



30 Years of Keeping Consumers Safe

This year marks the 30th anniversary of the Rapid Alert System for Food and Feed (RASFF) in Europe.

RASFF, which has been operating since 1979, provides a system for the swift exchange of information between member countries and the coordination of response actions to food safety threats. RASFF enables information to be shared rapidly between food and feed control authorities in Member States and the European Commission where a health risk has been identified. Countries can then act rapidly and in a coordinated manner in order to avert food safety risks before they can harm consumers. It is therefore an important tool for protecting consumer health.

In a booklet to commemorate the event, EU Commissioner for Health, Androulla Vassiliou, commended RASFF as one of the great success stories of the EU's integrated approach to food safety, showing the power of communication and collaboration. She thanked the RASFF member countries for helping to make RASFF the effective tool that it is today, and the European Commission delegates worldwide that facilitate the transmission of notifications to third countries. "The RASFF system can only function well thanks to the continuing and excellent collaboration between public authorities, consumers and business operators."

To mark the occasion, a seminar entitled "Keeping an Eye on Your Food" was held in Brussels on 16 July last. Keynote speeches were given on RASFF - its achievements and the future; the national perspective; the African view of a global alert system; cooperation with third countries and consumers and cooperation with global food safety networks. Panel discussions took place on 'stakeholder expectations of RASFF', 'global food safety and alert systems' and 'future challenges for the EU food safety system and the role of RASFF'. The seminar, opened by Commissioner Vassiliou, was concluded by Robert Madelin, Director General for Health and Consumers.



Source: European Commission

Androulla Vassiliou, EU Commissioner for Health, opened the conference to celebrate the 30th anniversary of RASFF.

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Food Control Charges – a Tax or an Incentive?

In 2006, Europe set down a marker to improve consistency of official food controls when Regulation 882/2004/EC came into force. It put a clear onus on Member States (MS) to provide an adequate system of food controls and ensure sufficient resources are made available for it. For this purpose it allowed control authorities to levy fees or charges to cover the costs incurred through official controls. Articles 26 to 29 of this Regulation established a framework for the financing of official feed and food controls to be implemented across the European Union from 1 January 2007. In hindsight, the inclusion of prescriptive provisions for financing of official controls may not have been the wisest decision as experience has demonstrated.

Competent authorities in MS are required to charge fees for 'additional official controls' that have been carried out following the detection of non-compliance with Regulations. In effect, MS are required to charge the industry for controls that exceed normal food control activities. Examples of additional controls that exceed routine activities could be additional inspections or sampling and analysis of foods following the detection of non-compliance. These requirements have not yet been fully integrated into Irish food law where charges for official controls have traditionally applied only in the meat sector.

Regulation 882/2004/EC requires that the European Commission reviews and reports on experience gained after three years of enforcement and specifically to pay attention to the scope and mechanism of fee-setting for official controls. To fulfil this obligation, the Commission carried out an external evaluation aimed at providing a better understanding of the inspection fee systems in place, and in July of this year, reported to the European Parliament and the European Council.

The outcome of the evaluation was that there is a significant degree of variation in the enforcement of financing provisions across MS and a significant lack of clarity and transparency of the various national fee systems currently implemented. For instance, some MS do not collect all of the mandatory fees, while others collect fees beyond the mandatory ones. A direct comparison of fees charged between MS or between different food sectors was not possible.

The Commission report also suggests that due to the broad definitions of cost categories in the Regulation and the reported lack of transparency in calculating fees, it was unclear if the cost-based fees truly reflect the actual costs incurred for the performance of official food

controls. A key finding is that enforcement of the financing provisions in Articles 26 to 29 has been slow with significant delays in most MS.

A lack of harmonisation in the fee rate, fee calculation, fee collection and use of revenue generated was also identified. Concerns have been raised among industry stakeholders in some MS that implementation of rules by national authorities puts them at a disadvantage vis-à-vis other MS, although a distortion in market competitiveness caused by different fee levels was not identified in the report.

The issue of charging fees for official controls is being considered during the Swedish Presidency of the EU. Various scenarios are under discussion. These range from "full subsidiarity" where MS would be free to decide on the best ways to finance official food control, to "full harmonisation" with fixed fees set at the same level across the whole of the European Union. The advantages and disadvantages of various options between these two scenarios are also under discussion.

If fees are harmonised, the danger could be that in communities and countries, the fees might be insufficient to fund the service, albeit only the cost of additional controls. How the full cost of the controls is to be properly calculated is a matter of debate. Allied to such costs is a "normal" level of control including frequency of inspection or testing, for which there are no agreed criteria across Europe. If fees are to be imposed for additional controls necessitated by the detection of non-compliance, is there any evidence that this will act as a deterrent to non-compliance by food business operators, or could it actually incentivise control agencies to find faults in order to boost their incomes?

Food law, perhaps, should not concern itself with how control services are funded, but simply ensure that high standards are required and proper official checks take place.

Considering the variation in organisation and structure of food control agencies across the European Union, "full subsidiarity" regarding funding of official controls and a repeal of the current legal framework may be the best way forward. The FSAI will ensure broad stakeholder consultation at national level as we move forward with evaluating the options.



Alan Reilly
CEO

Closer Links on Food Safety



Dr Andrew McKenzie, Chief Executive of the New Zealand Food Safety Authority, pictured here with Prof Alan Reilly, CEO, FSAI.

Stronger scientific links between the FSAI and the New Zealand Food Safety Authority (NZFSA) will result from an agreement signed between the two agencies in August. The NZFSA has a similar role to the FSAI and is responsible for protecting consumer interests in relation to food safety and food standards. Under the arrangement, both agencies will share information and cooperate in areas of mutual interest, such as science, risk assessment, food consumption and composition.

On signing the agreement Prof Alan Reilly, Chief Executive, FSAI said "the FSAI and the NZFSA have always had a good and productive working relationship and we have learned a great deal from each other. Today we operate in a global village with respect to food trade and closer working relationships assist with handling emerging issues and food incidents. Networking with the world's other top food safety authorities is key to protecting consumers both within and across national boundaries."

