	1	0	1	0	0
Total no. samples	82	34	44	4	3

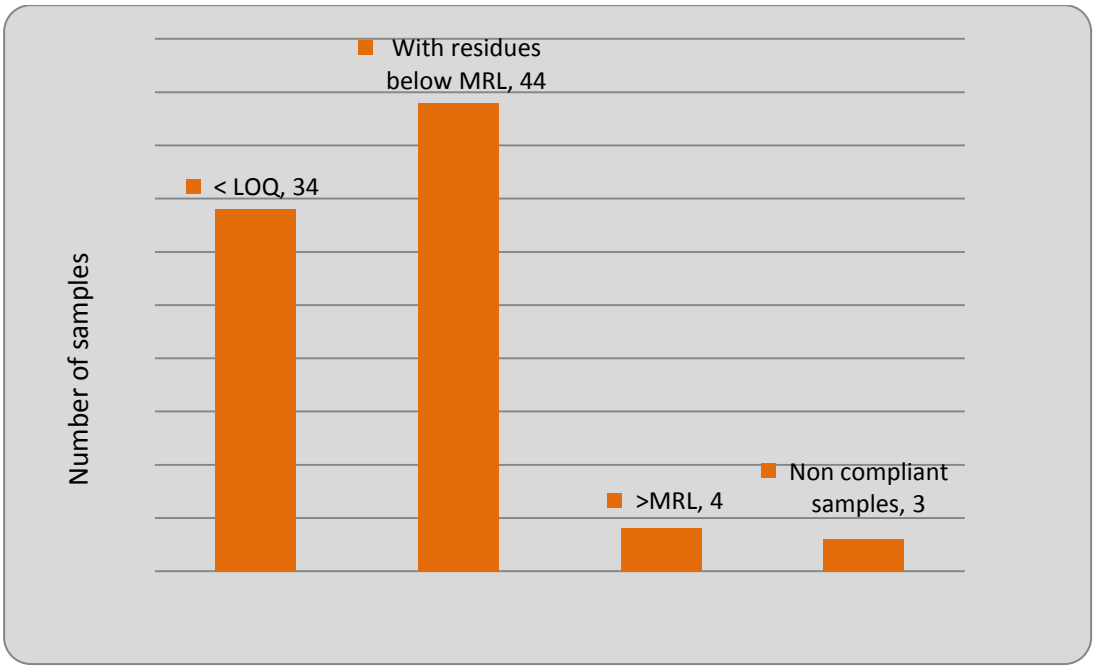


Figure 4: Summary results for suspect samples

Table 47: Summary results 2011–2014

Category	2011	%	2012	%	2013	%	2014	%
Total no. samples	2,715	100	2,797	100	2,361	100	2,376	100
Number of samples without detectable residue	1,983	73	1,991	71.1	1,649	69.9	1,544	64.98
Number of samples with detectable residues below EU MRL or for which no MRL is set	653	24	754	27	650	27.5	755	31.78
Number of samples with residues exceeding EU MRLs	74	3	53	1.9	62	2.6	77	3.24
Non-compliant samples	45	1.66	33	1.2	42	1.8	43	1.81

MRL: maximum residue limits.

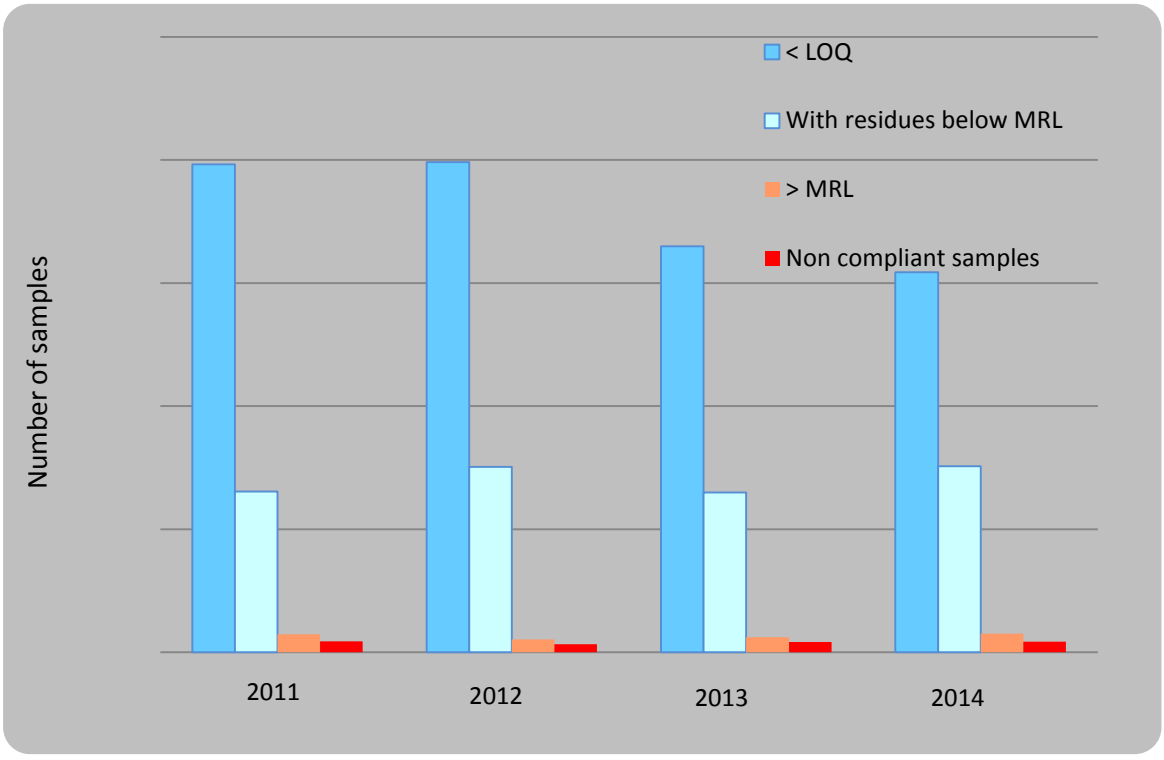


Figure 5: Summary of results for 2011–2014.

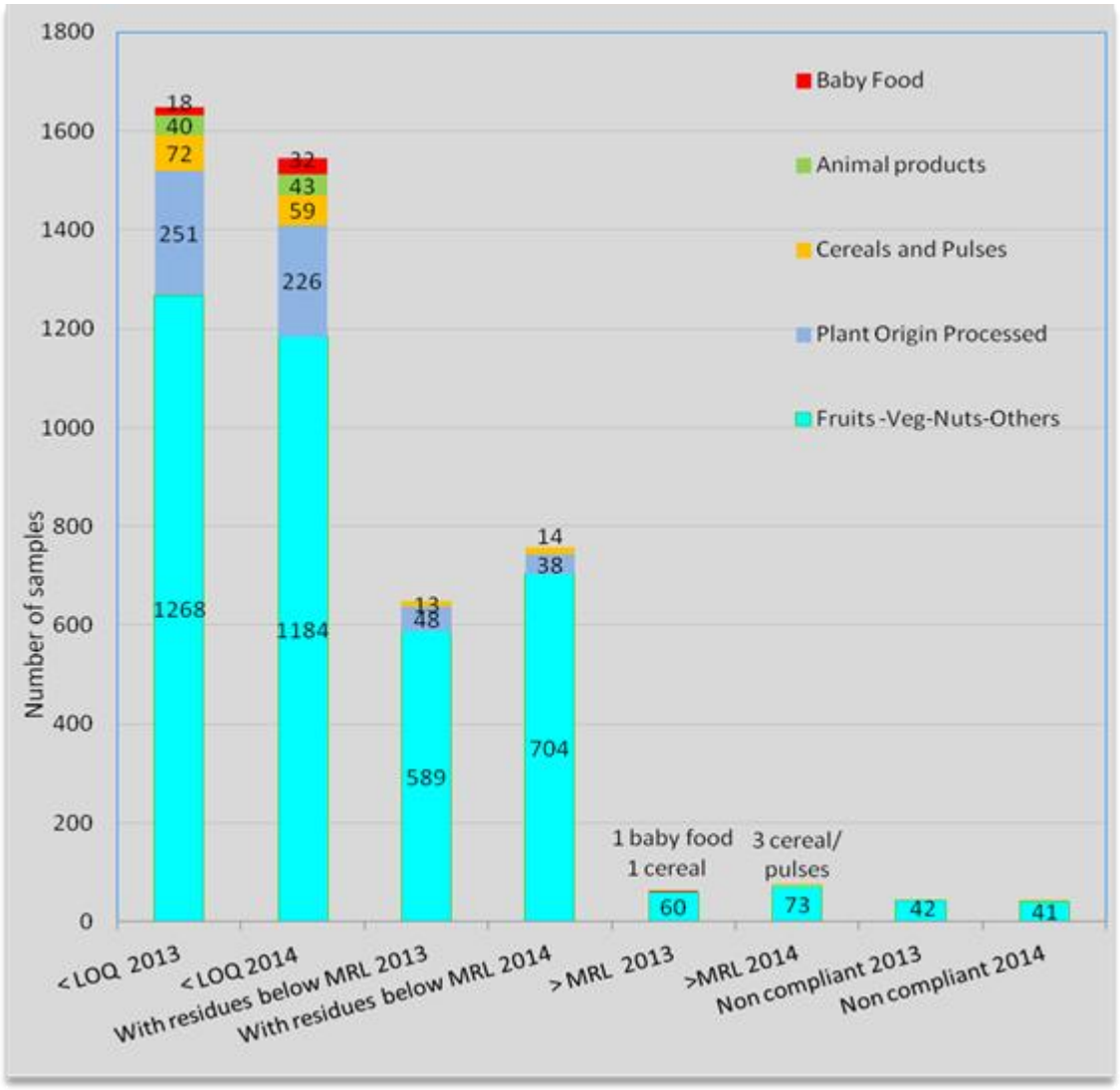


Figure 6: Summary results by product class (2013–2014).

13.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 48: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	2	For one more sample which exceeded numerically the MRL (lemons/imazalil) a RASFF notification was issued
Administrative sanctions (e.g. fines)	40	There also three pending cases
Lot recalled from the market	1	Pear/carbendazim imported
Rejection of a non-compliant lot at the border		-
Destruction of non-compliant lot		-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin		-
Warnings to responsible food business operator	43	Apart from MRL non-compliances further warnings are also sent when non-authorised active substance/uses on a specific crop are detected
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions	-	-

MRL: maximum residue limits; RASFF: Rapid Alert System for Food and Feed.

Table 49: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of a pesticide not approved in the EU[c]	Diphenylamine (apple)	1	-
	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) (pear)	1	
	Carbaryl (potato)	1	
	Bitertanol (rocket)	1	
	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) (vine leaves)	1	
-GAP not respected: use of an approved pesticide not authorised on the specific crop[c]	Methamidophos/aubergine	1	-
	Lufenuron (beans)	1	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (beans)	1	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (cherries)	1	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	1	

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
	(pepper)		
	Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)] (pulses)	1	
	Malathion (sum of malathion and malaoxon expressed as malathion) (pulses)	2	
	Cyfluthrin [cyfluthrin including other mixtures of constituent isomers (sum of isomers)] (peach)	2	
	Methomyl and thiodicarb (sum of methomyl and thiodicarb expressed as methomyl) (pepper)	1	
	Formetanate [sum of formetanate and its salts expressed as formetanate (hydrochloride)] (pepper)	2	
	Pirimiphos-methyl (potato)	1	
	Dithiocarbamates (dithiocarbamates expressed as CS2, including Maneb, Mancozeb, Metiram, Propineb, Thiram and Ziram) (spinach)	1	
	Zoxamide (vine leaves)	1	
	Penconazole (vine leaves)	1	
	Cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)] (vine leaves)	1	
	Dimethomorph (vine leaves)	2	
	Myclobutanil (vine leaves)	2	
	Tebuconazole (vine leaves)	6	
	Thiophanate-methyl (vine leaves)	2	
	Tetraconazole (vine leaves)	1	
	Azoxystrobin (vine leaves)	1	
	Captan/Folpet (sum) (vine leaves)	1	
	Cyprodinil (vine leaves)	1	
	Cyprodinil (vine leaves)	1	
	Famoxadone (vine leaves)	1	
	Fludioxonil (vine leaves)	1	
	Iprodione (vine leaves)	1	
	Kresoxim-methyl (vine leaves)	2	
	Triadimefon and triadimenol (sum of triadimefon and triadimenol) (vine leaves)	2	
	Trifloxystrobin (vine leaves)	2	
	Boscalid (vine leaves)	1	
	Chlorpyrifos (wine grapes)	1	

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Thiophanate-methyl (beans)	1	-
	Chlorpyrifos (carrot)	2	
	Chlorpyrifos (potato)	3	
	Deltamethrin (spinach)	1	
	Formetanate [sum of formetanate and its salts expressed as formetanate (hydrochloride)] (strawberry)	3	
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Cross-contamination: spray drift or other accidental contamination	-	-	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	Aldrin-dieldrin (cucumber)	1	One more cucumber and two more courgettes contained residues of aldrin/dieldrin exceeding numerically the MRL
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Natural occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes of the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	Tebuconazole (mango)	1	-
	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) (pear)	1	
	Dimethoate (tomato)	1	

GAP: good agricultural practice; PHI: pre harvest interval; MRL: maximum residue limits.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

13.4. Quality assurance

Table 50: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
GR	Pesticide Residues Laboratory, Benaki Phytopathological Institute	GR-001	9/7/2002	ESYD (Hellenic Accreditation System S.A.)	EURL-PT-FV-16, EUPT-AO-09, EUPT-SRM9, EUPT-CF8-2014, PT schema 23 03, PT COIPT-14 (pesticide residues in olive oil), PT schema 63 02, EUPT-T02 (in tea), EU-RT-FV-16 (ring test certified standard solutions EUPT-FV-16)
	Regional Centre of Plant Protection and Quality Control of Thessaloniki Laboratory of Pesticide Residues	GR-002	8/9/2009	ESYD	EUPT-FV-16
	Regional Centre of Plant Protection and Quality Control of Kavala Laboratory of Pesticide Residues	GR-003	8/09/2009	ESYD	EUPT-FV-16
	Regional Centre of Plant Protection and Quality Control of Ioannina Laboratory of Pesticide Residues	GR-004	27/5/2014	ESYD	PT2014: C8 FV-16
	Regional Centre of Plant Protection and Quality Control of Magnesia Laboratory of Pesticide Residues	GR-005	8/9/2009	ESYD	EUPT-FV-16
	Regional Centre of Plant Protection and Quality Control of Achaia Laboratory of Pesticide Residues	GR-006	23/10/2009	ESYD	EUPT-FV-16
	Laboratory of Pesticide Residues Regional Centre of Plant Protection and Quality Control of Piraeus Laboratory of Pesticide Residues	GR-007	22/4/2014	ESYD	EUPT-FV-16, PT COIPT-14 (pesticide residues in olive oil)
	Regional Centre of Plant Protection of Iraklion Crete Laboratory of Pesticide Residues	GR-008	8/9/2009	ESYD	EUPT-FV-16, PT COIPT-14 (pesticide residues in olive oil)
	Regional Centre of Plant Protection and Quality Control of Argolida Laboratory of Pesticide Residues	GR-009	23/10/2009	ESYD	EUPT-FV-16
	General Chemical State Laboratory D Chemical Division of Athens Pesticide Residues Laboratory	GR-010	1998 2010	UKAS ESYD	EUPT-FV-16, EUPT-FV-SM-06, EUPT-SRM-9, EUPT-AO-09, EUPT-CF-8, COI-PT-14

13.5. Processing factors

The establishment of national processing factors is in progress.

14. Hungary

14.1. Objective and design of the national control programme

The national monitoring programme for pesticide residues in produce of plant and animal origin 2014 was based on risk assessment. The programme covers all important commodities of fruit and vegetables, cereals, selected processed products of plant origin, and baby food products. The sampling frequency for different commodities is determined by taking in to consideration production and Hungarian food consumption habits, as well and the results of previous monitoring programmes. The coordinated programme of the European Commission was included in the national programme.

Domestic analytical samples of plant origin were taken at harvest from the places of production and the marketplace, whereas imported commodities were sampled at border inspection posts and wholesale chains.

The planned number of samples (2,656) for the 2014 control programme was agreed with the National Food Chain Safety Office of Hungary. A major contribution to the planned number of samples for food of animal origin (1,426) was decided in conjunction with the Food and Feed Safety Directorate, as part of the national residue plan required under Directive 96/23/EC.

Sampling is carried out in accordance with Directive 2002/63/EC, which has been implemented in Hungarian legislation. Samples are analysed in ISO 17025 accredited laboratories using multi-residue methods (MRM) and single-residue methods (SRM), which in 2013, allowed the detection of > 473 pesticide residues.

The four regional pesticide residues analytical laboratories – Hódmezővásárhely, Miskolc, Szolnok and Velence - belong to the National Food Chain Safety Office of Hungary (NFCSO) Directorate of Plant Protection, Soil Conservation and Agri-Environment (NFCSO DPPSCA).

14.2. Key findings, interpretation of the results and comparability with the previous year results

In total 4,082 samples were taken (4,080 surveillance samples and 2 enforcement samples). A summary of the results is given in Table 51.

Table 51: Summary results

Type of products (surveillance samples only)	Raw samples	Processed samples	Total no. samples in category
Animal products	1,426	48	1,474
Baby food	-	144	144
Cereals	115	32+1 organic	148
Fish products	14	-	14
Fruits and nuts	1,035+ 2 organic	43 + 2 organic	1,082
Vegetables	1,064 + 3 organic	36	1,103
Other plant products	89	5	94
Other products (muesli)	-	21	21
Total no. samples	3,748	332	4,080

Table 52: Origin of the samples taken

Origin of samples	74% domestic samples 19% from EU countries and 33.5% from outside the EU 6.3% from third countries

EU: European Union.

14.2.1. Fruits and vegetables (including potato, nuts and other plant products)

A total of 2,195 fruit and vegetable samples (including two enforcement samples) were tested. Within this category, 1.8% of samples had residues above the maximum residue limits (MRL) (without taking account of measurement uncertainty), around the expected level.

Table 53: Summary results for samples from the surveillance programme

Fruit and vegetable samples with pesticide residues detected	2,193 surveillance samples were analysed: • 45% without residues (no residues detected above the LOQ) • 54% had residues detected above the LOQ and below the MRL • 1.8% had residues detected above the MRL
Origin of samples (fruits and vegetables)	61% domestic samples 28% from EU countries 11% from third countries
Most frequently detected pesticides	Detection rates in all fruit and vegetables: • metalaxyl 42% • captan and folpet 19% • imazalil 5% • boscalid 8% • chlorpyrifos 9% • azoxystrobin 6% • dodine 4% • cyprodinil 4% Detection rates in selected fruit and vegetables using single methods: • dithiocarbamates 20% • glyphosate 50% • diquat 24%
Maximum no. multiple residues	Up to 10 different pesticides were found in a table grape sample from South Africa and from Italy, and apple sample from Hungary
MRL breaches	38 samples exceeded the MRL: • 20 from Hungary • 15 from other EU countries • 3 from third countries
Processed	86 samples
Labelled organic	7 samples

LOQ: limit of quantification; MRL: maximum residue limits.

Pesticide residues were detected in 21% of the cereal samples taken in 2014.

Table 54: Summary results for cereals with the surveillance programme

Cereal samples with pesticide residues detected	115 cereal samples were analysed: • 79% had no residue detected above the LOQ • 21% had residues detected above the LOQ and below the MRL
Origin of samples	85.2% of cereal samples were domestic samples 12.2% were from other EU countries 2.6% were from outside the EU
Most frequently detected pesticide	Pirimiphos-methyl detected in 11% of all cereal samples analysed Chlorpyrifos was detected in 5.8% of the 172 cereal samples analysed
Maximum number of multiple residues	Two and three different pesticides were found in six rice samples from Greece and Hungary Two and three different pesticides were found in two rye samples from Hungary
Pesticide residues above the MRL	There was no MRL exceedance
Processed	54 samples
Labelled organic	One1 oat flakes sample with no residue detected above the LOQ

LOQ: limit of quantification; MRL: maximum residue limits.

The percentage of food samples of animal origin with detectable residues remained relatively low at 4% in 2014, despite an increase in the analytical scope and the increased in sensitivity of the methods used for these samples.

Table 55: Summary results for food of animal origin in the surveillance programme

Food of animal origin samples with pesticide residues detected	1,426 raw food of animal origin samples were analysed (1,474 raw and processed samples of animal origin) • 99.5% had no residue detected above the LOQ • 0.5% had residues detected above the LOQ and below the MRL
Origin of samples	96.7% of the food samples of animal origin were of Hungarian origin 3.3% were from other EU countries
Most frequently detected pesticide	Thiacloprid was detected in two honey samples
Maximum number of multiple residues	No more than one pesticide was found in each of the six samples with residues
MRL breaches	There was one MRL exceedance in one honey sample, but the result was still compliant
Processed	48 samples
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum residue limits.

Residue was detected in three baby food samples (the same case).

Table 56: Summary results for baby food samples

Baby food samples with pesticide residues detected	144 baby food samples were analysed: • 98% had no residue detected above the LOQ • 0.1% had residues detected above the LOQ and below the MRL • 1.9% had residues detected above the MRL
Origin of samples	61% were domestic samples 38.9% were from EU countries 0.1% were from outside the EU
Most frequently detected pesticide	Tetrahydrophthalimide was detected
Maximum number of multiple residues	No pesticides detected
MRL breaches	Three baby food samples; one sample from Slovakia exceeded the MRL
Processed	All 144 samples were processed
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum residue limits.

Commission Regulation (EC) No 669/2009 imposes additional controls on imports from third countries (TC) known or considered to be a risk for elevated levels of pesticide residues.

Table 57: Summary results for samples taken under Regulation (EC) No 669/2009 programme

Imported samples with pesticide residues detected	Two samples from targeted consignments were analysed and they had no residues detected above the LOQ
Origin of samples	100% of samples were from outside the EU–Turkey as listed in Regulation (EC) No 669/2009
Most frequently detected pesticide	No pesticide detected
Maximum no. multiple residues	No pesticides detected
MRL breaches	There was no MRL exceedance
Processed	No samples
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum residue limits.

In 2014, 69% of the samples analysed were without pesticide residues, 30% of the samples analysed had pesticide residues below the EC MRL and 1.1% of the samples exceeded the EC MRL.

14.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 58: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	1	-
Administrative sanctions (e.g. fines)	0	-
Lot recalled from the market	1	Baby food from Slovakia
Rejection of a non-compliant lot at the border	0	-
Destruction of non-compliant lot	0	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	0	-
Warnings to responsible food business operator	0	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	0	
Other actions	15	Legal action has been taken against the farmers whose produce exceeded the EC MRL of one or more pesticide residues

MRL: maximum residue limits.

Table 59: Possible reasons for MRL non-compliance

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Dimethoate (sum) (radish)	3	
	Dimethoate (sum) (lettuce)	1	
	Dimethoate (sum) (cucumber)	1	
	Chlorothalonil (lettuce)	1	
	Boscalid (carrot)	1	

MRL: maximum residue limits; GAP: good agricultural practice.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.

14.4. Quality assurance

Table 60: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Participation in proficiency tests or inter-laboratory tests
HU	NFCSO – DPPSCA Pesticide Residue Analytical Laboratory, Miskolc	206	NAT-1-1742/2014 Valid: 28-01-2018	EUPT-FV-SM06; EUPT-FV-16; EUPT-SRM9; EUPT-AO9; EUPT-CF8;
HU	NFCSO – DPPSCA Pesticide Residue Analytical Laboratory, Hódmezővásárhely	213	NAT-1-1704/2012 Valid: 30-10-2016	EUPT-FV-16, EUPT-SRM9, EUPT-CF8
HU	NFCSO – DPPSCA Pesticide Analytical Laboratory, Velence	220	NAT-1-1594/2013 Valid: 09-04-2017	EUPT-FV-16; EUPT-FV T01; EUPT-CF8; EURL SM06; EURL-AO9; EURL-SRM9;
HU	NFCSO – DPPSCA Pesticide Residue Analytical Laboratory, Szolnok	244	NAT-1-1625/2014 Valid: 26-08-2018	EUPT-FV-16; EUPT-SRM9; EUPT-AO9; EUPT-CF8;

15. Iceland

15.1. Objective and design of the national control programme

The Food and Veterinary Authority is the competent authority responsible for designing the pesticide residues monitoring programme, as well as reporting results to the European Food Safety Authority (EFSA). The Environmental and Public Health office in Reykjavik is responsible for the collection of samples and for enforcement action when necessary.

Only imported fruits are found in Iceland, with the exception of strawberries during the summer. Vegetables are both imported and grown domestically, both outdoors and in greenhouses with the use of electrical illumination. This allows fresh domestically grown vegetables to be on the market for the greatest part of the year. Cereals are grown in very limited amounts in Iceland, and mainly for feed. This is the first year that cereals have been part of the pesticides residues control programme.

