

Controls of pesticide residues in food and feed - Belgium 2012



Results of the official controls in accordance to Regulation (CE)
N°396/2005 and Commission Regulation (EC) N° 1274/2011

Pesticide Residue Control Results

“National summary report”

Country: *BELGIUM*

Year: *2012*

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. 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 is drawn up following the general statistical approach developed within the FASFC². Several factors are 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 other useful information.

All groups of fruits and vegetables are included in the programme and a rotation programme is 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) are also included in the national programme.

Adjustments of 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 taking into account the active substances authorised in Belgium, the result of previous control programmes in Belgium and other Member States, the RASFF and the analytical possibilities.

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 allowed in 2012 the detection of more than 500 pesticide residues.

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) N° 1274/2011 of 7 december 2011 concerning a coordinated multiannual control programme of the Union for 2012, 2013 and 2014 to ensure compliance with maximum levels of and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin

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

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

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

In 2012, a total number of 3504 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 (44,7%), EU origin (20,9%), non-EU origin (30,6%) and unknown origin (3,8%).

96,3% 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 : Products analysed for pesticide residues in 2012 with respect to the sampling strategy

Sampling strategy	Samples	Analysed	without residues (%)	with residues at or below MRL (%)	> MRL ⁶ (%)	>MRL ⁷ (Non compliant) (%)
Surveillance	Fruit, vegetables, cereals & other products of plant origin	2019	33,7%	61,5%	4,8%	2,3%
	Processed products (food)	250	67,2%	32,4%	0,4%	0%
	Animal products ⁸	555	83,6%	16,3%	0%	0%
	Baby food	82	99%	0%	1%	0%
	Feed	99	60,6%	37,3%	2%	2%
		3005	48,4%	48,2%	3,3%	1,6%
Enforcement	Fruit, vegetables, cereals other products of plant origin	160	23,1%	24,4%	52,5%	42,5%
	Animal products	2	0%	100%	0%	0%
	Regulation 669/2009	337	36,8%	55,2%	8%	3,6%
		499	32,2%	45,5%	22,2%	16%
TOTAL	3504	46%	47,9%	6,1%	3,7%	

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

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

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

➤ **Surveillance sampling**

3005 surveillance samples were analysed within the context of the control programme. 98,4% were compliant with the legislation in force.

Main MRL violations were observed in legume vegetables (peas from Kenya), thee & infusions (imported from asia), fresh herbs (among others mint and coriander from Marocco) and celery (from Belgium). All samples of processed products, babyfood, and animal products were compliant. The list of MRL exceedances is available found in table D of the summary report.

Table 2: Overview of the MRL violations per country of origin (Fruit, vegetables, cereals & other products of plant origin)

