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European Commission

RASFF

The Rapid Alert System for Food and Feed

2013 Annual Report

Health and Consumers

The Health and Consumers Directorate-General of the European Commission manages the Rapid Alert System for Food and Feed (RASFF). This report describes the activity of the RASFF in 2013.

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RASFF

The Rapid Alert System for Food and Feed

2013 Annual Report

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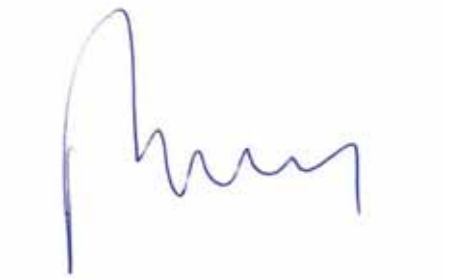
Foreword

2013 was another eventful year for food safety in Europe. It saw the "horsemeat scandal" which shook consumer confidence and trust in the food sold by supermarkets. As events unfolded, it was clear from the start, that the horsemeat scandal was not a food safety issue but rather an issue of food fraud. Consumers had been misled by products being labelled as containing beef which were in fact substituted with a cheaper option. No health risks were found with the adulterated products.

The Commission chose to use the Rapid Alert System for Food and Feed to uncover the scale of this food fraud, even though it had been designed to rapidly exchange information on health risks, The investigation revealed that the adulteration boiled down to a few dishonest operators looking to increase their profit margin illegally. As part its action plan, the Commission decided to set up a dedicated food fraud alert system, which is already up and running.

Reinforcing Europe's ability to fight food fraud will help strengthen our food safety systems. Although Europeans are protected by some of the highest food safety standards in the world, constant vigilance remains mandatory. New and emerging challenges need to be addressed. To name but two, described in this report: sales of food supplements on the internet, which seek to escape the vigilant eye of official inspection services and foodborne disease outbreaks or food contamination with previously unknown or uncommon pathogens.

Amidst these new challenges, the RASFF celebrates its 35th birthday this year. Together with EU countries, the Commission is continuously re-thinking its processes, linking it with other centres of excellence and shaping the RASFF for the future. The future is now and much of it happening online. For this reason, the Commission has developed an innovative online tool providing hyperlinks to useful information on product recalls and warnings for the general public, published by the food safety authorities or business operators in EU countries on foods notified to the RASFF just in time to mark its 35th anniversary.



Tonio Borg
European Commissioner for
Health and Consumer Policy

Acronyms used in this report

AZP	Azaspiracid Shellfish Poisoning (toxins)
BIP	Border Inspection Post
BfR	Bundesinstitut für Risikobewertung (German Institute of Risk Assessment)
CDC	(US) Centre for Disease Control and Prevention
CFU	Colony Forming Units
DMAA	1,3-dimethylamylamine
DNA	deoxyribonucleic acid
DSP	Diarrhoeic Shellfish Poisoning (toxins)
EC	European Commission
ECCP	European Commission Contact Point (for RASFF)
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFSA	European Food Safety Authority
EFTA	European Free Trade Association
EHEC	Enterohaemorrhagic Escherichia coli
EU	European Union
FDA	(US) Food and Drug Administration
GMO	Genetically Modified Organism
HAV	hepatitis A virus
HMF	hydroxymethylfurfural
HUS	Haemolytic Uremic Syndrome
IHR	International Health Regulations
INFOSAN	International Food Safety Authorities Network
iRASFF	RASFF's online platform
MRL	Maximum Residue Limit
MRPL	Minimum Required Performance Limit
NAFIQAD	National Agro-Forestry-Fisheries Quality Assurance Department of Vietnam
NCP	National Contact Point (for RASFF)
OJ	Official Journal
PCBs	Polycyclic Aromatic Hydrocarbons
PFGE	Pulsed Field Gel Electrophoresis
ppb	parts per billion
ppm	part per million
RASFF	Rapid Alert System for Food and Feed
REC	reinforced checks
SOP	standard operating procedure
STEC	shigatoxin-producing Escherichia coli
TRACES	Trade Control and Expert System
TSEs	Transmissible spongiform encephalopathies
US(A)	United States (of America)
UK	United Kingdom
VTEC	verotoxin-producing Escherichia coli

Contents

CHAPTER 1

RASFF in 2013

The year 2013 will be remembered by food safety professionals as the year of the return of the focus on "food fraud". It is correct to speak of a return, as food fraud has existed as long as there has been food trade. It is good to remember that the first national laws regarding food were about food "wholesomeness" and "integrity" and aimed to counteract and punish food fraudsters. Not long after the horse meat fraud issue broke out in Ireland and the United Kingdom, RASFF was chosen as a crucial tool to trace back and withdraw products in which horse meat was detected. More details about this can be read in chapter 3.1.

Furthermore, the discovery of chloramphenicol in enzyme preparations for use in food and in feed sparked a lot of enforcement action tracing and withdrawing non-compliant products, see chapter 2.1.1.

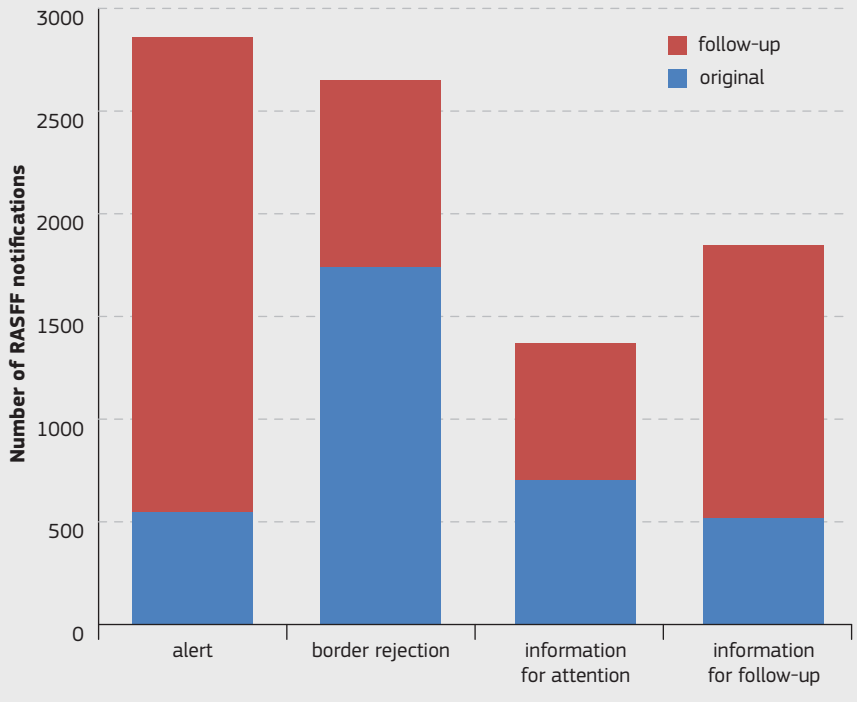
Cases of adverse health effects with food supplements have demonstrated (see chapter 2.3.3) that consumers buying these products over the internet should be aware that they do not always contain what is on the label or can be hazardous if over-consumed or combined with other products such as medication.

Foodborne outbreaks are still challenging both health and food safety professionals to work hard in preventing and stopping them. Data exchanged through RASFF is used at the same time to remove unsafe products from the market and to identify where the contamination occurs that is making people ill (see chapter 2.2).

1.1. Notification numbers

In 2013, a total of 3205 original notifications were transmitted through the RASFF, of which 596 were clas-

Figure 1 - 2013 RASFF notifications by classification



sified as alert, 442 as information for follow-up, 705 as information for attention and 1462 as border rejection notification. These original notifications gave rise to 5158 follow-up notifications, representing on average about 1.6 follow-ups per original notification.

These figures represent an 8.8% decrease in original notifications and less importantly, a 2.3% decrease in follow-up notifications; resulting in an overall decrease of 4.9%.

The RASFF news transmitted internally in the network are not counted in the above figures nor represented in the charts in this report. There have been 38 RASFF news sent together with 204 follow-ups. This means that information transmitted as RASFF news increased by 137% compared to 2012.

After receipt of follow-up information, 11 alert, 38 information and 19 border rejection notifications were withdrawn. Notifications that were withdrawn are further excluded from statistics and charts.

The European Commission decided, after consulting the notifying countries, not to upload 231 notifications onto the system since, after evaluation, they were found not to satisfy the criteria for a RASFF notification (rejected notifications). This represents a 245% increase compared to 2012.

RASFF notifications are triggered by a variety of things. The majority of notifications concern controls at the outer EEA borders[1] in points of entry or border inspection posts when the consignment was not accepted for import ("border control – consignment detained"). In some cases, a sample was taken for analysis at the border (screening) and the consignment was released ("border control - consignment released"). The second largest category of notifications concerns official controls on the internal market[2]. Three special types of notifications are identified: when a consumer complaint, a company notifying the outcome of an own-check, or a food poisoning was at the basis of the notification.

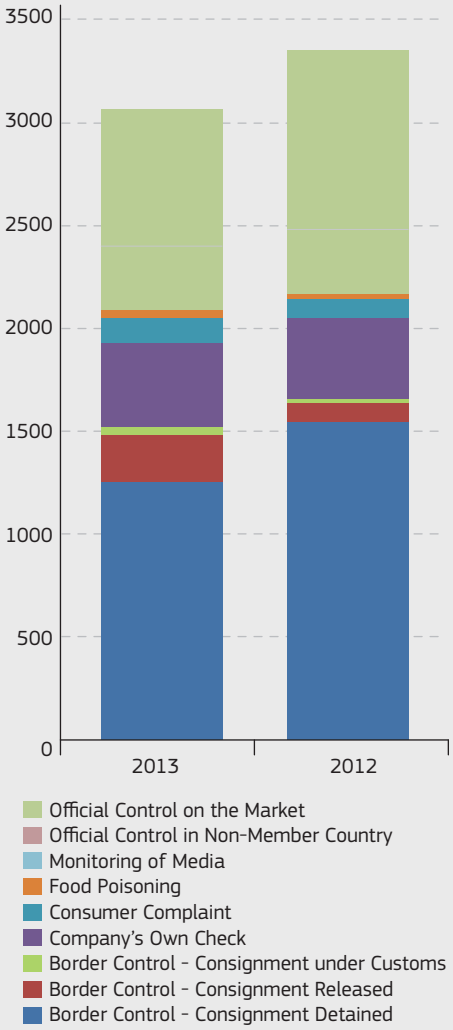
A small number of notifications are triggered by an official control in a non-member country. If a non-member country informs a RASFF member of a risk found during its official controls concerning a product that may be on the market in one of the member countries, the RASFF member may notify this to the Commission for transmission to the RASFF network. In 2013 there was only one such notification:

- 2013.0834 - Salmonella Mbandaka (presence /25g) and Salmonella Montevideo (presence /25g) in tahini sesame paste from Turkey – information provided by the U.S. IHR National Focal Point through INFOSAN

All information on the RASFF can be found on the website at:

http://ec.europa.eu/food/food/rapidalert/index_en.htm

Figure 2 - 2013 RASFF notifications by notification basis



1 Since 2009, including Switzerland.

2 Products placed on the market in one of the member countries including the EEA countries Norway, Liechtenstein and Iceland.

CHAPTER 2

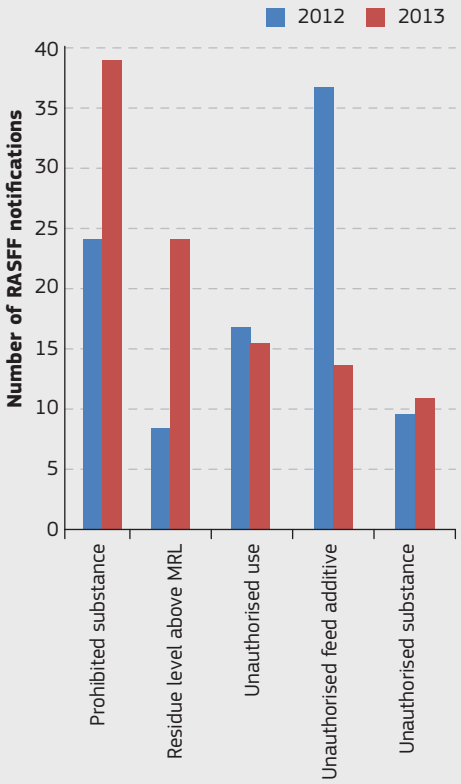
What was notified to RASFF: our selection

2.1. Residues of veterinary medicinal products

In 2013, 94 RASFF notifications concerned issues with veterinary medicinal products of which 9 concerned feed. In total, as many as 43 different substances were reported.

RASFF notifications for residues of veterinary medicinal products can be divided into the following groups, depending on the "legal status" of the substance detected:

Figure 3 - Residues of veterinary medicinal products in food and feed reported to RASFF in 2012-2013



2.1.1. Prohibited substances

These are substances that have been explicitly forbidden for use as or in veterinary medicines. Therefore there should be no trace of them in foods. Nonetheless for several of these substances, so-called "Reference Points for Action" (RPA) have been established. Only above this limit action is required, therefore it is not necessary to submit a RASFF notification when finding such a substance at a level below the RPA, which is an extremely low level and should therefore not be confused with a legal limit.

The main reason for the sharp increase in notifications on prohibited substances was the higher number of reports (29) on chloramphenicol. Most of the notifications (20) were related to findings of chloramphenicol in enzyme preparations that ended up in food and feed premixes (see chapter 2.1.1.1 for more details). Five notifications concerned shrimps of which four originated from China. Two more notifications were made on products in which enzymes had been included. Two notifications concerned chloramphenicol residues detected in food supplements.

There were 10 notifications on nitrofuran metabolites in 2013, most of them concerning shrimps from different origins but there was also an issue with cattle stomachs from Brazil found with residues of semicarbazide (3 notifications). Semicarbazide may be present due to environmental contamination. It can therefore not be considered as sufficient proof of "illegal use" of veterinary medicines. As on-farm inspections are not possible in case of third country imports, its presence is monitored by reinforced checks of suspect products and the relevant competent authorities are notified of any anomalies. In the case of Brazil, no more consignments have been presented for import since reinforced checks were introduced.