RASFF – 30 Years On

The Rapid Alert System for Food and Feed (RASFF) was set up in 1979 as a result of an incident of 'orange terrorism'. Oranges from Israel, found to be injected with mercury, were identified in the Netherlands and also found in the former West Germany. The incident sparked widespread panic across Europe. As a result, an informal arrangement was established between the food control authorities in Ireland, Belgium, Denmark, France, Germany, Italy, Luxembourg, the Netherlands and the United Kingdom to set up a system in order to inform each other in cases where there was a risk to consumer health due to a problem concerning food.



Source: European Commission



Source: European Commission

In 1992, the rapid alert system for food was included for the first time in the Directive on General Product Safety, together with the rapid alert system for non-food products. However, it only focused on the manufacturing of food.

A number of major food scares in the 1990s, including the BSE crisis that struck the UK in 1995, the discovery of high amounts of aflatoxins in pistachios from Iran in 1998 and the 1999 Belgian dioxin crisis, contributed to the overhaul of food safety policy, management and the legislative framework within the European Union. DG SANCO was established and given responsibility for verifying the implementation of food law.

The legal basis and formalised procedures for RASFF were laid down in Regulation EC No. 178 of 2002. This Regulation covered the general principles and requirements of food law and also established the European Food Safety Authority (EFSA).

The coming into force of the 'Hygiene Package' in 2006 further strengthened food and feed law, with increased requirements 'from farm to fork' for traceability, notification of product withdrawal and recall, food and feed business operators responsibilities and the harmonisation of control systems in Member States.

All 27 Member States are members of RASFF, together with the European Commission and EFSA. Iceland, Liechtenstein and Norway are also full members, by virtue of the agreement on the European Economic Area. Switzerland participates in respect of border controls on products of animal origin. In addition to information sharing among members, non-members are informed if a product subject to notification has been exported to that country or when a product originating from that country has been the subject of a notification.

With the advent of global food safety issues such as melamine in pet food and later in milk and infant formula originating from China, RASFF is strengthening its collaboration with other regional networks. These include the ASEAN (Asia RASFF); MERCOSUR (South America); the African Commission and the World Health Organization alert system - INFOSAN, (the International Food Safety Authorities Network).

The RASFF portal is available at: <http://ec.europa.eu/rasff>



Left: Dorothy Guina-Doman, Chief Specialist Consumer Protection, (pictured here, front row on right) represented the FSAI at the RASFF 30th anniversary conference.

Centre: Robert Madelin, Director General for Health and Consumers, closed the conference

Above: The European Commission building ('the Berlaymont building') in Brussels during the RASFF 30th anniversary celebrations

RASFF Notifications

In 2002, the number of RASFF notifications increased substantially to 3,000, almost double the number of notifications in the previous year (1,567), and an increase of 330% from the number in 1999 (698). These increases were due to the requirement to notify and increased awareness due to the

significant food safety crises of the previous years. The numbers of notifications continued to grow, due to increased understanding among member countries. In addition, in 2004, ten new countries joined the EU. Since 2005, the notifications have levelled off, to approximately 7,000 per year (Figure 1).

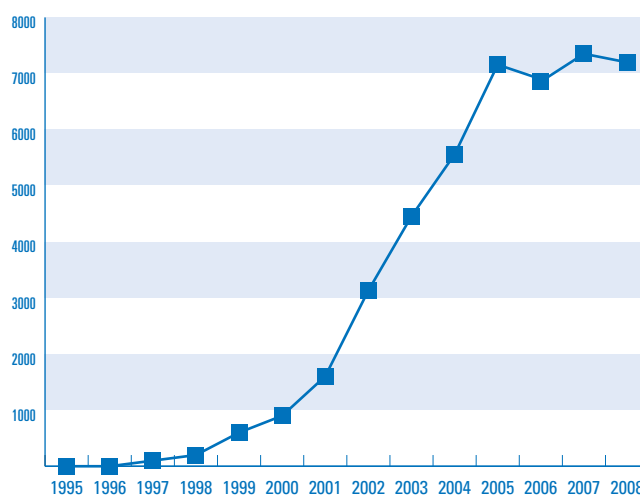


Figure 1: Number of RASFF notifications, 1995-2008

Source: European Commission

Checks for Zoonotic Agents in Food in Ireland

Zoonoses are diseases and infections naturally transmissible from vertebrate animals to humans resulting in millions of cases of human illness worldwide. Zoonoses can affect humans with symptoms ranging from mild in healthy individuals, to serious injury or death in vulnerable groups such as the very young, elderly and immunocompromised. European Council Directive 2003/99/EC requires Member States to collect, evaluate and report data on zoonoses, zoonotic agents, antimicrobial resistance and foodborne outbreaks to the European Commission each year. The European Food Safety Authority (EFSA) processes the data collected and publishes it in the form of a Community Summary Report. In Ireland, the Department of Agriculture, Fisheries and Food (DAFF) is the national zoonosis contact point for EFSA, while also compiling Irish data on zoonotic agents in animals and feed. Data on zoonotic diseases in humans and on foodborne outbreaks are compiled by the Health Protection Surveillance Centre (HPSC), while the FSAI is responsible for zoonosis data on all foods tested.

In 2008, food samples were tested for the presence of *Salmonella* spp., thermophilic *Campylobacter* spp., *Listeria monocytogenes* and verotoxin-producing *Escherichia coli* (VTEC). Other pathogens such as *Cronobacter* spp. (*Enterobacter sakazakii*) and toxic contaminants like histamine and staphylococcal enterotoxins have been included in the zoonoses reporting system since 2006. The zoonosis data do not, at present, include information on antimicrobial resistance. A total of 135,645 tests were carried out to determine the presence of zoonotic agents in foodstuffs in 2008, 5% more than in 2007. Samples analysed included raw and ready-to-eat foods with samples taken at processing and retail (including catering) levels.