A multi-annual sampling plan is revised every year. The sampling plan is based on information extracted from the customs tariff for import volumes and numbers for domestic production and, in addition, the coordinated European Union (EU) programme in Regulation (EU) No 788/2012 formed part of the sampling plan.

A limited, but growing number of pesticides are included in the monitoring programme. In 2014, laboratory capacity grew with new equipment and training of all relevant staff, including officers carrying out the sampling. The number of pesticides screened for, grew from 61 in 2013 to 96 by the second half of 2014. This is on-going and many more pesticide residues and more matrices will be included in 2015.

Organically grown fruits, vegetables and wheat are included in the monitoring programme. In total, seven samples of organic products were taken and are identified as organic in the data.

One sample was taken according to Regulation (EC) No 669/2009 and is included in the data.

Reporting does not include samples in the National Residue Control Plan of Iceland (NRCP) based on Council Directive 96/23/EC that were analysed for pesticides.

15.2. Key findings, interpretation of the results and comparability with the previous year results

The sampling plan resulted in 238 samples taken. Forty (16.7%) of the samples are of domestic produce, 122 samples (50.6%) are from EU countries (MS), 74 samples (30.7%) are imported from third countries (TC) and 2 samples are of unknown origin (UNK). In addition, three suspect samples were taken, two as a follow-up on a single non-compliant sample and the third according to Regulation (EC) No 669/2009, which was the only one of the three to have results that proved to be non-compliant.

None of the seven samples of organic produce were found to have residues of the screened pesticides.

Table 61: Summary of all samples based on origin showing found residues

	No of samples	No residues detected	Residues below MRL	Exceeding MRL	Non-compliant
Domestic	40	38 (95%)	1 (2,5%)	1 (2.5%)	0
MS	122	81 (66%)	41 (34%)	0	0
TC	77	31 (40%)	44 (57%)	2 (2.6%)	2
UNK	2	2	0	0	0

MRL: maximum residue limits

This year has a low rate of non-compliant samples (two) compared with 2013, which had eight non-compliant samples, and was more in line with 2012, which also had only two true non-compliant samples. This is caused by the randomness of a very small programme. In other ways the results are similar to those of the previous year.

15.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

A sample of kale from the USA contained indoxacarb above the maximum residue levels (MRL). Two follow-up samples were taken of products from the same company, but the residues were much lower and well below the MRL. A sample of domestically grown swedes had residues of dimethoate just above the MRL and is compliant due to measurement uncertainty. A sample of tea from China taken according to Regulation (EC) No 669/2009 contained pesticides above MRL and the whole lot was destroyed. No Rapid Alert System for Food and Feed (RASFF) notification was made, due to a lack of information on the lot.

Producers/importers were given warnings and administrative consequences, which were that they are obligated to notify the authorities of the next two shipments from the offending producer. These shipments are then sampled (follow-up samples) and not released to the market until laboratory results have confirmed that they comply with the MRL, or if they do not comply, they are destroyed.

Table 62: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rejection of a non-compliant lot at the border	1	Lot destroyed
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	1	-

In Table 63, a sample compliant due to measurement uncertainty is included to show that cold and dry weather influences the degradation of residues.

Table 63: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Indoxacarb (as sum of the S and R isomers) (kale)	1	
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	Dimethoate (swedes)	1	Compliant due to measurement uncertainty
Use of a pesticide on food imported from third countries for which no import tolerance was set[(c)]	Anthraquinone (tea)	1	-
	Isocarbophos (tea)	1	

GAP: good agricultural practice; PHI: pre harvest interval .
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): For imported food only.

15.4. Quality assurance

All samples were analysed at the Laboratory Matís ohf in Reykjavik. One suspect sample taken according to Regulation (EC) No 669/2009 was sent to a laboratory in Germany due to the complexity of the matrix (see Table 64).

Table 64: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Iceland	Matís ohf	Matís	1/2/2016	SWEDAC	EUPT FV-16, EUPT CF8
Germany	Eurofins WEJ	Ewej	9/7/2015	DAkkS	-

15.5. Processing factors

No processing factors were necessary to verify compliance of processed products with EU MRL.

16. Ireland

16.1. Objective and design of the national control programme

The 2014 Irish national control programme for pesticide residues in food was carried out by the Pesticide Controls Division (PCD) of the Department of Agriculture, Food and the Marine with the cooperation of the Pesticide Control Laboratory and under the terms of a service contract with the Food Safety Authority of Ireland (FSAI).

The control programme consisted of two strategies:

- surveillance of plant and animal origin randomly sampled for the presence of pesticide residues and
- enforcement of the pesticide residue legislation e.g. where targeting of samples with a history of non-compliances and commodities listed in Regulation (EC) No 669/2009 for pesticide residues.

This involved sampling produce at distribution outlets, storage, processing, slaughter premises, ports and airports, and the analysis of those samples for the presence of pesticide residues at the Pesticide Control Laboratory in Ireland.

The control programme for 2014 took into consideration:

- the coordinated programme required by the European Commission for 2014;[11]
- dietary intake patterns of Irish consumers[12] (adults and children);
- the residue profile of commodities as established from the results of the programme in previous years;
- results from other Member States in the European Food Safety Authority (EFSA) annual reports;
- handling/processing of food prior to consumption;
- capacity of the laboratory.

The planned number of samples (1,453) for the 2014 control programme was agreed with the Food Safety Authority of Ireland. A major contribution to the planned number of samples for food of animal origin (383) was decided in conjunction with the Veterinary Medicine Unit of the Department of Agriculture, Food and the Marine (DAFM), as part of the national residue plan required under Directive 96/23/EC.

The planned programme consisted of:

Citrus	100	Grapefruit, oranges, lemons, lime and mandarin (hybrids)
Pome	75	Apples and pears
Stone fruit	35	Apricots, cherries, peaches/nectarines and plums
Berries	85	Table grapes, strawberries, blackberries, raspberries, blueberries, cranberries and currants
Miscellaneous	80	Figs, kiwi, lychee, passion fruit, avocado, bananas, pineapples, mango and pomegranate
Root and tuber	85	Potatoes, carrot, parsnips, turnips/ swedes, radish, sweet potatoes and

[11] Commission Regulation of 31 August 2012, concerning a coordinated multiannual Community control programme for 2012, 2013 and 2014, Commission Regulation (EU) No. 788/2012 OJ No L 238/8.

[12] Irish Universities Nutrition Alliance (IUNA). North South Food Consumption Database, 2001 and National Children's Food Survey 2005.

		yam
Bulb	10	Onions, garlic, shallots, spring onions
Fruiting	70	Tomatoes, peppers, aubergines, courgettes, cucumbers, melons, watermelons, squash and marrow
Brassica	50	Broccoli, cauliflower, Brussels sprouts, head cabbage, Chinese cabbage and kale
Leafy	65	Lettuce, spinach, other leafy vegetables (scarole, endive and herbs)
Legume	40	Beans + pods, beans without pods, peas + pods and peas without pods
Stem	20	Celery, leeks, asparagus, artichoke and rhubarb
Oilseeds	10	Olive and rapeseed
Fungi	15	Cultivated mushrooms
Processed	60	Orange juice, wine, apple juice, other juices and tinned fruit and vegetables
Cereals	100	Barley, oats, rice and wheat
Food of animal origin	413	Kidney fat (bovine, ovine, porcine), poultry, equine, farm game, eggs, milk, honey, liver and meat
Food for babies	40	Infant formula
Enforcement	20	Targeted follow-up to breaches and invalid uses in 2013
Import control	80	Targeted under Regulation (EC) No. 669/2009
Total	1,453	

16.2. Key findings, interpretation of the results and comparability with the previous year results

For the fruit and vegetable samples taken with the surveillance sampling strategy in 2014, the percentage of samples with breaches (2.6%) increased from 1.8% in 2013 and 1.2% in 2012, but is lower than in 2011 at 3.3%. The percentage with detectable residues above the limit of quantification (LOQ) and maximum residue limits (MRL) combined (67.9%) decreased from 72% in 2013 and is similar to the values in 2012 (66%) and 2011 (65%).

Table 65: Summary results for fruit and vegetable samples from the surveillance programme

Fruit and vegetable samples with pesticide residues detected	806 fruit and vegetable surveillance samples were analysed: • 32.1% had no residues detected above the LOQ • 65.3% had residues detected above the LOQ and below the MRL • 2.6% had residues detected above the MRL
Origin of samples	• 19.6% of fruit and vegetable samples were of Irish origin • 40.9% were from EU countries and 33.5% from outside the EU • The origin could not be confirmed for 6.0% due to the processed nature of the product sampled
Most frequently detected pesticides	Detection rates in all fruit and vegetables • imazalil 17% • thiabendazole 11% • boscalid 10% • fludioxonil 9% • chlorpyrifos 9% • pyrimethanil 8% • azoxystrobin 8% • iprodione 7% • imidacloprid 7% • cyprodinil 5% Detection rates in selected fruit and vegetables using single methods • dithiocarbamates 25% • chlormequat 21% • glyphosate 11% • mepiquat 3%
Maximum number of multiple residues	Up to 12 different pesticides were found in a table grape sample from India, a pear sample from Portugal and a strawberry sample from Belgium
MRL breaches	21 samples exceeded the MRL: 3 from Ireland, 2 from other EU countries and 16 from third countries
Processed	68 samples
Labelled organic	28 samples

LOQ: limit of quantification; MRL: maximum reside limits.

Pesticide residues were detected in 71% of the cereal samples taken in 2014, a higher frequency than that found in previous surveillance programmes – 65% in 2013, 55% in 2012 and 54% in 2011. This is possibly due to increased use of the single-residue method (SRM) to analyse the cereal samples along with the multi-residue method (MRM).

Table 66: Summary results for cereals with the surveillance programme

Cereal samples with pesticide residues detected	99 cereal samples were analysed: • 29.3% had no residue detected above the LOQ • 67.7% had residues detected above the LOQ and below the MRL • 3% with residues above the MRL
Origin of samples	55.5% of cereal samples were of Irish origin 24.2% were from other EU countries and 5.1% from outside the EU The origin could not be confirmed for 15.2% of the samples
Most frequently detected pesticide	Deltamethrin was detected in 15% of all cereal samples analysed Chlormequat was detected in 39% of the 54 cereal samples analysed specifically for chlormequat-type pesticides
Maximum number of multiple residues	Up to eight different pesticides, with three of these exceeding the MRLs, were found in a rice sample from India
Pesticide residues above the MRL	Three rice samples India
Processed	15 wheat flour samples
Labelled organic	Two wheat flour samples with no residue detected above the LOQ

LOQ: limit of quantification; MRL: maximum reside limits.

The percentage of food of animal origin samples with detectable residues has remained relatively low over the past 4 years: 2.8% in 2011; 6% in 2012, 5% in 2013 and 5% in 2014, despite an increase in the analytical scope and the increased sensitivity of the methods used for these samples.

Table 67: Summary results for food of animal origin with the surveillance programme

Food of animal origin samples with pesticide residues detected	418 food of animal origin samples were analysed: • 94.7% had no residue detected above the LOQ • 5.3% had residues detected above the LOQ and below the MRL
Origin of samples	98.6% of the food of animal origin samples were of Irish origin 1.4% were from other EU countries or of unknown origin
Most frequently detected pesticide	2-Phenylphenol was detected in six of the food of animal origin samples
Maximum number of multiple residues	No more than one pesticide was found in each of the 22 samples with residues
MRL breaches	There was no MRL exceedance
Processed	No samples
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum reside limits.

As in previous years no residue was detected in any baby food sample.

Table 68: Summary of results for baby food samples

Baby food samples with pesticide residues detected	20 baby food samples were analysed 100% had no residue detected above the LOQ
Origin of samples	100% of the food of animal origin samples were of Irish origin
Most frequently detected pesticide	No pesticides detected
Maximum number of multiple residues	No pesticides detected
MRL breaches	No baby food sample with residues detected above the MRL
Processed	All 20 samples were processed as infant formula products
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum residue limits.

Enforcement action is taken when an unacceptable risk to consumers is identified, or where there is repeated occurrence of excessive residue levels in commodities from the same source. As part of the enforcement programme under Regulation (EC) No 396/2005, commodities from a 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 pesticide abuse. The enforcement sampling programme is designed to eliminate such abuses and to ensure that they are not repeated.

Table 69: Summary results for food of fruit and vegetables with the enforcement programme

Enforcement samples with pesticide residues detected	12 enforcement samples were taken under Regulation (EC) No 396/2005: • 25.0% had no residue detected above the LOQ • 66.7% had residues detected above the LOQ and below the MRL • 8.3% had residues detected above the MRL
Origin of samples	41.7% of enforcement samples were of Irish origin 58.3% were from outside the EU
Most frequently detected pesticide	Not relevant due to diverse range of commodities
Maximum number of multiple residues	Up to six different pesticides were found in a strawberry sample from Ireland and in a table grape sample from South Africa
MRL breaches	One orange sample from Egypt was taken as a follow-up to a RASFF notification
Processed	One sample
Labelled organic	No samples

LOQ: limit of quantification; MRL: maximum residue limits; RASFF: Rapid Alert System for Food and Feed.

Commission Regulation (EC) No 669/2009 imposes additional controls on imports from third countries (TC) known or considered to be a risk for 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. In 2014, okra from India was subject to more stringent control under Commission Implementing Regulations (EU) No 91/2013 and (EU) No 885/2014.

Table 70: Summary results for samples taken under Regulation (EC) No 669/2009 programme

Imported samples with pesticide residues detected	106 samples from targeted consignments were analysed: • 38.7% had no residues detected above the LOQ • 56.6% had residues greater than the LOQ and below the MRL • 4.7% had residues detected above the MRL
Origin of samples	100% of samples were from outside the EU – China, Egypt, India, Kenya, Peru and Turkey as listed in Regulation (EC) No. 669/2009
Most frequently detected pesticide	Azoxystrobin detected in 15.1% of border inspection post samples
Maximum number of multiple residues	Up to six different pesticides, with three of these exceeding the MRLs, were found in a pea with pods sample from Kenya and in an orange sample from Egypt
MRL breaches	Two beans with pods samples from Kenya, one peas with pods sample from Kenya, and one okra sample from India and one orange sample from Egypt.
Processed	No samples
Labelled organic	One tea sample

LOQ: limit of quantification; MRL: maximum residue limits.

16.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 71: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	0	
Administrative sanctions (e.g. fines)	0	-
Lot recalled from the market	0	-
Rejection of a non-compliant lot at the border	1	-
Destruction of non-compliant lot	3	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	12	-
Warnings to responsible food business operator	21	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	0	-
Other actions	-	-

The Enforcement Officer investigates all MRL breaches in samples of domestic origin. In 2014, three MRL breaches were detected in produce of domestic origin (cabbage, kale and mushroom). For non-compliant inported samples it is not possible to follow-up on the root causes.

In all cases, there was no exceedance of the acute reference dose (ARfD).

Table 72: Possible reasons for MRL non-compliance

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
Cross-contamination: spray drift or other accidental contamination	Chlorothalonil (head cabbage) Fluopicolide (kale)	2	
Contamination from previous use of a pesticide: uptake of residues from wheat in the past	Mepiquat (mushroom)	1	Treated wheat straw used for composts in mushroom production

(a): Report name as specified in the MatrixTool.
(b): Number of cases.

16.4. Quality assurance

The laboratory partook in all four proficiency tests organised by the EU Reference Laboratories.

Table 73: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Ireland	Pesticide Control Laboratory	PCS	1/1/2014 to 31/12/2014	INAB	**4 EU-RLs tests in 2014**

16.5. Processing factors

The processing factor was used to verify compliance of processed products with EU MRLs (Table 74).

Table 74: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor[(b)]	Comments
Chlorpyrifos	Rape seed	Rape seed oil	5	Default used as for olive oil

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

17. Italy

17.1. Objective and design of the national control programme

The national control programme is defined by Ministerial Decree 23 December 1992 (transposing Directive 90/642/EEC) as integrated by Ministerial Decree 30 July 1993 concerning the programming of official controls for imports coming from third countries (TC) and documents containing specific indication issued by the General Directorate.

The national programme for pesticide residues anticipates a detailed programme implementing the checks to be carried out by Regions and Autonomous Provinces of Trento and Bolzano, with an indication of the minimum number and type of samples to be analysed.

The breakdown of the number of samples to be taken for each region/province is calculated according to data on the consumption and production of a given foodstuff in the concerned region or autonomous province concerned.

The number of samples to be taken for each region/province for vegetables, fruits, cereals, wine and oils is provided by the Decree.

The programme also anticipates as priority research into residues of plant-protection products in foodstuffs of vegetable origin.

Moreover, the Director General of the Directorate General for the hygiene and safety of food and nutrition – Ministry of Health instructs regions/provinces to sample other foodstuffs, as reported in the coordinated programme.

In particular, every region/province must take four samples for every type of food, one sample for food of organic origin, reported in the coordinated European programme. They also have to take one sample of baby food.

Specific indications were given about the transmission of data and the processing factor the laboratories have to apply when evaluating the results.

Uffici di Sanità Marittima, Aerea e di Frontiera (USMAF) of the Ministry of Health perform the sampling on products of vegetable origin imported from TC, in at least 3% of the consignments of imported food.

The national programme does not specify which types of pesticide residues the laboratories should search for, and the laboratories identify the type of residues using data on pesticide sales, they also take into consideration Rapid Alert System for Food and Feed (RASFF) notifications.

The choice of residue types and the number of samples is made in accordance with the technical and equipment capacities of the laboratories.

17.2. Key findings, interpretation of the results and comparability with the previous year results

In total there are 8,946 samples (Table 75): 63.7% fruit and vegetables, 6.3% cereals, 10.9% oil and wine, 1.1% baby food and 17.9% other types of food (different processed forms of oil and wine, products of animal origin, fish products, tea, spices, seeds and sugar plants).

Of the samples, 65.5% (Table 76) are without residues, 34.2% had residues below the maximum residue limits (MRL) and only 0.3% is irregular. All samples of cereal, wine and oil and baby food are compliant. Irregular samples were found for fruit and vegetables and other food.

Italy is the country of origin for 7,968 samples, 269 come from other European Union (EU) Member States, 220 come from TCs and 489 samples are of unknown origin.

The total number of product sampled for the EU-coordinated control programme is 1,094, only 3 of which are irregular (cucumber, oranges and spinach).

The proportion of organic samples is 4.4%.

Only 0.2% are enforcement samples.

The information about import controls is not complete because the transmission of data is not binding.

Table 75: Summary results

Fruit and vegetables	% total	Cereals	% total	Oil and wine	% total	Baby food	% total	Other product	% total	Total
5,701	63.7	561	6.3	978	10.9	102	1.1	1604	17.9	8,946

Table 76: Compliant and not compliant samples

Food	Total samples	Samples without residues	Samples without residues (%)	Samples with residue below or equal MRL	Samples with residue below or equal MRL (%)	Samples with residues above MRL	Samples with residues above MRL (%)
Fruit and vegetables	5,701	3,224	56.5	2,450	43.0	27	0.5
Cereals	561	491	87.5	70	12.5	0	0.0
Oil and wine	978	648	66.3	330	33.7	0	0.0
Baby food	102	101	99.0	1	1.0	0	0.0
Other	1,604	1,396	87.0	206	12.9	2	0.1
Total	8,946	5,860	65.5	3,057	34.2	29	0.3

MRL: maximum residue limits.

17.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, 0.3% of the samples (29 samples in total) were found to be non-compliant with the EU MRL. In addition, 102 samples were compliant with the EU MRL, but considered non-compliant because the residues found are not authorised in Italy. The measures adopted for samples not compliant with Regulation 396/2005 are reported In Table 77.

Table 77: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	13	Measures were also applied if there is only a numerical exceedance of the MRL
Administrative sanctions (e.g. fines)	4	-
Lot recalled from the market	0	-
Rejection of a non-compliant lot at the border	0	-
Destruction of non-compliant lot	0	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	3	In one case, the results of a second analysis were compliant
Warnings to responsible food business operator	1	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	0	-
Other actions	8	For six samples, there was notification of a crime and for one, no action there was taken

MRL: maximum residue limits.

Table 78: Possible reasons for MRL non-compliance

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
	Diphenylamine (apple)	1	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (beans; with pods)	1	-
	Zoxamide (beet leaves – chard)	1	-
	Chlorpyrifos (beet leaves – chard)	1	-
	Chlorpyrifos (cauliflower)	1	-
	Methoxyfenozide (celery)	1	-
	Dimethoate (cherry)	1	-
	Omethoate (cherry)	1	
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (cherry)	1	-
	Quinoxyfen (courgette)	1	-
	Oxamyl (cucumber)	1	-
	Chlorpyrifos (cucumber)	1	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (fungi)	1	-
	Fenhexamid (globe artichoke)	1	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (globe artichoke)	1	-
	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) (lettuce)	11	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (mandarin)	1	-
	Chlorpyrifos (Ortaggi)	1	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (orange)	2	-
	Cypermethrin (parsley)	1	-
	Chlorpyrifos-methyl (parsley)	1	-
	Chlorpyrifos (parsley)	1	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (peach)	2	-
	Chlorpyrifos (peach)	1	-
	Metalaxyl (radish)	1	-
	Difenoconazole (scarole – broad-leaf endive)	1	-
	2-Phenylphenol (spinach)	1	-
	Fenamiphos (sum of fenamiphos and its sulfoxide and sulfone expressed as fenamiphos) (tomato)	1	-
	Nicotine (fungi)	1	-
	Bromopropylate (tomato)	1	-
	Dimethoate (sum of dimethoate and omethoate expressed as dimethoate) (turnip)	1	-

(a): Report name as specified in the MatrixTool.
(b): Number of cases.

17.4. Quality assurance

All regions participated in the national programme, and the corresponding laboratories are given in Table 79. All the laboratories are accredited.

Table 79: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
IT	IZS LOMBARDIA E EMILIA	I0200000	3/4/1997	Accredia	EUPT-SRM9, EUPT-FV-16. EUPT-AO-09
IT	IZS DELLE VENEZIE	I0300000	18/7/1997	Accredia	EUPT-AO-09
IT	IZS LAZIO E TOSCANA	I0500000	1998	Accredia	EUPT-FV-16, EUPT-AO-09
IT	IZS UMBRIA E MARCHE	I0600000	14/12/1998	Accredia	EUPT-SRM9, EUPT-FV-SM06, EUPT-FV-16, EUPT-AO-09
IT	IZS ABRUZZO E MOLISE	I0700000	18/12/2003	Accredia	EUPT-SRM9, EUPT FV-16, EUPT-AO-09, EUPT-CF8-Iss-PT-FV-SRM02
IT	IZS DELLA SICILIA	I1000000	8/7/1999	Accredia	EUPT-FV-SM06, EUPT-FV-16, EUPT-AO-09
IT	IZS DELLA SARDEGNA	I0400000	17/5/2011	Accredia	EUPT-FV-16, EUPT-AO-09, BIPEA 19f – pesticides in white wine, BIPEA 19f – pesticides in rosé wine
IT	IZS DELLA PUGLIA E BASILICATA	I0800000	31/10/2000	Accredia	-
IT	IZS DEL MEZZOGIORNO	I0900000	14/7/2010	Accredia	Analysis for this laboratory was carried out by IZS Abruzzo Molise which participated in the following PT: EUPT-SRM9, EUPT-FV-16, EUPT-AO-09, EUPT-CF8—Iss-PT-FV-SRM02
IT	ARPA TORINO	P0101010	1998	Accredia	EUPT-FV-16, EUPT-CF8, COIPT-14, PT-FV-SRM02
IT	ARPA AOSTA	P0201010	3/10/2007	Accredia	EUPT-FV-16
IT	ASL BERGAMO	P0302510	19/6/2009	Accredia	EUPT-FV-16, EUPT-CF8, PT-FVSRM02, COIPT-14
IT	APPA BOLZANO	P0411010	05/12/2001	Accredia	EUPT-SRM9, EUPT-FV-SM06, EUPT-FV-16, EUPT-AO-09, EUPT-CF8, PT-FV-SRM2
IT	APPA TRENTO	P0421010	2/4/2001	Accredia	EUPT-FV-16, PT-FV-SRM02
IT	ARPAV VERONA	P0501200	9/7/2008	Accredia	EUPT-SRM9, EUPT-FV-SM06, EUPT-FV-16, EUPT-CF8, PT-FV-SRM02
IT	ARPA PORDENONE	P0601060	18/11/2004	Accredia	EUPT-FV-SM06, EUPT-FV-16
IT	ARPAL LA	P0701050	25/6/2002	Accredia	EUPT-FV-16, EUPT-

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
	SPEZIA				TO2, EUPT-CF8, FAPAS-0598-FAPAS-0988-FAPAS-19173-FAPAS-19180
IT	ARPA FERRARA	P0801090	1998	Accredia	EUPT-FV-16, EUPT-TO2, EUPT-CF8—PT-FV-SRM02, COIPT-14, EUPT-SRM9
IT	ARPAM MACERATA	P1101090	December 1999	Accredia	EUPT-FV-16
IT	ARPA ROMA	P1200020	18/3/2004	Accredia	COIPT-14
IT	ARPA LATINA	P1201110	18/3/2004	Accredia	EUPT-FV-16, EUPT-AO-09, EUPT-SRM9, EUPT-CF8
IT	ARPA BARI	P1601040	25/2/2010	Accredia	EUPT-FV-16, COIPT-14, EUPT-CF8
IT	ARPA CAMPANIA	P1500400	17/2/2011	Accredia	EUPT-FV-16
IT	ASL MILANO	P0303080	21/12/2010	Accredia	EUPT-FV-SM06, EUPT-FV-16, EUPT-TO2, EUPT-CF8, COIPT-14—PT-FV-SRM02
IT	LABORATORIO DI SANITÀ PUBBLICA FIRENZE	P090100	18/12/2006	Accredia	EUPT-FV-16

17.5. Processing factors

The processing factors used by the national competent authorities to verify the compliance of processed products with EU MRL are given in Table 80.