2.1.1.1. Presence of chloramphenicol in enzymes

End of July 2013, a high level of chloramphenicol was detected in an enzyme preparation for feed and notified

to the RASFF. Further investigations could relate the contamination to high levels of chloramphenicol in xylanase coming from Japan. Following a request, Japanese authorities confirmed that the contaminated ingredient originated from India. The Commission's RASFF contact point requested the Indian authorities to perform investigations to identify the source of contamination and to take measures to avoid such a contamination in the future. The Indian authorities have committed to investigate the contamination incident and to report the findings. However no information as regards the source of contamination has been received from the Indian authorities.

Besides xylanase, also amylase, pectinase, glucanase and cellulose were found contaminated. Not only enzymes intended for feed but also for use in the food processing (mainly in wine making, beer brewing and bakery) were affected by the contamination incident. All contaminated enzymes and enzyme preparations could be traced back to three companies in India, either directly or indirectly (via Japan) imported into the EU.

For the management of this contamination incident, it has been agreed that the MRPL of 0.3 µg/kg for chloramphenicol in food of animal origin, established by Commission Decision 2002/657/EC[3], is also to be applied to enzymes, enzyme preparations, premixtures, compound feed, ingredients for food processing and food of non-animal origin. The enzymes, enzyme preparations, premixtures and food ingredients (semi- finished food products) in which the presence of chloramphenicol in quantifiable amounts had been analysed with a method of analysis able to quantify the presence of chloramphenicol at least at a level of 0.3 µg/kg (MRPL) could not be used anymore for feed and food production, could not be placed on the market and had to be withdrawn from the market. The same applied for compound feed and food ready for consumption but the presence of chloramphenicol in quantifiable amounts had not been observed in such products.

Given that the Indian authorities have not provided information on the source of contamination and consequently could not provide guarantees for the future exports of enzymes to the EU, it has been decided to establish in the frame of Commission Regulation (EC) 669/2009[4] an increased control frequency of 50 % at import on all consignments of enzymes and enzyme preparations originating from India from 1 April 2014 onwards.

3 OJ L 221, 17.08.2002, p. 8

4 OJ L 95, 29.3.2014, p. 12

2.1.2. Unauthorised substances and unauthorised feed additives

Unauthorised substances differ from the substances referred to above in that they have not been explicitly banned in legislation but can only be used in veterinary medicines or in feed for which an authorisation has been applied for and granted. The substances in this case have not been authorised for use in veterinary medicines or in feed and therefore no residue of these substances is allowed to be present in food or in feed.

In food, 3 notifications reported findings of (leuco)malachite green in fish, of which 2 originated in Poland. Phenylbutazone detections in horse meat and products containing horse meat gave rise to nine notifications. Certainly some of these analyses took place as part of the monitoring programme on beef checking possible adulteration with horse meat. Effectively, three of the notifications for phenylbutazone were transmitted regarding a product labelled as beef in which through DNA analysis a substantial part was found to be horse meat.

Out of the 15 notifications for unauthorised feed additives, 13 concerned clopidol in poultry, an anticoccidial substance that is authorised in some non-EU countries (10 from Israel, 2 from Argentina and 1 from Brazil). Despite reinforced checks, the situation in Brazil in 2013 contrasted sharply with findings in 2012, when 24 notifications were received for this substance in poultry products.

2.1.3. Residue level above MRL

For many substances legislation has set maximum residues limits (MRL) in tissues of certain animal species. Often these substances are added to feed and withdrawal periods need to be respected prior to slaughter, in which the administration of the medicated feed is stopped, to ensure that the medicinal substances will be sufficiently metabolised in the animal and no residues are left in the food or at least not above the MRL. For the same reason MRLs are set for some types of feed administered to animals just before slaughter or for birds reared for laying but almost all notification reporting MRL exceedances are on food and more in particular poultry (8), pork (7), shrimps (3), fish (3) and beef (2).

2.1.4. Unauthorised use

Notifications in the group "unauthorised use" are notifications related to substances that are authorised for a particular use in certain animals or feeds but not in all. MRLs are established for tissues from these animals. If no MRLs are established for certain animals then the use of the substances on these animals is not authorised. In products derived from these animals, no residues are permitted.

Two notifications concerned the unauthorised presence of enrofloxacin and sulfadimidine in feed. Four notifications found ivermectin in beef from Brazil, which was reported more frequently in previous years, especially in 2011.

2.2. Food poisoning

Since 2008, the RASFF has identified those cases where food poisoning is reported in a RASFF notification. In 2013, 53 such cases were recorded, an increase of 12 compared to 2012. Details are given in Table 1.

The term food poisoning, as used in this report, covers a broader spectrum of disease symptoms than the "classical" food poisoning caused by pathogenic bacteria or viruses. As can be seen from Table 1, also undesirable chemicals, the wrong composition of a food supplement or insufficient labelling not mentioning an allergenic substance can be the cause of food poisoning. In Table 1, a food poisoning incident is called an outbreak when more than one person is affected by the same source of illness. It is called a multi-country outbreak if the symptoms reported in different geographical locations can be linked back to the same food. The table does not cover all outbreaks or food poisoning incidents that occurred in the EU in 2013. It does try to cover those incidents that led to a RASFF notification. It is possible that there were food poisoning incidents that were the basis of a RASFF notification that were not identified as such. It is also possible that an incident was not reported to RASFF because the product and outbreak had a local character and had no consequences for other RASFF members.

Table 1 - RASFF notifications on food poisoning in 2013

case	date	reference	PA	notification type	notified by	subject	distribution
1	03-Jan-13	2013.0002	4	food - information for attention	Germany	presence of poisonous mushrooms (Gyromitra esculenta) in dried black morels from the Czech Republic	Germany
2	11-Jan-13	2013.0033	5	food - alert	France	norovirus in live clams from Portugal, via Spain	France and Spain
3	11-Jan-13	2013.0034	8	food - alert	France	norovirus in oysters from Spain	France
4	18-Jan-13	2013.0060	1	food - alert	Sweden	Salmonella Rissen (presence /25g) in dried organic Chlorella algae packaged in Sweden, with raw material from China, via the United Kingdom	Sweden
5	18-Jan-13	2013.0057	3	food - information for attention	Italy	histamine (4550 mg/kg - ppm) in tuna loins from Spain	Italy
6	18-Jan-13	2013.0061	4	food - information for attention	Italy	foodborne outbreak suspected (histamine poisoning) to be caused by chilled tuna (Thunnus albacares) from Spain	Italy
7	22-Jan-13	2013.0077	9	food - alert	Denmark	norovirus in chilled live oysters (Crassostrea gigas) from France	Belgium, Czech Republic, Denmark, Germany, Italy, Netherlands, Russia and Sweden
8	23-Jan-13	2013.0079	3	food - alert	Netherlands	toxic herbal extracts in marshmallow (Althea officinalis) from Bulgaria, via Germany	Australia, Belgium, Canada, France, Netherlands and South Africa
9	31-Jan-13	2013.0107	3	food - information for attention	Italy	norovirus (group I and II) in chilled oysters (Crassostrea gigas) from France	Italy
10	31-Jan-13	2013.0103	4	food - information for attention	Netherlands	food supplements (drink) from the Netherlands with defective packaging	Netherlands and Taiwan
11	31-Jan-13	2013.0104	1	food - alert	Denmark	undeclared milk ingredient (casein: 1-50 and betalactoglobulin: 0.61-2.5 mg/kg - ppm) in chilled mortadella from Italy	Denmark and Latvia
12	01-Feb-13	2013.0124	4	food - information for attention	France	histamine (up to 4375 mg/kg - ppm) in frozen tuna (Thunnus albacares) from Vietnam	France
13	01-Feb-13	2013.0128	11**	food - alert	Italy	foodborne outbreak (histamine) suspected to be caused by chilled tuna (Thunnus albacares) from Spain	Italy
14	01-Feb-13	2013.0132	4**	food - information for attention	Italy	foodborne outbreak (histamine) suspected to be caused by fresh tuna from Spain	Bosnia and Herzegovina and Italy
15	08-Feb-13	2013.0164	2	food - information for attention	Italy	histamine (2245; 2493 mg/kg - ppm) in chilled tuna steaks from Spain	Italy

case	date	reference	PA	notification type	notified by	subject	distribution
16	14-Feb-13	2013.0191	2	food - alert	Sweden	shigatoxin-producing Escherichia coli (0157: H7) in frozen hamburgers from Sweden, with raw material from the Netherlands and Poland	Belgium, Denmark, Estonia, Finland, France, Germany, Netherlands, Portugal, Spain, Sweden and United Kingdom
17	19-Feb-13	2013.0206	9	food - information for attention	Denmark	norovirus in chilled oysters (Crassostrea gigas) from France	Denmark
18	20-Feb-13	2013.0220	7	food - alert	Nether-lands	norovirus (presence /10g) in oysters from France	France and Netherlands
19	27-Feb-13	2013.0256	1	food - alert	Finland	traces of milk in chocolate easter eggs with filling from Finland	Belgium, Estonia, Finland, Germany and Sweden
20	28-Feb-13	2013.0264	5	food - alert	Denmark	norovirus (GGI and GGII) in chilled oysters (Crassostrea Gigas) from France	France
21	15-Mar-13	2013.0372	10	food - information for attention	Denmark	norovirus (Norovirus GGI and GGII found in all 4 samples) in chilled oysters (Crassostrea Gigas) from the Netherlands	Denmark and Netherlands
22	15-Mar-13	2013.0377	37	food - alert	Norway	norovirus (genogroup I and II detected) in oysters from Spain, via the Netherlands	Austria, Belgium, Denmark, Germany and Norway
23	02-Apr-13	2013.0463	1	food - alert	Italy	histamine (2690; 2740; 2481 mg/kg - ppm) in canned tuna in olive oil from France, with raw material from Côte d'Ivoire	Italy
24	11-Apr-13	2013.0524	21**	food - alert	France	foodborne outbreak suspected to be caused by mussels from Spain	Algeria, Belgium, Denmark, Estonia, France, Germany, Latvia, Lithuania, Mauritius, Monaco, Russia and Ukraine
25	18-Apr-13	2013.0559	12	food - information for attention	Spain	norovirus (presence) in clams from Portugal	Spain
26	18-Apr-13	2013.0561	?	food - information for attention	Italy	foodborne outbreak (hepatitis A virus) suspected to be caused by mussels (Mitylus galloprovincialis) from Slovenia	Italy
27	14-May-13	2013.0667	1**	food - information for attention	Italy	food poisoning (hepatitis A virus) suspected to be caused by chilled oysters from France and the Netherlands	Italy
28	17-May-13	2013.0694	4 (MC)	food - alert	Italy	hepatitis A virus in frozen berry mix from Italy, with raw material from Bulgaria, Canada, Poland and Serbia	Germany and Italy
29	17-May-13	2013.0696	6	food - alert	Finland	presence of thorn-apple (Datura stramonium L) seeds in frozen vegetable-bean-seed mix from Belgium, with raw material from Spain	Andorra, Barbados, Estonia, Finland, Germany, Ireland, Lithuania, Malta and Russia
30	23-May-13	2013.0714	5	food - alert	Switzer-land	histamine (290; 4200 mg/kg - ppm) in anchovies in olive oil from Spain	Switzerland
31	31-May-13	2013.0764	2	food - information for attention	Italy	histamine (1323 mg/kg - ppm) in chilled sardines from Italy	Austria, Italy, Slovenia and Spain
32	03-Jun-13	13-699	90 (MC)**	food - news	Denmark	suspicion of hepatitis A virus in frozen strawberries from Morocco and Egypt, packaged in Belgium	Denmark, Estonia, Finland, Latvia, Lithuania, Norway and Sweden
33	20-Jun-13	2013.0866	1	food - alert	Sweden	allergic reaction caused by chocolate product using an alternative to milk and lactoprotein (510; 980; 990 mg/kg - ppm) in chocolate bars from the United Kingdom	Belgium, Netherlands and Sweden
34	20-Jun-13	2013.0870	2	food - information for follow-up	Denmark	Clostridium perfringens (49; 2 CFU/g) in pig bones with meat from Italy	Denmark
35	02-Jul-13	2013.0925	49	food - alert	France	foodborne outbreak (Salmonella enteritidis) caused by eggs from Spain	France
36	08-Jul-13	2013.0963	9	food - information for attention	Italy	norovirus (G I) in oysters from France	Italy
37	17-Jul-13	13-706	16	food - news	Ireland	hepatitis A outbreak in Ireland	Austria, Azerbaijan, Belgium, Cyprus, Czech Republic, Germany, Greece, Hungary, Ireland, Italy, Netherlands and Russia
38	19-Jul-13	2013.1006	105	food - alert	France	Diarrhoeic Shellfish Poisoning (DSP) toxins - okadaic acid (495.3 µg/kg - ppb) in and foodborne outbreak caused by mussels from Greece	France, Italy, Spain and United Kingdom
39	24-Jul-13	2013.1034	13**	food - alert	France	foodborne outbreak suspected to be caused by eggs from Spain	France