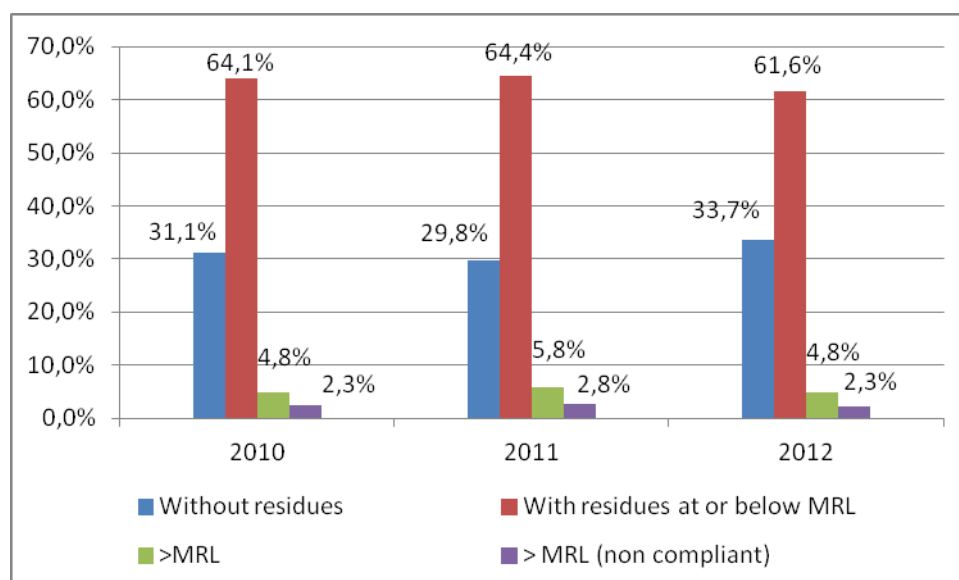
Origin country⁹	Number of samples analysed	>MRL (% non compliant)	Non compliant Products
MAROCCO	30	20,0%	Mint, Coriander, Beans (with pods)
EGYPT	11	18,2%	Chilipeppers, Spring onions
KENYA	22	18,2%	Peas (with pods), Beans (with pods)
SRI-LANKA	15	13,3%	Tea
CHINA	19	10,5%	Tea, Garlic
ARGENTINA	11	9,1%	Oranges
TURKEY	11	9,1%	Tea
ISRAEL	46	6,5%	Coriander, Mint
ITALY	64	1,6%	Celery
BELGIUM	928	1,5%	Celery, Strawberries, Lamb's lettuce, Turnips, Horseradish, Herbal infusions, dried, Celeriac, Broccoli, Basil
THE NETHERLANDS	109	0,9%	Broccoli
SPAIN	243	0,8%	Scarole (broad-leaf endive), Lentils (dry)
BRAZIL	15	0,0%	
CHILI	20	0,0%	
COLOMBIA	15	0,0%	
IVORY COAST	27	0,0%	
GERMANY	14	0,0%	
ECUADOR	11	0,0%	
ETHIOPIA	11	0,0%	
FRANCE	111	0,0%	
GREAT BRITAIN	10	0,0%	
INDIA	18	0,0%	
NEW-ZEALAND	33	0,0%	
PERU	19	0,0%	
UNKNOWN	35	0,0%	
SOUTH-AFRICA	42	0,0%	

⁹ Only countries where more than 10 samples were analysed are included in this table

As in previous years, more MRL violations were proportionally observed in non-EU products (4,9%) than in products grown in BE (0,9%) or the EU (0,7%) (see table A0 of the summary report).

The total rate of MRL violations in 2012 is slightly lower in comparison with 2011 (-0,3%). For fruit, vegetables, cereals & other products of plant origin, this rate is 0,5% down (see table 3).

Table 3: overview of the evolution of the results for fruit, vegetables, cereals & other products of plant origin from 2010 to 2012 (surveillance samples)



➤ **Enforcement sampling**

499 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 mainly from Thailand, the Dominican Republic, Egypt and China) and products analysed within the context of following up of violations found previously. 84% were compliant with the legislation

Main MRL violations were observed in fresh mint and coriander from Morocco (see table 4).

Table 4: overview of the MRL violations per country of origin (Fruit, vegetables, cereals & other products of plant origin)

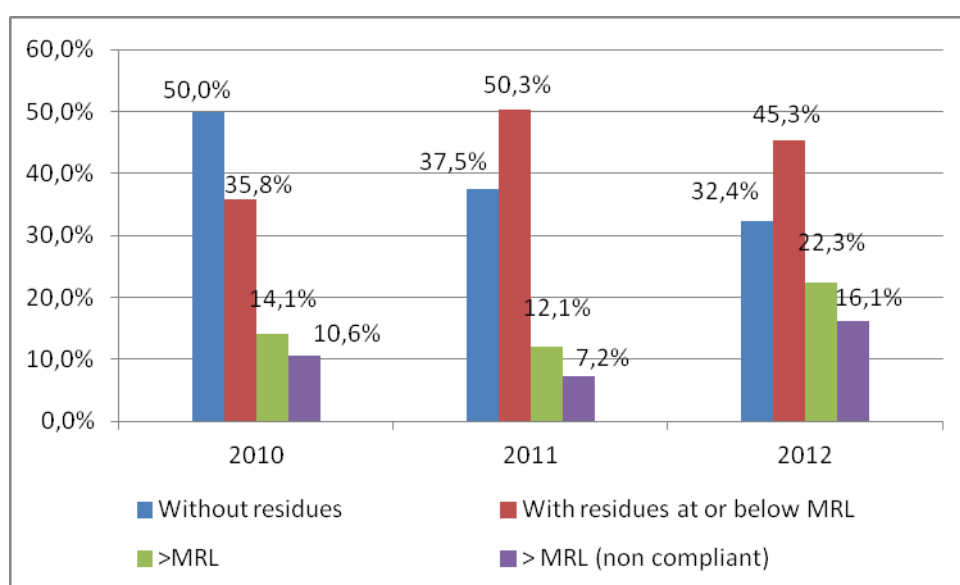
Origin country ¹⁰	Number of samples analysed	>MRL (% non compliant)	Non compliant Products
MAROCOCO	86	67,4%	Mint, Coriander
MALAYSIA	11	36,4%	Coriander
UNKNOWN	18	22,2%	Mint, Coriander
CHINA	57	10,5%	Tea