Table 80: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
All	Pepper	Dry pepper	10	
Nicotine	Fungi	Dry fungi	30	-
Other different from nicotine	Fungi	Dry fungi	10	-
All	Oregano	Dry oregano	10	-
All	Wheat	Flour	1	-
All	Olives	Oil	5	-
All	Wine grapes	Wine	1	-

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

18. Latvia

18.1. Objective and design of the national control programme

The Ministry of Agriculture in collaboration with the Food and Veterinary Service and the State Plant Protection Service updated the national control programme for pesticide residues control in plant products for 2014 according to Article 30(1) of Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC.

Plant products have been chosen according to statistical information in the National Food Consumption Survey of Latvia (2007–2009). Fresh plant products of domestic origin from conventional farms are included in the national control programme for pesticide residues control in plant products for 2014. The above-mentioned plant products are of high importance for agricultural production and consumption in Latvia. Organically produced food is not included in the national control programme for pesticide residues control in plant products for 2014. Food for sensitive groups in the population, e.g. baby food, is not included in the national control programme for pesticide residues control in plant products for 2014. Taking into account the importance of the commodity in Latvia, samples of potatoes and carrots were included in both control programmes. In other cases, planning for the programme used the following approach: the products included in the European Union (EU)-coordinated programme were not included in national programme. Because of insufficient financing, the national control programme for pesticides was not carried out as planned.

Pesticide residues were chosen on the basis of application of plant-protection products in Latvia.

Sampling was carried out at different marketing levels (primary production, wholesalers, retail, processing and manufacturing, border inspection activities) by trained inspectors from the Food and Veterinary Service (FVS) according to Commission Directive 2002/63/EC of 11 July 2002 establishing community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin.

The Food and Veterinary Service and The Institute of Food Safety, Animal Health and Environment (BIOR) are responsible of implementation of pesticide residues control programmes.

18.2. Key findings, interpretation of the results and comparability with the previous year results

18.2.1. Coordinated programme according to Regulation (EU) No 788/2012

In 2014, a total of 303 samples of fruit, vegetables, cereals, animal products and baby food were analysed for pesticides residues: 104 samples were of domestic origin (34%), 120 samples were from other EU countries (40%) and 79 samples were from third countries (TC).

The proportion of organic samples 2014 was 4% (12 samples).

In 2014, the following commodities were analysed:

- domestic products –animal products (liver, muscle), honey, baby food, wheat, carrots, potatoes, cucumbers, pears, beans, spinach;
- other products of EU origin – animal products (liver, muscle), baby food, rice, wheat, pears, beans, spinach, carrots, potatoes, cucumbers, citrus fruits, apples, cauliflower;
- products from TC – citrus fruits, rice, potatoes, sunflower seeds, tea, carrots, honey, rye, beans.

In 2014, two of the samples (orange and spinach) were found to be non-compliant with EU maximum residue levels (MRL).

The most frequently found pesticide residues are: imazalil, thiabendazole, orthophenylphenol, chlormequat, pyrimethanil and propamocarb (above the limit of quantification, but below the MRL).

18.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 81: Action taken for non-compliant samples

Number of non-compliant samples	Action taken	Note
1	Investigation	Sample code: PV-2014-P-22653
1	Investigation	Sample code: PV-2014-P-38668

Table 82: Possible reasons for MRL non-compliance

Product	Residue	Reason for MRL non-compliance	Note
Orange	Malathion (sum)	Other	Origin: Egypt Not possible to determine reason
Spinach	Iprodione	Other	Origin: Italy Not possible to determine reason

MRL: maximum residue limits.

18.4. Quality assurance

Table 83: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
LV	Institute of Food Safety, Animal Health and Environment 'BIOR'	90009235333	8/6/2011	Latvian National Accreditation Bureau - LATAK	EUPT-2010: FV-12, AO-05, SRM-05, C-04

19. Lithuania

Lithuania did not provide a 2014 National Summary Report.

20. Luxembourg

20.1. Introduction

The Ministry of Health is the competent authority for the control of pesticide residues in food of both plant and animal origin. Within this ministry, the Food Safety Service (Secualim) of the Directorate for Public Health is the executive, competent authority responsible for the control of pesticide residues in food of plant origin, including cereals and baby food. Secualim is also responsible for transferring notifications to the Rapid Alert System for Food and Feed (RASFF) via the national contact point (Organisation for the Security and Equality of the Food Chain of Luxembourg; OSQCA) for these same categories of food.

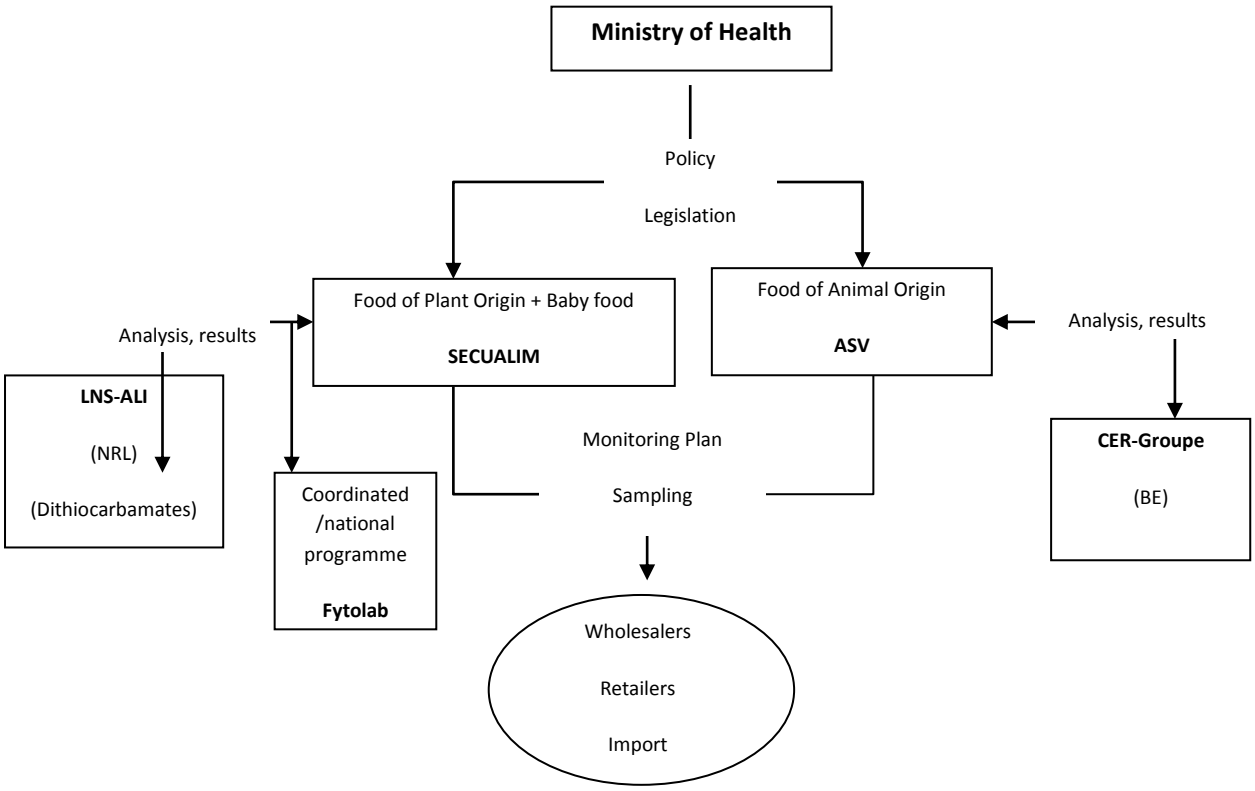
As regards the control of pesticide residues in food of animal origin, the executive competent authorities are the Veterinary Administration Services of Luxembourg (ASV). The various roles of these two authorities for the control of pesticide residues in food, both operating under the Ministry of Health, are illustrated in Table 84.

Table 84: Various roles of the Secualim and ASV departments for the control of pesticide residues in food

Role	Organisation name	Organisation address	Products
Official reporting organisation	Food Safety Service (Secualim)	3 rue des Primeurs, L-2361 Strassen	Food of plant origin (fruits, vegetables, cereals) and baby food
Residue programme design			
Sample collection			
Enforcement agencies			
Official reporting organisation	Administration of Veterinary Services (ASV)	211 route d'Esch, L-1014 Luxembourg	Food of animal origin
Residue programme design			
Sample collection			
Enforcement agencies			

The collected samples are sent to the appropriate laboratories. The samples from food of animal origin are analysed by the laboratory for products of animal origin Centre d'économie rurale (CER). For products of plant origin, including cereals and baby food, samples collected for both the coordinated and national programs are sent to Fytolab, the laboratory for pesticide and residue analysis. For the analysis of dithiocarbamate residues, samples are sent to the food laboratory of the National Health Laboratory (LNS-ALI).

The role and implementation of the various services during the sample collection process at wholesalers, retailers and during import are represented in Figure 7.



Role of the various departments involved in the control plan

Secualim: Food Safety Service of the Directorate for Public Health
ASV: Veterinary Administration Service
LNS-ALI: Food laboratory of the National Health Laboratory
CER: Centre d'économie rurale, laboratory for products of animal origin

The national annual report is published online at: http://www.securite-alimentaire.public.lu/organisme/pcnp/sc/cs9_prod_phyto/ppp_residus_pesticides/index.html

20.2. Objective and design of the national control programme

20.2.1. Food of plant origin, including cereals and baby food

Secualim is responsible for drafting the sampling plan and for the control of presence of pesticide residues in fruits and nuts, vegetables, cereals, baby food and other plant products.

The control programme included two different aspects:

- the coordinated community control programme based on the Commission Regulation (EU) No 788/2012 of 31 August 2012 concerning a coordinated multi-annual control programme;
- the national programme based on a risk assessment in which several factors were taken into account – results from previous checks, RASFF data over the last 3 years, toxicological data for residues, national production and available consumption figures.

The European Union (EU)-coordinated programme is the main part. Samples included beans with pods (fresh or frozen), carrots, cucumbers, oranges or mandarins, pears, potatoes, rice, spinach (fresh or frozen), wheat flour, poultry meat, liver (bovine and other ruminants, swine and poultry), as well as baby food (Regulation (EU) No 788/2012).

For the national programme, samples included fruits (bananas, apples), citrus fruits (lemons, limes), exotic fruits (papaya, pineapple and grapefruit), vegetables (head cabbage, leek, lettuce, rucola, radish), fresh herbs (parsley, basil) and tea, as well as other plant products (seeds, peanuts, olives for oil production).

For both parts of the programme, national production was taken into account, as well as food originating from other European Economic Area (EEA) countries and from third countries (TC). Furthermore, where available, samples were taken from products originating from organic farming that reflect the market share of organic products. Sampling was done mainly at wholesalers, but also at the retail level and during import. The choice of matrices was based largely on fresh products in order to conduct controls at the start of the food chain and avoid the need of having to use a processing factor.

In terms of the use pattern of pesticides and the toxicity of active substances, Luxembourg works in collaboration with the laboratory responsible for controlling the samples to choose the pesticides to be screened in a specific matrix (as a function of their toxicity).

Import samples and samples for the coordinated community and national control programmes are sent to an external laboratory in Belgium (Fytolab).

Samples requiring analysis for dithiocarbamate residues are sent to the National Health Laboratory of Luxembourg.

All results for food of plant origin are reported to Secualim.

20.2.2. Food of animal origin

The annual control programme for food of animal origin is drafted by the ASV in compliance with Directive (EC) No 96/23 and Decision (EC) No 97/747. The number of samples to be analysed per matrix is defined by these regulations.

All results were transmitted to DG SANCO unit 5 through a special database application available online 'Residues – Monitoring plan and result'.

20.3. Key findings, interpretation of the results and comparability with the previous year results

In 2014, a total of 354 samples were analysed for pesticide residues (192 samples within the coordinated community control programme and 132 samples within the national programme; 30 samples were collected during enforcement). Overall, 39% more samples were analysed compared with 2013.

20.3.1. Enforcement

For enforcement, 30 samples were collected, a 3% increase compared with 2013 (29 samples). Secualim follows a voluntary policy to enforce import controls.

One sample (3.3% of the total) was non-compliant, non-organic, unprocessed peas with pods from Kenya (border inspection activities, according to Regulation (EC) No 669/2009).

Table 85: Non-compliant samples from enforcement controls

Product	Origin	Pesticide residue	Level (mg/kg)	MRL (mg/kg)
Peas (with pods)	KE	Dimethoate (sum)	0.066	0.02

MRL: maximum residue limits.

20.3.2. Surveillance

For the surveillance programme (national and coordinated), 324 samples were collected, an increase of 44% compared with 2013. The samples collected for the national programme increased by 159%, whereas for the coordinated programme, 10% more samples were analysed than in 2013.

Of the 324 samples, 45% of were of domestic origin (an increase of 51% compared with 2013), 30% originated from other EU Member States (including Norway and Iceland), 15% were from TC and 9% were of unknown origin.

For many products, both for the coordinated and national plans, domestic production was largely taken into account. Two samples of domestic origin collected as part of the surveillance strategy exceeded the maximum residue limits (MRL) (representing 1.4% of the collected domestic samples), compared with 2.4% in 2012 and no MRL exceedances in 2013. Note, however, that both samples were compliant when taking into account the measurement uncertainty.

Listed below are the major categories of food with their contribution to the total number of samples collected for surveillance:

- animal products, 4.6% (100.0% domestic samples);
- baby food, 3.1% (40.0% other EU countries);
- cereals: 9.6% (25.8% domestic, 48.4% other EU countries, 9.7% TC);
- fruits: 18.5% (33.3% domestic, 30.0% other EU countries, 36.7% TC);
  - apples: 100.0% domestic, wine grapes: 100.0% domestic;
- vegetables: 50.6% (58.5% domestic, 36.6% other EU countries, 4.9% TC);
  - lettuce: 53.8% domestic; leek: 100.0% domestic, head cabbage: 100.0% domestic, potatoes: 100.0% domestic, parsley: 100.0% domestic;
- other plant products: 13.6% (13.6% domestic, 6.8% other EU countries, 36.4% TC).

For the national programme, fruits, vegetables, herbs and tea were screened for 428 pesticides and wine grapes were screened for 458 pesticides (according to Regulation (EC) No 882/2004).

For the coordinated programme, baby food was screened for 465 pesticides (0.9% more than in 2013) and fruits and vegetables were screened for 458–466 pesticides (depending on the matrices).

Note that, for cereals, the aim was to cover the national production for food, not feed. In Luxembourg, the destiny of grains is not yet decided at harvest. Therefore, flour samples with a clear food destination were taken.

20.3.3. Residues detected (in non-organic and organic samples)

In 52.2% of the non-organic surveillance samples, no residues above the limit of quantification (LOQ) were detected. In 45.5% of the samples, pesticide residues were quantified but were in compliance with the MRL. The MRL was exceeded in six samples (2.4%); four of those were compliant when measurement uncertainty was taken into account. These samples with numerical exceedance of the MRL relate to two samples of tea from the USA, one sample of carrots from Luxembourg and one sample of wine grapes from Luxembourg, as illustrated in Table 86.

Table 86: Samples with numerical exceedance

Product	Origin	Pesticide residue	Level (mg/kg)	MRL (mg/kg)
Tea	USA	Acetamiprid	0.071	0.05
		Anthraquinone	0.013	0.01
Tea	USA	Anthraquinone	0.016	0.01
Carrots	LU	Mandipropamid	0.011	0.01
Wine grapes	LU	MCPA	0.1	0.05

MRL: maximum residue limits.

Two samples (0.6%) were found to be non-compliant (according to Regulation (EC) No 396/2005); a sample of beans (with pods) from Morocco and one sample of tea from the USA.

Table 87: Non-compliant samples

Product	Origin	Pesticide residue	Level (mg/kg)	MRL (mg/kg)	Comment
Beans (with pods)	MA	Dimethoate (sum)	0.39	0.02	Non-compliant
Tea	USA	Acetamiprid	0.230	0.05	Non-compliant
		Anthraquinone	0.017	0.01	Numerical exceedance
		Imidacloprid	0.074	0.05	Numerical exceedance
		Pyridaben	0.063	0.05	Numerical exceedance

MRL: maximum residue limits.

For organic samples, the percentage of samples with residues below the LOQ lies at 95.7%. The remaining three samples (4.3%) have residues between the LOQ and the MRL. None of the organic samples collected exceed the MRL.

However, in one of the samples, pesticide residues not authorised in organic farming were detected – pirimiphos-methyl in wheat from the EU (milling).

Although the sample is compliant as regards Regulation (EC) No 396/2005, it is non-compliant with respect to Regulation (EC) No 889/2008 on organic production and the labelling of organic products.

Table 88: Summary of results (surveillance strategy only)

Matrix	Total no. samples	Organic samples	< LOQ	LOQ > residue < MRL	Result > MRL but compliant considering uncertainty	Result non-compliant	Raw	Processed	Domestic	EEA	Third countries	Origin not known
Animal products	15	0	15	0	0	0	15	0	15	0	0	0
Cow liver	7	0	7	0	0	0	7	0	7	0	0	0
Sheep liver	1	0	1	0	0	0	1	0	1	0	0	0
Pig liver	7	0	7	0	0	0	7	0	7	0	0	0
Baby food	10	4	10	0	0	0	0	10	0	4	0	6
Follow-on formula	5	1	5	0	0	0	0	5	0	2	0	3
Infant formula	5	3	5	0	0	0	0	5	0	2	0	3
Fruits	60	7	15	44	1	0	60	0	20	18	22	0
Apples	4	0	1	3	0	0	4	0	4	0	0	0
Oranges	22	3	5	17	0	0	22	0	0	9	13	0
Pears	15	3	4	11	0	0	15	0	6	6	3	0
Wine grapes	10	0	1	8	1	0	10	0	10	0	0	0
Other	9	1	4	5	0	0	9	0	0	3	6	0
Vegetables	164	44	115	47	1	1	164	0	96	60	8	0
Beans (with pods)	16	5	9	6	0	1	16	0	5	3	8	0
Carrots	15	6	8	6	1	0	15	0	6	9	0	0
Head cabbage	8	3	5	3	0	0	8	0	8	0	0	0
Leek	11	5	10	1	0	0	11	0	11	0	0	0
Lettuce	26	10	22	4	0	0	26	0	14	12	0	0
Parsley	13	7	12	1	0	0	13	0	13	0	0	0
Potatoes	27	1	20	7	0	0	27	0	27	0	0	0
Spinach	19	1	12	7	0	0	19	0	2	17	0	0
Other	29	6	4	25	0	0	7	22	10	19	0	0
Cereals	31	12	16	15	0	0	14	17	8	15	3	5
Other plant products	44	2	28	13	2	1	31	13	6	3	16	19
Tea	31	0	17	11	2	1	31	0	0	0	16	15
Total	324	69	199	119	4	2	284	40	145	100	49	30

LOQ: limit of quantification; MRL: maximum residue limits; EEA: european economic area.

20.4. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, 0.8% of the samples collected (enforcement and surveillance) were non-compliant (three samples) with the MRL set in EU legislation (compared with 1.20% in 2013). One of the samples was collected for enforcement during import, representing 3.3% of the samples collected for enforcement reasons. The lot was not released onto the market and was destroyed. For surveillance, domestic and EU-originating samples were all compliant; there were two non-compliant samples of TC origin. One of the samples was sampled during border inspection activities according to Regulation (EC) No 882/2004. An alert was issued even though the sample had not been released onto the market, as shown below.

Table 89: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Alert	2	-
Lot not released onto the market and destruction of the product	1	-

Table 90: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
	Enforcement		
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Dimethoate (sum) (peas with pods)	1	Regulation 1097/2009
	Surveillance	-	-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Dimethoate (sum) (beans with pods)	1	Regulation 1097/2009
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Acetamiprid (tea)	1	Regulation 846/2015

(a): Report name as specified in the MatrixTool.
(b): Number of cases.

20.5. Quality assurance

Table 91: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Belgium	Centre d'économie rurale	CER	073-TEST 13/6/2012	BELAC	PT A07 (EURL pesticides), PT FAPAS 0581
Belgium	Fytolab	Fytolab	057-TEST 9/6/2009 (v4) 26/4/2011 (v7) 21.06.2011 (v8)	BELAC	EUPT-FV-16, EUPT-CF8
Luxembourg	Laboratoire national de santé – Laboratoire de contrôle alimentaire	LNS-ALI	1/002 27/5/2008	OLAS	EUPT CF8, EUPT-FV-16

20.6. Processing factors

Processing factors used by the national competent authority to verify compliance of processed products with EU MRLs are given in Table 92.

Table 92: Processing factors

Pesticide (report name)	Unprocessed product (RAC)	Processed product	Processing factor	Comments
All	Olives for oil production	Olive oil	5	

RAC: raw agricultural commodity.

21. Malta

21.1. Objective and design of the national control programme

The national monitoring programme for pesticide residues in produce of plant and animal origin 2014 was based on a number of factors that determined the type and frequency of monitoring for the particular produce. These factors included:

- produce as per the European Union (EU)-coordinated multi-annual community control programme;
- local production/imports of commodities;
- past findings that may indicate a historical residue problem;
- organic produce
- new risks (e.g. knowledge on the use of banned pesticides) or other countries' monitoring schemes.

In total, 13 different food commodities (including fruit and vegetables, food of animal origin and baby food) were analysed during 2014. The commodities analysed included: beans, carrots, cucumbers, oranges, pears, potatoes, rice, spinach, table and wine grapes, wheat flour, poultry muscle, liver, infant formula. The sampling strategy adopted was mainly objective sampling, except where there was reasonable suspicion about a specific product when a selective or suspect sampling strategy was adopted.

21.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014 a total of 173 products were analysed for pesticide residues compared with a total of 159 products analysed in 2013 and 169 in 2012. All of the 173 samples were objective sampling.

Of the 173 samples analysed in 2014, 8 were of organic production origin, 52 were of non-organic production origin, whereas for 113 samples the production method was unknown. These were mainly imported samples, samples of food of animal origin and infant formula.

Of the samples analysed in 2014, 148 were unprocessed, 15 samples of wheat flour had been subjected to milling and 10 samples of infant formula were processed.

In 2014, the proportion of domestic samples amounted to 51.4% compared with 58.0% in 2013 and 39.0% in 2012. Samples from other Member States amounted to 41% and the amount of samples from third countries (TC) was 7.5%, compared with 1.9% in 2013 and 9.5% in 2012. During 2014, none of the samples had an unknown origin.

In 2014, 45.1% of the samples analysed were without pesticide residues, 43.4% had pesticide residues below the EU maximum residue levels (EU MRL) and 6.4% of the samples exceeded the EU MRL compared with 2.5% in 2013; none of the samples taken in 2012 exceeded the EU MRL.

Ten samples had one pesticide residue that exceeded the EU MRL. One sample had two pesticide residues that exceeded the corresponding EU MRL for the specific produce.

21.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 93: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	-	-
Administrative sanctions (e.g. fines)	-	-
Lot recalled from the market	-	-
Rejection of a non-compliant lot at the border	-	-
Destruction of non-compliant lot	-	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	-	-
Warnings to responsible food business operator	-	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions	11	Legal action has been taken against the farmers whose produce exceeded the EU MRL of one or more pesticide residues.

MRL: maximum residue limits.

Table 94: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Chlorpyrifos (carrot)	1	
	Chlorpyrifos (beans)	1	
	Chlorpyrifos (spinach)	1	
	Chlorpyrifos (potato)	2	
	Chlorpyrifos (cucumber)	1	
	Chlormequat (pear)	1	
	Imazalil (orange)	1	
	Lufenuron (potato)	2	
	Tebuconazole (cucumber)	1	
	Imidacloprid (potato)	1	

MRL: maximum residue limits.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.