case	date	reference	PA	notification type	notified by	subject	distribution
40	31-Jul-13	2013.1066	1	food - information for attention	Spain	adverse reaction caused by whey protein concentrate from the United Kingdom	Spain
41	06-Aug-13	2013.1087	2	food - information for attention	Italy	hepatitis A virus in mix of frozen berries from Italy, with raw material from Chile, Poland, Serbia and Sweden	Italy
42	16-Aug-13	2013.1142	11	food - alert	Nether-lands	adverse reaction (11 cases reported) caused by food supplement from the United States	Belgium, Cyprus, Denmark, France, Germany, Greece, Ireland, Italy, Malta, Netherlands, Norway, Poland, Portugal, San Marino, Slovenia, Spain, Sweden and United Kingdom
43	23-Aug-13	2013.1162	1	food - alert	Norway	Clostridium botulinum (toxin type A) in almond puree from France	France and Norway
44	05-Sep-13	2013.1216	3	food - information for attention	France	Listeria monocytogenes (<10 CFU/g) in raw sheep's milk cheese and pasteurised milk yoghurt from France	France
45	10-Sep-13	2013.1237	40	food - alert	France	poisonous (suspected of having caused sudden death of approximately 40 dogs) dried dog food from Spain	Algeria, Bulgaria, Croatia, Cyprus, Czech Republic, France, Greece, Italy, Lithuania, Malta, Philippines, Poland, Portugal, Romania, Saudi Arabia, Slovakia and Spain
46	11-Sep-13	13-710	49**	food - news	United Kingdom	foodborne outbreak (Salmonella typhimurium) suspected to be caused by cooked ham from the United Kingdom, with raw material from Denmark	United Kingdom
47	08-Nov-13	2013.1471	1	food - alert	Finland	Salmonella spp. (presence /25g) in frozen salted chicken breast fillet from Thailand, via the Netherlands	Finland
48	02-Dec-13	2013.1596	112	food - alert	United Kingdom	foodborne outbreak caused by and Azaspiracid Shellfish Poisoning (AZP) toxins - azaspiracid in chilled mussels from Ireland, processed in the Netherlands	Austria, Czech Republic, France, Ireland, Netherlands and United Kingdom
49	03-Dec-13	2013.1602	1	food - information for attention	Italy	hepatitis A virus in frozen mixed berries from Italy, with raw material from Bulgaria and Poland	Italy
50	12-Dec-13	2013.1649	29	food - alert	Finland	norovirus in frozen raspberries from Poland	Belgium and Finland
51	20-Dec-13	2013.1706	15	food - alert	Switzer-land	Azaspiracid Shellfish Poisoning (AZP) toxins - azaspiracid (up to 1225 µg/kg - ppb) in cooked mussels in white wine sauce from the Netherlands, with raw material from Ireland	Switzerland
52	23-Dec-13	2013.1723	2	food - information for attention	Italy	histamine (> 1920 mg/kg - ppm) in fillets of anchovies (Engraulis encrasicolus) in oil from Morocco	Italy
53	30-Dec-13	2013.1736	13	food - alert	Denmark	norovirus (GI detected) in frozen whole raspberries from Poland, with raw material from Serbia	Denmark, Estonia, Finland, Lithuania, Norway and Sweden

*PA = persons affected, reported at the time of the original notification, i.e. the figure does not necessarily represent the total number of persons affected

** there was inconclusive evidence linking the food with the patients' symptoms

(MC) multi-country outbreak

Of the cases highlighted in the table details are given below.

presence of poisonous mushroom (Gyromitra esculenta) in dried black morels from the Czech Republic	Case 1
	Gyromitrin is a toxic and presumably carcinogenic chemical compound found for example in the false morel (Gyromitra esculenta), a toxic fungus indigenous to Europe and North America. Consumption of the raw fungus can prove fatal. Even after cooking, the false morel can be harmful to health. The package of morels in question was bought online. In Germany about 140 100g packages of the product were sold online within the country. All consumers were contacted directly by the supplier and the remaining stock was seized. Additionally a public warning was released. The product was traced back to a seller in the Czech Republic, who had bought a total amount of 110 kg of dried black morels from unidentified mushroom pickers from Slovakia and sold the entire batch to the German trader.

shigatoxin-producing Escherichia coli (O157: H7) in frozen hamburgers from Sweden, with raw material from the Netherlands and Poland	Case 16 Two persons in Sweden developed symptoms of EHEC poisoning, after consuming hamburgers that were manufactured in Sweden, using raw material from a cutting plant in the Netherlands that had cut meat from slaughterhouses in Hungary, Poland, the United Kingdom and Latvia. As a precaution, the Netherlands provided information of the recipients in France, Sweden, Denmark, United Kingdom, Belgium, Finland and Germany. Before this outbreak, during September and October 2012 Denmark experienced an outbreak with an identical strain of VTEC O157:H7 with 13 cases, 8 of which experienced Haemolytic Uremic Syndrome (HUS). Hypothesis is minced beef sold in Danish supermarkets; establishment traceability systems in place identified two separate establishments producing the minced meat. Further tracing of raw material showed two Danish slaughterhouses (meat slaughtered on two consecutive dates). Among the traceability information was also batches of meat purchased from the Dutch meat processor but from a different slaughterhouse. However these deliveries did not match the outbreak incident nearly as well as meat of Danish origin. Further information including the results of comparative PFGE analyses of both Swedish and Danish strains was unfortunately not received through RASFF.
hepatitis A virus in frozen berry mixes from Italy, with raw material from Bulgaria, Canada, Poland and Serbia	Cases 28, 37, 41, 49 These cases are considered to be related because the hepatitis A virus (HAV) strain found on the berries and in patients was identical.  Since 1 January 2013, 1 315 cases of HAV infection have been reported by 11 Member States as potentially linked to the ongoing HAV infection outbreak. Of these, 240 were confirmed outbreak cases, sharing the same sequence of the viral genome. When first declared, the outbreak was associated with travel to Italy. Besides Italy, seven Member States reported cases with no travel history, namely France, Germany, Ireland, Norway, the Netherlands, Sweden and the UK. In 2013, eleven RASFF notifications concerned HAV contaminated lots of which three were related to foodborne outbreaks in Italy. The first outbreak was reported to RASFF on 17 May 2013 and concerned a household of 4 people who ate cheese cake garnished with a mix of redcurrants, blackberries, raspberries and blueberries. Analysis of the package confirmed the presence of HAV. With current methods it is still very difficult to confirm HAV in a food matrix such as berries. So far the only laboratory that is proficient at finding HAV in berries is located in Italy. Finding HAV does not mean that it is known which of the berry ingredients caused the outbreak. Soon after, Italy was able to detect HAV in another batch of the same product and in a berry mix from another processor. Traceability investigations were carried out to find matching raw materials between the reported cases (backwards traceability) and to withdraw the contaminated products from the market (forwards traceability). In August, more outbreaks were reported in Italy (case 41) but before also in Ireland (case 37) with the same HAV strain. Ireland made numerous requests countries in which suppliers of berries were located. Taking into account the long incubation period before the cases showed illness, a whole range of foods (more than 80) containing berries were potentially linked to the outbreak and traced. Despite extensive testing by the Italian laboratory, all samples returned negative for HAV. On 23 October 2013, the European Commission requested EFSA, through a mandate, to coordinate the trace back and trace forward exercises in the affected Member States. EFSA established a working group with the participation of affected Member States, the European Commission, ECDC, and the German Institute for Risk Assessment (BfR) to coordinate the collation of tracing information via the RASFF platform and perform network analysis in order to identify possible “hot spots” in the supply chain for further investigation (HAV Trace exercise). Tracing activities have been prioritized based on the level of evidence of HAV contamination and focussed on frozen blackberries, raspberries, blueberries, redcurrants and blackcurrants supplied to Italy and Ireland and fresh berries supplied to or produced within the Netherlands. Food trace back activities are currently ongoing in Sweden, France and Norway where new outbreaks with the same HAV strain have been reported and their results will be incorporated into the HAV Trace exercise. The investigation of three French cases with onset in February 2014 showed that these were linked by the consumption of mixed berry cakes. HAV was identified in a sample of the implicated berries. Based on the available trace back data, there is no conclusive evidence for the specific vehicle of infection or for the source of contamination. As the data collection and analysis is ongoing, this situation may still change. To be continued…

suspicion of hepatitis A virus in frozen strawberries from Morocco and Egypt, packaged in Belgium	Case 32
	The strain of Hepatitis A, type 1B seen in all 4 Nordic countries (DK, SE, FI and NO) match on sequence level. The sequence is a close resemblance also to sequences previously seen in outbreaks related to North Africa in contrast with the sequence related to the outbreaks in Italy, Ireland and the Netherlands, which is linked to outbreaks in Eastern Europe. Case-control studies in Denmark and Sweden both identified frozen strawberries as the most likely source of food item causing the outbreak. Samples of suspected foods were taken from patients' homes and from supermarkets where the foods were purchased. None of the samples have shown positive results concerning presence of HAV. Even though the consumers in Denmark were warned of the risk both by the advice in the labeling on the products to boil the berries before use and by press release from 14 March 2013 that an outbreak was ongoing and that the DVFA strongly advised to boil all frozen berries for at least 1 minute before consumption, the outbreak continued. The number of cases per week in Denmark declined significantly following the recall of frozen strawberries on 30 May 2013. A combined analysis was performed including patients and controls from Denmark, Norway, Sweden and Finland. This too concludes that the most probable source of the outbreak is frozen strawberries. The initial step taken to trace back the products concerned was to survey the Danish retail market for brands of frozen berries (not just strawberries) that were distributed to all four countries concerned and that were using strawberries of North African origin. Further detailed information concerning their purchases of frozen berries was collected either by sampling, interview or tracing purchases by credit card. Retail shops in Denmark and Norway are able to provide full receipts from their cash-register systems for purchases made using a credit card, which has proven to be very useful information for identifying foods involved in an outbreak.[1]

adverse reaction caused by food supplement from the United States	Case 42
	The product adversely affected 11 persons in the Netherlands with symptoms varying between cardiac arrest, palpitations, pain in the chest, nausea and headache. The product was sold in several compositions and amounts often through online webshops. It is not clear which variety caused the complaints but information exchanged through RASFF enabled authorities in no less than 18 countries to take appropriate measures. Other food supplements reporting a potentially dangerous combination of synephrine and caffeine were notified frequently by Finland and Denmark. Such supplements are often sold for having a fat burning or energy boosting effect. But often their exact composition is not clear and the safety of the ingredients not guaranteed.

poisonous (suspected of having caused sudden death of approximately 40 dogs) dried dog food from Spain	Case 45
	In this case the pets – not their owners – were affected. In 2006, the scope of the RASFF was extended to include animal health issues in relation to feed and this also includes pet food issues. Ever since from time to time incidents causing severe suffering and even death to pets such as dogs have been reported. Information from the Spanish authorities revealed that the company placing the compound feed on the market had been adding cocoa and cocoa husks to the feed. The French authorities confirmed that the feed contained theobromine levels that were toxic for dogs. The Spanish authorities proceeded with the withdrawal from the market of all pet food manufactured by the company in question. 

5 Information source: Danish Veterinary and Food Administration

2.3. Composition of dietetic foods and food supplements

As case 42 in the above chapter illustrates, the composition of food supplements can be of concern for the health of consumers and at the same time the distribution model of these products is very diverse and volatile, making it difficult for food control authorities to carry out effective enforcement.

2.3.1. Unauthorised placing on the market

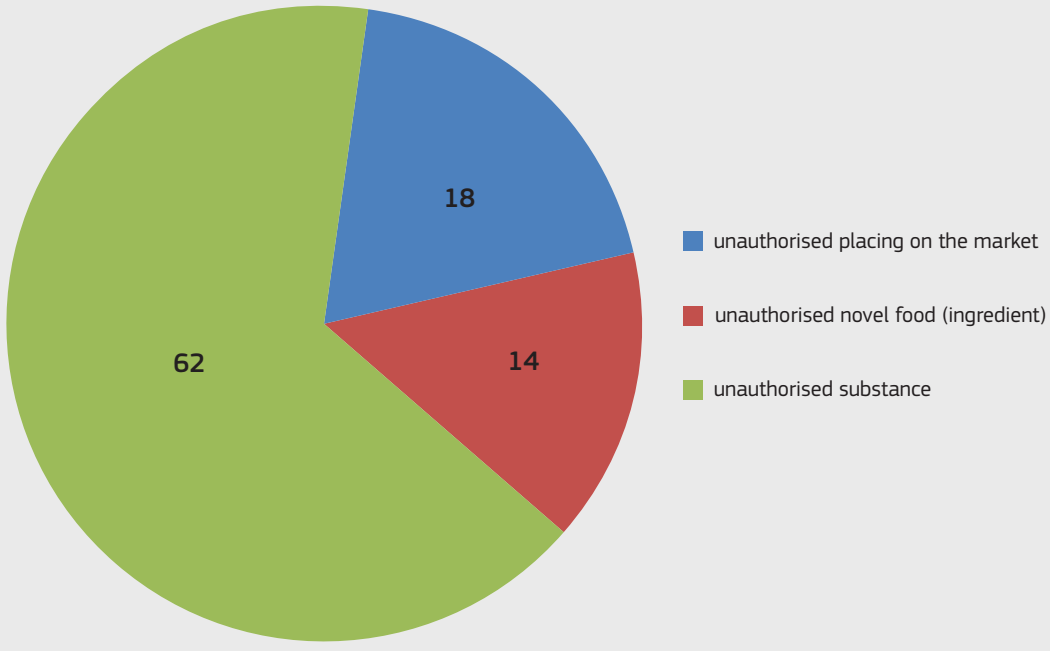
These concern mostly plant parts used in food supplements that require authorisation in the country in which the product is marketed. The authorisation procedure is in place to ensure safety of the products. Products containing ingredients or claims of a medicinal nature fall under a different legislation and should apply for authorisation as medicinal products. They are notified to RASFF if they are marketed as (dietetic) foods or food supplements.

Tribulus terrestris was the most notified ingredient in such unauthorised products, placed on the market by a Dutch company but not authorised in Denmark. It is marketed as benefiting muscle-building and is also used a number to treat of health conditions such as vascular diseases or certain sexual disorders. Whereas the different parts of the plant and fruits are used in traditional medicine in Asia, neither its effectiveness nor its harmlessness has been scientifically proven.

