

Controls of pesticide residues in food and feed - Belgium 2015



Results of the official controls in accordance to Regulation (CE)
N°396/2005 and Commission Regulation (EC) N° 400/2014

November 2016

PESTICIDE RESIDUE CONTROL RESULTS

NATIONAL SUMMARY REPORT

Country: BELGIUM

Year: 2015

National competent authority/organisation:

FEDERAL AGENCY FOR THE SAFETY OF THE FOOD CHAIN (FASFC)

Web address where the national annual report is published:

<http://www.afsca.be>

1. Country: Belgium

1.1. 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 the European legislation¹ in order to check the good use of plant protection products (use of authorised products according to their authorization) and to protect the consumers. Food or feed which do not comply with the MRL cannot be put on the market. An MRL exceeding content is the sign of incorrect use of a plant protection product but does not necessarily involve a risk for 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 has been drawn up following the general statistical approach developed within the FASFC². Several factors have been taken into account: the toxicity of the active substances, food consumption statistics, food commodities with a high residues/non-compliance rate in previous monitoring years, origin of food (domestic, EU or third country), RASFF notifications and all other useful information.

All groups of fruits and vegetables are included in the programme and a rotation programme has been 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 669/2009⁴) have been also included in the national programme.

Adjustments to the programme can be made in 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, results of previous control programmes in Belgium and other Member States, RASFF messages and analytical possibilities.

¹ Regulation (EC) N°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

² Maudoux J-P., Saegerman C., Rettigner C., Houins G., Van Huffel X. & Berkvens D., Food safety surveillance by a risk based control programming: approach applied by the Belgian federal agency for the safety of the food chain (FASFC), Vet. Quart. 2006, 28(4): 140-154. <http://www.favv-afsca.fgov.be/publicationsthematiques/food-safety.asp>

³ Commission implementing Regulation (EU) No 400/2014 of 22 April 2014 concerning a coordinated multiannual control programme of the Union for 2015, 2016 and 2017 to ensure compliance with maximum residue levels of pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin

⁴ Regulation (EC) N°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

Sampling is done in accordance with Directive 2002/63/EC⁵ that has been implemented in Belgian legislation. Samples are analysed in ISO 17025 accredited laboratories by means of multi-residues and single-residues methods which in 2015 allowed the detection of more than 550 pesticide residues. The list of pesticide residues analysed can be found in annex 1 of this national summary report)

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

In 2015, a total number of 3441 samples of fruits, vegetables, cereals, animal products and processed products (including baby food) were taken by the Federal Agency for the Safety of the Food Chain (FASFC) and analysed for the presence of pesticide residues. The products analysed were of Belgian origin (36,4%), EU origin (23,2%), non-EU origin (32,9%) and unknown origin (7,5%).

96,9% of the samples analysed were compliant with the pesticide residues legislation. Table 1 summarises the results per groups of products with respect to the sampling strategy.

Table 1: Summary results

Sampling strategy	Types of products	Number of samples analysed	Without quantified residues (%)	With residues at or below MRL (%)	> MRL ⁶ (%)	>MRL ⁷ (Non-compliant) (%)	Compliance (%) compared to 2014
Surveillance	Fruit, vegetables, cereals & other	1988	30,6%	64,1%	5,3%	2,7%	97,3% (-0,2%)
	Processed products	152	51,3%	44,8%	3,9%	2,6%	97,4% (-2,6%)
	Animal products ⁸	577	73,3%	26,3%	0,4%	0,4%	99,6% (-0,4%)
	Baby food	88	96,6%	1,1%	2,3%	1,1%	98,9% (+2,2%)
	Feed	108	66,6%	30,5%	2,8%	0,9%	99,1% (+3,7%)
		2913	43,5%	52,5%	4,1%	2,1%	97,9% (-0,2%)
Enforcement (targeted samples)	Fruit, vegetables, cereals & other ⁹	522	32,4%	52,5%	15,1%	8,4%	91,6% (+5,9%)
	Processed products	5	40%	60%	0	0	100% (=)
	Feed	1	0	100%	0	0	100% (=)
		528	32,4%	52,6%	15%	8,3%	91,7% (+5,9%)
TOTAL		3441	41,8%	52,5%	5,7%	3,1%	96,9% (+1,4%)