21.4. Quality assurance

Table 95: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
ES	Conselleria de Agricultura, Pesca Y Alimentacion de la Generalitat Valenciana Laboratorio	Generalitat Valenciana	October 1999	ENAC Entidad Nacional de Acreditacion	Yes
DE	Eurofins GFA	Eurofins	October 2010	Akkreditierungsstelle GmbH	Yes
UK	LGC Limited	LGC	September 2011	United Kingdom Accreditation Services	Yes

22. Netherlands

22.1. Objective and design of the national control programme

In the national control programme, choices were made concerning type and number of samples to be taken for analysis because many different pesticides, vegetables and fruits are involved. There are, therefore, several important considerations:

- consumption of the commodity;
- production or import volume of the commodity;
- experience from the previous years concerning violations. These experiences not only extend to type of products and country of origin, but also take into account the results of sampling at individual companies;
- the occurrence of pesticide/crop combinations that might lead to exceedances of the acute reference dose (ARfD);
- the degree of sampling and analysis, performed by the producer/importer;
- The availability of cost-effective analytical methods, preferably multi-residue methods (MRM).

Regulation (EC) No 396/2005 mentions two main objectives of the official control programme: enforcement of maximum residue levels (MRL) and obtaining data to enable assessment of consumer exposure. For the latter objective, representative sampling is a prerequisite, whereas the first objective is optimised by searching for high-risk products. The Dutch programme is a mixture of both strategies. Sampling in the market is, in general, representative of the product present in the market at that time and can be used for intake calculations. The choice of products to be sampled, however, is risk based. Products sampled at border control and importers of high-risk products are typically non-representative and are selected from an enforcement point of view. High violation rates can indicate both an efficient sampling strategy and problems in agricultural practice.

The national control programme is directed primarily at major products in the consumption pattern. These products are in line with products the European Union (EU) has chosen for the multi-annual rolling programme of control Regulation (EU) No 788/2012. In addition, endive, broccoli, red beet and kiwi were planned samples as major Dutch consumption items. The latter two are of special interest, because they are frequently eaten by young children. Considerable capacity is reserved for minor products, especially from import products, because they show frequent non-compliances. For 2014, this comprised 1,370 samples of fruits and vegetables within the total number of 3,300.

The main sampling points are the distribution centres of retail chains, importers and warehouses for both domestic and non-domestic products, and the auction premises for Dutch products. At those inspection points, it is clear who is responsible for the product, so the appropriate legal action can be taken in the case of non-compliance.

The control programme involves both Dutch and foreign production. EU harmonisation results in a lowering of exceedance rates of EU products such that less attention is needed for that market segment, which can be redistributed to more risky imports from non-EU countries. Because the main consumption products come from the European market, their sampling was reduced, unless a reasonable high violation rate exists.

In general, control based on the primary product is preferred over control of processed food, however, it is useful to monitor processed products in the following cases:

- toxic metabolites can originate (ETU and PTU);
- the primary product is not accessible, examples are
  - products processed in other countries, e.g. fruit juices, wines and vegetable oil,
  - products obtained by the processing plant directly from the grower,
  - when processed food gives a good overview of the market situation in terms of dietary intake, e.g. flour and baby food.

As far as possible, the Netherlands Food and Consumer Product Safety Authority (VWA) applies MRMs for the analysis of pesticide residues. The main procedure is extraction with acetone, followed by solvent partitioning with dichloromethane/petroleum ether. The extract is analysed with gas chromatography mass spectrometry (GC/MS) and liquid chromatography tandem mass/mass spectrometry (LC/MS-MS). Depending on the laboratory capacity, these apparatuses are run in different modes. GC/MS can be applied in wide-scope full-scan mode of an ion trap detector, or in a narrower scope in mass/mass spectrometry (MS-MS) mode with better sensitivity. For the LC/MS-MS, a choice had to made between a short run narrow scope and a long run extensive scope, depending upon the laboratory capacities. Whenever possible, LC/MS-MS was applied in negative mode as well. Dry products and baby food were analysed using the quick, easy, cheap, effective, rugged and safe (QuEChERS) method, followed by triple-quad GC/MS-MS, both in electron impact and negative chemical ionisation mode, and LC/MS-MS. Depending upon the choices made, the scopes applied to the samples varied from 175 to > 500. For pesticides outside the scope of MRMs, single residue methods (SRMs) must be applied. Because these give information on only one analyte, they are much less cost-effective than MRMs, and are applied only when the following criteria are met:

- a commodity–pesticide combination has an MRL above the limit of quantification (LOQ), indicating that residues may be expected;
- improper use of the pesticide is expected for the commodity–pesticide combination;
- the pesticide is part of the EU-coordinated control programme.

22.2. Key findings, interpretation of the results and comparability with the previous year results

During 2014, approximately 5,200 samples, both domestic and non-domestic products, were analysed for pesticide residues. The national and coordinated control plan accounted for approximately 3,550 samples. Approximately 1,650 samples were analysed within the framework of import control Regulation (EC) No 669/2009. Within the national control plan, domestic fresh produce made up 26% of the samples, 19% of the samples came from other EU countries and 55% came from non-EU countries. Dutch products show residues above the reporting limit in approximately 56% of the samples, whereas non-domestic products contain residues in 72% (EU) and 73% (non-EU) of cases, respectively. These percentages are comparable with the previous year, slightly less for EU and slightly higher for non-EU products. Non-EU products sampled within the framework of Regulation (EC) No 669/2009 contained residues in 85% of cases.

In approximately 5,200 samples, 10,680 residues of 187 different analytes were found. The percentage of the residues found within the scope of the EU-programme was slightly lower than previous years, 96% instead of 98%. This effect can be attributed to the larger scope of some of the methods used. For a majority of the found residues it was established whether an acute reference dose (ARfD) is necessary or not (Table 96). When food safety issues are involved in pesticide residues, it is mainly with respect to acute effects. Therefore, it is important to notice the extent to which pesticides that present acute intake hazards are used. The critical crop/pesticide concentration (CCPC) was evaluated for product/pesticide combinations. At the CCPC limit, 100% of the ARfD is reached based on a point-estimate and a product is considered to be unsafe and 'injurious to health' in the meaning of the General Food Law (Regulation EC/178/2002). In such cases, the product is recalled when possible, and a rapid alert notification is issued. The Netherlands issued 17 rapid or information alerts on pesticide residues based on official control samples. In addition, General Food Law notifications accounted for 22 alerts.

Table 96: Pesticide residues found in the EU-coordinated and Dutch monitoring programme

Programme	Active substances	Number of residues of pesticides in samples			
		With ARfD	No ARfD needed	ARfD unknown	Total
EU-coordinated	144	6,486	3,850	1	10,337
Dutch national	43	154	158	31	343
Total	187	6,640	4,008	32	10,680

ARfD: acute reference dose.

22.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, MRL violations showed some increase. For Dutch produce, an important contribution came from a carry-over of chlorpropham from potatoes to other stored products. This carry-over has not been a problem in the past. Lowering of the MRL within the framework of Article 12 of Regulation (EC) No 396/2005 caused the problem. Further contributions to the increase in the MRL violation rate for Dutch produce were not specific. No specific issues can be given to account for the slight increase in MRL violations in foreign products. It should be noted that about half of the MRL exceedances are within the measurement uncertainty range. Samples taken within the framework of the 669/2009 control show a slightly lower non-compliance rate than national control plan samples from the same countries. Stronger requirements by importers possibly play a role. Products from South East Asia still often violate limits. Table 97 gives the most frequently non-complying pesticide/crop combinations with the main countries of origin for the samples in the nation control plan. Table 98 gives this overview for the 669/2009-regulated imports. In spite of these measures, for some products this import regime still detects considerable numbers of non-compliances. Table 99 gives results for the main products in 2014. A comparison is made with the results of previous years. For the main products in the national programme, fewer violations were observed with most of the products, as general compliance increased.

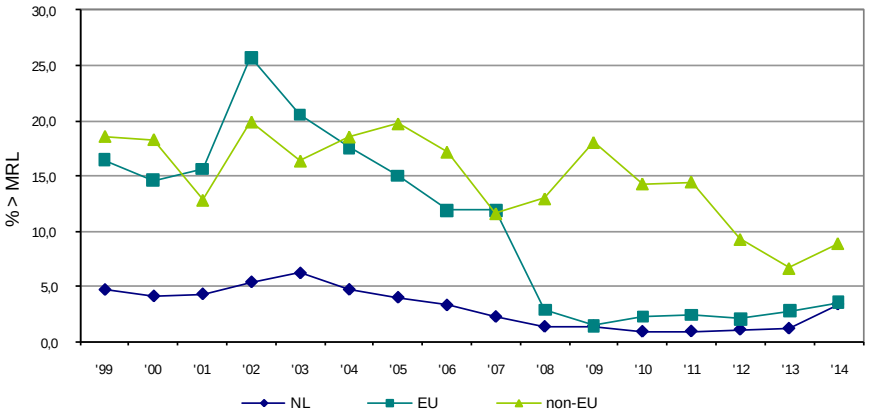


Figure 1. Percentage of MRL violations not including 669/2009 import control.

Figure 7: control.

Some minor products, not planned within the national programme, still show a considerable violation rate. Examples are tropical products, like herbs and fruits. In particular, dragon fruit/pitayas, passion fruit and pomegranate gave non-compliances.

Table 97: Main products with high percentages of non-compliances, with corresponding pesticides and countries of origin of national control plan samples

Product	Pesticides	% > MRL	Country
Pomegranate	Various	24.3	India, Peru
Prickly pear (cactus fruit)	Iprodione, carbendazim	42.9	Vietnam
Various cucurbits, edible peel	Chlorothalonil	35.0	Surinam
Lime	Methidathion, carbofuran	15.6	Brazil
Passion fruit	Various	25.0	Colombia
Aubergine (egg plants)	Various	13.0	Various
Cherry	Dimethoate	14.3	Various

MRL: maximum residue limits.

Table 98: Main products with high percentages of non-compliances, with corresponding pesticides and countries of origin for samples within the framework of 669/2009 on import control

Product	Pesticides	% > MRL	Country
Strawberry	Profenofos, methomyl, oxamyl	21.7	Egypt
Broccoli	Chlorfenapyr, pyridaben, propiconazole	57.1	China
Tea	Fipronil, acetamiprid, pyridaben	18.9	China
Basil	Various	16.7	Vietnam, Morocco
Peppers	Permethrin, chlorfenapyr	14.3	Dominican Republic, Vietnam
Aubergines (egg plants)	Dinotefuran	18.5	Cambodia

MRL: maximum residue limits.

Table 99: Samples of crops taken in the national control programme 2014, with trends in percentage MRL violations, comparing origin and previous years

Product	Consumption (g/day)	Year EU-coordinated programme	Dutch programme 2014	Samples realised 2014	% samples > MRL 2014	% samples > MRL 2014 Dutch	% samples > MRL 2014 EU	% samples > MRL 2014 non-EU	Samples a year 2009–2013	% samples > MRL 2009–2013
Mandarin	11.2	2005/2008/2011	75	84	7.1	0.0	0.0	10.0	83	2.4
Orange	15.6	2005/2008/2011	75	123	2.4	0.0	0.0	3.3	132	5.6
Apple	64.8	2007/2010/2013	60	80	0.0	0.0	0.0	0.0	109	0.9
Pear	12.2	2005/2008/2011	60	68	0.0	0.0	0.0	0.0	62	1.0
Peach/nectarine	2.8	2007/2010/2013	50	25	4.0	0.0	4.5	0.0	32	1.2
Plum	2.5	-	75	48	4.2	0.0	5.0	4.8	50	2.0
Grape	16.5	2006/2009/2012	75	300	5.0	0.0	0.0	5.2	172	6.3
Strawberry	5.6	2007/2010/2013	60	53	7.5	9.4	7.1	0.0	70	4.0
Banana	19.2	2006/2009/2012	50	38	0.0	0.0	0.0	0.0	47	0.4
Kiwi fruit	3.4	-	25	32	3.1	0.0	6.3	0.0	48	1.3
Beetroot	4.1	-	25	17	0.0	0.0	0.0	0.0	25	0.8
Carrot	14.2	2005/2008/2011	60	54	3.7	4.7	0.0	0.0	64	4.1
Onion	14.4	2004	60	35	2.9	4.8	0.0	0.0	47	2.6
Tomato	27.6	2007/2010/2013	60	76	0.0	0.0	0.0	0.0	112	1.2
Sweet pepper	3.5	2006/2009/2012	60	87	2.3	0.0	5.6	0.0	104	1.0
Pepper	0.0	2006/2009/2012	75	68	14.7	0.0	0.0	19.6	85	32.4
Cucumber	8.0	2005/2008/2011	75	56	3.6	0.0	7.4	0.0	85	2.8
Melon	2.8	1999/2003	75	49	4.1	0.0	0.0	5.9	58	4.5
Broccoli	3.7	2012	50	42	4.8	0.0	5.0	33.3	63	9.5
Cauliflower	12.6	2006/2009/2012		34	0.0	0.0	0.0	0.0	42	0.0
Red Cabbage	3.8	2007/2010/2013	35	21	0.0	0.0	0.0	0.0	14	0.0
White cabbage	5.5	2007/2010/2013	0	11	0.0	0.0	0.0	0.0	15	0.0
Lettuce	2.8	2007/2010/2013	60	52	0.0	0.0	0.0	0.0	61	2.0
Iceberg lettuce	3.3	2007/2010/2013	0	22	0.0	0.0	0.0	0.0	58	0.3
Endive	6.5	-	60	44	2.3	3,0	0.0	0.0	58	2.1
Spinach	10.0	2005/2008/2011	75	34	5.9	0.0	14.3	0.0	45	2.6
Beans (fresh)	16.4	2005/2008/2011	75	83	7.2	0.0	0.0	8.2	128	12.1
Peas (fresh)	4.8	2006/2009/2012	50	35	2.9	0.0	0.0	2.9	40	17.1
Leek	8.4	2007/2010/2013	30	29	3.4	4.0	0.0	0.0	45	1.8
Potato	159.9	2005/2008/2011	60	47	2.1	3.3	0.0	0.0	48	0.4
Rice	8.9	2005/2008/2011	0	37	2.7	0.0	0.0	3.3	0	0.0
Cereals	127.2	2007/2010/2012/2013	0	50	0.0	0.0	0.0	0.0	0	0.0

Product	Consumption (g/day)	Year EU-coordinated programme	Dutch programme 2014	Samples realised 2014	% samples > MRL 2014	% samples > MRL 2014 Dutch	% samples > MRL 2014 EU	% samples > MRL 2014 non-EU	Samples a year 2009–2013	% samples > MRL 2009–2013
Baby food	-	All years	90	80	2.5	2.8	0.0	0.0	72	0.0
Processed products	-	-	210	125	0.8	0.0	0.0	1.2	250	2.2
Products in programme	695.4	-	1,925	2,039	3.4	1.7	2.6	4.9	2,325	4.5
Total	838.8	-	3,300	3,440	5.7	2.8	2.9	8.1	3,569	6.1

MRL: maximum residue limits.

Table 100: Notifications to the Rapid Alert System for Food and Feed issued by the Netherlands

Product	Pesticide	Country	Action taken
Grape	Ethephon (1.5 mg/kg)	South Africa	RASFF, administrative sanction
Grape	Ethephon (1.38 mg/kg)	Peru	RASFF, administrative sanction
Grape	Ethephon (1.58 mg/kg)	Peru	RASFF, administrative sanction
Grape	Ethephon (1.08 mg/kg)	Peru	RASFF, importer informed
Grape	Carbendazim (0.69 mg/kg, 2.6 mg/kg)	India	RASFF, importer informed
Pitahaya	Carbendazim (2.8 mg/kg)	Vietnam	RASFF, administrative sanction
Yard long bean	Carbofuran (0.19 mg/kg), Di/Omethoate (sum 2.6 mg/kg)	Cambodia	RASFF, importer informed
Papaya	Carbendazim (0.54 mg/kg)	Malaysia	RASFF, importer informed
Grape	Methomyl (0.12 mg/kg)	Australia	RASFF, administrative sanction
Mango	Tebuconazole (0,46 mg/kg)	Pakistan	RASFF, administrative sanction
Strawberry	Oxamyl (0.21 mg/kg)	Egypt	RASFF, destroyed at EU-border
Chinese broccoli	Chlorfenapyr (0.22 mg/kg)	China	RASFF, destroyed at EU-border
Chinese broccoli	Difenoconazole (2.1 mg/kg)	China	RASFF, destroyed at EU-border
Pitaya	Carbendazim (0.94 mg/kg)	Vietnam	RASFF, destroyed at EU-border
Chinese broccoli	Fluopicolide (4.6 mg/kg), carbendazim (2.1 mg/kg), propamocarb (48 mg/kg)	China	RASFF, destroyed at EU-border
Chinese broccoli	Chlorpyrifos (12 mg/kg), acetamiprid (1.6 mg/kg), pyridaben (2.0 mg/kg), chlorfenapyr (2.1 mg/kg)	China	RASFF, destroyed at EU-border
Grape	Ethephon (1.1 mg/kg)	South Africa	RASFF, administrative sanction

RASFF: Rapid alert system for food and feed.

Table 101: Actions taken for the non-compliant samples

Action taken[(a)]	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	17	Eleven in the framework of the national control plan, six as a result of 669/2009 import control
Administrative sanctions (e.g. fines)	42	-
Rejection of a non-compliant lot at the border	68	Six samples led to a RASFF notification as well
Warnings to responsible food business operator	48	Sample taken before customs release

RASFF: Rapid alert system for food and feed.

Table 102: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of a pesticide not approved in the EU[(c)]			
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Dimethoate (pak choi)	1	-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Fluopyram (celery)	1	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	Chlormequat (pear)	1	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	Ethoxyquin (bakery products)	2	-

MRL: maximum residue limits; GAP: good agricultural practice; PHI: pre harvest interval.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

22.4. Quality assurance

Table 103: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
NL	Dutch Food and Consumer Product Safety Authority	NVWA	1/8/1998	RVA	EURL, FAPAS

22.5. Processing factors

The processing factors used by national competent authorities to verify compliance of processed products with EU MRLs are given in Table 104.

Table 104: Processing factors

Pesticide (report name)	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
All	Grape	Raisin	3.1	-
All	Grape	Wine	1	-
Fat soluble	Oil seeds	Oil	Oil percentage	Agreement on oil content with oil-producing industry

RAC: raw agricultural commodity.

23. Norway

23.1. Objective and design of the national control programme

The Norwegian Food Safety Authority (NFSA) is the competent authority for the enforcement of pesticide residues monitoring in Norway.

The Norwegian monitoring programme for pesticide residues in fresh fruit and vegetables, cereals, baby food, animal products and some other products in recent years included approximately 1,400 samples. In addition to the monitoring programme, this report also includes official controls on imports of certain feed and food of non-animal origin, Regulation (EC) No 669/2009 (border control samples).

The number of each commodity and the percentage of imported vs. domestic samples are based on Norwegian statistics for food consumption rates, the risk for residues, previous Rapid Alert System for Food and Feed (RASFF) notifications and the national 3-year plan. The criteria for taking organically grown samples are dependent on their market share and their availability on the market. The sampling includes products that are important in the Norwegian diet, but more sporadic products are included as well.

The balance of organic and conventional products in the national monitoring programme was almost the same as in previous years in Norway. In 2014, 83 samples were analysed.

Inspectors from the NFSA collected monitoring samples mainly from import and wholesale warehouses in different parts of Norway. Some samples were also collected at farms or retail sites.

In 2014, Norway gave five RASFF notifications, all of them from the national monitoring programme.

The Norwegian Institute of Bioeconomy Research (NIBIO) was responsible for analysing the samples of fruit, vegetables, baby food and cereals. The NIBIO produced the sampling plan and the annual reports in cooperation with the NFSA. NMBU School of Veterinary Medicine, Food Safety and Infection Biology analysed samples of animal origin.

23.2. Key findings, interpretation of the results and comparability with the previous year results

In total, 1,465 samples were analysed for pesticide residues in Norway in 2014. Ninety-three of these samples were from the border control (in line with Regulation (EC) No. 669/2009); the remainder (1,372) were from the national monitoring programme.

In the ordinary monitoring programme (border control not included), the samples came from 63 different countries and included approximately 100 different commodities. Twenty-three samples had residues above the maximum residue limits (MRL). Eighteen samples were considered as non-compliant after the measurement uncertainty was taken into account. One domestic sample had residue levels that exceeded the MRL. Five samples that exceeded the MRL were assessed to cause an acute health risk.

In addition to the samples from the monitoring programme, different residues above the MRL were detected in 15 samples taken as a part of the border control. One sample from border control had RASFF notifications in 2014.

There were no findings of pesticide residues in samples of animal origin or in baby food.

Every sample, except those of animal origin, were analysed using two multi-residue methods (MRM) and covered 330 different pesticides, including some isomers and metabolites. Some samples were also analysed using a single-residue method (SRM).

The reported higher MRL exceedance rate in enforcement samples of imported food is ascribed to the increased control of certain imported food in accordance with Regulation (EC) No 669/2009.

23.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In total, 2.2% of the samples (32 samples) were found to be non-compliant with the European Union (EU) MRL. There were RASFF notifications for five of the samples. All products from the monitoring programme (not from the border control) for which samples were found to be MRL non-compliant were already released on the market. These consignments were withdrawn as soon as possible. The pesticides found were compared with the MRLs and the measurement uncertainty was taken into consideration for all samples.

Table 105: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	6	
Administrative sanctions (e.g. fines)	0	-
Lot recalled from the market	1	-
Rejection of a non-compliant lot at the border	14	-
Destruction of non-compliant lot	14	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	6	-
Warnings to responsible food business operator	32	Eighteen monitoring and 14 from border control
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	All Norwegian produced products with non-compliance were followed up by local authority
Other actions	-	

Because we do not follow-up imported products at the farm or food business abroad, we are not able to draw conclusions about the possible reasons for the non-compliant samples.

23.4. Quality assurance

Table 106: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Norway	NIBIO, Plant Health, Pesticide Chemistry	NIBIO	27/4/1995 Valid to 22/11/2017	Norwegian Accreditation	EUPT-FV-16, EUPT-SRM9, EUPT-T02, EUPT-CF8
Norway	NMBU. School of Veterinary Medicine, Food Safety and Infection Biology	NMBU	30/6/1999 Valid to 12/12/2017	Norwegian Accreditation	EUPT-AO-09

23.5. Processing factors

No processing factors were used for the non-compliant samples.

23.6. Additional information

According to Regulation (EU) No 788/2012 (the coordinated multiannual control programme), some pesticide residues can be analysed on a voluntary basis. Voluntary pesticides that are included in the MRM are analysed for all samples. The voluntary analyses of pesticide residues that have to be analysed with SRM were analysed in small amounts and some were not analysed at all.

Norway has a delay in the implementation of new legislations/new MRLs. New legislations have to be approved in the European Economic Area (EEA) Joint Committee before implementation, which will cause a delay compared with the rest of the EU.

24. Poland

24.1. Objective and design of the national control programme

The State Sanitary Inspection is the competent authority for the control of pesticide residues in food of plant and animal origin, including baby food. It is also responsible for elaboration of the national programme for pesticide residue control and coordination of all activities. The national control plan includes monitoring and official control, as well as the coordinated European Union (EU) monitoring programme.

The objectives of this programme are to test food available in the Polish market for the possible presence of pesticide residues in order to establish levels of compliance with maximum residue levels (MRL), assess consumer exposure and monitor pesticide residues surpassing admissible levels as a basis for follow-up and enforcement action.

The 2014 national programme was designed to control 2,201 samples and 49 different food commodities.

The national plan for 2014 was developed taking into considerations several factors:

- conditions of Polish agriculture and cultivation area of crops;
- commodities with high residues levels, where the MRLs were exceeded in previous years, high Rapid Alert System for Food and Feed notification rate;
- origin of food (domestic, EU, third countries), focusing on countries with high non-compliance rates in the past;
- the balance of organic and conventional production;
- the preferences of Polish consumers, relevance of a food product in the diet;
- food consumed by infants and children.

The food samples were collected, according to the sampling plan at different marketing levels, mainly from the market, at wholesalers or importers, and sometimes from food producers. The sampling strategy was mainly random sampling except when it was suspected that a product did not meet the requirements.

The basis for the selection of pesticides was the EU-coordinated multi-annual control programme. In addition, the scope of the pesticides tested was expanded to pesticides registered for use in Poland and used in practice by farmers. Other aspects for the selection of pesticides were:

- RASFF notifications for a pesticide;
- cost of analysis and analytical capacity of the official laboratories.