2.3.2. Unauthorised novel food (ingredients)

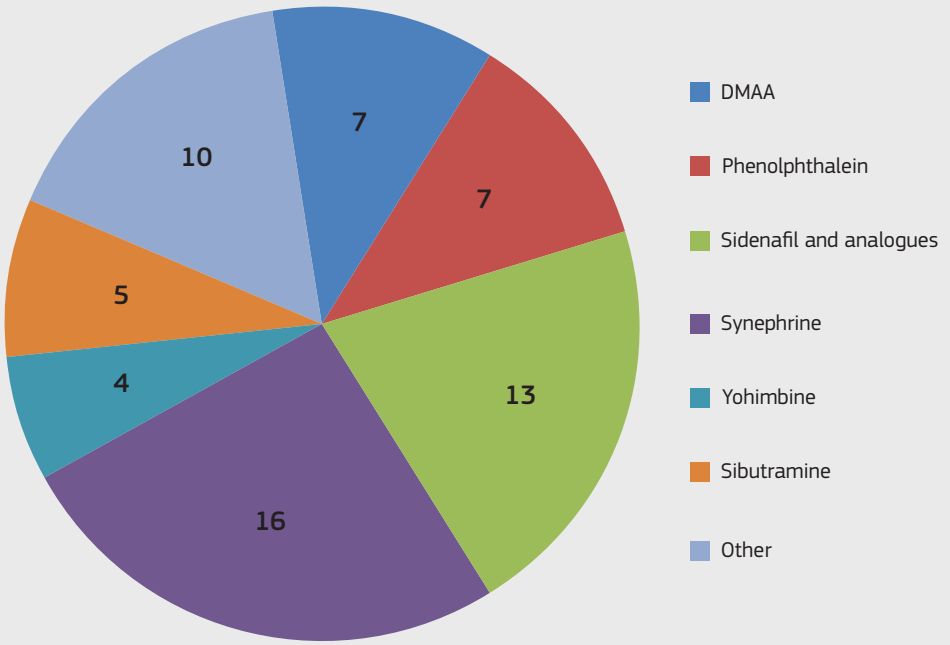
This category is similar to the previous one, only in this case a harmonised EU legislation applies6. Foods or ingredients that were not marketed prior to 15 May 1997 need to undergo an authorisation procedure before they can be placed on the market in the EU. The Commission has adopted a new proposal to enable a faster authorisation of innovative food without compromising the high level of public health protection and

Figure 4- Composition of dietetic foods and food supplements



6 Regulation (EC) No 258/97 concerning novel foods and novel food ingredients, *OJ L 43, 14.2.1997, p. 1*

Figure 5 - Unauthorised substances in dietetic foods and food supplements



a less strict procedure for "traditional" foods produced in other areas of the world that are known to be safe.

Coriolus (Trametes) versicolor is the most notified unauthorised novel food ingredient in food supplements in 2013. It is claimed to have anticancer properties but neither its effectiveness nor its harmlessness has been scientifically proven.

2.3.3. Unauthorised substances

The substances in figure 5 are found in food supplements because they have a certain metabolic or medicinal effect. It is not uncommon that they are not mentioned on the label and that the consumer is instead led to believe that the effect is caused by "natural plant extracts" or something similar.

Phenolphthalein is commonly known as a pH indicator – at least to the chemists among us – but its use as a laxative may be less common knowledge. It is found, sometimes together with sibutramine, in slimming products. On page 35 of the RASFF annual report 2009 you will find more information on sibutramine as well as on sildenafil.

2.3.3.1. RASFF news 13-715: acute hepatitis potentially associated with the consumption of food supplements

Early November 2013 the European Commission's RASFF contact point was informed by the International Food Safety Authorities Network (INFOSAN) through an INFOSAN alert about an outbreak of acute Hepatitis potentially associated with the consumption of food supplements (OxyElite Pro, VERSA-1).

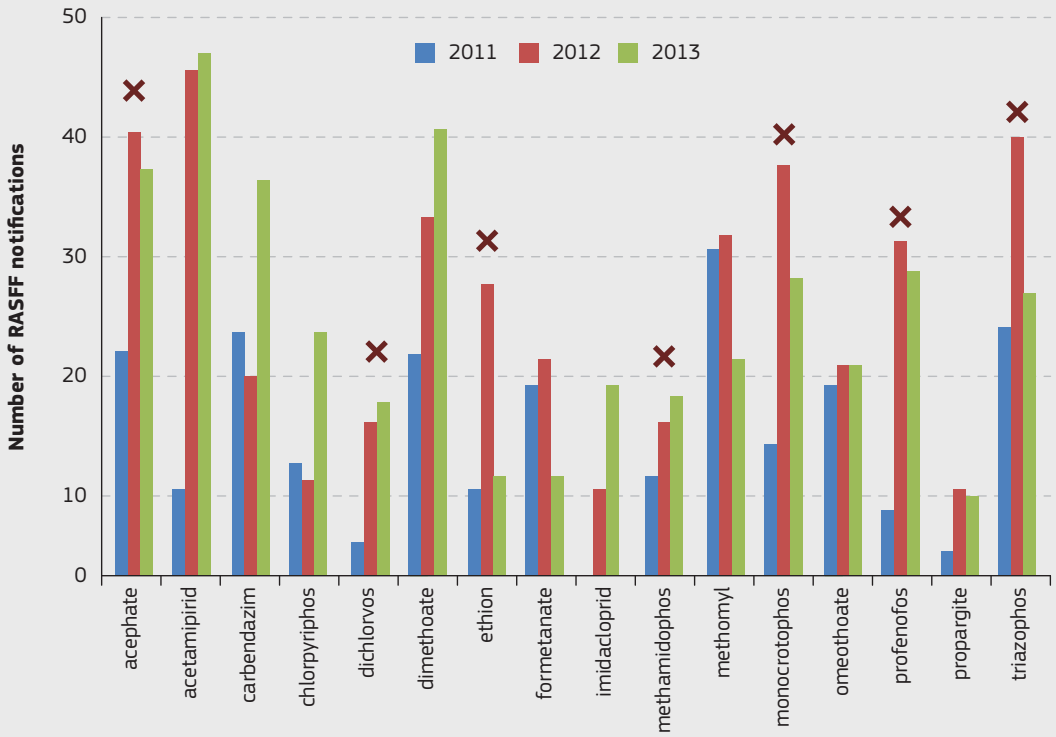
In the US both the Food and Drug Administration (FDA) and the Centre for Disease Control and Prevention (CDC) were investigating hepatitis illnesses that potentially occurred after consumption of this food supplement. The product in question was marketed for energy boost, weight loss and muscle increase.

The outbreak took place mostly in the State of Hawaii: 56 cases of non-viral hepatitis, 2 cases required liver transplants and one person died. Additional observed side effects were: psychiatric disorders, heart and nervous system problems.

On October 11th, 2013 FDA issued a warning letter informing that products were deemed to be adulterated due to use of a new ingredient Aegeline (N-[2-hydroxy-2(4-methoxyphenyl) ethyl]-3-phenyl-2-propenamide). Aegeline is a compound extracted from Aegle marmelos (Bael), a plant that has a long history of use in Ayurvedic medicine. The substance originally was extracted from plants but it can also be synthesized in the laboratory. Aegeline has not been proven to be safe and has not been approved by the FDA for inclusion in dietary supplements.

As a reaction to the information received, the European Commission's RASFF Contact Point issued RASFF news 13-715 to inform the members of the network about

Figure 6 - Most reported pesticide residues in 2011, 2012 and 2013



these products that potentially were marketed within the EU and to take appropriate measures.

While investigating the case more countries were involved in the exchange of information. It was found that the product had already been notified in 2012 due to the presence of unauthorised substance 1,3 dimethylamylamine (DMAA). The original formulation of OxyElite Pro contained DMAA not Aegeline. The side effects related to the consumption of products containing DMAA were: blood vessels and arteries narrowing, that can elevate blood pressure, and may lead to cardiovascular problems such as shortness of breath, arrhythmias, tightening in chest and heart attack.

As a result of the RASFF news, 34 follow-up notifications were created and many European countries were involved. The problem lies in the availability of the products to consumers via the internet. Even though these products might be harmful to consumer's health, they remain purchasable through the internet. The challenge is for authorities to have a better control of internet sales of food products in order to ensure that the products consumers buy are safe. Another option is providing consumers information about products that were verified to be safe e.g. through labelling providing an alternative to other products of which the safety is not known. Such initiatives already exist in some countries.

2.4. Pesticide residues

In 2013, after a steady increase over several years, the amount of notifications for pesticide residues appears to have stabilised at 452, which is slightly more than the previous year. Only two of the notifications concerned feed (maize). That the reinforced checks at the entry points to the EU still have their pronounced effect on the RASFF notifications (and vice versa of course), can be concluded from the fact that only 36 of the notifications are about produce of EU origin.

Figure 6 shows the most reported residues in 2012 and 2013. The number of findings can vary significantly from year to year. There is evidence of the use of non-approved pesticides: the substances marked with a are not authorised in the EU.

Below the commodities for which the reinforced checks were in force at the EU borders are compared with the findings in RASFF. The pesticides that were reported most frequently through RASFF have been coloured according to acute toxicity: red for highly toxic, orange for moderately toxic, green for low toxicity. This grading thus only takes into account the acute toxicity for human health, and not any chronic effects or environmental harmfulness.

Commodities	RASFF notifications in 2013
Chinese broccoli, pomelos and tea	Overall 55 notifications regarding produce from China, 8 of which concerned broccoli, 15 pomelos and 20 tea. In tea sometimes very harmful residues are found such as triazophos. As many as 21 different substances were indicated. Most reported in tea were acetamiprid, buprofezin, imidacloprid and fipronil. In pomelos, mostly methidathion is indicated.
Aubergines, bitter melon, yard long beans and peppers from Dominican Republic	Overall 21 notifications regarding produce from the Dominican Republic, 4 of which concerned aubergines, 1 bitter melons, 8 yard long beans and 6 sweet and chilli peppers. As many as 21 different substances were indicated, of which endosulfan was reported 5 times in yard long beans.
Oranges, strawberries, pomegranates and peppers from Egypt	Overall 32 notifications regarding produce from Egypt, 9 of which concerned oranges, 15 strawberries and 5 sweet and chilli peppers. As many as 19 different substances were indicated, of which dimethoate (in various) and methomyl (in strawberries) were most reported
Curry leaves and okra from India	Overall 111 notifications regarding produce from India, of which 12 concerned curry leaves and 84 okra[2]. Whereas concerning curry leaves there were much less notifications, for okra, the number of notifications further increased. Most reported in curry leaves is profenofos and in okra: monocrotophos, acephate, acetamiprid and triazophos. Apart from these findings, also 5 notifications on chilli peppers are noteworthy with sometimes high levels reported.
Peas and beans with pods from Kenya	Overall 23 notifications regarding produce from Kenya, of which 9 concerned peas and 14 beans. Dimethoate was the most reported substance in 12 notifications.
Mint from Morocco	Overall 28 notifications regarding produce from Morocco, of which 16 concerned mint. Other recurring commodities were tea (5) and olives (3). As many as 19 different substances were reported.
Dried beans from Nigeria	Overall 16 notifications regarding produce from Nigeria, all regarding the unauthorised substance dichlorvos in honey beans, all notified by the United Kingdom. The banning of many active substances in pesticide formulations in the EU has placed particularly developing countries in a difficult spot to comply with the new and strict legal requirements in the EU. The authorities face the problem of controlling compliance by the often small scale producers supplying produce that is exported to the EU.
Chilli peppers, coriander leaves, basil, yard long beans, aubergines and brassica vegetables from Thailand	Overall 20 notifications regarding produce from Thailand, of which 4 concerned chilli peppers, 4 basil, 1 yard long beans and 7 aubergines. As many as 19 different substances were reported.
Sweet peppers and tomatoes from Turkey	Overall 39 notifications regarding produce from Turkey, of which 33 concerned sweet peppers and only 2 tomatoes. Most reported substances were formetanate and malathion.
Coriander leaves, mint, parsley, basil, okra and chilli peppers from Vietnam	Overall 7 notifications regarding produce from Vietnam, of which 1 concerned mint and 3 peppers.

2.5. Feed

Out of the 3137 original notifications transmitted in RASFF in 2013, 272 concerned feed, about 8.7% of the total, but declining since 2011, both in absolute and relative numbers.

From Figure 7 it can be seen that the main reason for notifying in 2013 remains pathogenic micro-organisms. The second reason, although significantly less, is mycotoxins.

2.5.1. Pathogenic micro-organisms

The pathogens notified in feed are all *Salmonella* serovars except for one notification of *Clostridium perfringens* for pet food. Since microbiological criteria are not set for *Salmonella* in EU legislation, notifications are based on national criteria or case-by-case risk assessments. For processed animal by-products, a criterion is set in Regulation (EU) No 142/2011 of absence of *Salmonella* in 25 grams.

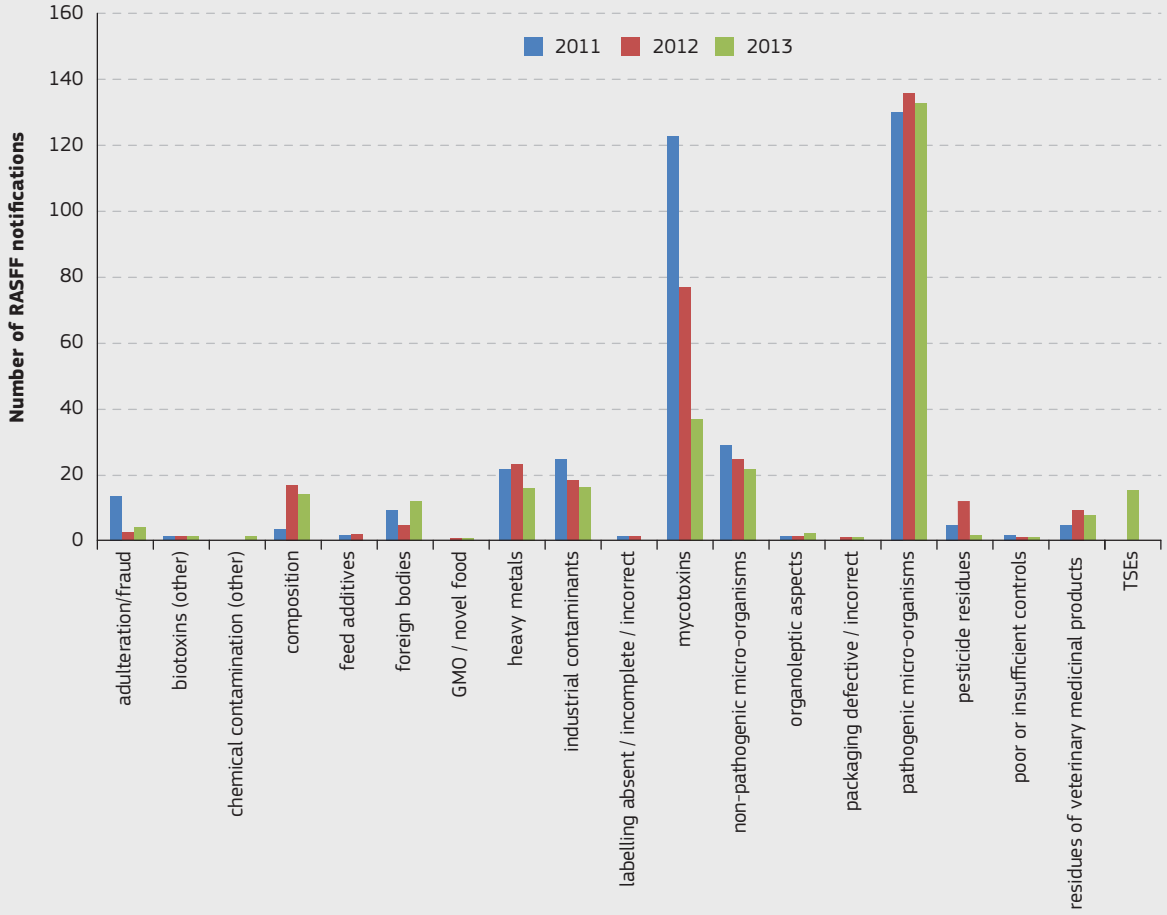
2.5.2. Mycotoxins

Out of the 37 notifications, only 9 concerned aflatoxins in groundnuts from various origins. Most notifications, 21, concerned maize products mostly from south-eastern Europe[7].