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

⁶ Measurement uncertainty is not taken into account (numerical MRL exceedances)

⁷ Measurement uncertainty is taken into account (non-compliant samples)

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

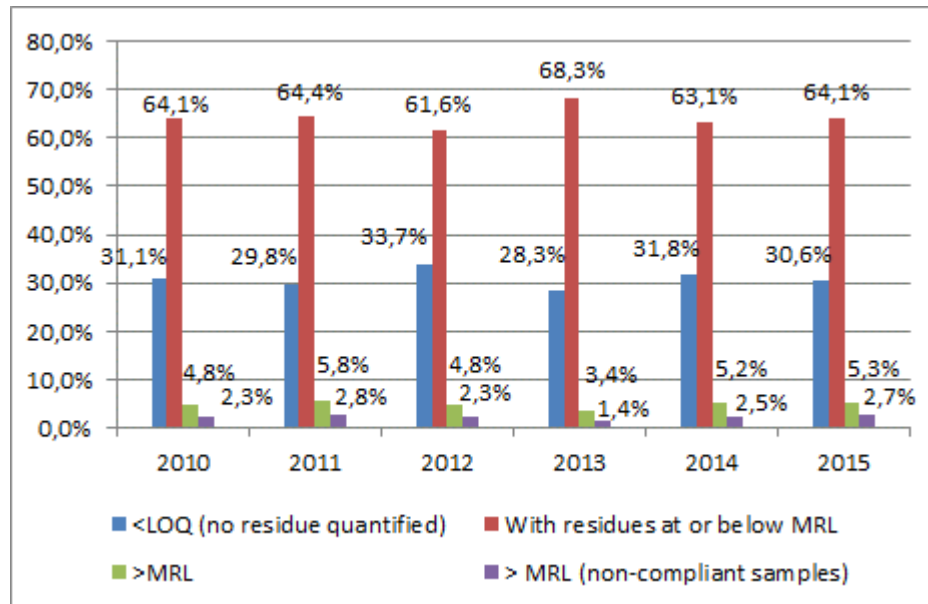
⁹ Including samples analysed in the framework of Regulation (CE) N°669/2009

➤ Surveillance sampling

2913 surveillance samples were analysed within the context of the control programme. 97,9% were compliant with the legislation in force.

The rate of non-compliances in fruit, vegetables, cereals and other products of plant origin is slightly higher than in 2014 (+0,2%).

Graph 1: overview of the evolution of the results for fruit, vegetables, cereals & other products of plant origin from 2010 to 2015 (surveillance samples)



As in previous years, more MRL violations were proportionally observed in non-EU products (5%) than in products grown in the EU (1,2%)

Tea, chilli-peppers and aubergines imported from non-EU countries showed the highest rate of non-compliance. Main non-compliances in Belgian products were observed in celeries.