24.2. Key findings, interpretation of the results and comparability with the previous year results.

In 2014, a total of 2,201 samples was taken and analysed for the presence of pesticide residues. Furthermore, 34 samples were taken within the framework of border control (Regulation (EC) No 669/2009). Of the total number of samples taken, 65.4% were of domestic origin, 23% originated from EU countries and 10.4% were from third countries (TC). The origin could not be confirmed for 1.2% of the samples. Samples were collected depending on their availability on the market, and were mainly fresh or frozen. No detectable residues were found in 1,259 samples (57.2% of all samples). Compared with 2013, the percentage of samples without residues decreased. Of the 2,201 samples tested, 857 (38.9%) contained one or more pesticide residues below or equal to the maximum residue limits (MRL). The most residues were detected in grapes and mandarins, with 100% of samples having residues. A high percentage of samples with residues was also observed for oranges (98% of samples), bananas (98.3%) and cucumbers (82%). In 2014, 33 organic samples were collected and tested. Chlorpropham residue was found in one organically grown potato sample. As in 2013, no residues were found in baby food and products of animal origin. Results summarised per group are presented in Tables 107 and 108.

Table 107: Summary results (monitoring and official control)

	Number of samples taken	**Number of samples with no residues (%)**	**Number of samples with residues ≥ LOQ and ≤ MRL (%)**	**Number of samples with residues > MRL (%)[(a)]**
Fruits	614	166 (27%)	434 (70.7)	14 (2.3)
Vegetables	879	524 (59.6)	331 (37.7)	24 (2.7)
Cereals	179	136 (91.1)	40 (7.8)	3 (1.1)
Baby food	169	169 (100)		-
Mushrooms	40	24 (60)	16 (40)	-
Animal products	220	220 (100)		-
Tea leaves	36	11 (30.6)	15 (41.7)	10 (27.7)
Processed products (olive oil)	30	9 (30)	21 (70)	-
Total	2,167	1,259	857	51

LOQ: limit of quantification; MRL: maximum residue limits.
(a): the measurement uncertainty was not taken into account (numerical exceedances).

Table 108: Summary results (border control)

	Number of samples taken	Number of samples with no residues (%)	Number of samples with residues ≥ LOQ and ≤ MRL	Number of samples with residues > MRL (%)[(a)]
Fruits	7	2 (28.6)	3 (42.8)	2 (28.6)
Vegetables	5	2 (40)	2 (40)	1 (20)
Tea leaves	22	1 (4.5)	12 (54.5)	9 (41)
Total	34	5	17	12

LOQ: limit of quantification; MRL: maximum residue limits.
(a): the measurement uncertainty was not taken into account (numerical exceedances).

The most frequently detected pesticides were azoxystrobin, boscalid, chlorpyrifos, cyprodinil, imazalil and fludioxonil.

The highest pesticide concentration found was 22.5 mg/kg for azoxystrobin and 28.8 mg/kg for dithiocarbamates in one sample of lettuce of domestic origin.

24.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Residues exceeding the MRL set in EU legislation were found in 63 samples (2.9%). Taking into account measurement uncertainty, only 24 samples (1.1%) were found to be non-compliant. A risk assessment was usually performed for residues above the MRL and then appropriate actions were taken. In all cases, there was no risk to consumers. The exceedances were mostly detected in parsley, cucumbers, lettuce, spinach, radish, Chinese cabbage, grapes and tea. Main MRL violations were observed for samples of tea. Compared with 2013, the rate of non-compliant samples observed was higher (0.5% in 2013 and 0.8% in 2014), but was still at a low level.

Table 109: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	5	Samples from border control (669/2009)
Administrative sanctions (e.g. fines)	14	-
Lot recalled from the market		-
Rejection of a non-compliant lot at the border	4	Amitraz in dried goji berries from China
		Acetamiprid in black tea leaves from China
		Omethoate and imidacloprid in green tea from China
		Dried seaweed from China
Destruction of non-compliant lot	1	Malathion in fresh oranges from Egypt
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	-	-
Warnings to responsible food business operator	-	-
Other follow-up investigations to identify reason for non-compliance or responsible food business operator	-	-
Other actions	-	-

In most cases, information about possible reasons for non-compliance was not available.

Table 110: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of a pesticide not approved in the EU[(c)]	Trifluralin (parsley)	1	Samples of domestic origin
	Procymidone (fresh bean with pods)	1	
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	-	-	-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	-	-	-
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Cross-contamination: spray drift or other accidental contamination	-	-	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	Dithiocarbamates (cauliflower)	1	-
Changes of the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	Tolfenpyrad (tea)	1	-

MRL: maximum residue limits; GAP: good agricultural practice; PHI: pre harvest interval.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

24.4. Quality assurance

The collected samples were analysed in five official laboratories. All laboratories are assessed and accredited in accordance with the EN ISO/IEC 17025 by the Polish Centre for Accreditation. Two multi-residue methods (MRM) and three single-residue methods (SRM) were used for analysis.

Table 111: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Poland	Voivodship Sanitary – Epidemiological Station in Warszawa	LAB 1 (NRL)	19/10/2004	The Polish Centre for Accreditation	EUPT-FV-16, EUPT-CF8, EUPT-T02, COIPT-14
Poland	Voivodship Sanitary – Epidemiological Station in Łódź	LAB 2	3/1/2006	The Polish Centre for Accreditation	EUPT-FV-16
Poland	Voivodship Sanitary – Epidemiological Station in Opole	LAB 3	15/11/2004	The Polish Centre for Accreditation	EUPT-CF8, EUPT-FV-16
Poland	Voivodship Sanitary – Epidemiological Station in Rzeszów	LAB 4	18/6/2004	The Polish Centre for Accreditation	EUPT-AO9
Poland	Voivodship Sanitary – Epidemiological Station in Wrocław	LAB 5	8/12/2005	The Polish Centre for Accreditation	EUPT-FV-16

24.5. Processing factors

The complied processing factors used by the national competent authorities to verify compliance of processed products with EU MRLs are given in Table 112.

Table 112: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor[(b)]	Comments
Chlorpyrifos	Olives for oil production	Olive oil	5	-
Cypermethrin				
Oxyfluorfen				
Amitraz	Goji berries	Dried goji berries	3	-
Acetamiprid				
Fenpropatrin				
Difenoconazole				
Propargite				
Carbendazim				
Thiophanate methyl				
Carbofuran				
Tebuconazole				
Cypermethrin				

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

25. Portugal

25.1. Objective and design of the national control programme

When defining the food products to be analysed in the national control programmes high or low importance was given to one or several factors listed below:

- relevance of a food product in the diet or in national agricultural production (high importance);
- food products with a high non-compliance rate identified in the previous years (high importance), Rapid Alert System for Food and Feed (RASFF) notification rate (high importance);
- unprocessed (high importance) or processed products (low importance);
- food relevant for sensitive group of consumers (e.g. baby food) (low importance);
- organic, low or conventional products (high importance);
- sampling of products during main marketing season (high importance), outside the main marketing season (e.g. strawberries during winter) (low importance);
- sample origin reflecting geographic distribution of food products consumed (e.g. domestic, European Union, third countries) (high importance), or focusing on countries with high non-compliance rate in the past (low importance);
- food commodities not included in European Union (EU)-coordinated programme (high importance).

For defining pesticides that should be included in national control programmes the following aspects were taken into consideration:

- RASFF notifications for a pesticide;
- use pattern of pesticide;
- toxicity of the active substance;
- cost of analysis (single-residue method/multiple-residues method);
- capacity of the laboratories (high importance);
- those defined in Regulation (EU) No 788/2012 (high importance).

25.2. Key findings, interpretation of the results and comparability with the previous year results

Table 113: Summary results for 2014

Samples	Total	Number of samples without residues (%)	Number of samples with residues below MRL (%)	Number exceeding MRL (%)	Number non-compliant (%)
Cereals	20	15 (75)	5 (25)	0 (0.00)	0 (0.00)
Processed products	26	10 (38)	15 (58)	1 (3.80)	0 (0.00)
Sum of fruits and nuts, vegetables, other plant products	386	165 (43)	205 (53)	16 (4.10)	15 (3.9)
	432	190 (44)	225 (52)	17 (3.90)	15 (3.47)

MRL: maximum residue limits.

Table 114: Summary results for 2013

Samples	Total	Number without residues (%)	Number with residues below MRL (%)	Number exceeding MRL (%)	Non-compliant
Baby food	15	15 (100)	0 (0.00)	0 (0.00)	0 (0.00)
Cereals	18	16 (89)	2 (11)	0 (0.00)	0 (0.00)
Processed products	33	12 (36)	21 (64)	0 (0.00)	0 (0.00)
Sum of fruits and nuts, vegetables, other plant products	289	97 (34)	171 (59)	21 (7.30)	15 (5.20)
	355	140 (39)	194 (55)	21 (5.90)	15 (4.20)

MRL: maximum residue limits.

25.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 115: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification		
Administrative sanctions (e.g. fines)	8	-
Lot recalled from the market	-	-
Rejection of a non-compliant lot at the border	-	-
Destruction of non-compliant lot	4	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	3	-
Warnings to responsible food business operator	1	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-

Table 116: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
GAP not respected: use of a pesticide not approved in the EU[c]	Fenthion (mandarin)	1	
	Fenthion (apple)	1	
	Fenthion (pear)	1	
GAP not respected: use of an approved pesticide not authorised on the specific crop[c]	Dithiocarbamates (spinach)	1	
	Dimethoate/omethoate (banana)	1	
	Methomyl (banana)	1	
	Dimethoate and omethoate (apples)	3	
	Dimethoate (pear)	1	
	Chlorpyrifos (carrot)	1	
	Carbendazim (spinach)	1	
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	-	-	-
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Use of pesticide according to authorised GAP: old authorisation recently changed	Formetanate (cucumber)	-	-
	Oxamyl (cucumber)	2	

Reasons for MRL non-compliance	Pesticide[a] (food product)	Frequency[b]	Comments
Cross-contamination: spray drift or other accidental contamination	-	-	-
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes of the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[d]	Oxamyl (cucumber)	1	-

(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

25.4. Quality assurance

Table 117: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
PT	INIAV-Pesticide Residues Laboratory (LRP-INIAV)	LRP-INIAV	3/6/2005	IPAC	PT 2014: EUPT-FV-16, EUPT-CF8
PT	Veterinary and Food Safety Laboratory of the Regional Directorate of Agriculture of Madeira (LRVSA-Madeira)	DAR	8/7/2011	IPAC	PT 2014: EUPT-FV-16, EUPT-CF8, EUPT-SRM9, APMP-APLAC-T094

25.5. Processing factors

No processing factors were used.

26. Romania

26.1. Objective and design of the national control programme

In Romania, three competent authorities are involved in the elaboration and implementation of the national control programme for pesticides residues: the National Sanitary Veterinary and Food Safety Authority (NSVFSA), the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Health (MH).

The NSVFSA (the coordinator) has responsibility for preparing the national multi-annual control programme for pesticide residues in cooperation with the other two competent authorities. The NSVFSA also has responsibility for the elaboration and implementation of its own national programme for surveillance and control for food of plant and animal origin.

Implementation of national programme for surveillance and control for food of plant and animal origin is performed by sanitary veterinary and food safety county divisions and border inspection posts.

The programme sets the samples of food of plant origin from Member States and third countries (TC), the point of sampling and the active substances to be analysed.

In the 2014 monitoring programme, 36 commodities were included.

The numbers of active substances analysed were 145 for fruits, vegetables and cereals, and 150 (145 plus chlorfenapyr, trifluralin, mandipropamid, formetanate hydrochloride and fipronil) for olive oil and tea.

The MARD has responsibility for the national monitoring plan for pesticides residues in fruits, vegetables and cereals from the domestic market.

Implementation of the monitoring programme is performed by MARD through the Laboratory for Pesticides Residues Control in Plants and Vegetable Products and the Zonal Laboratory for Pesticides Residues determination in Plants and Vegetables Products – Mures, which analyses samples taken by counties and Bucharest phytosanitary units.

In the 2014 MARD monitoring programme, 1,509 samples of 43 agricultural products were planned and 1,711 samples were analysed. The number of active substances has increased from 179 in 2012 to 220.

From a total of the 1,711 surveillance samples that included 491 fruit, 1,055 vegetables and 165 cereals, 237 samples had pesticide residues with values below the maximum reside limits (MRL) and 4 samples had pesticide residues above the MRL. In 2013, five organic samples were analysed.

The MH is responsible for the monitoring and control of pesticide residues in food for special nutritional purposes within the national programme for monitoring of environmental and working life determinants – sub-programme for public health protection by preventing diseases associated with food and nutrition risks factors.

The MH analysed 40 samples in 2014, all of which complied with the legislative provisions.

The following factors were considered in designing the national control plan:

- food commodities with high residue levels/non-compliance rate in previous monitoring years
  - all data from the last 3 years were compared and the products with high residue levels were selected for analysis at a higher frequency: lettuce, spinach, lemons, grapefruit, mandarins, oranges, peppers, tomatoes, table grapes and wine grapes;
- origin of food
  - compared with 2013, in 2014 the number of samples analysed for pesticide residues from the domestic market was increased (from 50% in 2013 to 62% in 2014) as was the number of samples from the European Economic Area (EEA) (from 9.7% in 2013 to 10% in 2013). The number of samples from third countries (TC) was reduced (from 40% in 2013 to 27% in 2014), as shown in Table 118.

- sampling at different marketing levels: farm gates, wholesaler, importer, border inspection, farming, slaughterhouse;
- the seasonal availability of food commodities;
- Rapid Alert System for Food and Feed (RASFF) notifications;
- food for sensitive consumer groups, e.g. baby food;
- the importance of the commodity in the country of production.

Table 118: Summary results by sample origin

Origin of samples	2012 (%)	2013 (%)	2014 (%)
Domestic market	69	50	62
European Economic Area	9.9	9.7	10
Third countries	21	40	27
Unknown	0.15	0.28	0.19

Determination of which products to select for pesticide residues testing is made by taking into consideration statistical data presented by the National Institute of Statistics (production of main agricultural products per inhabitant). Thus, a great number of samples were planned for:

- cereals (wheat), fruits (apples, grapes) and vegetables (potatoes, tomatoes);
- food commodities not included in the EU-coordinated programme;
- pesticides included in the EU-coordinated programme;
- pesticides from the national control programmes; Romania considers the use pattern of pesticides, the cost of the analysis, the use of multiple-residue methods and the capacity of the testing laboratories when determining which pesticides to include.

26.2. Key findings, interpretation of the results and comparability with the previous year results

Compared with 2012 and 2013, in 2014 the number of samples with residues below the MRL was increased (from 25% in 2012 and 30% in 2013 to 33% in 2014) and the number of samples exceeding the MRL was also increased (from 0,2% in 2013 to 0,9% in 2014) – as presented in Table 119. The number of pesticides reported remained the same as in 2013 (310). Pesticides were validated according to SANCO 12495/2011.

Table 119: Summary results by control year

Samples	2011	2012	2013	2014
Number without residues (%)	2,815 (75)	2,497 (74)	3,167 (70)	2,748 (66)
Number with residues below MRL (%)	924 (24)	839 (25)	1,351 (30)	1,370 (33)
Number exceeding (%)	35 (1.0)	31 (0.9)	10 (0.2)	37 (0.9)
Number non-compliant (%)	24 (1.0)	31 (0.9)	10 (0.2)	11 (0.3)
Total	3,775	3,367	4,528	4,155

MRL: maximum residue limits.

In 2014, a total of 4,155 samples was taken in order to check the MRL compliance of pesticide residues in different crops. Of these, 4,107 samples were taken under the surveillance strategy and

48 samples were taken under the enforcement strategy. Sixty-five organic samples were analysed in 2014.

Of the samples taken, 1,511 were vegetables, 1,476 were fruits and nuts, 322 were cereals and 645 were of animal origin.

From the total of 4,107 surveillance samples, which included fruit, vegetables, cereals, processed products (including baby food) and animal products, 2,590 were produced in Romania, 425 were produced in the EU, and 1,084 samples were produced outside the EU.

Of the 4,155 samples analysed, 2,748 (66%) were without pesticides residues, 1,370 (33%) had residues below the MRL, 37 (0.9%) had residues exceeding the MRL and 11 (0.3%) samples were non-compliant.

The most frequently detected pesticides were:

- animal products – chlordane (sum animal products), dichlorodiphenyltrichloroethane (sum), endosulfan (sum), alpha-isomer hexachlorocyclohexane (HCH), beta-isomer HCH and lindane (gamma-isomer of HCH);
- cereals – chlorpyrifos-methyl, fenpropidin and pirimiphos-methyl;
- fruit and nuts – acetamiprid, azoxystrobin, boscalid, captan, carbendazim, carbendazim and benomyl, chlorpyrifos, cypermethrin (sum), cyprodinil, difenoconazole, fenhexamid, fludioxonil, imazalil, iprodione, lambda-cyhalothrin, metalaxyl, orthophenylphenol, prochloraz, propiconazole, pyrimethanil, tebuconazole and thiabendazole';
- vegetables – acetamiprid, azoxystrobin, boscalid, carbendazim and benomyl, chlorothalonil, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, cyprodinil, fludioxonil, imidacloprid, iprodione, metalaxyl, pendimethalin, propamocarb, pyraclostrobin, pyrimethanil, tebuconazole and thiophanate-methyl.

The highest concentration was for thiophanate-methyl in strawberries (3.080 mg/kg).

Two or more pesticide residues were found in 748 of the samples. Below are some products with different number of pesticide residues:

- grapefruit – 102 samples with two to six residues, 85 samples (83.33%) were from Turkey;
- lemons – 78 samples with two to five residues, 61 samples (78.21%) were from Turkey;
- apples – 41 samples with two to five residues, 28 samples (68.3%) were from Romania;
- mandarins – 45 samples with two to six residues, 41 samples (91.1%) were from Turkey;
- oranges – 65 samples with two to five residues, 20 samples (30.8%) were from Turkey and 36 (55.38%) were from Egypt;
- tomatoes – 46 samples with two to five residues, 20 samples (43.47%) were from Romania and 19 (41.30%) were from Turkey.

All the data presented above will be taken into account when amending the national control programme for pesticide residues next year.

26.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

From 4,155 samples in 2014, 11 were found to be non-compliant with the EU MRL. RASFF notifications were issued for two samples; samples administrative consequences were taken for two samples and administrative consequences and follow-up (suspect) sampling were taken for six samples. All lots from which samples were found to be MRL non-compliant were withdrawn from the market.

The follow-up actions detailed in Table 120 were taken in the case of samples non-compliant with the EU MRL (measurement uncertainty taken into consideration).

Table 120: Actions taken for non-compliant samples

Number of non-compliant samples	Action taken	Note
3	Warnings and sanctions for use of a product not authorised	Sample code: 14-0294; 14-0304; 14-0334
2	RASFF notification	Sample code: 14-0272 RASFF ref: 023/10.06.2014 14-0336 Notification RASFF; Notification nr. 204 27/06/2014
6	Administrative consequences and follow-up (suspect) sampling	Sample code: RO321-ANSVSA-30191; RO321-ANSVSA-30582; RO321-ANSVSA-30626; RO321-ANSVSA-30896; RO321-ANSVSA-31127; RO321-ANSVSA-31421

RASFF: Rapid Alert System for Food and Feed.

Table 121: Possible reasons for MRL non-compliances

Product	Residue	Reason for MRL non-compliance	Note
Strawberries	Carbendazim, thiophanate- methyl	Use of pesticide according to authorised GAP: unexpected slow degradation of residues (e.g. unfavourable weather conditions)	
Cherries (three samples)	Procymidone	GAP not respected: use of pesticide non-authorised on the specific crop	
Parsley leaves	Myclobutanil, chlorpyrifos-methyl, dimethoate (sum of dimethoate and omethoate expressed as dimethoate)	Use of pesticide according to authorised GAP: unexpected slow degradation of residues (e.g. unfavourable weather conditions)	
Tomatoes	Procymidone	GAP not respected	
Peas (without pods)	Chlorpyrifos-methyl	GAP not respected	
Beans (dry)	Malathion	GAP not respected	
Beans (dry)	Malathion	GAP not respected	
Beans (dry)	Fludioxonil	GAP not respected	
Rice	Quinoxyfen	GAP not respected	
Table grapes	Imazalil	GAP not respected	

MRL: maximum residue limits; GAP: good agricultural practice.

26.4. Quality assurance

Table 122: Laboratories participation in the control programme

Country code	Laboratory name	Laboratory code	Accreditation date	Accreditation body	Participation in proficiency tests or inter-laboratory tests
RO	Laboratory for Control Pesticide Residues in Plant and Plant Products	RO_321_ LCRPPPV	16/1/2006	RENAR-Bucharest, Romania	PT2014: CF8, FV-16
RO	Sanitary Veterinary and Food Safety Laboratory Bucharest	RO321-ANSVSA	11/4/2007	RENAR-Bucharest, Romania	PT2014: FV-16, SM06, CF8
RO	Sanitary Veterinary and Food Safety Laboratory Constanta	RO223-ANSVSA	24/5/2004	RENAR-Bucharest, Romania	EUPT-AO-09
RO	Zonal Laboratory for Pesticides Residues determination in Plants and Vegetables Products – Mures,	RO_125_ LZDRPPPV	26/4/2013	RENAR-Bucharest, Romania	
RO	Sanitary Veterinary and Food Safety Laboratory Cluj	RO113-ANSVSA	15/1/2015	RENAR-Bucharest, Romania	PT2014: EUPT-AO-09, EUPT CF8
RO	Environmental hygiene laboratory	MS-RO113-MS	LI 696/2014	RENAR-Bucharest, Romania	EUPT-CF9
RO	Sanitary Veterinary and Food Safety Laboratory Suceava	RO215-ANSVSA	5/3/2007	RENAR-Bucharest, Romania	EUPT-AO-09
RO	Institute of Hygiene and Veterinary Public Health	RO321-IISPV	1/4/2002	RENAR-Bucharest, Romania	CF8, AO-09,PT-DP-1402-CL, PT-DP-1401-SE

26.5. Processing factors

The processing factors given in Table 123 were used to report the results of the EU-coordinated monitoring programme.

Table 123: Processing factors

No.	Processed food	Processing factors
1	Olive oil	5
2	Red wine and white wine	1
3	Flour	1
4	Orange juice	1

27. Slovakia

27.1. Objective and design of the national control programme

In 2014, pesticide residue control was conducted in compliance with the multi-annual control programme for pesticide residues in food and baby food in the Slovakian Republic, issued for the years 2014–2016, (hereinafter referred to as the 'programme'), in which Commission Implementing Regulation (EU) No 788/2012 was incorporated. In developing the national plan, we focused on several priorities. To select the types and number of samples to be collected and analysed certain criteria were set such as: knowledge from sample analyses conducted the previous year, consumption and production of a given commodity in Slovakia, and Rapid Alert System for Food and Feed (RASFF) information. In selecting commodities, we focused on fresh fruit and vegetables. Within the scope of European Union (EU) monitoring 2014, the following commodities were sampled: green beans, carrots, cucumbers, oranges or tangerines, pears, potatoes, rice, spinach, wheat flour, poultry meat and liver of terrestrial animals. Beyond the scope of EU monitoring, samples were also collected from other fruit and vegetables: apples, apricots, bananas, mango, pineapple, plums, strawberries, grapes, eggplant, peas, broccoli, Chinese cabbage, cabbage, lettuce, parsley, peppers, radishes, green coffee and tea, among others. In compliance with legislative requirements, 13 samples of organic foods and 40 samples of baby foods were collected and analysed. Sampling of food of domestic origin was preferentially done at the grower's distribution warehouse, but also took place at the trade network level. For the purpose of pesticide residue analysis, the origin of the foods sampled reflected food on offer in the Slovak market and also consumption trends in Slovakia [18.8% food of domestic origin, 19.5% third countries (TC) origin, 61.3% EU origin].

The extension of analyses in 2014 to include other types of pesticides was based on the requirements of Regulation (EU) No 788/2012. In total, 373 analytes (pesticides, metabolites or isomers) were determined in the collected samples, which were analysed in two official laboratories. Food samples were analysed in the State Veterinary and Food Institute – Veterinary and Food Institute in Bratislava and samples of food for infants and young children were analysed in the Laboratory of the Public Health Authority of the Slovakian Republic. Two multi-residue methods (MRM) and five single-residue methods (SRM) were used for food analyses (besides baby foods). Ten MRM were used to analyse samples of foods for infants and young children.

27.2. Key findings, interpretation of the results and comparability with the previous year results

In total, 569 samples were analysed in 2014, of which 453 were samples of fresh or frozen fruit and fresh or frozen vegetables and potatoes. No pesticide residues were detected in 235 samples, representing 41.3% of the total number analysed [values below the limit of quantification (LOQ) of analytical methods]. One or more pesticide residues below the maximum residue limits (MRL) were detected in 322 samples (56.6% of all analysed samples). Residues exceeding the MRL were found in 12 analysed samples, 6 of which were samples of fruit and six samples of vegetables (after taking into account a 50% measurement uncertainty in the results).