2.5.3. Non-pathogenic micro-organisms

Most notifications concerned the findings of too high levels of Enterobacteriaceae in fish meal. Fish meal is a type of processed animal protein which can be used for the production of feed. To ensure the safety of the final feedingstuff, Regulation (EU) No 142/2011[8] establishes microbiological standards, including criteria for Enterobacteriaceae, which shall apply for the processing

Figure 7 - RASFF notifications on feed by hazard category in 2011, 2012 and 2013



7 See RASFF annual report 2012, page 37

8 OJ L 054, 26.2.2011, p.1

and placing on the market of the fish meal and other relevant derived products used for feeding purposes.

2.5.4. Heavy metals

There were four notifications on cadmium, one showing relatively high levels in zinc oxide from Turkey, but not to the extent that it would cause a serious risk to human or animal health. High levels of lead were reported three times. One notification showed particularly high levels in processed animal protein from deer. There were four notifications on mercury above the permitted level, of which three concerned fish meal.

2.5.5. Industrial contaminants

Very diverse feedstuffs, such as rapeseed, soybean meal, pigeon picking stones, leonardite, marigold, and other feed additives and premixtures, were reported in 12 notifications informing about dioxins levels above the legal limit. Other notifications in this category concerned dioxin-like and non-dioxin-like PCBs except one notification on mineral oil in poultry fat intended for pet food.

2.5.6. Composition

Three notifications reported on excessive levels of free gossypol in cotton seeds from Togo and from Greece. Gossypol is a phenol naturally present in the cotton plant. Only the "free" form of gossypol is toxic to animals, not when it is bound to proteins. Ruminants such as cattle and sheep can tolerate higher levels of free gossypol than other animals because it binds to proteins in the rumen.

Four notifications by Slovenia reported a content of hydroxymethylfurfural (HMF) in bees feed above the national limit. Hydroxymethylfurfural is formed when products with high fructose content are heated. HMF is known to damage bees' health.

2.5.7. Feed additives

The notifications on feed additives all related to residues of veterinary medicinal products in feed and are discussed under heading 2.1.

2.5.8. TSEs

The sudden appearance of 13 notifications under the TSEs header is related to findings of ruminant DNA in different types of feed. This could be due to an increased use of a very sensitive testing method compared to microscopy to find fragments of bones. Analyses carried out on remaining stock or witness samples in the country of origin after receiving the notification however cannot always repeat the original finding. So far, no explanation for this inconsistency has been reported through RASFF.

2.6. Pathogenic micro-organisms in food

With 642 notifications concerning pathogenic micro-organisms in food, an all-time-high for this hazard category was reached in 2013 with a 40% increase compared to 2012, after a year-by-year rise in the number of notifications. This is mainly due to the increase in numbers of notifications for pathogens in meat and also in bivalve molluscs.

2.6.1. Bivalve molluscs

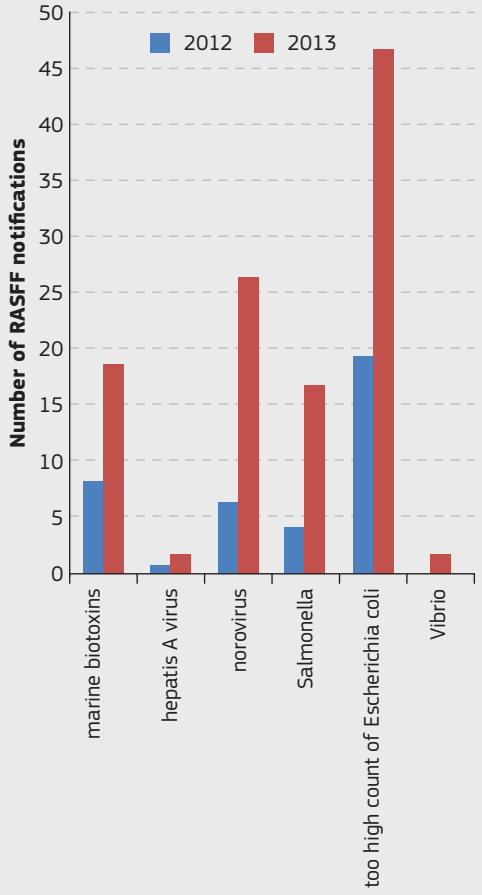
As shown in Figure 8, the significant increase in notifications on bivalve molluscs is due to a combination of rise in numbers for various hazards: marine biotoxins, norovirus, *Salmonella* and *Escherichia coli*. A count of *Escherichia coli* above the food safety criterion of 320 CFU/100g established in the legislation, was most reported in clams from countries such as Greece, Turkey, Croatia and Italy. Besides clams, this problem was regularly reported in mussels, predominantly from Spain. An increase in notifications for mussels from Spain and Ireland could also be observed for marine biotoxins of DSP and AZP type.

Norovirus was often reported in live oysters predominantly from France, reported mainly by Italy but also regularly by Denmark. Apart from in oysters, norovirus was also found in consignments of live clams from Turkey and Tunisia, presented for import at EU border

inspection posts. After the initial findings, the operators fell under the reinforced checks regime set up in TRACES, triggering new notifications. For some of these operators, repeated unfavourable findings have led to systematic testing at the border.

The increase in *Salmonella* notifications is nearly entirely due to repeated findings of *Salmonella* in frozen clams which according to documents are heat treated ("blanched" or "boiled") although this does not always appear on the labelling. For cooked bivalve molluscs a food safety criterion for *Salmonella* of absence in 25g is in force. The non-compliances are reported predominantly for one Vietnamese exporter which was placed under 100% reinforced border checks. The Vietnamese competent authority, NAFIQAD, which is also the RASFF contact point in Vietnam, informed the RASFF network of the suspended production at the notified Vietnamese establishment.

Figure 8 - Pathogens in bivalve molluscs

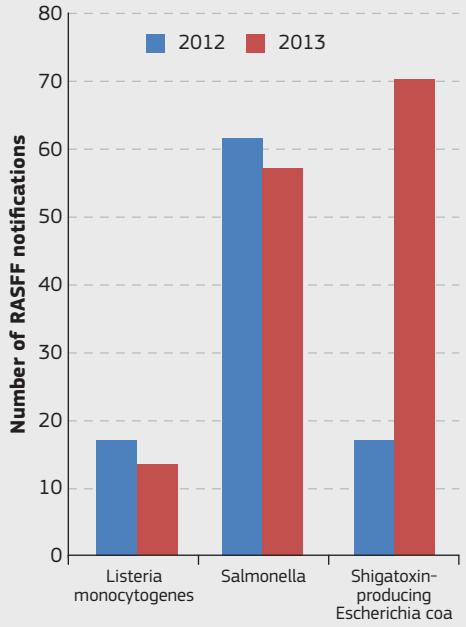


2.6.2. Meat other than poultry

The increase in notifications for meat other than poultry is entirely due to findings of shigatoxin-producing *Escherichia coli* (STEC). The products are routinely tested for the presence of genes marking E. coli bacteria that are capable of producing toxins that can cause disease. To prove however that there are viable E. coli presenting a real health risk, an isolation of the bacteria according to the official ISO method is necessary.

Most notifications are reported for chilled beef from Argentina and Brazil. The exporters are placed under reinforced checks through TRACES. Apart from a few notifications on beef produced in the EU, Italy notified repeated findings of STEC in frozen deer meat from Austria.

Figure 9 - Pathogens in meat other than poultry



2.6.3. Poultry meat

Notifications on Salmonella in poultry meat have tripled in 2013 compared to the previous year. Just over half of these notifications are border rejections (94), all but one on poultry meat preparations (about half) and fresh poultry meat (the other half) from Brazil. This represents a very significant increase caused by several Brazilian operators being placed under 100% reinforced checks through TRACES.

Notifications on poultry products circulating on the market found contaminated with *Salmonella* also became

more frequent in 2013 (76 notifications), most of them concerned products produced in the EU (57 notifications) and notably in Poland (38 notifications). In 34 cases the notification was classified as alert (serious risk) meaning that these notifications reported non-compliances with a *Salmonella* EU food safety criterion of a product that was or might have been on the market of other member countries than the notifying country.

2.6.4. Fruits and vegetables

Another important "source" of RASFF notifications on pathogens are fruits and vegetables.

Although various pathogens can occur on these commodities, the main pathogen reported through RASFF is still *Salmonella*. The continuing reason since 2011 for the high number of reports on *Salmonella* is paan leaves[9]. The continuous reports notified by the United Kingdom prompted the adoption of a safeguard measure suspending temporarily imports of paan leaves from Bangladesh[10] and setting up reinforced checks for paan leaves from India and Thailand.

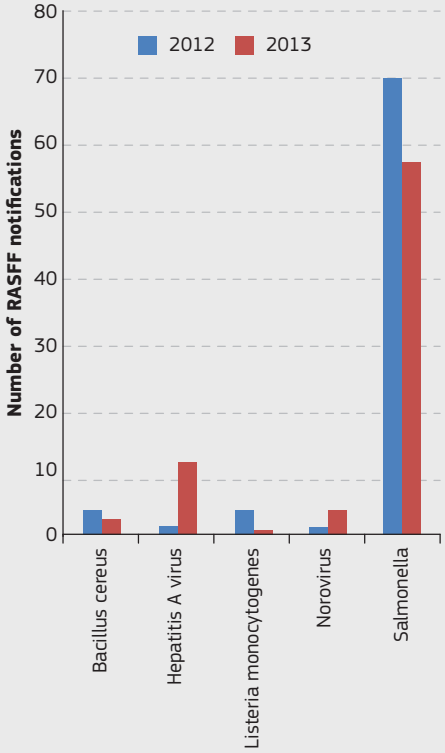
Norovirus was found in raspberries from Poland and strawberries from China, the latter having been under reinforced checks since a very large outbreak in 2012 in Germany could be linked to strawberries imported from China[11]. Another virus that has made its mark in 2013 was hepatitis A. A multi-country outbreak sparked increased testing carried out mainly in Italy, which has a laboratory with required expertise on the difficult matrix of fresh and frozen berries, leading to 11 RASFF notifications on frozen berries and berry mixes with berry ingredients from various countries around the world. Some of these notifications could be related to the ongoing outbreak. See also chapter 2.2 for more details.

2.7. Mycotoxins

2.7.1. In general

In 2013, the number of mycotoxin notifications decreased further significantly, which was due to a decrease in reported aflatoxin notifications (see Table 2) The decrease in aflatoxin notifications is mainly explained by the significant decrease in notifications related to the presence of aflatoxins in peanuts from India (from 88 notifications in 2012 to 15 in 2013) and in dried figs from Turkey (from 135 notifications in 2012 to 40 in 2013).

Figure 10 - Pathogens in fruits and vegetables



On the other hand in 2013 there were a significant number of notifications of aflatoxins in maize from the European region (see chapter 2.7.2).

2.7.2. Aflatoxins in maize

The southern region of Europe had been affected by a very severe drought during the 2012 growing season of maize, resulting in an increased prevalence of aflatoxins in maize of the harvest from that region. Several RASFF notifications related to a level above the permitted maximum of aflatoxins in maize from that region were issued at the end of 2012 and in 2013, mainly on maize for animal feed originating from Bulgaria, Romania, Serbia and Ukraine but also from Hungary, Spain, Slovak Republic, Greece and Italy.

Even if controls were performed on the presence on aflatoxins before placing the maize on the market, non-compliant levels of aflatoxins were found in maize at import or already on the EU market. This was due to the fact that contamination of aflatoxins in a lot is very heterogeneous and the sampling performed by the business operators to check compliance with the EU maximum levels proved to be not always representative for the lot. Furthermore a lack of communication between the different operators on the obtained results and on the way the sampling had been performed was

9 See RASFF annual report 2011, p.15

10 Commission Implementing Decision 2014/88/EU, OJ L 45, 15/02/2014, p. 34–35

11 See RASFF annual report 2012, p.22

observed. A guidance document is under discussion to address these shortcomings.

2.7.3. Ochratoxin A

54 notifications related to the unacceptable presence of ochratoxin A, a significant increase compared to 2012. There were 31 notifications for ochratoxin A in the category "fruits and vegetables", mainly dried figs from Turkey (13 notifications) and dried vine fruit from Afghanistan (5) Uzbekistan (4), Turkey (3) and Iran (2). There were 8 notifications in the category "herbs and spices", among which curry powder from India (3) and 5 notifications in the category "cereals and bakery products" mainly rye products (3). Coffee was the subject of 5 notifications and 3 notifications related to grape juice. Finally peanuts and almonds were found to occasionally contain high levels of ochratoxin A.