The largest number of tests (120,467) was carried out to detect the presence of *Salmonella* spp. which was identified in 0.5% of the samples analysed (Table 1). This was the same prevalence as in 2007 and slightly higher than that for 2006 (0.2%). The relatively high number of contaminated ready-to-eat red meat samples in 2008 can be linked to an outbreak of *S. Agona* in a food processing plant. Of the 597 salmonellae isolates serotyped, 192 (32%) were *S. Kentucky*, 151 (25.2%) were *S. Typhimurium*, 67 (11.2%) were *S. Agona*, 27 (4.52%) were *S. Derby* and four (0.67%) were *S. Enteritidis*. *S. Typhimurium* and *S. Enteritidis* are the serovars that generally account for the majority of human cases of salmonellosis in Ireland. As in previous years, the majority (88%) of food samples analysed for the presence of *Salmonella* spp. in 2008 were carried out by industry.

The detection rate for *Campylobacter* spp. in food decreased considerably in 2008, with 1 (0.08%) of 1,249 food samples tested being positive, compared to 6.9% in 2007. This decrease in 2008 may be linked to a reduction in the number of raw poultry-meat samples taken at processing level which, in previous years, have been shown to have relatively high rates of contamination with *Campylobacter* spp.

The proportion of food samples testing positive for *Listeria monocytogenes* in 2008 was 0.81% (Table 2), down from 1.5% in 2007. Of the 12,540 samples analysed, quantitative analysis was performed on 8,675. Of this, five were found to be in excess of the legal limit for ready-to-eat food (>100 cfu/g).

Table 1: *Salmonella* spp. in Food, 2008

Raw/unpasteurised or ready-to-eat status not specified	No. Tested	No. Positive	%
Poultry-meat	7,557	259	3.4
Red meat	43,517	264	0.6
Dairy products	602	2	0.3
Egg and egg products	1,994	2	0.1
Fish and fish products	316	0	0
Fruit and vegetables	264	0	0
Total	54,250	527	1
Ready-to-eat			
Poultry-meat	7,529	5	0.1
Red meat	15,980	52	0.3
Dairy products	19,819	11	0.1
Fish and fish products	262	0	0
Fruit and vegetables	2,563	0	0
Other foods	20,064	13	0.1
Total	66,217	81	0.1
Overall Total	120,467	608	0.5

Table 2: *Listeria monocytogenes* in Food, 2008

Raw/low heat treated or ready-to-eat status not specified	No. Tested	No. Positive	%	>100 cfu/g
Meat and fish	2,311	10	0.4	2
Dairy products	1,313	37	2.8	1
Other foods	1,002	7	0.8	0
Total	4,626	54	1.2	3
Ready-to-eat or Pasteurised				
Meat and fish	1,526	19	1.2	1
Dairy products	2,765	7	0.7	0
Other foods	3,623	22	0.4	1
Total	7,914	48	0.6	2
Overall Total	12,540	102	0.81	5

While Verotoxigenic (VTEC) *E. coli* was not detected in any of the foods tested in 2006 or 2007, VTEC *E. coli* (O157 PT32) was identified in one of the 115 samples tested for the pathogen in 2008. All samples were taken at retail level.

A relatively small number of tests (350 samples) failed to detect *Cronobacter* spp. (*Enterobacter sakazakii*), while staphylococcal enterotoxin was detected in eight out of the 56 samples tested. Histamine was not identified in any of the 89 samples tested.

Food as a Vector for Human Illness in Ireland

Provisional data compiled by the HPSC for 2008 shows that acute infectious gastroenteritis (AIG) accounted for the highest proportion of notifiable infectious diseases last year (4,186), more than twice the number of noroviral (1,776) or campylobacteriosis (1,752) cases. AIG includes diseases caused by rotavirus, *Clostridium difficile* and infectious gastroenteritis of unknown aetiology.

A number of notifiable gastrointestinal diseases are classified as zoonoses since they are naturally transmissible from vertebrate animals to humans. Campylobacteriosis is the most frequently reported zoonosis in Ireland and in the EU, while salmonellosis is the second most common. Other zoonoses such as infection by Enterohaemorrhagic *Escherichia coli* (EHEC; the subset of VTEC strains that cause bloody diarrhoea in humans) and listeriosis, though less common, can have serious health implications and are thus monitored closely.

Consuming contaminated food or water, person to person contact, contact with infected animals and environmental contamination can all lead to human infection with zoonotic agents. Food is one vector used by zoonotic pathogens, and for some, like *Listeria monocytogenes*, is the primary route of infection. In contrast, cryptosporidiosis is predominantly a water-borne disease and not often linked with food consumption. The monitoring and control of food production, processing, preparation and distribution in recent years has resulted in a significant decrease in the incident rate of some zoonoses, particularly salmonellosis. However the evolution of eating habits, the diversity of the global food supply chain and advances in production and processing technology all bring new challenges for food safety.

Consuming contaminated food or water, person to person contact, contact with infected animals and environmental contamination can all lead to human infection with zoonotic agents.

Though it is not always possible to determine how humans become infected, outbreaks can present an opportunity to identify a common source of infection. Provisional outbreak data for 2008 provided by the HPSC indicates that food played a proportionately larger role in the transmission of salmonellosis (Figure 1) than for campylobacteriosis (Figure 2) or for EHEC (Figure 3).

The occurrence of salmonellosis has been slowly declining over recent years in Ireland, and the provisional outbreak data for 2008 provided by the HPSC suggests that a significant proportion of those cases were linked to the consumption of contaminated food. In contrast, the data also indicate that food played a relatively minor part in the transmission of other important zoonotic pathogens, including *Campylobacter* spp. and EHEC. However, these data are provisional and must be viewed in the context that outbreaks account only for a certain proportion of the overall reported cases, while the level of non-reporting is unknown. Nevertheless, the provisional EHEC outbreak data for 2008 could be considered representative since approximately half of the EHEC cases in Ireland were outbreak related. In addition, the sources identified by the outbreak data were broadly in agreement with the food data results in that a higher proportion of the food samples tested for the presence of *Salmonella* spp. were positive when compared to those analysed for the presence of *Campylobacter* spp. or EHEC.