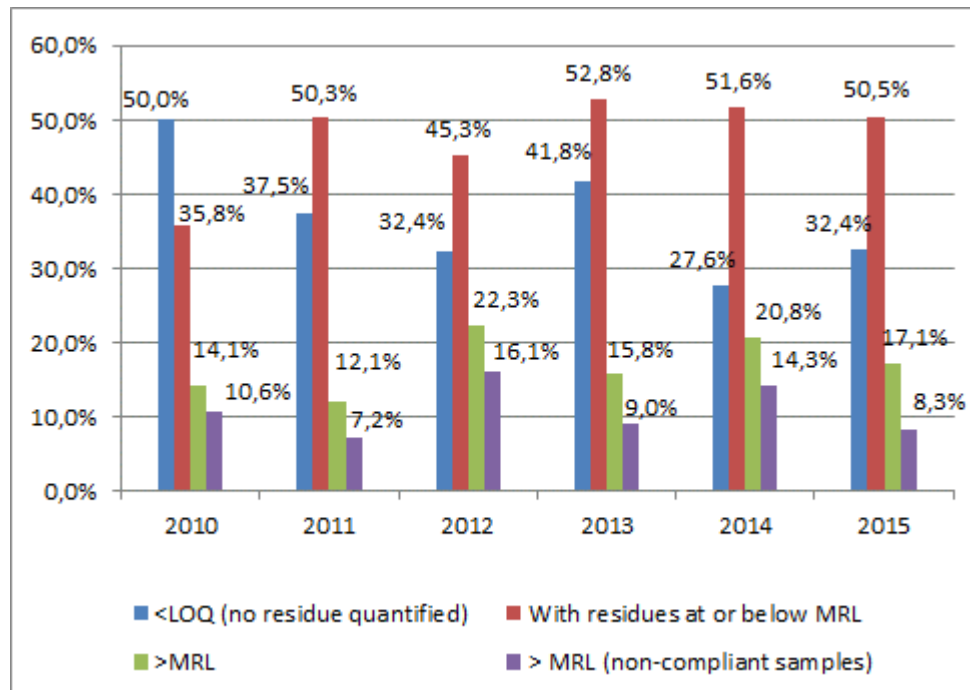
➤ Enforcement sampling

528 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 669/2009 (products coming among others from Morocco, Kenya, Egypt, the Dominican Republic and China) and products analysed within the context of following up of violations found previously. **91,7%** were compliant with the legislation (+5,9% in comparison with 2014).

High rate of MRL breaches (>10%) was observed in products from Cambodia (basilicum), Myanmar (aubergines), Vietnam (pitayas), Gambia (chili-peppers) & China (tea).

Graph 2 gives an overview of the evolution of the results of enforcement samples these last years.

Graph 2: overview of the evolution of the results for fruit, vegetables, cereals & other products of plant origin from 2010 to 2015 (enforcement samples)



More details about products analysed, their origin, the exceedances of MRL observed and the number of residues detected per product can be found in annex 2 and 3 of this summary report.

1.3. 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 for consumers is performed on all non-compliant samples and the appropriate measures such as recall and RASFF notification are taken¹⁰ according to the risk of the non-compliant product for the consumer. An overview of non-compliant samples can be found in annex 4 of this report.

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 case of repeated offences, the matter is taken to court.

¹⁰ The actions to be taken when an MRL is exceeded are described in a procedure available on the website of the FASFC (<http://www.afsca.be/publicationsthematiques/inventaire-actions.asp>).

The reason of MRL violations is investigated as far as possible in Belgian products (table 2). Non-compliances in imported products cannot be investigated but are mainly related to the use of plant protection products which are not authorized in the EU and for which no import tolerances were set.

Table 2: Possible reasons for MRL non-compliance in products of Belgian origin

Reasons for MRL non-compliance	Pesticide/food product	Frequency	Comments
Good agricultural practices not respected: use of an approved pesticide not authorised on the specific crop	Propamocarb / celeriac	1	
	Prothioconazole / celery	1	
	Dimethoate / celery	1	
	Dimethoate / turnips	1	
	Glyphosate / cereals flour	1	
Good agricultural practices not respected: use of an approved pesticide, but application rate, number of treatments, application method or pre-harvest interval not respected	Chlorpropham / celery	1	
	Clomazone / celery	1	
	Pyraclostrobine / celery	1	
	Ethephon / tomatoes	1	
	Methiocarb / Scaroles	1	
	Dithiocarbamates / spinach	1	
Residues resulting from other sources than plant protection product (e.g. biocides, veterinary drugs, bio fuel)	DDAC / babyfood	1	Residue resulting from the use as disinfectant
Reason unknown	Chlorpropham / hop	1	
	Trichlorfon/honey	1	
	Diafenthurion / Vegetables processed	1	

Thirty-three RASFF messages were issued by Belgium in 2015 for pesticide residues in food and feed¹¹ in the framework of the control plan of the FASFC or self-checking carried out by business operators. Eight of them contained pesticide residues were considered as potentially dangerous for the consumers (table 3)

Table 3: RASFF issued by Belgium in 2015 for food products showing a risk for consumers

Food products	Pesticide residue	Number	Origin
Basilicum	Chlorpyrifos	2	Cambodia
Celery	Dimethoate	1	Belgium
Chilli-peppers	Triazophos	1	Gambia
Head cabbages	Fluazifo-P-butyl	1	Belgium
Pineappels	Ethephon	1	Benin
Scarole	Methiocarb	1	Belgium
Tablegrapes	Tebuconazole	1	Turkey

1.4. Quality assurance

Eight ISO17025 accredited laboratories analysed pesticide residues in the framework of the control program 2015 of the FASFC.