Table 2 - Notifications on mycotoxins in food and feed

Hazard	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Aflatoxins	839	946	801	705	902	638	649	585	484	341
Deoxynivalenol (DON)				10	4	3	2	11	4	8
Fumonisins	14	2	15	9	2	1	3	4	4	7
Ochratoxin A	27	42	54	30	20	27	34	35	32	54
Patulin		6	7		3					
Zearalenone			1	6	2				4	
Total mycotoxins	**880**	**996**	**878**	**760**	**933**	**669**	**688**	**635**	**528**	**410**

CHAPTER 3

Focus on...

3.1. Horse meat scandal in the EU

The first RASFF notification on food products adulterated with horse meat was issued on 8th February 2013. The Food Safety Authority of Ireland (FSAI), which is the Irish RASFF Contact Point, notified the European Commission Contact Point (ECCP) regarding processed foods containing unlabelled horse meat. This information was rapidly communicated to all members of the RASFF network to allow the competent authorities to start investigating, take the necessary measures and inform other members of the network about their outcome.

In the initial stages of the incident, countries most often notified as country of origin of adulterated meat were Poland, Italy, France and Germany. However, it soon became apparent that more countries were affected, either by having raw meat or various prepared meat products (lasagne, spaghetti Bolognese, chili con carne, moussaka) on the market or being a country of origin of the meat.

After extensive investigations were carried out in the Member States and reported through the RASFF, the Netherlands was identified as the country where the two main cases of fraud had been committed and to which many of the reported cases could be traced back.

Due to the fact that these companies had already been placing their fraudulent products on the market for a few years and had developed distribution chains, all Member States and 15 third countries had beef products containing undeclared horse meat on the market.

Over the year 81 original and 428 follow-up notifications concerning processed products, or raw meat, were transmitted through the RASFF. The high number of notifications was fuelled by the Commission-launched monitoring programme (Commission Recommendation 2013/99[12]) which called for EU-wide controls at retail level, in order to identify the scale of any misleading labelling practices in relation to unlabelled horse meat in food products that exceeded 1%.

Although no food safety risk was identified, the RASFF system was instrumental in ensuring that all information was exchanged rapidly. This helped Member States to investigate unclear issues more quickly and build comprehensive traceability, which was a key factor in this case.

The horse meat scandal revealed that there is a reliability problem in the traceability information in the food chain, as a consequence of fraudulent activities in the food production sector.

As a follow-up action, the Commission is working on setting up a similar system to RASFF (Food Fraud system) that will allow any information with regard to fraudulent

12 OJ L48, 21.2.2013, p. 28

activities in the food sector to circulate rapidly in order to restore consumers' confidence that what they buy is what it says on the label.

3.2. Croatia: new member of the RASFF network.

The Republic of Croatia harmonized its legislation with EU food law and began implementation in 2007. During 2008 Croatia began preparations for RASFF and in 2009 was connected to the system as a third country. As the access to RASFF Window at that time was restricted and included notifications on food and feed originating from Croatia or imported to Croatia, or connected in any way with Croatia, communication between the Croatian NCP and SANCO RASFF was performed by e-mail. As of 1 July 2013, Croatia became full member of RASFF when it joined the EU.

The competent authority in Croatia also established, by national legislation, a national rapid alert system for food, feed and food contact material, based on the requirements of Regulation EC 178/2002 as well as communication practice in RASFF network. In 2011 Croatia harmonized national legislation with Regulation EC 16/2011. After that several workshops and training courses were organised to inform all stakeholders on the functioning of the national rapid alert system.

In 2013, before the accession, the DG SANCO RASFF team organised two training courses at national level on managing the rapid alert system for food and feed for the national contact point as well as for RASFF contact points in other competent authorities in the country. These trainings were at the same time a test of the ability of the Croatian NCP to fully and effectively function in the RASFF network after the accession to EU. All stakeholders were informed of the procedures and rules of communication in the RASFF including the SOPs, iRASFF, Word templates, TRACES and RASFF Window.

Croatia regularly transmits RASFF notifications using iRASFF and TRACES or if necessary informing by e-mail, ensuring 24/7/365 availability of the NCP and including all stakeholders in its communication network.

3.2.1. Croatian National Rapid Alert System for Food and Feed (HR RASFF)

The National Contact Point in Croatia is the Ministry of Agriculture - Veterinary and Food Safety Directorate - responsible for managing the national rapid alert system for food and feed. Inspection bodies responsible for carrying out official controls and institutions responsible for the risk assessment in the scope of food and feed safety are included in the system through their contact points. BIPs are involved in the communication with the NCP by TRACES and e-mail.

CHAPTER 4

A quick manual to the RASFF

The RASFF was put in place to provide food and feed control authorities with an effective tool to exchange information about measures taken responding to serious risks detected in relation to food or feed. This exchange of information helps Member States to act more rapidly and in a coordinated manner in response to a health threat caused by food or feed. Its effectiveness is ensured by keeping its structure simple: it consists essentially of clearly identified contact points in the Commission, EFSA[13], EEA[14] and at national level in member countries, exchanging information in a clear and structured way by means of templates.

4.1. The legal basis

The legal basis of the RASFF is Regulation (EC) N° 178/2002. Article 50 of this Regulation establishes the rapid alert system for food and feed as a network involving the Member States, the Commission as member and manager of the system and the European Food Safety Authority (EFSA). Also the EEA countries: Norway, Liechtenstein and Iceland, are longstanding members of the RASFF.

Whenever a member of the network has any information relating to the existence of a serious direct or indirect risk to human health deriving from food or feed, this information is immediately notified to the Commission under the RASFF. The Commission immediately transmits this information to the members of the network.

Article 50.3 of the Regulation lays down additional criteria for when a RASFF notification is required.

Without prejudice to other Community legislation, the Member States shall immediately notify the Commission under the rapid alert system of:

(a) any measure they adopt which is aimed at restricting the placing on the market or forcing the withdrawal from the market or the recall of food or feed in order to protect human health and requiring rapid action;

(b) any recommendation or agreement with professional operators which is aimed, on a voluntary or obligatory basis, at preventing, limiting or imposing specific conditions on the placing on the market or the eventual use of food or feed on account of a serious risk to human health requiring rapid action;

(c) any rejection, related to a direct or indirect risk to human health, of a batch, container or cargo of food or feed by a competent authority at a border post within the European Union.

Regulation (EC) N° 16/2011 lays down implementing rules for the RASFF. It entered into force on 31 January 2011. The Regulation lays down requirements for members of the network and the procedure for transmission of the different types of notifications. A difference is made between notifications requiring rapid action (alert notifications) and other notifications (information notifications and border rejection notifications). Therefore definitions of these different types of notifications are added. In addition the role of the Commission as manager of the network is detailed.

4.2. The members

All members of the system have out-of-hours arrangements (7 days/7, 24 hour/24) to ensure that in case

13 European Food Safety Authority, www.efsa.europa.eu

14 EFTA Surveillance Authority, http://www.eftasurv.int

of an urgent notification being made outside of office hours, on-duty officers can be warned, acknowledge the urgent information and take appropriate action. All member organisations of the RASFF – where contact points are identified – are listed and their home pages can be consulted on the internet from the following RASFF web page:

http://ec.europa.eu/comm/food/food/rapidalert/members_en.htm.

4.3. The system

4.3.1. RASFF notifications

RASFF notifications usually report on risks identified in food, feed or food contact materials that are placed on the market in the notifying country or detained at an EU point of entry at the border with an EU neighbouring country. The notifying country reports on the risks it has identified, the product and its traceability and the measures it has taken.

According to the seriousness of the risks identified and the distribution of the product on the market, the RASFF notification is classified after verification by the Commission contact point as alert, information or border rejection notification before the Commission contact point transmits it to all network members.

- **alert notifications**

  An 'alert notification' or 'alert' is sent when a food, feed or food contact material presenting a serious risk is on the market and when rapid action is or might be required in another country than the notifying country. Alerts are triggered by the member of the network that detects the problem and has initiated the relevant measures, such as withdrawal or recall. The notification aims at giving all the members of the network the information to verify whether the concerned product is on their market, so that they can take the necessary measures.

  Products subject to an alert notification have been withdrawn or are in the process of being withdrawn from the market. Member States have their own mechanisms to carry out such actions, including the provision of detailed information through the media if necessary.

- **information notifications**

  An 'information notification' concerns a food, feed or food contact material for which a risk has been identified that does not require rapid action either because the risk is not considered serious or the product is not on the market at the time of notification.

  Commission Regulation (EU) No 16/2011 has added two new sub-types of information notification to the family of notifications:

  'information notifications for follow-up' are related to a product that is or may be placed on the market in another member country

  'information notifications for attention' are related to a product that:

  (i) is present only in the notifying member country; or

  (ii) has not been placed on the market; or

  (iii) is no longer on the market

- **border rejection notifications**

  A 'border rejection notification' concerns a consignment of food, feed or food contact material that was refused entry into the Community for reason of a risk to human health and also to animal health or to the environment if it concerns feed.

- **original notifications and follow-up notifications**

  A RASFF notification referring to one or more consignments of a food, feed or food contact material that were not previously notified to the RASFF is an 'original' notification, classified as alert, information or border rejection notification. In reaction to such notification, members of the network can transmit 'follow-up' notifications which refer to the same consignments and which add information to the original notification such as information on hazards, product traceability or measures taken.

- **rejected and withdrawn notifications**

  An original notification sent by a member of the RASFF can be **rejected** from transmission through the RASFF system, as proposed by the Commission after verification and in agreement with the notifying country, if the criteria for notification are not met or if the information transmitted is insufficient.

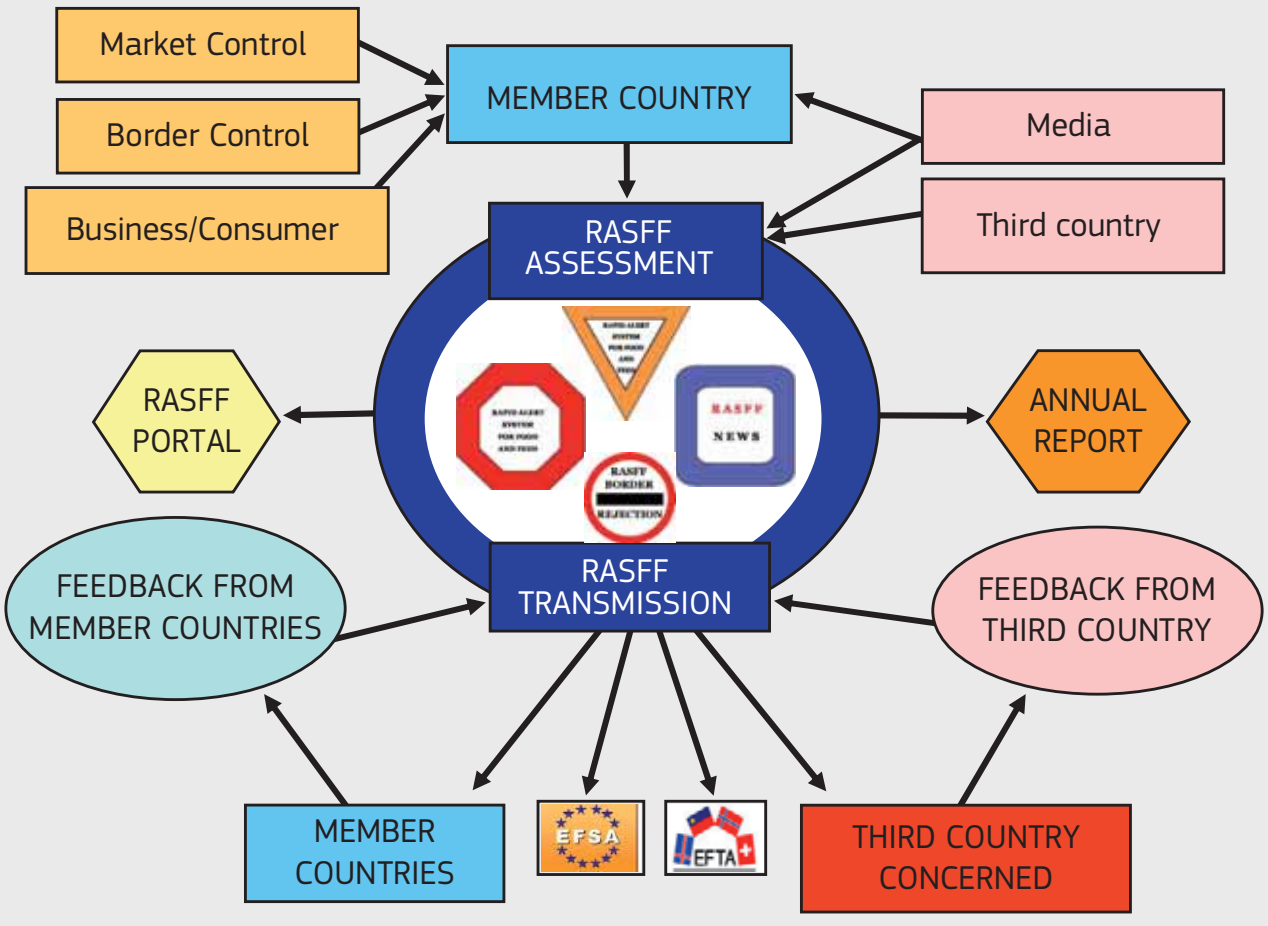
An original notification that was transmitted through the RASFF can be **withdrawn** by the Commission in agreement with the notifying country if the information, upon which the measures taken are based, turns out to be unfounded or if the transmission of the notification was made erroneously.

4.3.2. RASFF news

A 'RASFF news' concerns any type of information related to the safety of food or feed which has not been communicated as an alert, information or border rejection notification, but which is judged interesting for the food and feed control authorities in member countries.

RASFF news are often based on information picked up in the media or forwarded by colleagues in food or feed authorities in third countries, EC delegations or international organisations, after having been verified with any member countries concerned.