While it is encouraging from a food safety perspective to note the relatively minor part played by food in the transmission of serious illnesses such as campylobacteriosis and EHEC infection, efforts to reduce the role of food in the transmission of any disease must continue in order to maintain a high level of confidence in the safety of food in Ireland.

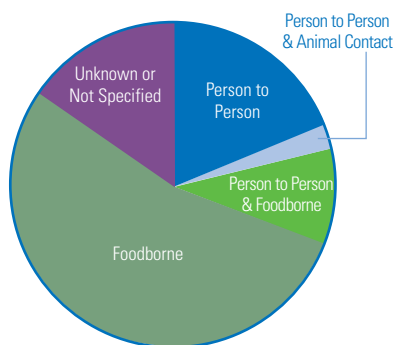


Figure 1. Sources of Salmonellosis Outbreaks in Ireland, 2008

(Source: HPSC. 22 outbreaks - 78 cases based on provisional data)

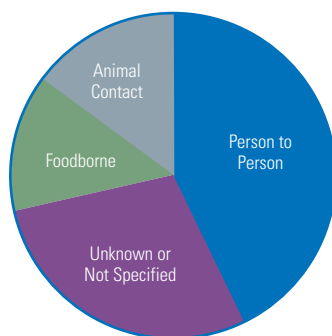


Figure 2. Sources of Campylobacteriosis Outbreaks in Ireland, 2008

(Source: HPSC. 7 outbreaks - 14 cases based on provisional data)

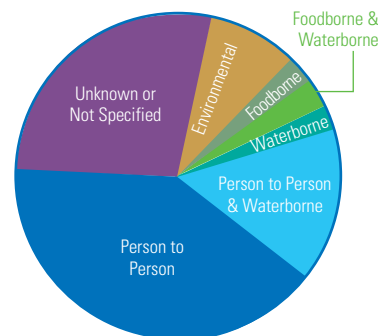


Figure 3. Sources of EHEC Outbreaks in Ireland, 2008

(Source: HPSC. 41 outbreaks - 117 cases based on provisional data)

Legislation Update

Irish legislation

Infant Formulae and Follow-On Formula

The Department of Health and Children has introduced the European Communities (Infant Formulae and Follow-On Formulae) (Amendment) Regulations, 2009 (S.I. No. 209 of 2009).

See: <http://tinyurl.com/nqjeqn>.

These Regulations amend the European Communities (Infant Formulae and Follow-On Formulae) Regulations, 2007 (S.I. No. 852 of 2007) and give effect to Commission Regulation (EC) No. 1243/2008 of 12 December 2008 amending Annexes III and VI to Commission Directive 2006/141/EC as regards compositional requirements for certain infant formulae, and it gives further effect to Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae and amending Directive 1999/21/EC.

With the introduction of this amending S.I. the legislation governing infant formula and follow-on formulae is as follows:

S.I. No. 852 of 2007 came into operation on 1 Jan 2008 with the exception of Regulation 30(1A), (1B), (1C) and Regulation 30(2).

Regulation 30(1A), (1B), (1C) were inserted into S.I. No. 852 of 2007 via S.I. No. 209 of 2009 and will come into operation on 31 December 2009. Regulation 30(2) comes into operation on 31 December 2011.

The amendments to S.I. No. 852 of 2007 by S.I. No. 209 of 2009 have the following effect:

S.I. No. 242 of 2004 will continue to apply as follows:

- Regulation 8, 9 and 13 are revoked (since 1 January 2008)
- Regulation 3, 4 (except Para 3), 5 (except Para 3), 6, 7, 10, 11, 12 and 14 to 28 will be revoked from 31 December 2009
- Regulation 4(3) and 5(3) will remain in force from 31 December 2009 until 31 December 2011 but the text to be read for those paragraphs from 31 December 2009 is that as inserted by Regulation 3(c) of S.I. 209 of 2009
- Until 31 December 2009, a person shall not be guilty of an offence under Regulation 25(1) of S.I. No. 852 of 2007 in relation to dietary foods for special medical purposes intended specifically for infants where they fail to comply with:

» Regulation 4(4), (5) or (6) of S.I. No. 852 of 2007 but where there is no contravention or failure to comply with Regulation 4(3) of the European Communities (Infant Formulae and Follow-On Formulae) Regulations, 2004 (S.I. No. 242 of 2004) or

» Regulation 5(3) of S.I. No. 852 of 2007 but where there is no contravention or failure to comply with Regulation 5(3) of the European Communities (Infant Formulae and Follow-On Formulae) Regulations, 2004 (S.I. No. 242 of 2004).

- S.I. No. 242 of 2004 will be revoked in its entirety on 31 December 2011.

S.I. No. 209 of 2009 also amends the following two Schedules to S.I. No. 852 of 2007 as follows:

Schedule 3 "Nutritional substances" is amended by the insertion of "L-arginine and its hydrochloride" into the list entitled "3. Amino acids and other nitrogen compounds": A footnote to this addition is also added "L-arginine and its hydrochloride shall only be used in the manufacture of infant formulae referred to in Regulation 4(6)."

Schedule 6 "Specification for the protein content and source and the processing of protein used in the manufacture of infant formulae with a protein content less than 0.56g/100kJ (2.25g/100Kcal) manufactured from hydrolysates of whey proteins derived from cows milk protein" is amended by the addition of paragraph 4 entitled "Protein quality".

Purity Criteria on Food Additives other than Colours and Sweeteners

The Department of Health and Children has published the European Communities (Purity Criteria on Food Additives other than Colours and Sweeteners) Regulations, 2009 (S.I. No. 277 of 2009) which came into effect on 23 July last.