¹¹ http://ec.europa.eu/food/food/rapidalert/rasff_portal_database_en.print.htm

Table 2: Laboratories participation in the control program

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
BE	CER Groupe - Département Santé	CER	2014-05-20	BELAC (073-Test)	FAPAS 05105
BE	Federaal Laboratorium voor de Voedselveiligheid Tervuren	FLVVT	2014-04-22	BELAC (O14-test; site Tervuren)	EURL CF9 EURL AO10
BE	Fytolab C.V.B.A (now Primoris Belgium cvba)	FYTOLAB	2012-07-27	BELAC (057 - Test)	Fytolab comparative study-DTC PROOF-ACS (P1501-MRT) EURL-FH01; EURL-SM07; EURL-FV17 FAPAS-CORESTA FT0111 QS-spring 2015 EURL-AO-10 EURL-CF9 EURL-SRM10 FAPAS 04263 Italian NRL AO (COIPT-15) BNN-competence test 2015 FAPAS 1656 FAPAS 1269 PROOF-ACS (P1510-MRT) Relana (undercoversample 1 & 2) FAPAS 15106 PROOF-ACS (P1519-RT polar pesticides) FAPAS 3060
BE	Laboratoire Fédéral pour la Sécurité Alimentaire Liège	LFSAL	2014-04-22	BELAC (O14-test; site Wandre)	BIPEA 19-3619 BIPEA 20-3619 EURL-AO-10 FAPAS 05102
BE	WIV - ISP (Pesticiden)	WIV-PEST	2015-01-22	BELAC (081- Test)2	EURL FH01 EURL-FV17 EURL-AO10 EURL-CF09 EURL-SRM10
DE	LUFA-ITL GmbH	LUFA	2013-10-07	DAkKS (D- PL-14083- 01-00)	EUPT-CF9 EUPT-AO10 EUPT-FV17 FAPAS 19202 QS spring 2015 QS fall 2015

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
NL	Groen Agro Control	GROENAGRO	2013-11-27	RvA (L335)	Fapas 19188, Fapas 19190, Fapas 19191, Fapas 19194, Fapas 19196, Fapas 996, Fapas 19197, Fapas 19199, Fapas 19201, Bipea (CS2, febr/2015) Bipea (CS2, jun/15) Bipea (CS2, sept/15) QS (pesticide, apr/15) QS (pesticide, okt/15) EURL AO-10 EURL CF-9 EURL FV-17 EURL FV-FH01 EURL RT FV17 EURL SRM 10
NL	Laboratorium Zeeuws-Vlaanderen BV	ZEEUWS	06-03-2012	RvA (L201)	BNN Lach & Bruns FAPAS test 19184 FAPAS test 19186 FAPAS test 19196 FAPAS test 19190 FAPAS test 19192 FAPAS test 05105 FAPAS test 0997 FAPAS test 19197 FAPAS test 19202 FAPAS test 19203 FAPAS test 07245 FAPAS test 20120 PROOF-ACS P1511-RT PROOF-ACS P1501-MRT PROOF-ACS P1513-RT PROOF-ACS P1519-RT EUPT-SRM10 EUPT-FV17 EUPT- CF9 LVU aardbei Relana Raspberries Relana Apples Relana Lemons Relana Chia seeds

1.5. Processing factors

Processing factors are applied when necessary to verify compliance of processed products with EU MRLs according to article 20 of Regulation 396/2005. Processing factors were mainly applied to cover the dehydration of fruits or vegetables.

Table 3: Processing factors

Pesticide (report name)	Unprocessed product (RAC)	Processed product	Processing factor	Comments
	Mushrooms	Dried mushrooms	9	General processing factor
	Gojiberries	Dried gojiberries	5	General processing factor
	Olive	Olive oil	5	General processing factor
	Grapes	Dried Grapes	5	General processing factor

1.6. Additional information

In 2015, 31 organic food and feed products were analysed by the FASFC. Pesticide residues were detected in two samples (aubergines and olives oil) but complied with the MRL set in Regulation 396/2005.

Annexes, details about pesticide residue control results 2015 :

Annex 1 : Scope of analytical methods, number of samples analysed for each residue by matrix

Annex 2 : products analysed, origin & exceedances of MRL observed

Annex 3 : number of residues detected per product

Annex 4 : overview of non-compliant samples