Figure 11 - Schematic representation of the information flow of the RASFF



CHAPTER 5

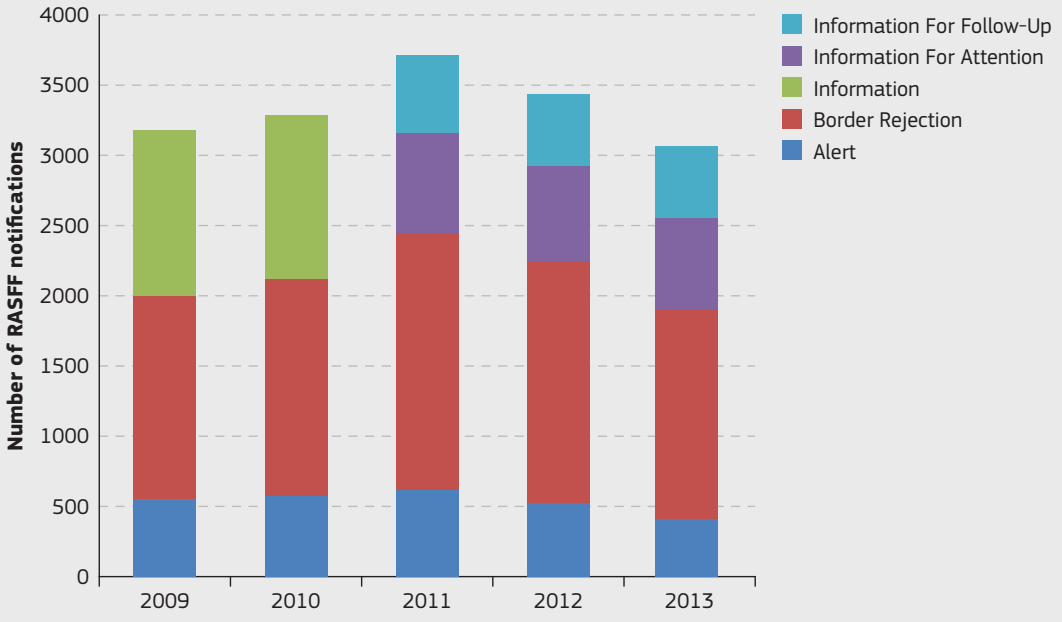
RASFF Facts and figures

5.1. Evolution of the number of notifications since 2009:

Table 3 - Evolution of original notifications[15]

Year	Alert	Border Rejection	Information	Information For Attention	Information For Follow-Up
2009	557	1441	1179	0	0
2010	576	1544	1167	0	0
2011	617	1824	0	718	551
2012	526	1715	0	682	509
2013	585	1443	0	680	429
% in/decrease	**+11.2**	**-15.9**		**-0.3**	**-15.7**

Figure 12 - Evolution of original notifications



15 In the numbers of original notifications in this table are not counted the notifications that were afterwards withdrawn.

Table 4 - Evolution of follow-up notifications[16]

Year	Alert	Border Rejection	Information	Information For Attention	Information For Follow-Up
2009	1848	732	2099		
2010	2051	971	2202		
2011	2265	1053	421	480	1126
2012	2312	906	74	663	1326
2013	2376	525	1	763	1493
% in/decrease	**+2.8**	**-42.1**	**-98.6**	**+15.1**	**+12.6**

Figure 13 - Evolution of follow-up notifications

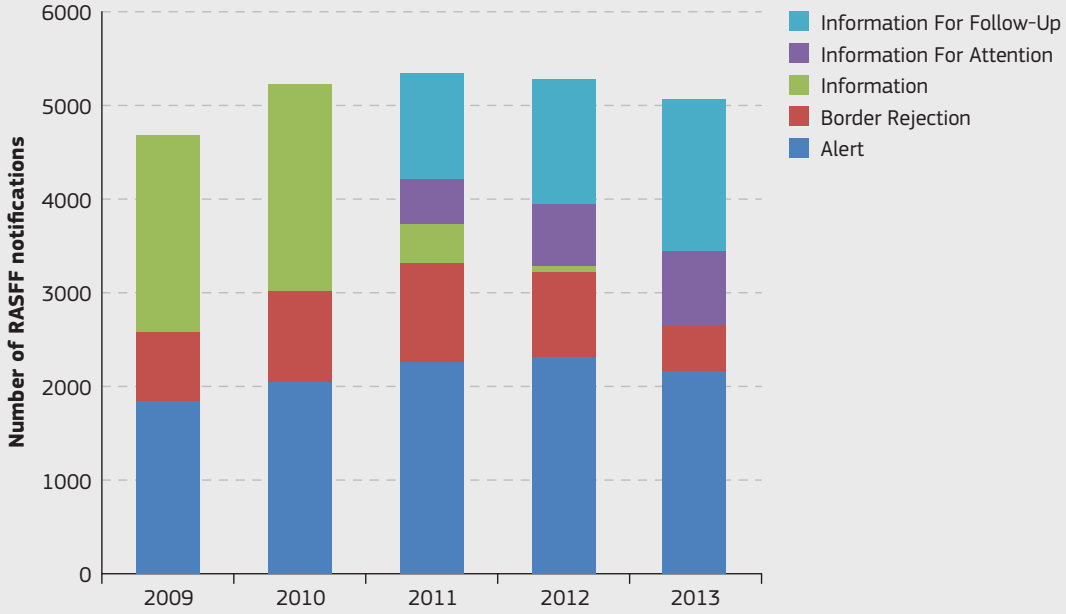


Table 5 - evolution of notifications by notifying country

Notifying Country	2009	2010	2011	2012	2013
Austria	110	88	65	49	46
Belgium	117	94	128	143	164
Bulgaria	26	33	116	75	54
Commission Services	23	11	4	1	1
Croatia	-	-	-	-	8
Cyprus	53	52	76	51	44
Czech Republic	68	90	95	72	70

16 From the RASFF annual report 2012 onwards, in this table all follow-ups are counted, also the follow-ups to notifications that were afterwards withdrawn.

Notifying Country	2009	2010	2011	2012	2013
Denmark	122	131	151	130	112
Estonia	13	18	9	17	32
Finland	141	130	111	105	88
France	157	171	199	275	249
Germany	412	396	415	362	331
Greece	160	157	127	66	65
Hungary	10	20	13	10	3
Iceland	1	2	6	3	1
Ireland	30	33	49	53	40
Italy	466	541	544	517	534
Latvia	14	21	17	26	27
Lithuania	33	48	39	51	28
Luxembourg	16	23	25	8	17
Malta	18	12	27	11	12
Netherlands	212	214	202	173	264
Norway	30	23	51	61	45
Poland	141	140	223	181	120
Portugal	8	18	22	28	40
Romania	18	25	21	14	14
Slovakia	52	56	35	35	35
Slovenia	73	56	45	43	34
Spain	255	285	297	239	201
Sweden	60	73	72	95	91
Switzerland	4	7	6	20	40
United Kingdom	**334**	**319**	**507**	**517**	**327**
Total	**3177**	**3287**	**3697**	**3431**	**3137**

5.2. 2013 RASFF notifications

Table 6 - 2013 notifications by hazard category, by classification and by basis

Hazard category	Total	Alert	Border Rejection	Information For Attention	Information For Follow-Up	Border Control – Consignment Detained	Border Control – Consignment Released	Border Control – Consignment under Customs	Company's Own Check	Consumer Complaint	Food Poisoning	Monitoring of Media	Official Control in Non-Member Country	Official Control on the Market
Total	3137	585	1443	680	429	1407	206	33	410	118	41	1	9	912
Adulteration / Fraud	168	4	79	15	70	75		4	25	1				63
Allergens	71	45	1	24	1	1	1		25	14				30
Biocontaminants	51	14	10	27		10	5		9	3	8			16
Biotoxins (Other)	27	23		3	1				4	5	3			15
Chemical Contamination (Other)	4			2	2				2					2
Composition	181	19	60	38	64	60	3		5	5	1		1	106
Feed Additives	14	4	7	3		7	6							1
Food Additives and Flavourings	92	11	29	26	26	29	9		1	5	1			47
Foreign Bodies	102	27	22	17	36	21		1	11	57				12
GMO / Novel Food	76		37	26	13	35	16	2	1	4				18
Heavy Metals	290	73	136	69	12	134	25	2	19	1			2	107
Industrial Contaminants	52	21	6	16	9	6	7		10					29
Labelling Absent / Incomplete / Incorrect	10	2	3		5	3			4					3
Migration	86	14	42	13	17	42	2			1				41
Mycotoxins	405	78	269	55	3	260	12	7	42	1			1	82
Non-Pathogenic Micro-Organisms	55	1	33	5	16	32	1	1	3	9				9
Not Determined / Other	14	8	3	1	2	3			1	2	1			7
Organoleptic Aspects	38	2	26		10	26				5				7
Packaging Defective / Incorrect	21	4	7	3	7	7			9	4	1			
Parasitic Infestation	10		4	2	4	4				1				5
Pathogenic Micro-Organisms	774	204	279	223	68	271	63	7	190	4	27		3	209
Pesticide Residues	452	14	337	83	18	328	36	9	22			1		56
Poor or Insufficient Controls	95		75	4	16	74	1	1	3					16
Radiation	20	1	8	4	7	8	4		3	1				4
Residues of Veterinary Medicinal Products	94	28	14	24	28	14	15		23	2			2	38
TSEs	15	1		3	11				3					12

Table 7 - 2013 notifications by product category and by classification

Product Category	Alert	Border Rejection	Information For Attention	Information For Follow-Up	Total 2013	2012	2011	2010
Alcoholic Beverages	1		2	1	4	7	14	7
Animal By-products					0	8	0	2
Bivalve Molluscs and Products Thereof	49	34	37	3	123	53	68	78
Cephalopods and Products Thereof	1	12	8	1	22	53	78	44
Cereals and Bakery Products	42	36	22	12	112	172	180	172
Cocoa and Cocoa Preparations, Coffee and Tea	9	40	2	4	55	78	43	33
Compound Feeds	2		5	11	18	26	13	7
Confectionery	12	7	2	9	30	71	66	50
Crustaceans and Products Thereof	7	30	10	7	54	60	75	78
Dietetic Foods, Food Supplements, Fortified Foods	33	54	19	50	156	183	138	141
Eggs and Egg Products	3		1	2	6	17	13	16
Fats and Oils	4	5		1	10	17	20	25
Feed Additives	2	1	2	3	8	9	13	7
Feed for Food-Producing Animals - (Obsolete)	0	0	2	0				
Feed Materials	24	65	54	66	209	235	260	112
Feed Premixtures	2		3	4	9	8	6	4
Fish and Fish Products	77	86	118	30	311	373	482	452
Food Additives and Flavourings	3	3	1	2	9	11	7	1
Food Contact Materials	23	156	24	20	223	289	308	231
Fruits and Vegetables	55	402	161	24	642	716	671	494
Gastropods		1	1		2	4	0	10
Herbs and Spices	18	77	31	12	138	150	201	222
Honey and Royal Jelly	1	2	3		6	8	10	16
Ices and Desserts	4		3	2	9	12	7	6
Meat and Meat Products (Other Than Poultry)	74	64	45	67	250	184	172	195
Milk and Milk Products	22		7	14	43	52	50	76
Natural Mineral Water			1	1	2	4	8	6
Non-Alcoholic Beverages	1	9	14	9	33	43	31	36
Nuts, Nut Products and Seeds	30	215	25	2	272	329	522	537
Other Food Product / Mixed	8	22	8	14	52	35	15	14
Pet Food	4	7	5	12	28	38	63	56
Poultry Meat and Poultry Meat Products	50	106	49	10	215	117	72	75
Prepared Dishes and Snacks	10	6	12	31	59	38	33	24
Soups, Broths, Sauces and Condiments	13	3	5	4	25	26	51	54
Water for Human Consumption (Other)	0	2	4	5				
Wine	1			1	2	3	1	1

5.3. 2013 notifications top 10

Number of notifications counted for each combination of hazard/product category/country.