These Regulations revoke the previous legislation (S.I. No. 58 of 2004 and its amendments) and give effect to Commission Directive 2008/84/EC of 27 August 2008 laying down specific purity criteria on food additives other than colours and sweeteners, as amended by Commission Directive 2009/10/EC of 13 February 2009. The purity criteria set out in

Annex I to Commission Directive 2008/84/EC consolidates those set out in the previous legislation on the subject (i.e. Commission Directive 96/77/EC as amended).

Removal of Vertebral Column in Butchers' Premises

The Department of Agriculture, Fisheries and Food has published the European Communities (Transmissible Spongiform Encephalopathies and Animal By-products) (Amendment) Regulations, 2009 (S.I. No. 291 of 2009). These Regulations revoke the previous S.I. on the issue (i.e. European Communities (Removal of Bovine Vertebral Column) Regulations, 2004 (S.I. No. 528 of 2004))

These Regulations make it an offence to remove vertebral column (SRM) in butchers' premises from bovine animal over 30 months without an authorisation granted by the Health Service Executive or a local authority. The S.I. provides for the issuing of such an authorisation and also provides for an appeal mechanism in the event of a refusal to issue such an authorisation. An authorisation granted under the European Communities (Removal of Bovine Vertebral Column) Regulations, 2004 (S.I. No. 528 of 2004) remains in force and may be dealt with as if it is an authorisation under the new Regulation.

The Regulations also allow for the possibility of TSE sampling being carried out by someone other than a registered veterinary practitioner, in accordance with the instructions of an authorised officer.



EU legislation

Natural Mineral Waters

Directive 2009/54/EC (OJ L164, p45, 26/06/2009) of the European Parliament and of the Council of 18 June 2009 on the exploitation and marketing of natural mineral waters was published in the Official Journal of the EU.

See: <http://tinyurl.com/nkldf7>

This Directive recasts the previous legislation i.e. Directive 80/777/EEC which had been substantially amended several times and it was therefore recast in the interests of clarity. Directive 2009/54/EC requires that care should be taken to ensure that natural mineral waters retain at the marketing stage those characteristics which enabled them to be recognised as such. It requires that the containers used for packaging natural mineral waters have suitable closures and that the inclusion of the statement of the analytical composition of a natural mineral water is compulsory in order to ensure that consumers are informed. The Directive also lays down the terms on which similar products imported from third countries may be allowed to enter the EU as mineral waters.

Materials and Articles Intended to Come into Contact with Food

Commission Regulation (EC) No. 450/2009 (OJ L135, p3, 30/05/2009) of 29 May 2009 on active and intelligent materials and articles intended to come into contact with food was published in the EU Official Journal at the end of May 2009.

This Regulation establishes specific requirements for the marketing of active and intelligent materials and articles intended to come into contact with food. A European Community list of authorised substances will be drawn up by the European Commission after the completion of the safety assessment by the European Food Safety Authority (EFSA) of all substances for which a valid application is submitted in accordance with guidelines which are to be drawn up by EFSA. The Regulation allows for an initial 18 month period during which time information on active and intelligent materials and articles should be submitted by applicants.

The Regulation requires that from 19 December 2009, to allow identification by the consumer of non-edible parts, active and intelligent materials and articles or parts thereof must be labelled, whenever they are perceived as edible:

(a) with the words 'DO NOT EAT'; and

(b) always where technically possible, with the symbol reproduced in Annex I to Regulation (EC) No. 450/2009

This information must be conspicuous, clearly legible and indelible. It must be printed in characters of a font size of at least 3mm and comply with the requirements set out in Article 15 of Regulation (EC) No. 1935/2004.



Symbol in Annex I

Toys in Food

Directive 2009/48/EC (OJ L170, p1, 30/06/2009) of the European Parliament and of the Council of 18 June 2009 on the safety of toys came into effect on 20 July 2009. Member States are required to bring into force the laws, regulations and administrative provisions necessary to comply with the Directive by 20 January 2011 and must apply those measures with effect from 20 July 2011.

The Directive requires that toys contained within food or commingled with food must have their own packaging. This packaging, as it is supplied, must be of such dimensions as to prevent its being swallowed and/or inhaled, and the packaging that can reasonably be expected to be brought into contact with food must comply with Regulation (EC) No. 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food.

Toys firmly attached to a food product at the moment of consumption, in such a way that the food product needs to be consumed in order to get direct access to the toys *are prohibited*. Parts of toys otherwise directly attached to a food product must fulfill certain requirements:

- Toys and their parts must be of such dimensions as to not present a risk of asphyxiation by closing off the flow of air as a result of internal airway obstruction by objects wedged in the mouth or pharynx or lodged over the entrance to the lower airways.



- Toys, which are clearly intended for use by children under 36 months, and their component parts and any of their detachable parts must be of such dimensions as to prevent their being swallowed or inhaled. This also applies to other toys which are intended to be put in the mouth, and to their component parts and any of their detachable parts.

Toys contained in food or commingled with food must bear the following warning: 'Toy inside. Adult supervision recommended.'

The Directive also sets out certain requirements for 'gustative games' which are defined as meaning "a toy the purpose of which is to allow children to make sweets or dishes which involve the use of food ingredients such as sweets, liquids, powders and aromas".

European Update

Annual Report on Pesticide Residues in Food

In July, the EFSA published its first Annual Report on pesticide residues in food observed throughout the European Union (EU) during 2007. Of the 74,000 samples of nearly 350 different types of food analysed, 96% were compliant with the legal maximum residue levels (MRLs) of pesticides with 4% exceeding those levels compared to 5% in 2006. The report is available on the EFSA website at: <http://tinyurl.com/lhhvdx>.