Table 124: Summary results

Year	Total number of samples	Samples with no measureable residue (%)	Samples below the MRL (%)[(a)]	Samples with MRL exceedances (%)
2014	569	41.3	56.6	2.1

MRL: maximum residue limits.
(a): Including the samples with MRL exceedances after taken in the account a 50% measurement uncertainty in the results.

In compliance with the legislative requirements, 13 samples of organic foods were collected. None of the analysed samples was found to contain pesticides not permitted for use in organic farming and the production of organic foods.

In the control of food consignments from TC, we fully applied Regulation (EC) No 669/2009/EC and Regulation (EC) No 91/2013.

Multiple residues were detected in 230 samples. The highest number of detected pesticide residues (16) were found in one sample of strawberries originating from Belgium.

27.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, there were 12 non-compliant samples.

Table 125: Non-compliant samples

Sample number	Food	Country of origin	Pesticide residues above MRL (amount of pesticide detected; mg/kg)
BA2368_14	Lemon	TR	Biphenyl (0.068)
BA20384_14	Beetroot	PL	Propamocarb (0.052)
BA20047_14	Beetroot	PL	Tetraconazole (0.083)
BA18682_14	Pomegranate	TR	Acetamiprid (0.077)
BA1225_14	Table grape	PE	Diniconazole (0.087)
BA17237_14	Strawberry	BE	Prochloraz (0.55)
BA1627_14	Head cabbage	SK	Thiophanate-methyl (0.29)
BA9759_14	Lime	BR	Carbofuran (0.036)
BA21719_14	Mandarin	TR	Malathion (0.369)
BA19725_14	Parsley root	PL	Trifluralin (0.025)
BA20250_14	Radish	PL	Dithiocarbamates (6.75)
BA20246_14	Celery	PL	Prochloraz (0.18)

MRL: maximum residue limits; TR: Turkey; PL: Poland; PE: Peru; BE: Belgium; SK: Slovakia; BR: Brasil.

No finding exceeded the acute reference dose (ARfD).

In compliance with the national food legislation, in all cases, the respective administrative procedures and sanctions were carried out. In total, four notifications on non-compliant samples were sent to the Rapid Alert System for Food and Feed (RASFF).

Table 126: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	4	2014.0446 2014.0212 2014.0934 2014.1674
Administrative sanctions (e.g. fines)	7	-
Lot recalled from the market	-	-
Rejection of a non-compliant lot at the border	-	-
Destruction of non-compliant lot	-	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	3	Table grapes (PE), pomegranate (TR), limes (BR)
Warnings to responsible food business operator	-	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions	1	Carrying out subsequent checks at the grower

BR: Brasil; PE: Peru; TR: Turkey.

Table 127: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of a pesticide not approved in the EU[(c)]	Trifluralin (parsley root)	1	
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	-	-	-
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Propamocarb (beetroot)	1	-
	Tetraconazole (beetroot)	1	
	Biphenyl (lemon)	1	
	Acetamiprid (pomegranate)	1	
	Diniconazole (table grapes)	1	
	Prochloraz (strawberry)	1	
	Carbofuran (sum of carbofuran and 3-hydroxy-carbofuran expressed as carbofuran) (lime)	1	
	Malathion (sum of malathion and malaoxon expressed as malathion) (mandarins)	1	
	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram) (radish)	1	
	Prochloraz (celery)	1	
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Cross-contamination: spray drift or other accidental contamination	Thiophanate-methyl (head cabbage)	1	According to the statement of the PPP it is probably a contamination from the environment. In 2015, suspected samples will be taken from vegetables directly from the grower
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes of the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	-	-	-

GAP: good agricultural practice; PHI: pre harvest interval; PPP: plant protection products.
(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): Applicable only for food products produced outside the EU.

27.4. Quality assurance

Table 128: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
SK	State Veterinary and Food Institute - Veterinary and Food Institute Bratislava	156434	16/7/2013 Last re-accreditation	SNAS	EU Proficiency Test for Pesticides in Fruit and Vegetables 16 (EUPT-FV-16) – ALMERÍA EU Proficiency Test for Pesticides in Cereals -CF8 – Kodaň EU Proficiency Test for Pesticides in liquid whole eggs - AO-09 – Freiburg EU Proficiency Test for Pesticides in single residue methods -SRM9 - Stuttgart European Union Proficiency Test for Pesticide Residues in tea EUPT-FV-T02 - Almería
SK	Public Health Authority of the Slovakian Republic	607223	29/5/2013 Last re-accreditation	SNAS	EUPT-FV-16, EUPT-CF8

27.5. Processing factors

Table 129: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor[(b)]	Comments
Methoxyfenozide	Peppers	Sweet dried peppers	5	-
Teflubenzuron	Peppers	Sweet dried peppers	5	-
Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Wine grapes	Must of wine grapes	1	Two samples
Chlormequat	Wheat	Wheat flour	1	Three samples
Pyrethrins	Wheat	Wheat flour	1	-
Pirimiphos-methyl	Wheat	Wheat flour	1	-
Chlorpyrifos-methyl	Wheat	Wheat flour	1	-

(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

27.6. Additional information

We were not able to identify the country of origin of the food in two collected and analysed food samples. The samples collected within the trade network (rice, frozen beans).

28. Slovenia

28.1. Objective and design of the national control programme

The selection of commodities to be included in the monitoring programme was based on the following criteria:

- staple foods (presenting the most important food in national consumption, as well as foods for sensitive groups of the population, e.g. baby food);
- food included in the European Union (EU)-coordinated programme;
- food offered on the Slovenian market, data from the Statistical Office of the Slovenia on the average annual quantity of purchased food and beverages per household member were taken into account, this is covered as part of national rolling programme;
- commodities found to be non-compliant during previous year;
- problematic commodities, as evident within the Rapid Alert System for Food and Feed (RASFF) database.

The inspection services responsible for official control sampled commodities at primary production sites and at other stages of the food chain: wholesale, retail, open markets and shops. Sampling took into account the seasonal availability of a product; however, if a commodity was present on the market throughout of the year the sampling period was extended. For this reason, the samples taken were of domestic, EU and third countries (TC) origin. Where commodities from organic production were available, they were included in the sampling. In addition to fresh commodities, processed products were also included in the sampling programme.

Which pesticides to detect were primarily determined using data on the national use of pesticides, the potential for residues based on use pattern, the toxicological profiles of the pesticides, a preference list of active substances prepared by reference laboratories, data from the CIRCA-RASFF database, the analytical capabilities of the laboratories and those pesticides mentioned in Commission Regulation (EU) No 915/2010 on EU coordinating programme. Financial constrains were also taken into account.

28.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, a total of 772 samples of food was analysed for pesticide residues in Slovenia, including: 40 samples of animal products, 10 sample of baby food, 248 samples of fruits and nuts, 362 samples of vegetables, 70 samples of cereals, and 42 samples of other products of plant origin. There were 458 (59%) samples without any detectable residues, 302 (39%) samples with residues below or at the EU maximum residue limits (MRL) and 12 (1.6%) samples with residues exceeding the EU MRL, of these, 4 (0.5%) samples were non-compliant. The origins of the samples were as follows: 308 (40%) samples were domestic, 333 (43%) were from the European Economic Area, 130 (16.8%) were from TC and 1 (0.13%) sample was from unknown countries.

Samples of animal products were analysed for the presence of up to 64 (38 in 2013) pesticides. All 40 surveillance samples (100%) had no detectable pesticide residues.

Samples of baby food (infant and follow-on formula) were analysed for the presence of 360 pesticides including other active substances, metabolites or breakdown products where the definition of a pesticide residue includes those substances. In 2014, all 10 surveillance samples (100%) had no detectable residues (the same as in 2013).

Samples of fruits and nuts were analysed for the presence of up to 337 (331 in 2013) pesticides. Of 231 surveillance samples, 75 (32%) had no detectable residues, 156 (67.5%) had residues below or at the EU MRL and 1 (0.4%) had residues exceeding the EU MRL, although no sample was non-compliant.

Samples of other plant products were analysed for up to 321 pesticides. Of 41 surveillance samples, 32 (78%) had no detectable residues, 9 (22%) had residues below or at the EU MRL and 3 (7.3%) had residues exceeding the EU MRL, of which 2 (4.8%) were non-compliant.

Samples of cereals were analysed for up to 332 pesticides. Of 70 surveillance samples, 54 (77%) had no detectable residues and 16 (23%) had residues below or at the EU MRL.

Samples of vegetables were analysed for the presence of up to 334 (333 in 2013) pesticides. Of 352 surveillance samples, 246 (70%) had no detectable residues, 99 (28%) had residues below or at the EU MRL and 7 (2%) had residues exceeding the EU MRL, of which 2 (0.6%) were non-compliant.

28.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Follow-up actions were taken for non-compliant samples that exceeded legal limits.

In 2014, 0.5% of the samples (4 of 772 samples taken) were found to be non-compliant with the EU MRL. All were assessed as safe for consumers. Two consignments had already been consumed (kohlrabi, lettuce), one consignment (dried beans) was partially destroyed after import and partially rejected at the border and one consignment (dried beans) was rejected at the border. For two samples, administrative sanctions and follow-up activities were undertaken.

The actions taken in the case of samples non-compliant with the EU MRL are shown in Table 130.

Table 130: Actions taken for non-compliant samples

Number of non-compliant samples	Action taken	Note
1	Destruction /rejection of non-compliant lot	-
1	Rejection of a non-compliant lot at the border	-
2	Warning and/or administrative sanctions	-

Table 131: Possible reasons for MRL non-compliances

Product	Residue	Reason for MRL non-compliance	Note
Dried beans	Malathion	Use of a pesticide on food imported from third countries for which no import tolerance was set	-
Lettuce	Acrinathrin Cyazofamid	GAP not respected: use of an approved pesticide not authorised on the specific crop	-
Kohlrabi	Dimethomorph	GAP not respected: application rate and/or application method not respected	-

MRL: maximum residue limits.

28.4. Quality assurance

Table 132: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
Slovenia	National	IPH/NLZOH	14/12/2001	Slovenian	Year 2014:

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
	Laboratory of Health, Environment and Food			Accreditation	1. EUPT-FV-16 2. Screening EUPT-SM06 3. EUPT-AO-09 4. EUPT-CF8 5. Single method EUPT-SRM9

28.5. Processing factors

Table 133: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
Chlormequat	Wheat	Wheat flour	1	
Pirimiphos-methyl	Wheat	Wheat flour	0.76	-
Pirimiphos-methyl	Rice	Rice	1	-
Tricyclazole	Rice	Rice	1	-

RAC: raw agricultural commodity.
(c): Report name as specified in the MatrixTool.
(d): Processing factor for the enforcement residue definition.

29. Spain

29.1. Objective and design of the national control programme

29.1.1. Objectives

The objectives of the national control programme are to ensure that official controls are carried out in order that:

- food products treated using unauthorised pesticides are not placed on the market;
- food products with pesticide residues levels above those established in the regulations in force, such that they may pose a health risk to consumers, are not placed on the market.

29.1.2. Responsibilities

Elaboration and implementation of the national control programme involve:

- the Directorate General of Public Health, Quality and Innovation of the Ministry of Health, Social Services and Equal Opportunities (MSSSI);
- the Sub-Directorate General of the Coordination of Alerts and Programming Official Control of Spanish Agency for Consumer Affairs, Food Safety and Nutrition (AECOSAN).

Each unit is assigned duties regarding coordination or execution within its scope.

AECOSAN is an autonomous body under the Ministry of Health, Social Services and Equal Opportunities and acts as a liaison between the Commission and the European Food Safety Authority (EFSA) and the autonomous communities, which are the competent authorities for the execution of programmes at a regional level.

A specific working group comprising members of the autonomous communities, MSSSI, AECOSAN, the Ministry of Agriculture, Food and Environmental Affairs (MAGRAMA) and the testing laboratories, was created in January 2014 to improve risk-based programming and set common criteria for the different control units throughout Spain. Currently, the working group is preparing a guidance document to support control units in their programming duties.

29.1.3. Design of programmes

The national programme is made up of two sub-programmes based on the point at which samples are collected: the market sub-programme, coordinated by AECOSAN, and the imports sub-programme, coordinated by MSSSI.

29.1.4. Official controls on residues

The national pesticide residues control programme integrates controls performed by the AACC. AECOSAN is responsible for coordination of the control programme. Annual plans developed by AACC and coordinated by AECOSAN include the monitoring of unauthorised products.

29.1.5. Criteria taken into account in programme design

Sample selection included:

- products listed in the Regulation concerning a coordinated multi-annual control programme of the European Union (EU) for 2014, 2015 and 2016, aimed at ensuring the enforcement of maximum residue limits (MRL) for pesticides in or on food of animal or plant origin, and to assess the degree of consumer exposure to these residues;
- the Spanish diet model for determining exposure to consumer chemicals;
- food intended for populations at risk (baby food);
- products with a high consumption in each region;
- Rapid Alert System for Food and Feed (RASFF) notifications;

- non-compliant results obtained in previous years.

Pesticide residues selection included:

- information services on plant health from the Ministries of Agriculture based on recent inspections, prohibited use of pesticides, etc.;
- the pattern of use of plant-protection products (commonly used, time of application);
- frequency of findings of residues of these active substances in reporting plans (national and EU) and official control from prior years;
- the toxicity of the active substances;
- recent changes in the MRL or withdrawal of authorisations for the use/approval of active substances;
- the accreditation, analytical capacity and resources of the testing laboratory.

The sampling strategy was that:

- staff responsible for sampling are inspectors of the autonomous communities;
- samples taken at border inspection posts/points of entry are taken by staff from the General Directorate of Public Health;
- taking into account the conclusions of the working group mentioned, some changes are planned (or expected) for the 2017 programme.

29.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, a total of 2,384 samples was analysed for pesticide residues, compared with 2,159 samples analysed in 2013. Of the 2,384 samples, 2,204 were surveillance samples and 180 were enforcement samples. Regarding the sampling strategy, 91.5% were objective samples and 7.55% were suspect samples. The 7.55% (180 samples in total) suspect samples included 19 domestic samples and 161 samples from third countries (TC), mainly fruits and vegetables. There was an increase in the number of samples from TC because application of Regulation (EC) No 669/2009 requires an increased level of official controls on imports of certain feed and food of non-animal origin.

In 2014, 1.3% of the samples analysed had pesticide residues levels exceeding the EC MRL, compared with 1.7% of the samples in 2013.

Some new detection methods have been implemented in Spanish laboratories to increase the number of pesticide residues measured and to reduce detection limit for some of them.

Most of the samples were analysed using multi-residue methods (MRM). The methods used were:

- high-performance liquid chromatography (HPLC)/liquid chromatography (LC);
- gas chromatography (GC);
- gas chromatography with pulsed flame photometric detector [GC-(P)FPD];
- gas chromatography with electron capture detector (GC-ECD);
- gas chromatography with flame ionisation detector (GC-FID);
- gas chromatography with mass spectrometry (GC-MS);
- gas chromatography with tandem mass/mass spectrometry (GC-MS-MS);
- liquid chromatography for microcystin with mass spectrometry (LC-LR-MS);
- liquid chromatography with mass spectrometry (LC-MS);
- liquid chromatography with tandem mass/mass spectrometry (LC-MS/MS);
- liquid chromatography with tandem mass/mass spectrometry (QqQ) [LC-MS-MS (QqQ)].

All the laboratories have procedures for estimating analytical uncertainty, which is taken into account when deciding any enforcement action. Document SANCO/12571/2013 is also considered.

In 2014, all of the analytical determinations were performed in accredited laboratories, and our main objective was reached.

29.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

In 2014, the total number of samples in both the coordinated programme and the national Spanish programme 2384: of these, 1,316 (55.20%) samples were taken from fruits, vegetables and other plant products; 237 (9.94%) samples were from processed products, 52 (2.18%) samples were from cereals; 111 (4.65%) samples were from baby food; 667 (27.97%) samples were from animal products, and 1 (0.04%) sample was from other products.

In total, 30 samples (1.3%) were found to be non-complaint with the EU MRL. Twenty-seven samples of fruits, vegetables and other plant products exceeded the MLR; one sample of animal products and two samples of processed products also exceeded the MLR. No cereal or baby food samples were above the MRL. Of the 30 samples that were non-compliant, 14 were of domestic origin and 16 were imported.

The following pesticides were found at levels above the MLR:

- in/on fresh or frozen fruit
  - fluopyram
  - iprodione
  - pyrimethanil
  - cyprodinil
  - fenhexamid
  - metalaxyl
  - metalaxyl-M [metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers)]
  - propargite
  - chlorfenapyr
  - buprofezin
  - 2-phenylphenol
  - diphenylamine
  - fludioxonil
  - imazalil;
- in/on fresh or frozen vegetables
  - cypermethrin
  - propiconazole
  - tebufenpyrad
  - cypermethrin [cypermethrin including other mixtures of constituent isomers (sum of isomers)]
  - 2,4-D (sum of 2,4-D and its esters expressed as 2,4-D)
  - biphenyl

  - parathion-methyl (sum of parathion-methyl and paraoxon-methyl expressed as parathion-methyl)
  - lufenuron
  - dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram)
  - endosulfan (sum of alpha- and beta-isomers and endosulfan-sulfate expresses as endosulfan)
  - myclobutanil;
- in/on animal products
  - permethrin (sum of isomers);
- in/on processed products
  - piperonyl butoxide.

Information about samples, reasons for MRL non-compliance and actions taken regarding non-compliant samples is given in Tables 134 and 135.

Table 134: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Administrative sanctions (e.g. fines)	6	14ES243-000000014165; 14ES300-000000015465; 14ES300-000000015468; 14ES300-000000015470; 14ES300-000000015479; 14ES300-000000015486
Lot recalled from the market	21	14ESZZZ-000000014527; 14ESZZZ-000000014534; 14ESZZZ-000000014536; 14ESZZZ-000000015039; 14ESZZZ-000000015062; 14ESZZZ-000000015084; 14ESZZZ-000000015093; 14ESZZZ-000000015147; 14ESZZZ-000000015150; 14ESZZZ-000000015207; 14ESZZZ-000000015246; 14ESZZZ-000000015250; 14ESZZZ-000000015250; 14ESZZZ-000000015250; 14ESZZZ-000000015424; 14ESZZZ-000000015250; 14ESZZZ-000000015440; 14ESZZZ-000000015439; 14ESZZZ-000000015440; 14ES300-000000015481
Other actions [(a)]	9	14ES243-000000014205; 14ES241-000000014248; 14ES511-000000014304; 14ES425-000000015021; 14ES425-000000015024; 14ESZZZ-000000015306; 14ES511-000000015406; 14ES511-000000015406; 14ES521-000000015004

(a): Official sampling; special follow-up; communication to the competent authority of the sample's origin.

Table 135: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
Bad practices	Tebufenpyrad (avocado)	17	
	Cyprodinil (other fruits edible peel)		
	Fenhexamid (other fruits edible peel)		
	Fludioxonil (other fruits edible peel)		
	Iprodione (other fruits edible peel)		
	Metalaxyl and metalaxyl-M [metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers)] (other fruits edible peel)		
	Pyrimethanil (other fruits edible peel)		
	Chlorfenapyr (papaya)		
	Propargite (papaya)		
	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram) (spinach)		
	Biphenyl (beans with pods)		
	2,4-D (sum of 2,4-D and its esters expressed as 2,4-D) (lentils)		
	Buprofezin (banana)		
	Fluopyram (grapefruit)		
Drift	Diphenylamine (apple)	9	
	2-Phenylphenol (pear)		
Pesticide misuses	Propiconazole (basil)	29	
	Cypermethrin (basil)		
	Parathion-methyl (sum of parathion-methyl and paraoxon-methyl expressed as Parathion-methyl) (pulses)		
	Dithiocarbamates (dithiocarbamates expressed as CS2, including maneb, mancozeb, metiram, propineb, thiram and ziram) (mushrooms)		
	Endosulfan (sum of alpha- and beta-isomers and endosulfan-sulfate expresses as endosulfan) (mushrooms)		
	Lufenuron (tea)		
Post-harvest treatment and crop packed for immediate consumption	Imazalil (pear)	1	
Incorrect use, e.g. use of too concentrated solution and incorrect dosage	Myclobutanil (other stem vegetables fresh)	1	
Unknown	Piperonyl butoxide (pig fat)	3	
	Permethrin (sum of isomers) (sheep fat)		

(a): Report name as specified in the MatrixTool.
(b): Number of cases.

29.4. Quality assurance

Table 136: Laboratories participation in the control programme

Country	Laboratory	Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Date	Body	
Spain	Laboratorio de la Agencia de Salud Pública de Barcelona (LASPB)	14/7/2015	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio de Salud Pública de Badajoz	26/6/2015	ENAC	FAPAS y EUPT
Spain	Laboratorio de Salud Pública de Valencia	6/10/2000	ENAC	FAPAS Y EUPT
Spain	Laboratorio Agroalimentario de Burjasot-Valencia (Comunidad Valenciana)	22/11/1999	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio KUDAM S.L	14/1/2002	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio Químico Microbiológico S.A., de Mairena de Aljarafe, de Sevilla	16/12/2005	ENAC	FAPAS Y EUPT
Spain	Laboratorio de Salud Pública de Almería (Junta de Andalucía)	9/10/2013	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio COEXPHAL de El Viso (Almería)	16/2/2001	ENAC	FAPAS y Test Qual
Spain	Laboratorio Oficial de Salud Pública de la Delegación de Salud y Bienestar Social de Cuenca	2/12/2011	ENAC	FAPAS y EUPT
Spain	Laboratorio Agrario y Fitopatológico de Galicia	16/6/2001	ENAC	EUPT y Test Qual
Spain	Laboratorio Tecnológico de las Palmas de Gran Canarias (Gobierno de Canarias)		ENAC	FAPAS y EUPT
Spain	Laboratorio Agroalimentario y de Sanidad Animal (LAYSA) de Murcia	16/10/2014	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio Agrario Regional de Burgos (Junta de Castilla León)	16/10./202	ENAC	FAPAS y Test Qual
Spain	Laboratorio de Salud Pública de Palma de Mallorca	7/9/2007	ENAC	FAPAS, EUPT
Spain	Laboratorio de Salud Pública de Lugo	10/7/1998	ENAC	FAPAS, EUPT
Spain	Laboratorios ECOSUR, S.A.L.	14/3/2003	ENAC	FAPAS, Test Qual
Spain	AINIA	20/12/1996	ENAC	EUPT, Test Qual
Spain	Analytica Alimentaria GmbH Sucursal en España	1/10/2008	DAkkS y IAS	FAPAS, EUPT
Spain	Laboratorio de Salud Pública (Madrid Salud) Ayto.M	4/1/2006	ENAC	FAPAS
Spain	Laboratorio analítico bioclínico S.L	25/11/2005	ENAC	FAPAS, Test Qual
Spain	Labs & technological Services AGQ, S.L	19/1/2007	ENAC IAS	FAPAS, EUPT, Test Qual
Spain	SiCA agriQ, S.L.	16/12/2005	ENAC	FAPAS, EUPT, Test Qual
Spain	Laboratorio Regional del Gobierno de La Rioja	28/5/1999	ENAC	FAPAS, EUPT
Spain	Laboratorio Agroalimentario de Zaragoza	18/12/2009	ENAC	FAPAS, EUPT, Test Qual

29.5. Processing factors

The processing factors used by national competent authorities to verify the compliance of processed products with the EU MRL are shown in Table 137.