Table 8 - Notifications top 10 by country of origin

hazard	product category	origin	notifications
aflatoxins	nuts, nut products and seeds	Turkey	61
migration of chromium	food contact materials	China	59
aflatoxins	nuts, nut products and seeds	China	54
mercury	fish and fish products	Spain	43
aflatoxins	fruits and vegetables	Turkey	39
migration of manganese	food contact materials	China	38
Salmonella spp.	poultry meat and poultry meat products	Brazil	31
carbon monoxide treatment	fish and fish products	Spain	30
Salmonella Heidelberg	poultry meat and poultry meat products	Brazil	29
Salmonella enteritidis	poultry meat and poultry meat products	Poland	28

Table 9 - Notifications top 10 by notifying country

hazard	product category	notifying country	notifications
migration of chromium	food contact materials	Italy	59
aflatoxins	nuts, nut products and seeds	Germany	50
mercury	fish and fish products	Italy	49
migration of manganese	food contact materials	Italy	48
aflatoxins	nuts, nut products and seeds	Netherlands	42
migration of nickel	food contact materials	Italy	41
shigatoxin-producing Escherichia coli	meat and meat products (other than poultry)	Netherlands	40
Salmonella spp.	fruits and vegetables	United Kingdom	34
carbon monoxide treatment	fish and fish products	Italy	32
aflatoxins	nuts, nut products and seeds	Italy	27

5.4. Notifications by country of origin

Figure 14 - 2013 Notifications by country type (origin)

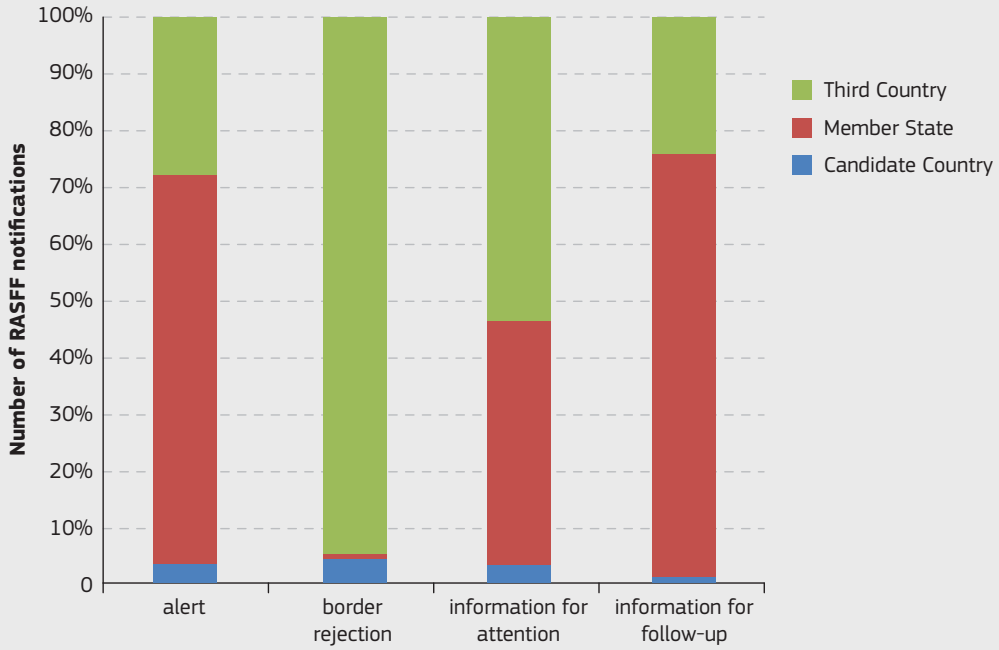


Table 10 - Evolution of RASFF notifications by country of origin

Country of origin	2011	2012	2013
China	562	536	433
India	336	340	257
Turkey	319	309	226
Brazil	95	109	187
Spain	129	126	187
Poland	98	118	163
France	122	90	120
Italy	116	112	105
Netherlands	74	98	103
United States	113	127	101
Germany	152	104	95
Thailand	95	119	88
Argentina	93	51	76
Vietnam	108	74	76
Belgium	61	63	61
Morocco	74	60	60
United Kingdom	66	63	55
Egypt	55	45	49
Sweden	17	24	45
Romania	12	16	27

Country of origin	2011	2012	2013
Bangladesh	77	56	26
Ireland	11	18	26
Czech Republic	22	8	25
Russia	15	24	25
Kenya	7	3	24
Sri Lanka	9	23	23
Bulgaria	10	7	22
Nigeria	13	36	22
Austria	21	14	21
Dominican Republic	21	34	21
Iran	46	26	21
Greece	22	21	20
Hong Kong	19	13	20
Denmark	38	33	19
Cambodia		1	18
Hungary	15	19	18
Israel	14	12	18
Ghana	22	14	17
Indonesia	19	35	17
Portugal	13	13	17

Country of origin	2011	2012	2013
Serbia	11	4	17
Mauritania	13	10	16
Ukraine	96	68	16
Slovakia	8	13	15
Mozambique	12	8	14
Chile	57	20	13
Latvia	14	7	13
Malaysia	9	10	12
Croatia	12	8	11
Pakistan	25	17	11
Senegal	31	14	11
Bosnia and Herzegovina	1	1	10
Estonia	8	3	10
Finland	1	3	9
Lithuania	7	18	9
South Korea	3	8	9
Tunisia	25	15	9
Canada	12	10	8
Peru	25	22	8
Taiwan	4	17	8
Costa Rica	2	1	7
Ecuador	10	12	7
Japan	31	15	7
Namibia	1	6	7
South Africa	26	11	7
unknown origin	9	6	7
Uruguay	13	7	7
Afghanistan	1	6	6
Togo	1	2	6
Ethiopia	2		5
former Yugoslav Republic of Macedonia	1	3	5
Papua New Guinea	4	2	5
Slovenia	6	10	5
Syria	7	10	5
Australia	4	6	4
Mexico	14	4	4
Moldova	24	1	4
New Zealand	37	10	4

Country of origin	2011	2012	2013
Nicaragua	2	5	4
Seychelles		3	4
Uganda	4	2	4
Uzbekistan	3	8	4
Algeria	3	1	3
Belarus	2	8	3
Côte d'Ivoire	3	4	3
Faeroe Islands	1		3
Jordan	14	1	3
Kosovo			3
Madagascar	7	4	3
Switzerland	3	4	3
Albania	5		2
Colombia	12	8	2
Democratic Republic of the Congo		1	2
Greenland	1	3	2
Lebanon	4	5	2
Liechtenstein	2		2
Malta	8	2	2
Mauritius	3	4	2
Norway	13	12	2
Philippines	12	12	2
Yemen	4	2	2
Armenia		1	1
Azerbaijan	2	3	1
Belize			1
Benin			1
Burundi			1
Cameroon	1		1
Cape Verde			1
Dominica			1
Gambia	1	3	1
Georgia	10	3	1
Guatemala	6	2	1
Kazakhstan	4	1	1
Laos		2	1
Luxembourg			1
Nepal	1	1	1

Country of origin	2011	2012	2013
Oman	1		1
Panama	4	1	1
Paraguay	2	2	1
Sierra Leone		8	1
Singapore	1	3	1
Sudan			1
Suriname	3		1
Bahrain	1		
Bolivia	2	2	
Burkina Faso		1	
Congo (Brazzaville)	1		
Cuba	2	1	
Cyprus		2	
Falkland Islands	1	3	

Country of origin	2011	2012	2013
Guadeloupe		1	
Guinea	3	1	
Guyana		1	
Iceland	3		
Jamaica		2	
Kyrgyzstan	1		
Maldives	8		
Mali		2	
Mongolia		1	
Swaziland		2	
Tanzania		1	
United Arab Emirates	1	1	
Venezuela		2	

Figure 15 - 2000-2013 notifications by world region

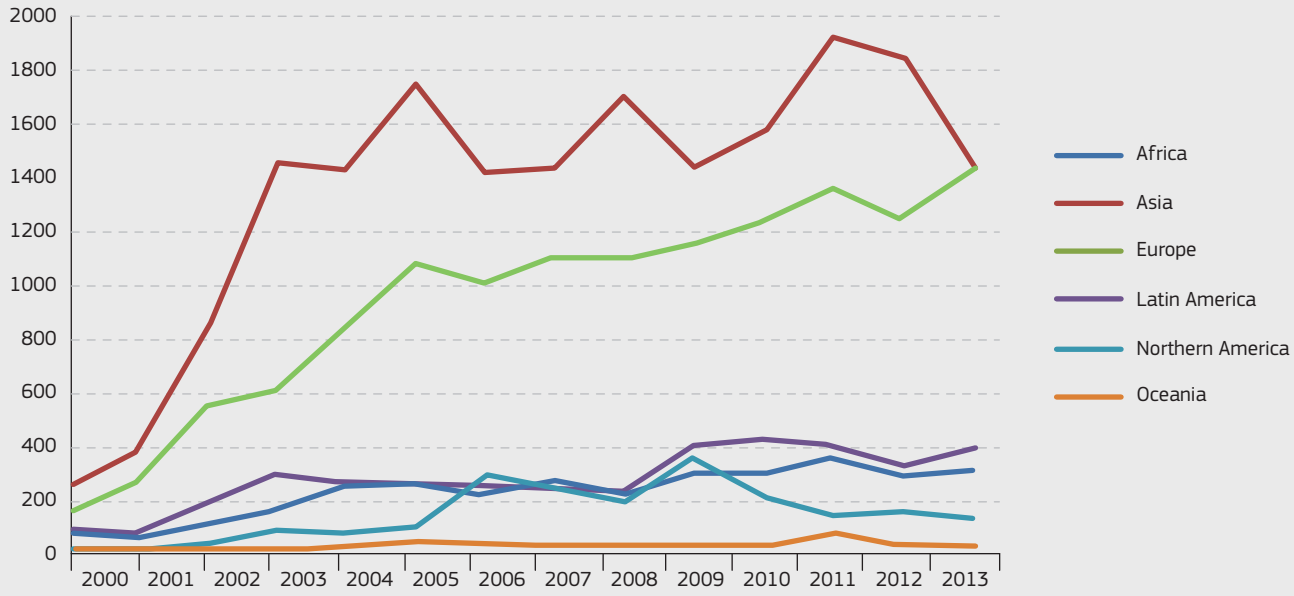


Table 11 - 2013 notifications by follow-up type and by notifying country

Follow-up	AT	BE	BG	CH	CS	CY	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LI	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
accompanying documents	4	5	1	5	4		5	10	4	1	8	1	4	8	1			3	60		3	2			15	2	11	2	5	6	1	
additional information	9	52	3	15	31	10	21	69	24	7	80	16	59	27	8	5	11	12	91	2		3	5	2	66	5	50	5	6	27	7	3
additional lot(s)	2	2		1	2	2	4	4	3				6	6				2	16		1				5		1		1	1		
corrigendum	2	7	2	1	182		6	9	6	2	6	2	9	4	1	1		6	27		4	1	1		8	3	5	2		5	2	
information on sampling/analysis	3	10	2			1	10	3	7	1	7	1	8	4	4	1	1	2	26		2	1	3	1	3		6	1	3	5	1	
lifting of reinforced border checks					46	1		21| 1 1 1 1			5					1																
measures taken	16	5	35	7		14	7	11	8	3	27	15	12	6	3	3	7	12	28		1	3	4	13	3	12	24	7	2	29	10	13
notification downgrade					9										1																	
notification reclassification					10			1				1																				
notification upgrade					12			3					1	1					1			4										
outcome of investigations	30	100	30	41	1	15	107	189	62	20	378	10	80	46	25	5	50	40	111		32	15	14	10	94	4	202	34	40	61	17	33
outcome of investigations and measures taken	3	43	25	15		13	36	58	38	7	126	15	40	25	16		22	26	26		22	4	11	13	12	15	82	27	13	23	4	13
re-dispatch information	6	2	5			9	2	16	4	3	4		2		2				21					1	1	2	16	1	2			2
request	5	12	2		2	5	10	4	21	2	44	4	19	6	4			49	7	1	4	1	3	3	10	1	6	6	4	4		4
translation					79			3 |																							
withdrawal of follow-up notification			1		16	1		2		1		1				3				1												
withdrawal of original notification		2			26	4	2							8	1			2	17				1		5		7	1				
Total	**80**	**240**	**106**	**85**	**420**	**73**	**210**	**376**	**179**	**46**	**706**	**64**	**242**	**141**	**66**	**15**	**91**	**154**	**439**	**3**	**69**	**30**	**43**	**43**	**222**	**44**	**415**	**85**	**76**	**161**	**44**	**59**

The coloured cells indicate the country with the highest number of follow-up notifications for a given follow-up type.

Table 12 - Non-member countries having been informed and having provided follow-up through RASFF

country	distribution	origin	follow-up
Afghanistan		6	2
Albania	3	2	2
Algeria	4	3	3
Andorra	10		1
Argentina	3	78	3
Armenia		1	
Australia	6	7	3
Azerbaijan	1	1	
Bahrain	1		
Bangladesh	2	26	
Barbados	1		
Belarus	4	3	
Benin		1	
Bosnia and Herzegovina	7	10	16
Brazil	4	193	51
Burundi		1	
Cambodia		19	
Cameroon	1	1	
Canada	8	9	4
Cape Verde		1	1
Cayman Islands	1		
Chile	3	15	9
China	9	441	
Colombia	1	2	
Costa Rica	4	7	2
Côte d'Ivoire	1	3	
Croatia	5	2	
Curaçao	2		
Democratic Republic of the Congo		2	
Dominica		1	
Dominican Republic	4	20	35
Ecuador		8	7
Egypt	2	50	
Equatorial Guinea	1		

country	distribution	origin	follow-up
Ethiopia	2	5	
Faeroe Islands	2	4	1
Falkland Islands	1		
former Yugoslav Republic of Macedonia	6	5	
French Polynesia	2		
Gabon	1		
Gambia		1	
Georgia	1	1	2
Ghana	2	18	
Gibraltar	3		2
Greenland		2	2
Guadeloupe	2		
Guatemala		1	1
Guernsey	1		
Guinea	1		
Honduras	1		
Hong Kong	5	45	54
India	5	263	4
Indonesia	3	20	8
Iran	1	21	
Iraq	2		
Israel	3	18	3
Italy		1	
Japan	6	10	5
Jersey	2		
Jordan	1	3	
Kazakhstan	1	1	
Kenya	2	25	3
Kosovo	3	2	
Kuwait	2		
Laos		1	
Lebanon	5	2	1
Liberia	1		
Libya	1		
Madagascar		3	1
Malaysia	6	14	

country	distribution	origin	follow-up
Mauritania		16	
Mauritius	3	2	2
Mayotte	1		
Mexico	1	4	
Moldova	3	5	
Monaco	4	1	
Mongolia	1		
Montenegro	4		2
Morocco	1	61	2
Mozambique		14	18
Myanmar	1		
Namibia		7	2
Nepal		1	
New Caledonia	1		
New Zealand	1	4	1
Nicaragua		4	
Nigeria	3	22	1
Oman	2	1	
Pakistan	1	12	
Panama	2	3	
Papua New Guinea		5	3
Paraguay		1	
Peru	3	8	
Philippines	5	2	
Qatar	1		
Russia	17	25	
San Marino	2	1	
Saudi Arabia	3		

country	distribution	origin	follow-up
Senegal		11	3
Serbia	11	18	5
Seychelles	1	4	1
Sierra Leone		1	
Singapore	7	3	
South Africa	8	6	2
South Korea	4	9	
Sri Lanka	2	25	10
Sudan	1	1	
Suriname		1	1
Swaziland	1		
Syria	1	6	
Taiwan	5	9	8
Thailand	6	89	23
Togo	1	6	
Tunisia	1	12	
Turkey	8	234	14
Turkmenistan	1		
Uganda		4	1
Ukraine	12	16	1
United Arab Emirates	7	3	
United States	17	106	5
Uruguay	5	7	1
Uzbekistan		4	
Venezuela	2		
Vietnam	3	76	2
Yemen	2	2	1
Zimbabwe	1		
Total	**329**	**2231**	**335**

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