The following Regulations have been introduced over the last few months in Ireland:

S.I. No. 277 of 2009
European Communities (Purity Criteria on Food Additives other than Colours and Sweeteners) Regulations, 2009

S.I. No. 291 of 2009
European Communities (Transmissible Spongiform Encephalopathies and Animal By-products) (Amendment) Regulations, 2009



National Microbiological Surveillance

Bacteriological Safety of Unpasteurised Juices and Smoothies

While unpasteurised juices and smoothies are favoured by the consumer for their nutritional content and their pleasing aesthetic appearance, the preparation of such products requires a continual commitment to high standards of food safety and hygiene to prevent the occurrence of foodborne infection.

The process for preparing juices and smoothies has the potential to promote microbial growth, which can be exacerbated by incorrect product handling and storage. A detailed microbiological examination of fruit and vegetables, confirms the presence of a unique and diverse range of indigenous microflora on their outermost layer. Physical processes such as cutting, slicing, skinning and shredding, damage this layer and create a larger surface area for microbial populations to colonise. Penetration of this layer also results in the excretion of nutritious fluids (including numerous phytoalexins), which can retard, but generally enhance, microbial growth. These fluids promote biofilm production and provide a protective layer which makes bacterial removal/destruction all the more difficult.

To prevent and control bacterial growth, foodstuffs generally incur at least one processing step (post-food preparation), designed to reduce, or eliminate potential pathogenic and spoilage bacteria i.e. pasteurisation, sterilisation. In the case of unpasteurised juices and smoothies, the use of high quality fresh ingredients, good hygiene practices, maintenance of the cold chain and the correct implementation of food safety management procedures based on the principles of HACCP (Hazard Analysis and Critical Control Point) are important in controlling and preventing bacterial growth, since no further processing steps and in particular no heat treatment occurs.

To-date, there have been no known foodborne outbreaks associated with unpasteurised juice or smoothies in Ireland; however, several recent high-profile outbreaks associated with fresh fruit and vegetables and unpasteurised fruit juices have been reported world-wide.

Aim

The primary aim of this study was to assess the microbiological safety of juices and smoothies (made from fruit and/or vegetables) on retail sale in the Republic of Ireland and where appropriate to assess compliance with the microbiological limits specified in Commission Regulation (EC) No. 2073/2005 on Microbiological Criteria for Foodstuffs. A secondary aim of this study was to examine certain key aspects of labelling on pre-packaged products that are required to directly convey food safety information to consumers.

Methodology

Samples (n=811) were obtained by Environmental Health Officers (EHOs) from i) establishments preparing unpasteurised juices and

smoothies at the point of sale and ii) establishments selling pre-packaged unpasteurised juices and smoothies.

Samples were tested for *Salmonella* spp., *Listeria monocytogenes* and *Escherichia coli* in one of the seven Official Food Microbiology Laboratories (OFMLs) of the Health Service Executive (HSE) using approved/standard methods. Where laboratory facilities were available, samples were also tested for *Escherichia coli* O157. Samples were classified as outlined in Table 1.

Table 1: Classification of samples obtained at retail level.

Microorganism	Sample classification		
	Satisfactory	Acceptable	Unsatisfactory
<i>Salmonella</i> spp. *	Absent in 25g	N/A	Present in 25g
<i>Listeria monocytogenes</i> *	≤ 100 cfu/g	N/A	>100 cfu/g
<i>Escherichia coli</i> O157 †	Absent in 25g	N/A	Present in 25g
<i>Escherichia coli</i> ‡	≤ 100 cfu/g	>100 to ≤ 1,000 cfu/g	>1,000 cfu/g

* Food safety criteria are laid down in Commission Regulation (EC) No 2073/2005 for i) *Salmonella* spp. in unpasteurised fruit and vegetables juices and ii) *L. monocytogenes* in all ready-to-eat (RTE) foods. The limits specified in these food safety criteria were used to classify samples analysed in this survey.

† These classifications are based on the FSAI Interim Guidance Note No. 3 on the Guidelines for the Interpretation of some RTE Foods Sampled at the Point of Sale.

‡ A process hygiene criterion is laid down in Commission Regulation (EC) No 2073/2005 for *E. coli* in unpasteurised fruit and vegetable juice. This criterion is applicable at the end of the manufacturing process; however, the limit specified in this process hygiene criterion was used to classify samples analysed in this survey.

Results

Overall Microbiological Results:

All samples tested for *Salmonella* spp (n=811), *L. monocytogenes* (n=811) and *E. coli* O157 (n=436) were classified as 'satisfactory' (Table 2). 99% (n=806) of samples tested for the microbial hygiene indicator *E. coli* were classified as 'satisfactory', 0.4% (n=3) as 'acceptable' and 0.2 % (n=2) as unsatisfactory (Table 2).

Table 2: Microbiological classification of unpasteurised (fruit and/or vegetable) juice and smoothie samples

Micro-organism	Total Sample No.	No. of Satisfactory samples (%)	No. of Acceptable samples (%)	No. of Unsatisfactory samples (%)
<i>Salmonella</i> spp	811	811 (100%)	N/A	-
<i>Listeria monocytogenes</i>	811	811 (100%)	N/A	-
<i>Escherichia coli</i>	811	806 (99.4%)	3 (0.4%)	2 (0.2%)†
<i>Escherichia coli</i> O157	436*	436 (100%)	N/A	-

† Details of two unsatisfactory samples: Fruit Juice with an *E. coli* count of 2×10^4 cfu/g & a fruit smoothie with an *E. coli* count of 3.4×10^4 cfu/g. Both samples were prepared at the point of sale.

* Testing was carried out by four OFML's.



Although two samples were 'unsatisfactory' for *E. coli* (a hygiene indicator), it is important to note that these samples were 'satisfactory' for the pathogenic bacteria (*Salmonella* spp., *E. coli* O157 and *L. monocytogenes*). Furthermore, EHOs took follow-up action on the two unsatisfactory samples and repeat sampling showed satisfactory results.

Questionnaire data:

The survey also included a questionnaire through which information was collated on sample type, sample source, location of preparation and product labelling. A total of 578 (out of a possible 811) questionnaires were returned within the specified time period (a response rate of 71.3%) and these questionnaires were matched with the corresponding laboratory results. Due to the small number of acceptable and unsatisfactory samples, the microbiological status of this subset of 578 samples was considered representative of the overall sample population presented in Table 2.