Table 137: Processing factors

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
2,4-D (RD)	Olives for oil production	Olive oil	5	
Abamectin (RD)	Olives for oil production	Olive oil	5	-
Acephate	Olives for oil production	Olive oil	5	-
Acetamiprid (RD)	Olives for oil production	Olive oil	5	-
Acetochlor	Olives for oil production	Olive oil	5	-
Aclonifen	Olives for oil production	Olive oil	5	-
Acrinathrin	Olives for oil production	Olive oil	5	-
Alachlor	Olives for oil production	Olive oil	5	-
Aldicarb (RD)	Olives for oil production	Olive oil	5	-
Ametryn	Olives for oil production	Olive oil	5	-
Amitraz (RD)	Olives for oil production	Olive oil	5	-
Atrazine	Olives for oil production	Olive oil	5	-
Azinphos-ethyl	Olives for oil production	Olive oil	5	-
Azinphos-methyl	Olives for oil production	Olive oil	5	-
Azoxystrobin	Olives for oil production	Olive oil	5	-
Benalaxyl (RD)	Olives for oil production	Olive oil	5	-
Bendiocarb	Olives for oil production	Olive oil	5	-
Benfluralin	Olives for oil production	Olive oil	5	-
Benfuracarb	Olives for oil production	Olive oil	5	-
Bentazone (RD)	Olives for oil production	Olive oil	5	-
Benthiavalicarb (RD)	Olives for oil production	Olive oil	5	-
Bifenazate	Olives for oil production	Olive oil	5	-
Bifenthrin	Olives for oil production	Olive oil	5	-
Biphenyl	Olives for oil production	Olive oil	5	-
Bitertanol	Olives for oil production	Olive oil	5	-
Boscalid (RD)	Olives for oil production	Olive oil	5	-
Bromacil	Olives for oil production	Olive oil	5	-
Bromophos	Olives for oil production	Olive oil	5	-
Bromopropylate	Olives for oil production	Olive oil	5	-
Bromoxynil (RD)	Olives for oil production	Olive oil	5	-
Bromuconazole	Olives for oil production	Olive oil	5	-
Bupirimate	Olives for oil production	Olive oil	5	-
Buprofezin	Olives for oil production	Olive oil	5	-
Butoxycarboxim	Olives for oil production	Olive oil	5	-
Cadusafos	Olives for oil production	Olive oil	5	-
Captafol	Olives for oil production	Olive oil	5	-
Captan (RD)	Olives for oil production	Olive oil	5	-
Carbaryl	Olives for oil production	Olive oil	5	-
Carbendazim (RD)	Olives for oil production	Olive oil	5	-
Carbofuran (RD)	Olives for oil production	Olive oil	5	-
Carbophenothion	Olives for oil production	Olive oil	5	-
Carbosulfan	Olives for oil production	Olive oil	5	-
Chinomethionat	Olives for oil production	Olive oil	5	-
Chlorantraniliprole	Olives for oil production	Olive oil	5	-
Chlordane (RD)	Olives for oil production	Olive oil	5	-
Chlorfenapyr	Olives for oil production	Olive oil	5	-
Chlorfenvinphos	Olives for oil production	Olive oil	5	-
Chloridazon	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Chlorobenzilate	Olives for oil production	Olive oil	5	-
Chloropropylate	Olives for oil production	Olive oil	5	-
Chlorothalonil (RD)	Olives for oil production	Olive oil	5	-
Chlorotoluron	Olives for oil production	Olive oil	5	-
Chlorpyrifos	Olives for oil production	Olive oil	5	-
Chlorpyrifos-methyl	Olives for oil production	Olive oil	5	-
Chlorthal-dimethyl	Olives for oil production	Olive oil	5	-
Clethodim (RD)	Olives for oil production	Olive oil	5	-
Clomazone	Olives for oil production	Olive oil	5	-
Clopyralid	Olives for oil production	Olive oil	5	-
Clothianidin	Olives for oil production	Olive oil	5	-
Coumaphos	Olives for oil production	Olive oil	5	-
Cyanazine	Olives for oil production	Olive oil	5	-
Cyazofamid	Olives for oil production	Olive oil	5	-
Cycloxydim (RD)	Olives for oil production	Olive oil	5	-
Cyfluthrin (RD)	Olives for oil production	Olive oil	5	-
Cymoxanil	Olives for oil production	Olive oil	5	-
Cypermethrin (RD)	Olives for oil production	Olive oil	5	-
Cyproconazole	Olives for oil production	Olive oil	5	-
Cyprodinil (RD)	Olives for oil production	Olive oil	5	-
Cyromazine	Olives for oil production	Olive oil	5	-
DDT (RD)	Olives for oil production	Olive oil	5	-
Deltamethrin	Olives for oil production	Olive oil	5	-
Demeton-S-Methyl	Olives for oil production	Olive oil	5	-
Desmedipham	Olives for oil production	Olive oil	5	-
Diafenthiuron	Olives for oil production	Olive oil	5	-
Diazinon	Olives for oil production	Olive oil	5	-
Dichlobenil	Olives for oil production	Olive oil	5	-
Dichlofenthion	Olives for oil production	Olive oil	5	-
Dichlofluanid	Olives for oil production	Olive oil	5	-
Dichlormid	Olives for oil production	Olive oil	5	-
Dichlorprop (RD)	Olives for oil production	Olive oil	5	-
Dichlorvos	Olives for oil production	Olive oil	5	-
Dicloran	Olives for oil production	Olive oil	5	-
Dicofol (RD)	Olives for oil production	Olive oil	5	-
Dicrotophos	Olives for oil production	Olive oil	5	-
Dieldrin (RD)	Olives for oil production	Olive oil	5	-
Dieldrin (RD)	Olives for oil production	Olive oil	5	-
Diethofencarb	Olives for oil production	Olive oil	5	-
Difenoconazole	Olives for oil production	Olive oil	5	-
Diflubenzuron (RD)	Olives for oil production	Olive oil	5	-
Diflufenican	Olives for oil production	Olive oil	5	-
Dimethoate (RD)	Olives for oil production	Olive oil	5	-
Dimethomorph	Olives for oil production	Olive oil	5	-
Diniconazole	Olives for oil production	Olive oil	5	-
Dinobuton	Olives for oil production	Olive oil	5	-
Dinocap (RD)	Olives for oil production	Olive oil	5	-
Diphenylamine	Olives for oil production	Olive oil	5	-
Ditalimfos	Olives for oil production	Olive oil	5	-
Dodemorph	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Dodine	Olives for oil production	Olive oil	5	-
Emamectin	Olives for oil production	Olive oil	5	-
Endosulfan (RD)	Olives for oil production	Olive oil	5	-
Endrin	Olives for oil production	Olive oil	5	-
Epoxiconazole	Olives for oil production	Olive oil	5	-
Esfenvalerate (RD)	Olives for oil production	Olive oil	5	-
Ethalfluralin	Olives for oil production	Olive oil	5	-
Ethiofencarb	Olives for oil production	Olive oil	5	-
Ethion	Olives for oil production	Olive oil	5	-
Ethiprole	Olives for oil production	Olive oil	5	-
Ethofumesate (RD)	Olives for oil production	Olive oil	5	-
Ethoprophos	Olives for oil production	Olive oil	5	-
Ethoxyquin	Olives for oil production	Olive oil	5	-
Etofenprox	Olives for oil production	Olive oil	5	-
Etoxazole	Olives for oil production	Olive oil	5	-
Etrimfos	Olives for oil production	Olive oil	5	-
Famoxadone	Olives for oil production	Olive oil	5	-
Fenamidone	Olives for oil production	Olive oil	5	-
Fenamiphos (RD)	Olives for oil production	Olive oil	5	-
Fenarimol	Olives for oil production	Olive oil	5	-
Fenazaquin	Olives for oil production	Olive oil	5	-
Fenbuconazole	Olives for oil production	Olive oil	5	-
Fenhexamid	Olives for oil production	Olive oil	5	-
Fenitrothion	Olives for oil production	Olive oil	5	-
Fenoxycarb	Olives for oil production	Olive oil	5	-
Fenpropathrin	Olives for oil production	Olive oil	5	-
Fenpropimorph (RD)	Olives for oil production	Olive oil	5	-
Fenpyroximate	Olives for oil production	Olive oil	5	-
Fenthion (RD)	Olives for oil production	Olive oil	5	-
Fipronil (RD)	Olives for oil production	Olive oil	5	-
Flazasulfuron	Olives for oil production	Olive oil	5	-
Flonicamid (RD)	Olives for oil production	Olive oil	5	-
Fluazinam	Olives for oil production	Olive oil	5	-
Flubendiamide	Olives for oil production	Olive oil	5	-
Fludioxonil	Olives for oil production	Olive oil	5	-
Flufenacet (RD)	Olives for oil production	Olive oil	5	-
Flufenoxuron	Olives for oil production	Olive oil	5	-
Fluometuron	Olives for oil production	Olive oil	5	-
Fluopicolide	Olives for oil production	Olive oil	5	-
Fluopyram (RD)	Olives for oil production	Olive oil	5	-
Fluquinconazole	Olives for oil production	Olive oil	5	-
Flusilazole (RD)	Olives for oil production	Olive oil	5	-
Flutolanil	Olives for oil production	Olive oil	5	-
Flutriafol	Olives for oil production	Olive oil	5	-
Folpet (RD)	Olives for oil production	Olive oil	5	-
Fonofos	Olives for oil production	Olive oil	5	-
Forchlorfenuron	Olives for oil production	Olive oil	5	-
Formetanate (RD)	Olives for oil production	Olive oil	5	-
Fosthiazate	Olives for oil production	Olive oil	5	-
Furalaxyl	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Furathiocarb	Olives for oil production	Olive oil	5	-
Heptachlor (RD)	Olives for oil production	Olive oil	5	-
Heptenophos	Olives for oil production	Olive oil	5	-
Hexachlorobenzene	Olives for oil production	Olive oil	5	-
Hexachlorocyclohexane (alpha)	Olives for oil production	Olive oil	5	-
Hexachlorocyclohexane (beta)	Olives for oil production	Olive oil	5	-
Hexaconazole	Olives for oil production	Olive oil	5	-
Hexaflumuron	Olives for oil production	Olive oil	5	-
Hexythiazox	Olives for oil production	Olive oil	5	-
Hymexazol	Olives for oil production	Olive oil	5	-
Imazalil	Olives for oil production	Olive oil	5	-
Imazamox	Olives for oil production	Olive oil	5	-
Imidacloprid	Olives for oil production	Olive oil	5	-
Indoxacarb	Olives for oil production	Olive oil	5	-
Ioxynil (RD)	Olives for oil production	Olive oil	5	-
Iprodione	Olives for oil production	Olive oil	5	-
Iprovalicarb	Olives for oil production	Olive oil	5	-
Isazofos	Olives for oil production	Olive oil	5	-
Isocarbophos	Olives for oil production	Olive oil	5	-
Isofenphos	Olives for oil production	Olive oil	5	-
Isofenphos-methyl	Olives for oil production	Olive oil	5	-
Isoproturon	Olives for oil production	Olive oil	5	-
Isoxaben	Olives for oil production	Olive oil	5	-
Kresoxim-methyl (RD)	Olives for oil production	Olive oil	5	-
Lambda-cyhalothrin (RD)	Olives for oil production	Olive oil	5	-
Lindane	Olives for oil production	Olive oil	5	-
Linuron	Olives for oil production	Olive oil	5	-
Lufenuron	Olives for oil production	Olive oil	5	-
Malathion (RD)	Olives for oil production	Olive oil	5	-
Mandipropamid	Olives for oil production	Olive oil	5	-
MCPA (RD)	Olives for oil production	Olive oil	5	-
Mecarbam	Olives for oil production	Olive oil	5	-
Mepronil	Olives for oil production	Olive oil	5	-
Metalaxyl (RD)	Olives for oil production	Olive oil	5	-
Metamitron	Olives for oil production	Olive oil	5	-
Metazachlor	Olives for oil production	Olive oil	5	-
Methacrifos	Olives for oil production	Olive oil	5	-
Methamidophos	Olives for oil production	Olive oil	5	-
Methidathion	Olives for oil production	Olive oil	5	-
Methiocarb (RD)	Olives for oil production	Olive oil	5	-
Methomyl (RD)	Olives for oil production	Olive oil	5	-
Methoxychlor	Olives for oil production	Olive oil	5	-
Methoxyfenozide	Olives for oil production	Olive oil	5	-
Metolcarb	Olives for oil production	Olive oil	5	-
Metoxuron	Olives for oil production	Olive oil	5	-
Metrafenone	Olives for oil production	Olive oil	5	-
Metribuzin	Olives for oil production	Olive oil	5	-
Mevinphos	Olives for oil production	Olive oil	5	-
Mirex	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Molinate	Olives for oil production	Olive oil	5	-
Monocrotophos	Olives for oil production	Olive oil	5	-
Monolinuron	Olives for oil production	Olive oil	5	-
Myclobutanil (RD)	Olives for oil production	Olive oil	5	-
Naled	Olives for oil production	Olive oil	5	-
Napropamide	Olives for oil production	Olive oil	5	-
Nicosulfuron	Olives for oil production	Olive oil	5	-
Nitenpyram	Olives for oil production	Olive oil	5	-
Novaluron	Olives for oil production	Olive oil	5	-
Nuarimol	Olives for oil production	Olive oil	5	-
Ofurace	Olives for oil production	Olive oil	5	-
Oxadiargyl	Olives for oil production	Olive oil	5	-
Oxadiazon	Olives for oil production	Olive oil	5	-
Oxadixyl	Olives for oil production	Olive oil	5	-
Oxamyl	Olives for oil production	Olive oil	5	-
Oxycarboxin	Olives for oil production	Olive oil	5	-
Oxyfluorfen	Olives for oil production	Olive oil	5	-
Paclobutrazol	Olives for oil production	Olive oil	5	-
Parathion	Olives for oil production	Olive oil	5	-
Parathion-methyl (RD)	Olives for oil production	Olive oil	5	-
Penconazole	Olives for oil production	Olive oil	5	-
Pencycuron	Olives for oil production	Olive oil	5	-
Pendimethalin	Olives for oil production	Olive oil	5	-
Permethrin	Olives for oil production	Olive oil	5	-
Phenmedipham (RD)	Olives for oil production	Olive oil	5	-
Phenthoate	Olives for oil production	Olive oil	5	-
Phorate (RD)	Olives for oil production	Olive oil	5	-
Phosalone	Olives for oil production	Olive oil	5	-
Phosmet (RD)	Olives for oil production	Olive oil	5	-
Picoxystrobin	Olives for oil production	Olive oil	5	-
Pirimicarb (RD)	Olives for oil production	Olive oil	5	-
Pirimiphos-ethyl	Olives for oil production	Olive oil	5	-
Pirimiphos-methyl	Olives for oil production	Olive oil	5	-
Prochloraz (RD)	Olives for oil production	Olive oil	5	-
Procymidone	Olives for oil production	Olive oil	5	-
Profenofos	Olives for oil production	Olive oil	5	-
Prometryn	Olives for oil production	Olive oil	5	-
Propamocarb (RD)	Olives for oil production	Olive oil	5	-
Propanil	Olives for oil production	Olive oil	5	-
Propaquizafop	Olives for oil production	Olive oil	5	-
Propargite	Olives for oil production	Olive oil	5	-
Propham	Olives for oil production	Olive oil	5	-
Propiconazole	Olives for oil production	Olive oil	5	-
Propoxur	Olives for oil production	Olive oil	5	-
Propyzamide (RD)	Olives for oil production	Olive oil	5	-
Proquinazid	Olives for oil production	Olive oil	5	-
Prosulfocarb	Olives for oil production	Olive oil	5	-
Prothiofos	Olives for oil production	Olive oil	5	-
Pymetrozine	Olives for oil production	Olive oil	5	-
Pyraclostrobin	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Pyrazophos	Olives for oil production	Olive oil	5	-
Pyridaben	Olives for oil production	Olive oil	5	-
Pyridaphenthion	Olives for oil production	Olive oil	5	-
Pyrifenox	Olives for oil production	Olive oil	5	-
Pyrimethanil	Olives for oil production	Olive oil	5	-
Pyriproxyfen	Olives for oil production	Olive oil	5	-
Quinalphos	Olives for oil production	Olive oil	5	-
Quinclorac	Olives for oil production	Olive oil	5	-
Quinmerac	Olives for oil production	Olive oil	5	-
Quinoxyfen	Olives for oil production	Olive oil	5	-
Quintozene (RD)	Olives for oil production	Olive oil	5	-
Quizalofop	Olives for oil production	Olive oil	5	-
Rimsulfuron	Olives for oil production	Olive oil	5	-
Rotenone	Olives for oil production	Olive oil	5	-
Simazine	Olives for oil production	Olive oil	5	-
Spinetoram	Olives for oil production	Olive oil	5	-
Spinosad (RD)	Olives for oil production	Olive oil	5	-
Spirodiclofen	Olives for oil production	Olive oil	5	-
Spiromesifen	Olives for oil production	Olive oil	5	-
Spirotetramat (RD)	Olives for oil production	Olive oil	5	-
Spiroxamine (RD)	Olives for oil production	Olive oil	5	-
Sulcotrione	Olives for oil production	Olive oil	5	-
Sulfotep	Olives for oil production	Olive oil	5	-
tau-Fluvalinate	Olives for oil production	Olive oil	5	-
Tebuconazole	Olives for oil production	Olive oil	5	-
Tebufenozide	Olives for oil production	Olive oil	5	-
Tebufenpyrad	Olives for oil production	Olive oil	5	-
Tecnazene	Olives for oil production	Olive oil	5	-
Teflubenzuron	Olives for oil production	Olive oil	5	-
Tefluthrin	Olives for oil production	Olive oil	5	-
Terbacil	Olives for oil production	Olive oil	5	-
Terbufos	Olives for oil production	Olive oil	5	-
Terbuthylazine	Olives for oil production	Olive oil	5	-
Terbutryn	Olives for oil production	Olive oil	5	-
Tetrachlorvinphos	Olives for oil production	Olive oil	5	-
Tetraconazole	Olives for oil production	Olive oil	5	-
Tetradifon	Olives for oil production	Olive oil	5	-
Tetramethrin	Olives for oil production	Olive oil	5	-
Thiabendazole (RD)	Olives for oil production	Olive oil	5	-
Thiacloprid	Olives for oil production	Olive oil	5	-
Thiametoxam (RD)	Olives for oil production	Olive oil	5	-
Thiocyclam	Olives for oil production	Olive oil	5	-
Thiometon	Olives for oil production	Olive oil	5	-
Thiophanate-methyl	Olives for oil production	Olive oil	5	-
Tolclofos-methyl	Olives for oil production	Olive oil	5	-
Tolylfluanid (RD)	Olives for oil production	Olive oil	5	-
Triadimenol (RD)	Olives for oil production	Olive oil	5	-
Triazophos	Olives for oil production	Olive oil	5	-
Trichlorfon	Olives for oil production	Olive oil	5	-
Triclopyr (RD)	Olives for oil production	Olive oil	5	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Tridemorph	Olives for oil production	Olive oil	5	-
Trifloxystrobin (RD)	Olives for oil production	Olive oil	5	-
Triflumizole (RD)	Olives for oil production	Olive oil	5	-
Triflumuron	Olives for oil production	Olive oil	5	-
Trifluralin	Olives for oil production	Olive oil	5	-
Triforine	Olives for oil production	Olive oil	5	-
Uniconazole	Olives for oil production	Olive oil	5	-
Vinclozolin (RD)	Olives for oil production	Olive oil	5	-
Zoxamide	Olives for oil production	Olive oil	5	-
Acrinathrin	Wine grapes	Wine	1	-
Alachlor	Wine grapes	Wine	1	-
Azoxystrobin	Wine grapes	Wine	1	-
Benalaxyl (RD)	Wine grapes	Wine	1	-
Bifenthrin	Wine grapes	Wine	1	-
Bitertanol	Wine grapes	Wine	1	-
Boscalid (RD)	Wine grapes	Wine	1	-
Bromopropylate	Wine grapes	Wine	1	-
Bupirimate	Wine grapes	Wine	1	-
Butralin	Wine grapes	Wine	1	-
Carbophenothion	Wine grapes	Wine	1	-
Chlordane (RD)	Wine grapes	Wine	1	-
Chlorfenvinphos	Wine grapes	Wine	1	-
Chlorpyrifos	Wine grapes	Wine	1	-
Chlorpyrifos-methyl	Wine grapes	Wine	1	-
Chlorthal-dimethyl	Wine grapes	Wine	1	-
Chlorthal-dimethyl	Wine grapes	Wine	1	-
Coumaphos	Wine grapes	Wine	1	-
Cyfluthrin (RD)	Wine grapes	Wine	1	-
Cypermethrin	Wine grapes	Wine	1	-
Cyproconazole	Wine grapes	Wine	1	-
Cyprodinil (RD)	Wine grapes	Wine	1	-
DDT (RD)	Wine grapes	Wine	1	-
Deltamethrin	Wine grapes	Wine	1	-
Diazinon	Wine grapes	Wine	1	-
Dichlofluanid	Wine grapes	Wine	1	-
Dichlorvos	Wine grapes	Wine	1	-
Dicofol (RD)	Wine grapes	Wine	1	-
Diethofencarb	Wine grapes	Wine	1	-
Difenoconazole	Wine grapes	Wine	1	-
Diflufenican	Wine grapes	Wine	1	-
Dimethoate (RD)	Wine grapes	Wine	1	-
Diniconazole	Wine grapes	Wine	1	-
Endosulfan (RD)	Wine grapes	Wine	1	-
Endrin	Wine grapes	Wine	1	-
Esfenvalerate (RD)	Wine grapes	Wine	1	-
Ethalfluralin	Wine grapes	Wine	1	-
Ethion	Wine grapes	Wine	1	-
Ethofumesate (RD)	Wine grapes	Wine	1	-
Etofenprox	Wine grapes	Wine	1	-
Fenamiphos (RD)	Wine grapes	Wine	1	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Fenarimol	Wine grapes	Wine	1	-
Fenazaquin	Wine grapes	Wine	1	-
Fenbuconazole	Wine grapes	Wine	1	-
Fenhexamid	Wine grapes	Wine	1	-
Fenitrothion	Wine grapes	Wine	1	-
Fenpropathrin	Wine grapes	Wine	1	-
Fenthion (RD)	Wine grapes	Wine	1	-
Fluazifop-P-butyl (RD)	Wine grapes	Wine	1	-
Fludioxonil	Wine grapes	Wine	1	-
Fluquinconazole	Wine grapes	Wine	1	-
Flusilazole (RD)	Wine grapes	Wine	1	-
Flutolanil	Wine grapes	Wine	1	-
Flutriafol	Wine grapes	Wine	1	-
Fonofos	Wine grapes	Wine	1	-
Hexachlorobenzene	Wine grapes	Wine	1	-
Hexachlorocyclohexane (alpha)	Wine grapes	Wine	1	-
Hexachlorocyclohexane (beta)	Wine grapes	Wine	1	-
Hexaconazole	Wine grapes	Wine	1	-
Hexazinone	Wine grapes	Wine	1	-
Iprodione	Wine grapes	Wine	1	-
Isofenphos	Wine grapes	Wine	1	-
Isofenphos-methyl	Wine grapes	Wine	1	-
Kresoxim-methyl (RD)	Wine grapes	Wine	1	-
Lambda-cyhalothrin (RD)	Wine grapes	Wine	1	-
Lindane	Wine grapes	Wine	1	-
Malathion (RD)	Wine grapes	Wine	1	-
Metalaxyl (RD)	Wine grapes	Wine	1	-
Methidathion	Wine grapes	Wine	1	-
Myclobutanil (RD)	Wine grapes	Wine	1	-
Nuarimol	Wine grapes	Wine	1	-
Oxyfluorfen	Wine grapes	Wine	1	-
Paclobutrazol	Wine grapes	Wine	1	-
Parathion	Wine grapes	Wine	1	-
Penconazole	Wine grapes	Wine	1	-
Pendimethalin	Wine grapes	Wine	1	-
Permethrin	Wine grapes	Wine	1	-
Phenthoate	Wine grapes	Wine	1	-
Phorate (RD)	Wine grapes	Wine	1	-
Phosalone	Wine grapes	Wine	1	-
Piperonyl Butoxide	Wine grapes	Wine	1	-
Pirimicarb (RD)	Wine grapes	Wine	1	-
Pirimiphos-methyl	Wine grapes	Wine	1	-
Procymidone	Wine grapes	Wine	1	-
Profenofos	Wine grapes	Wine	1	-
Prometryn	Wine grapes	Wine	1	-
Propargite	Wine grapes	Wine	1	-
Propiconazole	Wine grapes	Wine	1	-
Prothiofos	Wine grapes	Wine	1	-
Pyrazophos	Wine grapes	Wine	1	-

Pesticide (report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
Pyridaben	Wine grapes	Wine	1	-
Pyridaphenthion	Wine grapes	Wine	1	-
Pyrifenox	Wine grapes	Wine	1	-
Pyrimethanil	Wine grapes	Wine	1	-
Pyriproxyfen	Wine grapes	Wine	1	-
Quinalphos	Wine grapes	Wine	1	-
Quinoxyfen	Wine grapes	Wine	1	-
Sulfotep	Wine grapes	Wine	1	-
tau-Fluvalinate	Wine grapes	Wine	1	-
Tebuconazole	Wine grapes	Wine	1	-
Tebufenpyrad	Wine grapes	Wine	1	-
Terbumeton	Wine grapes	Wine	1	-
Tetrachlorvinphos	Wine grapes	Wine	1	-
Tetradifon	Wine grapes	Wine	1	-
Tolclofos-methyl	Wine grapes	Wine	1	-
Triadimenol (RD)	Wine grapes	Wine	1	-
Tri-allate	Wine grapes	Wine	1	-
Triazophos	Wine grapes	Wine	1	-
Trifluralin	Wine grapes	Wine	1	-
Vinclozolin (RD)	Wine grapes	Wine	1	-
Vinclozolin (RD)	Wine grapes	Wine	1	-

RAC:raw agricultural commodity; RD: residue definition.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

30. Sweden

30.1. Objective and design of the national control programme

The National Food Agency (NFA) has developed a points system (score model) to clarify the criteria that form the basis for the prioritisation of products included in the national monitoring programme for pesticide residues. The score model is valid for a period of 3 years and is revised every third year. The score model is based on 20 of the most important products, taking the risk to consumers into consideration, that are to be included annually and constitute approximately 60% of the control programme. Other products recur on a regular basis, such as every 3 years.