¹⁰ Only countries where more than 10 samples were analysed are included in this table

EGYPT	49	6,1%	Strawberries, Chilipeppers, Pomegranate
THAILAND	17	5,9%	Basil
BELGIUM	20	5,0%	Celery
DOMINICAN REPUBLIC	207	1,0%	Chilipeppers

Compared to previous years, the rate of non-compliant enforcement samples observed in 2012 is higher than in 2011 (see table 5). This is due to the high rate of non conformity of samples of mint and coriander from Morocco. Based on these results, mint was from first January 2013 subject to targeted control at border inspection posts in all the EU in application of Regulation 669/2009.

Table 5: overview of the evolution of the results for fruit, vegetables, cereals & other products of plant origin from 2010 to 2012 (enforcement samples)



3. Non-compliant samples: possible reasons 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 taken¹¹ according to the risk of the non compliant product for the consumer.

Twenty-two RASFF messages were issued by Belgium in 2012 for pesticide residues in food and feed¹² (see table 6).

Table 6 : RASFF message issued by the FASFC in 2012.

¹¹ 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>).

¹² http://ec.europa.eu/food/food/rapidalert/rasff_portal_database_en.print.htm

Products	Origin	MRL overschrijdingen	Context	Referentie
Mint	Marokko	Dimethoate & hexaconazole	FAVV	2012.1132
Mint	Marokko	chlorpyrifos, dimethoate & hexaconazole	FAVV	2012.1131
Aubergines	Uganda	dimethoate	FAVV	2012.0637
Pineapples	Togo	Ethephon	FAVV	2012.0639
Camomille (flowers)	Egypte	carbendazim	FAVV	2012.0431
Basilic	België	methiocarb	FAVV	2012.1684
Tea	China	acetamiprid	FAVV (VO 669/2009)	2012.AGW
Granaatappels	Egypte	lambda-cyhalothrin	FAVV (VO 669/2009)	2012.CGE
Tea	China	acetamiprid	FAVV (VO 669/2009)	2012.BZZ
Sweet peppers	Dominicaanse Republiek	dicofol	FAVV (VO 669/2009)	2012.BTG
Tea	China	Lufenuron & dimethoate (0.36 mg/kg - ppm)	FAVV (VO 669/2009)	2012.BWX
Tea	China	Pyridaben & fipronil	FAVV (VO 669/2009)	2012.BUE
Tea	China	methomyl, buprofezin, acetamiprid, imidacloprid & fipronil	FAVV (VO 669/2009)	2012.BTX
Sweet peppers	Dominicaanse Republiek	lambda-cyhalothrin	FAVV (VO 669/2009)	2012.BCU
Basilic	Thailand	chlorfluazuron	FAVV (VO 669/2009)	2012.ATN
Beans	Dominicaanse Republiek	Endosulfan, cypermethrin & dimethoate	FAVV (VO 669/2009)	2012.BQS
Tea	China	Buprofezin	FAVV (VO 669/2009)	2012.AZO
Origan	Nederland	benzalkonium chloride (BAC) & didecyldimethylammonium chloride (DDAC)	Autocontrole	2012.1555
Potatoes	Nederland	fluazifop-p	Autocontrole	2012.1665
Rode kolen	België	dimethoate & methiocarb	Autocontrole	2012.0915
Mint	Israël	dichlorvos	Autocontrole	2012.0848
Coriander	Malesië	methomyl, malathion, profenofos, carbendazim, fenobucarb & fipronil	Autocontrole	2012.0783

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 .