The following information was reported on the questionnaires:

- The majority of samples were unpasteurised fruit and/or vegetable smoothies (n=297, 51%) and unpasteurised fruit juice (n=228, 39%).
- Most samples were obtained from juice bars (n=203, 35%), supermarkets (n=149, 25%) and restaurants (n=138, 24%).
- 86% of samples (n=499) were prepared on the establishment; while 13% (n=74) were pre-packaged by a supplier.
- Of the 499 samples prepared on the establishment, 91% (n=456) were prepared at the point of sale; while, 6% (n=30) were pre-packaged.
- Of the 74 samples which were pre-packaged by a supplier, three samples were not labelled with a 'use-by' date. These were in breach of Council Directive 2000/13/EC. Reporting of follow-up action by EHO's to FSAI on non-compliance with the labelling legislation was not a requirement of this study.

Conclusions

This survey found that the majority (99%) of unpasteurised fruit and vegetable juices and smoothies analysed were compliant with relevant microbiological guidelines and standards. These findings suggest that unpasteurised fruit and vegetable juices and smoothies available on the Irish market are safe with respect to the pathogens tested and that the majority are of good microbiological quality.

Thank you to the EHOs and the laboratory staff in the OFMLs of the HSE who participated in this survey.

The report of this survey is available on our website at: <http://tinyurl.com/nbk2cv>

Prevalence of *Salmonella* spp. in Raw Pork Sausages

A national microbiological survey to investigate the prevalence of salmonellae in raw pork sausages on retail sale in the Republic of Ireland was undertaken between January and April 2008.

Raw pork sausages (n=1098) were sampled by Environmental Health Officers from retail establishments including butcher shops and supermarkets. Sample analysis was undertaken by the Official Food Microbiology Laboratories of the Health Service Executive and definitive confirmation of speciation was undertaken by the National Salmonella Reference Laboratory (NSRL), Galway University Hospitals and School of Medicine at NUI, Galway.

Salmonellae were detected in 1.7% (19/1098) of raw pork sausage samples. This finding was not unexpected in a raw pork product. Where contaminated batches were still on the market, EHOs were advised to request their withdrawal.

In this study, three salmonellae serovars were identified: *S. Typhimurium* (n=17), *S. Brandenburg* (n=1) and *S. Bredeney* (n=1). Phage typing was performed on the *S. Typhimurium* isolates and seven different phage types were identified. Some of these phage types (e.g. DT193, DT104, DT104b and U302) are commonly associated with human salmonellosis. This suggests that raw sausages may be a potential vehicle for the transmission of salmonellae to humans if they are undercooked or poor hygiene standards are practiced. Further evidence for this comes from work done by the NSRL since completion of the survey. Using multi locus variable number tandem repeat analysis (MLVA), the NSRL found similarities between phage types of *S. Typhimurium* isolated from animals (swine carcass/swine faeces), raw sausages and humans.

Salmonellae are present in the national pig herd as they are in most Member States of the EU. There is no step in the manufacture of raw pork sausages that can remove salmonellae; therefore, it is inevitable that salmonellae will be found in the end product but it is important that this is controlled to a low level. In the case of sausages and other raw pork products, the key to consumer health protection lies in the reduction of salmonellae in the national pig herd and improvements in hygienic slaughter practices. This coupled with continuing education of consumers on hygienic handling and thorough cooking of raw meat is essential. These control strategies are discussed in more detail in the survey report which is available on our website: <http://tinyurl.com/maaym2>.



Controlling *Campylobacter* spp. in the Food Chain

The European Food Safety Authority (EFSA) has published the content and conclusions of a recent scientific colloquium on *Campylobacter* spp. This meeting was prompted by a growing concern regarding the burden of gastrointestinal illness caused by campylobacters. Over the past years *Campylobacter* spp. have overtaken *Salmonella* spp. as the most frequently reported zoonotic agent in the EU. An incidence rate of approximately 50 confirmed cases per 100,000 population over 17 European countries was reported in 2007.

Worldwide epidemiological studies indicate that campylobacteriosis is largely foodborne and that poultry-meat is a major source. However, the proportion of illness due to poultry-meat and the contribution of other potential sources remain unclear. The European Commission requested EFSA to update its 2005 Opinion on *Campylobacter* spp. with particular reference to the contribution of broiler meat to human campylobacteriosis, the possible control options and potential performance objectives or targets. This colloquium was organised to assist EFSA in updating its Opinion.

The meeting involved over 90 scientists and stakeholders from 30 countries including New Zealand, which had an incidence of 383.5 per 100,000 in 2006 when it implemented a national 'Campylobacter Risk Management Strategy'. Parallel discussion groups addressed the following issues:

- the source attribution and health impact of *Campylobacter* spp.
- its quantitative risk assessment in broiler meat

- its resistance to fluoroquinolones (an antimicrobial substance); and
- effective control measures in broiler meat production from farm to fork.

It was concluded that although there are many reservoirs and transmission routes for *Campylobacter* spp., poultry-meat remains likely to be the most important cause of human exposure. Control measures throughout the poultry food chain were identified and discussed in terms of their possible effectiveness and the likely barriers to their implementation. It was agreed that controls should focus on reducing the numbers of *Campylobacter* spp. on poultry carcasses as well as a reduction in overall prevalence.

Evidence was presented that the use of fluoroquinolones in poultry flocks has led to the emergence of fluoroquinolone resistance in *Campylobacter* spp. in poultry and contributes to the occurrence of antibiotic-resistant *Campylobacter* spp. infection in humans.

Participants agreed that reliable quantitative data throughout the food chain in Europe was needed to help fine-tune models for risk assessment and identify the most promising control measures. Close collaboration between the medical and the food and veterinary sectors was seen as key to improving data collection and the need for field studies (pilot and full scale) using harmonised protocols was identified as necessary to enable validation of promising control measures.