In order to find out which products to include in the 20 most important, the following criteria are included in the score model:

- acute Swedish consumption, 97.5 percentile, for adults and children;
- positive results from pesticide control in relation to the number of samples taken over a 3-year period. This is done on product basis. A minimum of 30 selected samples during the 3 years is required for the product to be included in this criterion;
- the proportion of samples with residues above the maximum residue limits (MRL) over the 3-year period, expressed as a percentage;
- whether or not products are processed before consumption;
- Rapid Alert System for Food and Feed (RASFF) messages;
- if the measured levels have led to the intake of acute toxic substances above 50% or 100% of the acute reference dose (ARfD).

In 2014, the sampling distribution between the origins of the food was roughly: 27% domestic, 31% other European Union (EU) countries and 41% from third countries (TC).

Fresh fruits and vegetables were sampled at wholesale warehouses in the first trade channel. Imported cereal grains were sampled at the port where the shipment was discharged. Samples of domestically produced cereal grains were collected at the mill. Most samples of processed or frozen fruit and vegetables, juices, fruit drinks, rice and cereal products were collected in retail outlets or department stores.

The number of samples from the organic sector was roughly dependent on its share of the market and availability on the market. In total, 144 organic samples (8%) were collected 2014.

All samples were analysed using a multi-residue method (MRM). Depending on the use pattern of pesticides and the products to be analysed, the MRM by using one or more single-residue methods (SRM). Overall, 11 analytical methods were used. By using both MRM and SRM it was possible to determine about 480 analytes, approximately 100 of which were metabolites or breakdown products

30.2. Key findings, interpretation of the results and comparability with the previous year results

In 2014, a total of 1,743 selective samples of fruits, vegetables, baby food, juices, cereal grains, poultry-, swine and bovine liver and poultry meat were analysed for residues of approximately 480 analytes (pesticides, metabolites and breakdown products). EU-harmonised MRLs were exceeded in 37 samples (2.1%). The exceedance level was increased at 1.1%, compared with a 2013 level of 1.0%.

Table 138 shows the total number of samples taken for each category, the number of samples in which the concentrations of pesticides were below the limit of quantification (LOQ), i.e. no residues were found, the number of samples with residues located between the LOQ and the MRL, and the samples in which concentrations over the limit were noted (not taking the measurement uncertainty into account).

Table 138: Summary results from the national monitoring programme for pesticide residues

	Total number of samples	Number of samples < LOQ (%)	Number of samples > LOQ (%)	Number of samples > MRL (%)
Fruit and berries (fresh or frozen)	744	128 (17)	601 (81)	15 (2.0%)
Vegetables (fresh or frozen)	511	275 (54)	230 (45)	6 (1)
Baby food	42	42 (100)	–	–
Cereals and cereal based products	261	203 (78)	48 (18)	10 (4)
Products of animal origin	60	60 (100)	–	–
Others (e.g. juice, conserves, dry products, processed products)	125	90 (72)	29 (23)	6 (5)
Total	1,743	798 (46)	908 (52)	37 (2)

LOQ: limit of quantification; MRL: maximum residue limits; – : none

When measurement uncertainty was taken into consideration, only 16 of the 37 samples were non-compliant. These samples were: three samples of basmati rice from Pakistan, one sample of dill from Italy, one sample each of table grapes from Egypt and Peru, two samples of chickpeas from Turkey and one from Argentina, two samples of clementines from Morocco, one sample of nectarines from Italy, one sample of pears from Argentina, one sample of raisins from Iran and one sample of apples from Poland.

The 48 suspect samples included 17 enforcement samples and 31 samples according to Regulation (EC) No 669/2009. Including measurement uncertainty, two (6.5%) of the Regulation (EC) No 669/2009 samples contained residues above the MRL, as did five (29.4%) of the enforcement samples.

Short-term intake was estimated for all acute toxic pesticides with an ARfD set by the EU or Wold Health Organization (WHO). The calculation was based on the residue found in a selective (composite) sample and the European Food Safety Authority (EFSA) calculation model PRIMo was used. Three samples exceeded the ARfD and RASFF notifications were sent to the Commission's RASFF team.

30.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Table 139: Actions taken for non-compliant samples

Action taken	Number of non-compliant samples concerned	Comments
Rapid Alert Notification	3	Sample code: 87542 RASFF ref: 2014.0313 Released onto the market
		Sample code: 87773 RASFF ref: 2014.0476 Released onto the market
		Sample code: 88192 RASFF ref: 2014.0956 Released onto the market
Administrative sanctions (e.g. fines)	16	Sanctions in terms of enforcement sampling on next coming consignments from the same origin.
Lot recalled from the market	5	Two lots basmati rice from Pakistan, weight 21.7 tons
		One lot table grapes from Peru, weight 18.7 tons
		One lot apples from Poland, weight 3.2 tons
		One lot nectarines from Italy, weight 0.06 ton
Rejection of a non-compliant lot at the border	2	Within the frame of Regulation (EC) No 669/2009
Destruction of non-compliant lot	5	Total 43,7 tons, see lots recalled from the market
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	17	Six basmati rice from Pakistan Four apples from Poland Three dill from Italy Three table grapes from Peru One chick peas from Argentina
Warnings to responsible food business operator	-	-
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	-	-
Other actions	-	-

Table 140: Possible reasons for MRL non-compliances

Reasons for MRL non-compliance	Pesticide[(a)] (food product)	Frequency[(b)]	Comments
GAP not respected: use of a pesticide not approved in the EU[(c)]	Cyfluthrin (dill)	1	
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Bupirimate (dill0	-	-
	Dimethoate (RD) (apple)	1	
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Ethephon (table grapes)	1	-
Use of pesticide according to authorised GAP: unexpected slow degradation of residues	-	-	-
Cross-contamination: spray drift or other accidental contamination	Prosulfocarb (apple)	1	
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-	-	-
Residues resulting from sources other than plant protection product (e.g. biocides, veterinary drugs, biofuel)	-	-	-
Naturally occurrence (e.g. dithiocarbamates in turnips)	-	-	-
Changes of the MRL	-	-	-
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	Acetamiprid (RD) (rice)	1	-
	Carbaryl (raisin)	1	
	Carbendazim (RD) (rice)	12	
	2,4-D (RD) (chickpea)	2	
	Dicofol (mandarin)	1	
	Dicofol (nectarine)	1	
	Dimethoate (RD) (mandarin)	1	
	Dithiocarbamates (RD)(vine leaves)	3	
	Fipronil (RD) (pear)	1	
	Haloxyfop-R (RD) (chickpea)	1	
	Methomyl (RD) (melon)	1	
	Methomyl (RD) (table grapes)	2	
	Pyrimethanil (vine leaves)	1	
	Triforine (chilli peppers)	1	

MRL: maximum residue limits; GAP: good agricultural practice; PHI: pre harvest interval.

(a): Report name as specified in the MatrixTool.
(b): Number of cases.
(c): Applicable only for food products produced in the EU.
(d): For imported food only.

30.4. Quality assurance

Table 141: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
SE	Eurofins Food & Agro Sweden AB	Eurofins	2/9/1991	SWEDAC	EUPT 2014: FV-16; FV-SM06; CF8; AO-09; EURL PCBs FAPAS: 19164 grape; 19171 lime; 19172 sweet pepper; 19177 salad leaves; 19179 melon; 1653 apple juice; 1654 apple puree; 0594 animal fat; 0595 butter; 0597 milk powder; 0599 rapeseed oil; 0989 wheat flour; 0990 oat; 0991 rice
SE	National Food Agency, Department of Chemistry	SLV/Kem1	26/2/2007	SWEDAC	EUPT 2014: FV-16; FV-SM06; CF8; AO-09

30.5. Processing factors

The processing factors used by national competent authorities to verify compliance of processed products with EU MRL are shown in Table 142.

Table 142: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor [(b)]	Comments
Fludioxinil	Table grapes	Raisin	4.5	-
Imidacloprid	Table grapes	Raisin	4.5	-
Fludioxonil	Table grapes	Raisin	4.5	-

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool
(b): Processing factor for the enforcement residue definition.

31. United Kingdom

31.1. Objective and design of the national control programme

The UK national control programme is made up of surveys of commodities selected every year on the basis of an established prioritisation system.

Proposals for the programme for 2014 were reviewed by the Defra Expert Committee on Pesticide Residues in Food (PRiF; a committee of independent experts) before finalisation.

Full details of the programme and supporting justification were previously provided to the European Food Safety Authority (EFSA) and the Commission. Information about the 2014 programme was also published at http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF-archive/2014/2014_Survey_Details

Factors of particular importance in determining surveys for this year's programme were:

- European Union (EU) monitoring programme – all foods covered by the required EU monitoring for 2014 were classified as high priority for incorporation into the national programme;
- staple foods – bread and milk are always included in the UK programme. Coffee and rice cakes (to complement the EU monitoring survey) were also surveyed in 2012;
- foods of high dietary importance, whether for the whole population or for vulnerable sub-groups, in particular infants and children;
- foods for which Rapid Alert System for Food and Feed (RASFF) notifications were issued for pesticide residues during 2013 and/or where previous results showed a high rate of non-compliance with maximum residue limits (MRL);
- lower priority foods that had not been surveyed for some years;

In addition, certain foods were selected for 'rolling reporting', that is sampling by government inspectors and faster turn-around of results. An archive of these results is at http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF-archive/2014/2014_rollingresults. However, it should be noted that these are also covered by the main reports.

Other minor adjustments were made to the programme during the course of the year, which affected the balance of sample numbers between surveys.

31.2. Key findings, interpretation of the results and comparability with the previous year results

Of the 3,615 samples tested, 68 (188%) contained one or more residues measured above the relevant MRL. Because the UK programme is made of surveys of different foods each year, it is not statistically appropriate to compare results with previous years.

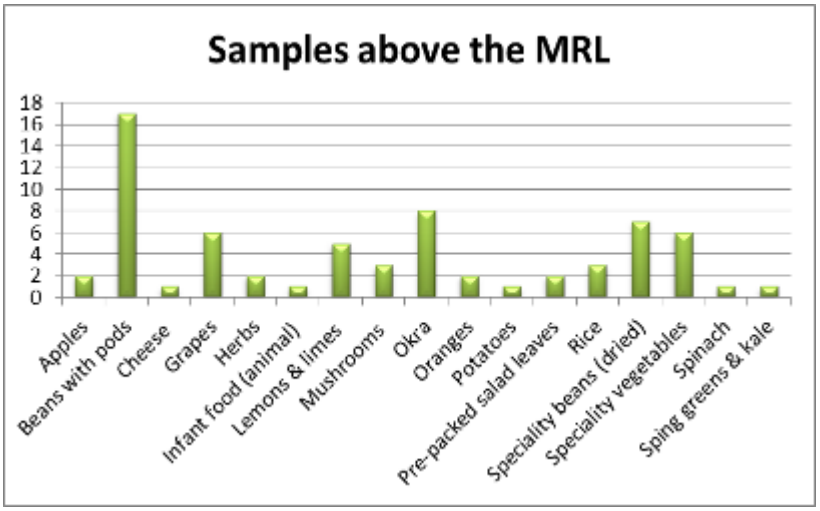


Figure 8: Number of samples fount exceeding the MRL by food group.

Samples containing residues above the MRL were generally of fruit and vegetables, apart from one sample of infant food, three of rice and seven of dried speciality beans.

Detailed interpretation of results is provided in the Pesticide Residues Committee's quarterly reports at http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRiF/PRiF_Results_and_Reports/Monitoring+Programme+2012

31.2.1. Fresh fruit and vegetables (including potatoes)

In total, 2,027 samples were tested. Within this category, approximately 2.7% of residues had levels above the MRL (without taking account of measurement uncertainty), around the expected level.

We continued to find a relatively high percentage of samples with residues over the MRL in beans with pods (both speciality and non-speciality varieties) and okra. Both will be surveyed again in 2015 as rolling reporting surveys.

High incidences of benzalkonium chloride (BAC) and didecyldimethylammonium chloride (DDAC) residues over the statutory MRL of 0.01 were noted in pre-packed salad leaves, as expected. These were not treated as non-compliant as agreed at the EU level, but food business operators were advised of the finding. In 2015, pre-prepared fruit will be surveyed because that is also expected to show a high incidence of residues and may show residues over the MRL.

31.2.2. Animal products

Residues detected in animal products were consistent with environmental contamination and previous findings, or with expected findings of BAC or DDAC.

One sample of cheese contained a residue of DDAC above the statutory MRL and also above the agreed trading limit. At this time, no single source of DDAC has been identified but it is known to be used at many stages of milk production.

31.2.3. Cereals and grains

The residues detected were consistent with products known to be used on the relevant cereals. Three samples of rice contained a residue of traizaphos over the MRL.

31.2.4. Baby (infant) food

Residues of BAC were detected in two samples of baby food, one above the baby food MRL. These arose from routine use of BAC as a biocide.

31.2.5. Other groceries

Residues detected were as expected, including a relatively high incidence of residues over the MRL in speciality dried beans.

31.3. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

Advisory letters were issued to sampling points about of residues above the MRL. In addition, for those samples in which residues were in breach of the MRL after measurement uncertainty, in most cases these were highlighted as non-compliant when brand name details were published (brand name details are routinely published for all UK samples taken from the supply chain).

RASFF notifications were prepared in respect of six samples. Brand name details of these samples were also published separately.

For samples of non-UK food, the appropriate authorities were also notified. For UK samples, where possible, results were investigated and/or referred for action under cross-compliance rules.

Reasons for non-compliance were not generally provided. However, in the case of residues of BAC and DDAC, respondents generally indicated they had used biocidal products in line with instructions and would move to using other biocides for food hygiene purposes.

In general, for foods from outside the EU, it appeared likely, although representations were not made to this effect, that the food had been grown in accordance with local good agricultural practice for local markets that is not to a specification that was compliant with EU requirements.

All residues detected in organic samples were referred to the appropriate agriculture department and to organic certification bodies.

31.3.1. Fresh fruit and vegetables (including potatoes)

In total, 2,027 samples were tested. Within this category, 2.7% of samples had residues above the MRL (without taking account of measurement uncertainty), around the expected level.

We continued to find a relatively high percentage of samples with residues over the MRL in beans with pods (both speciality and non-speciality varieties) and okra. Both will be surveyed again in 2015 as rolling reporting surveys.

A high incidence of BAC and DDAC residues over the statutory MRL of 0.01 were noted in pre-packed salad leaves, as expected. These were not treated as non-compliant as agreed at EU level, but food business operators were advised of the finding. In 2015, pre-prepared fruit will be surveyed because it is also expected to show a high incidence of residues and may show residues over the MRL.

31.3.2. Animal products

Residues detected in animal products were consistent with environmental contamination and previous findings, or with expected findings of BAC or DDAC.

One sample of cheese contained a residue of DDAC above the statutory MRL and also above the agreed trading limit. At this time, no single source of DDAC has been identified but it is known to be used at many stages of milk production.

31.3.3. Cereals and grains

Residues detected were consistent with products known to be used on the relevant cereals. Three samples of rice contained a residue of traizaphos over the MRL.

31.3.4. Baby (infant) food

Residues of BAC were detected in two samples of baby food, one above the baby food MRL. These arose from routine use of BAC as a biocide.

31.3.5. Other groceries

Residues detected were as expected, including a relatively high incidence of residues over the MRL in speciality dried beans.

31.4. Quality assurance

Table 143: Laboratories participation in the control programme

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
GB	Food and Environment Research Agency (FERA) United Kingdom National Reference Laboratory	FERA	1996	UKAS	EUPT: CF8, AO-09, SM06, FV-16, SRM9 FAPAS: 05.92, 05.93, 09.84, 09.85, 19.155, 19.156, 19.156, 19.158, 19.159, 05.94, 09.86, 19.160, 19.161, 19.62, SRM9., 05.97, 05.98, 09.89, 09.90, 19.172, 19.173, 19.174, 19.175, 19.176, 19.177
GB	Eurofins	EUAL	6/10/1995	UKAS	EUPT: C6, FV-14, SM06, FV-16 FAPAS: 19.156, 19.156, 19.158, 19.160, 19.161, 19.172, 19.173, 19.177
GB	LGC Ltd	LGC	1/4/1984	UKAS	EUPT: CF8, SRM9, FV-16 FAPAS: 05.94, 19.161, 19.173
GB	Agri-food and Biosciences Institute (AFBI)	AFBI	11/11/2010	UKAS	EUPT: AO-05, AO-09 FAPAS: 05-93, 05.94, 05.97, 05.98
GB	Science and Advice for Scottish Agriculture (SASA)	SASA	18/7/1994	UKAS	EUPT: FV-14, SM06, FV-16 FAPAS: 19.156, 19.161, 19.163, 19.176, 19.177

31.5. Processing factors

The processing factors used by national competent authorities to verify the compliance of processed products with the EU MRL are shown in Table 144.

Table 144: Processing factors

Pesticide (report name)[(a)]	Unprocessed product (RAC)	Processed product	Processing factor[(b)]	Comments
Chlormequat	Wheat	Wholemeal wheat bread	0.5	
Chlorpyrifos-methyl	Wheat	Wholemeal wheat bread	0.47	
Deltamethrin	Wheat	Wholemeal wheat bread	0.84	
Glyphosate	Wheat	Wholemeal wheat bread	0.36	
Pirimiphos-methyl	Wheat	Wholemeal wheat bread	0.43	
Chlormequat	Wheat	Other wheat bread	0.3	
Chlorpyrifos-methyl	Wheat	Other wheat bread	0.05	
Deltamethrin	Wheat	Other wheat bread	0.14	
Glyphosate	Wheat	Other wheat bread	0.105	
Pirimiphos-methyl	Wheat	Other wheat bread	0.12	
Chlormequat	Rye	Wholemeal rye bread	0.3	
Chlormequat	Rye	Other rye bread	0.99	

RAC: raw agricultural commodity.
(a): Report name as specified in the MatrixTool.
(b): Processing factor for the enforcement residue definition.

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Abbreviations

AB	Estonia Agricultural Board
AECOSAN	Spanish Agency for Consumer Affairs, Food Safety and Nutrition
AFBI	Agri-food and Biosciences Institute
AGES	Austrian Health and Food Safety Agency
ANSES	French Agency for Food, Environmental and Labour Safety
ARC	Agricultural Research Centre - Laboratory for residues and contaminants of Saku
ARfD	Acute reference dose
ASV	Veterinary Administration Services of Luxembourg
AT	Austria
BAC	Benzalkonium chloride
BE	Belgium
BELAC	Belgium Accreditation Council
BFSA	Bulgarian Food Safety Agency
BG	Bulgaria
BIOR	Institute of Food Safety, Animal Health and Environment of Latvia
BIPEA	International Bureau for Analytical Studies
BMWA	Federal Ministry of Labour, Health and Social Affairs of Austria
BVL	Federal Office of Consumer Protection and Food Safety
CAFIA	Czech Agriculture and Food Inspection Authority
CAI	Czech Accreditation Institute
CCPC	Critical crop pesticide concentration
CLCTC	Central Laboratory for Chemical Testing and Control of Bulgaria
CLVCE	Central Laboratory of Veterinary Control and Ecology of Bulgaria
COFRAC	French Committee for Accreditation
COIPT	Olive oil proficiency test
CY	Cyprus
DAFM	Department of Agriculture, Food and the Marine of Ireland
DAkkS	German accreditation body
DANAK	Danish accreditation body
DDAC	Didecyldimethylammonium chloride
DDT	dichlorodiphenyltrichloroethane
DE	Germany
DGCCRF	French General Directorate of Competition, Consumption and Fraud Repression
DK	Denmark
DPPSCA	Directorate of Plant Protection, Soil Conservation and Agri-environment of Hungary
EC	European Commission
EEA	European Economic Area
EFSA	European Food Safety Authority
ENAC	Spanish Accreditation Body
ES	Spain
ESYD	Greek accreditation body
EU	European Union
EUPT-AO	European Union Proficiency Test in Animal Origin
EUPT-CF	European Union Proficiency Test in Cereals and Feed
EUPT-FV	European Union Proficiency Test in Fruit and Vegetables
EUPT-SRM	European Union Proficiency Test in Single Residue Methods
FAPAS	Food analysis performance assessment scheme
FASFC	Federal Agency for the Safety of the Food Chain
FERA	Food and Environment Research Agency
FI	Finland
FINAS	Finnish accreditation service
FR	France
FSAI	Food Safety Authority of Ireland
FVS	Food and Veterinary Service of Latvia
FYTBG	Fytolab Bulgaria Ltd.

Fytolab	Laboratory for Pesticide and Residue Analysis
GAP	Good agricultural practice
GC	Gas chromatography
GC-ECD	Gas chromatography with electron capture detector
GC-FID	Gas chromatography with flame ionisation detector
GC-FPD	Gas chromatography with flame photometric detector
GC-MSD	Gas chromatography with mass spectrometry detector
GC-MS/MS	Gas chromatography with tandem mass/mass spectrometer
GC-NPD	Gas chromatography with nitrogen phosphorous detector
GC-(P)FPD	Gas chromatography with pulsed flame photometric detector
GR	Greece
HB	Tartu Laboratory of Estonian Health Board
HBC	Central Chemistry Laboratory of the Health Board of Estonia
HCH	Hexachlorocyclohexane
HPLC	High-performance liquid chromatography
HR	Croatia
HSE	Health and Safety Executive of United Kingdom
HU	Hungary
IAS	International Accreditation Service
IE	Ireland
INAB	The Irish National Accreditation Board
IPAC	Portuguese Accreditation Institute
IPH	Institute of Public Health
ISO	International Organization for Standardization
IT	Italy
IUNA	Irish Universities Nutrition Alliance
JMD	Joint ministerial decisions
LATAK	Latvian National Accreditation Bureau
LC	Liquid chromatography
LC-LR-MS	Liquid chromatography for microcystin with mass spectrometry detector
LC-MS/MS	Liquid chromatography with tandem mass/mass spectrometer
LOQ	Limit of quantification
LRP-INIAV	Pesticide Residues Laboratory of the National Institute of Agrarian and Veterinary Research
LRVSA	Veterinary and Food Safety Laboratory of the Regional Directorate of Agriculture and Rural Development of Madeira
LT	Lithuania
LU	Luxembourg
LUA3	Regional Institute for Food Control in Vienna
LV	Latvia
MAF	Ministry of Agriculture and Food of Bulgaria
MAGRAMA	Ministry of Agriculture, Food and Environmental Affairs of Spain
MARD	Romanian Ministry of Agriculture and Rural Development
MH	Ministry of Health
MPHS	Department of Medical and Public Health Services of Cyprus
MRL	Maximum residue limits
MRM	Multi-residue method
MSSSI	General Directorate of Health Affairs of the Ministry of Health, Social Services and Equal Opportunities
NAT	National Accreditation Body of Hungary
NFA	Swedish National Food Agency
NFCSO	National Food Chain Safety Office of Hungary
NFSA	Norwegian Food Safety Authority
NL	Netherlands
NRCP	National Residue Control Plan of Iceland
NSVFSA	National Sanitary Veterinary and Food Safety Authority
OSQCA	Organism for the Security and Equality of the Food Chain of Luxembourg

PCB	Polychlorinated biphenyls
PCD	Pesticide Controls Division of Ireland
PHI	Pre harvest interval
PL	Poland
PPP	Plant protection products
PR	Pesticide residues
PRCD	Pesticide Registration and Controls Division of Ireland
PRiF	Defra Expert Committee on Pesticide Residues in Food
PRIMo	Pesticide residue intake model
PR-SGL	Pesticide Residues of the State General Laboratory
PT	Portugal
QuEChERS	Quick, easy, cheap, effective, rugged and safe method
QuPPe	Quick Polar Pesticides Method
RAC	Raw agricultural commodity
RASFF	Rapid Alert System for Food and Feed
RENAR	Romanian Accreditation Association
RO	Romania
RvA	Dutch Accreditation Council
SASA	Science and Advice for Scottish Agriculture
SCL	Common Laboratory Network of France
SE	Sweden
Secualim	Food Safety Service of the Direction of Public Health of Luxembourg
SGL	State General Laboratory of Cyprus
SK	Slovakia
SNAS	Slovak National Accreditation Service
SRM	Single residue method
SVA	State Veterinary Administration of the Czech Republic
SWEDAC	Swedish Board for Accreditation and Conformity Assessment
TC	Third country
UK	United Kingdom
USMAF	Office of the Maritime Health, Air and Border of the Ministry of Health of Italy
VFB	Veterinary and Food Board of Estonia
VWA	Netherlands Food and Consumer Product Safety Authority
WHO	World Health Organization