The cause of MRL violations is searched for as far as possible. The table below gives an overview of MRL non compliances found in products of Belgian origin in 2012 and the possible cause of the non compliance.

Product	Residue	Reason for MRL non compliance	Note
Strawberries	Dichlorvos	GAP not respected: use of non-authorized pesticide on all crops	
Strawberries	Procymidone	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Basilicum	Methiocarb	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Celery	Lambda-cyhalothr	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Celery	dimethoate (sum)	GAP not respected: use of pesticide non-authorized on the specific crop	
Celery	Fludioxonil	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Celery	Iprodione	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Brocolis	Pymetrozine	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Turnips	Dimethoate (sum)	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Celeriac	Prosulfocarb	GAP not respected: use of pesticide authorised on the specific crop - application rate and/or application method not respected	
Lamb's lettuce	Dieldrin (som)	Contamination: residues resulting from previous use of a pesticide (e.g. persistent pesticides no longer authorised, soil residues taken up in succeeding crops)	
Lamb's lettuce	Bromide	Contamination: residues resulting from previous use of a pesticide (e.g. persistent pesticides no longer authorised, soil residues taken up in succeeding crops)	
Horseradisch	Dithiocarbamates	Other (please specify in the "Note" column)	Natural occurrence of sulfur in horseradisch

4. Quality assurance

Country code	Laboratory Name	Laboratory Code	Accreditation Date	Accreditation Body	Participation in proficiency tests or interlaboratory tests
BE	Fytolab C.V.B.A	FYTOLAB	057-TEST version 10, dd 2012-07-27	BELAC	EU-PT FV14, EU-PT SRM7, EU-PT C6, EU-PT AO7, EU-PT FV-SM-04, FAPAS 1578
NL	Laboratorium Zeeuws-Vlaanderen BV	ZEEUWS	L 201 version 2012-07-20	RvA	EU-PT FV14, EU-PT SRM7, EU-PT C6, EU-PT AO7, FAPAS 15814, FAPAS 19130, FAPAS 19131, FAPAS 19134, FAPAS 19135, FAPAS 19138, FAPAS 19139, FAPAS 19169
BE	WIV - ISP (Pesticiden)	WIV-PEST	081-TEST version 13, dd 2013-04-19	BELAC	EU-PT FV14, EU-PT SRM7, EU-PT C6, EU-PT AO7, EU-PT FV-SM-04, FAPAS 1582
BE	Federaal Laboratorium voor de Voedselveiligheid Tervuren	FLVVT	014-TEST version 7, dd 2013-05-24	BELAC	EU-PT C6, EU-PT AO7, FAPAS 19132, KDLL PCB 12-1
BE	Laboratoire Fédéral pour la Sécurité Alimentaire Liège	LFSAL	014-TEST version 7, dd 2013-05-24	BELAC	EU-PT AO7, BIPEA 196-2012/10, BIPEA 196-2012/12, FAPAS 1582, FAPAS 0583
BE	CER Groupe - Département Santé	CER	073-TEST version 11, dd 2013-01-31	BELAC	EU-PT AO7, FAPAS 0587
DE	LUFA-ITL GmbH	LUFA	D-PL-14082-01 version 2013-07-10	DAkks	EU-PT FV14, EU-PT SRM7, EU-PT C6, FAPAS 19134, FAPAS 19139, FAPAS 0585

5. Additional Information

In 2012, 45 organic food and feed products were analysed by the FASFC. 5 samples showed the presence of pesticide residues but were compliant with the MRL legislation.

Additional information on pesticide residues and their control can be found on <http://www.afsca.be>.