The report can be found on the EFSA website at: <http://tinyurl.com/q5uokk>

Golf Challenge: FSAI V's Safefood



The FSAI recently challenged safefood (the Food Safety Promotion Board) to a golf match. The game, which took place on Grange Castle golf course, Dublin, resulted in a draw overall. Team members are pictured here with captains Ray Dolan (safefood) and Pat O'Mahony (FSAI), holding the much sought-after trophy.

Chinese Students Visit FSAI



Students from Shanghai Jia Tong University are pictured here with Prof Alan Reilly during a visit to the FSAI.

Pet Treats as a Source of *Salmonella* spp.?

Earlier this year, the Health Service Executive (HSE) investigated an outbreak of *S. Typhimurium* DT193. Whilst no food was identified as the source of the outbreak, dog ownership was a common factor between cases. On this basis, as it appears from literature that human salmonellosis from dogs and dog treats has been demonstrated as a route of infection, the FSAI took samples of pig-ear dog treats for analysis. Four samples, purchased in Dublin pet stores, were sent to the Cork County Council Veterinary Laboratory for analysis. No link was found in this investigation, however, three of the four samples were found positive for *Salmonella* spp. and confirmed by the National Salmonella Reference Laboratory in Galway. Four serovars of *S. enterica* were isolated — Infantis, Seftenburg, Derby and Typhimurium DT104. Further surveillance is underway by the Cork laboratory and to date pig-ear pet treats have also been sourced from pet shop retail outlets in Cork, Galway, Longford and Limerick. As a result of these findings, an investigation is underway by the Department of Agriculture, Fisheries and Food at manufacturing level.

Background

In the USA and Canada, investigations have linked human salmonellosis to pet treats, in particular pig-ear treats, which have become popular in recent years. Improvements in processing of pig-ear treats are therefore necessary to reduce the prevalence of salmonellae. After the USA and Canadian outbreaks, the pet-food industry came under scrutiny and improved processes were put in place. This resulted in a considerable reduction in the prevalence of salmonellae on pig-ear treats.

Domestic Hygiene

Dogs and cats are an integral part of many households. If contaminated pet treats are purchased, salmonellae can be either directly transferred to humans by hand contact with the pet-treat, by pets licking their owners' faces and hands or by contact with pet faeces.

It is important that pet owners wash their hands after contact with pets and also after handling pet treats, particularly those derived from pigs. These treats should be stored away from human food. Dogs and cats should not be allowed to lick faces or be in contact with food intended for human consumption.



FSAI and LAVS National Meeting

The FSAI and the Local Authority Veterinary Service (LAVS) national meeting was held on 18-19 June in Mullingar. This meeting of FSAI staff with the veterinary inspectors from the 31 Local Authorities (LAs) with whom FSAI has service contracts, is a forum for discussion and debate on issues in relation to implementation of the contracts. The meeting is also an opportunity to address training needs.

The main focus of the 2009 meeting was enforcement and the first day's presentations and discussion were mainly related to this. This included presentations from FSAI on considerations for official controls in light of the recent Pennington report; a review of the enforcement powers available to LAs; a HSE perspective on enforcement from Paul Hickey, senior environmental health officer; preparation for taking prosecutions from a practicing barrister and a workshop and breakout session on enforcement.

The second day of the meeting focused on meat labelling and included a workshop on labelling enforcement. Other topics discussed during the meeting included the Northern Ireland experience of official controls relating to animals emergency slaughtered on-farm by Robert Huey of the Department of Agriculture and Rural Development, Northern Ireland; a review of the flexibility available to low throughput meat establishments under the hygiene legislation by Sean O'Laoide, veterinary inspector, Westmeath County Council; updates on LAVS working groups from LAVS and FSAI; LAVS funding for 2009 and an overview of new legislation of relevance to the LAVS.



Local Authority Veterinary Inspectors are pictured here during the workshop-breakout sessions: Top photo (l-r) Paul O'Connell, Cork CC; Dan Crowley, Cork CC; Michael Leyden, Roscommon CC; Brendan Smyth, Monaghan CC and Pdraig Flynn, Clare CC; Bottom photo (l-r) Charlie Kealey, Donegal CC; Sean O'Laoide, Westmeath CC; Micheal O'Sullivan, Cavan CC and John Murphy, South Dublin CC. (Background: Paddy Fenton, Kerry CC; Martin Bohan, North Tipperary CC and Robert Huey, DARD, NI).



Pictured at the meeting, are, from left to right, Prof Séamus Fanning, Prof John Threlfall, Dr Chris Teale, Prof Luisa Peixe, Prof Alan Reilly, Dr Pietro Stella, Prof Dan Collins, Dr Ernesto Liebana and Dr Pierre-Alexandre Beloeil.

EFSA BioHaz Working Group meets at FSAI

The Working Group on Antimicrobial Resistance of the European Food Safety Authority's Scientific Panel on Biological Hazards met in July in the FSAI offices to further consider issues relating to the surveillance of antimicrobial resistance in zoonotic agents. This work is being undertaken jointly by EFSA along with the European Medicines Agency, the European Centre for Disease Prevention and Control and the EU Scientific Committee on Emerging and Newly Identified Health Risks at the request of the European Commission in response to increasing concerns on the trends of antimicrobial resistance in zoonotic infections in humans. A common report is in preparation by the four bodies on the current state of knowledge regarding the nature and extent of antimicrobial resistance in zoonotic bacteria such as *Salmonella* spp. and *Campylobacter* spp.

Professorship for CEO

Congratulations to Alan Reilly, CEO, FSAI who was recently appointed Adjunct Associate Professor at University College, Dublin. Professor Reilly is assigned to the Centre for Food Safety at the School of Agriculture, Food Sciences and Veterinary Medicine, College of Life Sciences. We wish him every success during his Professorship.



Editor: Edel Conway

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