



folic acid and neural tube defects: finding the best policy for health

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In June, a national seminar was organised by the Food Safety Authority of Ireland as part of the work of the National Committee on Folic Acid Food Fortification and was attended by over 70 participants from many stakeholder groups. The seminar was chaired by Dr Jim Kiely, Chief Medical Officer, Department of Health and Children.

Alan Reilly, Deputy Chief Executive, FSAl, opened the seminar and welcomed attendees. The first speaker of the day was Dr Helene McNulty, Professor of Nutritional Science, University of Ulster, who reviewed strategies to prevent neural tube defects (NTDs). This was followed by a presentation on the prevention of NTDs in Canada by Dr Mary L'Abb , Director, Bureau of Nutritional Sciences, Food Directorate, Health Products and Food Branch, Health Canada. Since 1998, Canada has seen a reduction in NTDs by up to 78% in some parts of the country due to a

mandatory fortification policy. Dr David S. Wald, Specialist Registrar in Cardiology, Southampton University Hospital, discussed the role of folic acid in the prevention of heart disease and stroke and concluded that, considering the evidence, there is no reason why action should not be taken now to increase folic acid consumption for the prevention of these diseases.

Dr Louise Sullivan, Food and Drink Industry Ireland, IBEC and Mr Reg Fletcher, Director of Scientific Research, Kellogg's Europe discussed industry issues. Dr John Scott, Professor of Experimental Nutrition, Department of Biochemistry, Trinity College, Dublin, spoke on how to move forward in Ireland with folic acid food fortification, and the implications and research needs. He stressed that if fortification is implemented, there will be a need to evaluate the benefits of the programme and to monitor for any potential risk.



Pictured at the Folic Acid Seminar were Dr David Wald, Southampton University Hospital, Dr Jim Kiely, Department of Health and Children, Dr Mary L'Abb , Health Canada, Mr Alan Reilly, FSAl, and Mr Reginald Fletcher, Kellogg's Europe.

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adopting a common sense approach to dietary supplements



August 1st, 2005 heralded the application of the Dietary Supplements Directive (2002/46/EC) to products on the market and those seeking pre-marketing approval. The Directive is good news for consumers, because it now means that manufacturers will have to demonstrate the safety of their products to the satisfaction of the food safety authorities in Europe.

Following its adoption in July 2002, the Directive was the subject of legal challenges in the UK and subsequently the European Court of Justice (ECJ). A ruling in favour of the European Commission was issued on 12 July last. In Ireland, the Directive is implemented through S.I. No. 539 of 2003 and enforced by the FSAI and its official agencies. The Directive will facilitate a harmonised approach to the regulation of dietary supplements throughout Europe, using, as a starting point, a positive list of vitamin and mineral preparations permitted for use in the manufacture of dietary supplements. The approach proposed is flexible because it allows for derogation until the end of 2009 for products already on the market, provided that a dossier has been submitted for review by the European Food Safety Authority (EFSA) and EFSA has not issued an unfavourable opinion. Although the current positive list is restricted to vitamin and mineral preparations, the Commission will issue a report on other categories of substance that may be used in dietary supplements by 12 July 2007.

Supplements received a lot of press coverage during the weeks that followed the ECJ decision. It is important that consumers receive an objective account of the facts. The objective is not to limit consumer choice but to protect the health of the consumer, as decision making will be science-based and

designed to ensure that unsafe products are not marketed. The good news is that a lot of data on dietary supplement safety has been generated in recent years. There is more information than ever on the safety and efficacy of products and the bank of information will grow giving more reassurance to consumers regarding products on the market.

Many people are in denial about the risks of bad dietary habits and practices. It might seem more attractive to choose supplements over a balanced diet rich in fresh fruit and vegetables. Equally, and perhaps more importantly many people are in denial about, or do not understand, the potential adverse effects of dietary supplements. However, regulators recognise that absence of evidence of risk is not the same as evidence of absence of risk.

There are several myths frequently propagated that should be dispelled:

- 'Natural' is not necessarily safer
- 'Natural' is not necessarily (more) effective
- More of a good thing is not necessarily better
- Extracts and concentrates can have very different health effects from that of their source materials.

The objective is not to limit consumer choice but to protect the health of the consumer

These may be difficult concepts to impress on people eager to use every means to take the best care of their health. The point about dose is especially important. For example, vitamin A is an essential nutrient affecting several body functions including vision. However, at very high doses, it can be teratogenic (cause malformations in the embryo or foetus), leading to birth defects in children of expectant mothers consuming excessive amounts.

In parallel with the increased scrutiny on dietary supplements, there is increasing interest in alternative remedies including herbal medicines among consumers. In Ireland, regulation of all medicines falls within the remit of the Irish Medicines Board (IMB). The

FSAI works closely with the IMB to ensure that no product is excluded from regulatory scrutiny. However, due to the nature and scale of the market we also welcome feedback from food control agencies and consumers. Such inter-agency collaboration is especially important as some of the materials used in dietary supplements are also used in medicinal and cosmetic products. In particular the FSAI works closely with the IMB to ensure that medical claims are not used in the marketing of foods or dietary supplements. Equally, dietary supplements are subject to the same scrutiny as food products, to ensure that they are free from dangerous levels of contaminants and that they are labelled correctly. Correct identification and labelling of starting materials is especially important in the case of botanical products where adverse effects have been recorded due to misidentification of plant species.

Of course, the health effects of various foods and food ingredients represent a vibrant area of research at present. The development of functional foods - foods designed to benefit an individual beyond the normal provision of energy and nutrients - has the potential to be a win-win situation for both consumers and food manufacturers, provided regulation can ensure protection for all parties. However, the onus is on the manufacturer to show that they are safe for the consumer and that any health claims are substantiated. As the market for such products develops, the FSAI will ensure that consumers and food control agencies are kept informed of the issues.

The medical community increasingly applies the principles of evidence-based medicine at a time when too many consumers accept what is marketed to them as 'healthy' without asking for the evidence. It is incumbent upon the food authorities to request the evidence and to prevent marketing practices that may mislead or confuse.

A handwritten signature in dark ink, appearing to read 'John O'Brien'.

Dr John O'Brien

Chief Executive, FSAI

efsa inaugurates its official seat in parma

The European Food Safety Authority (EFSA) inaugurated its official seat in Parma, Italy, on 21 June last. Presiding over the inauguration at the Palazzo Ducale in Parma were the Italian Prime Minister, Silvio Berlusconi, the President of the European Commission, José Manuel Barroso, the Chairman of EFSA's Management Board, Stuart Slorach, the EU Commissioner for Health and Consumer Protection, Markos Kyprianou and high-level European, national and local authorities.

EFSA was created in 2002 following a series of food scares that caused the European public to voice concerns about food safety and the ability of regulatory authorities to fully protect consumers. It began its activities in temporary premises in Brussels until the European Council decided on Parma as its permanent seat on 13 December 2003. Since then, EFSA has worked actively, with the support of the Italian authorities to relocate to Parma while continuing to expand its organisation, recruit staff and ensure timely delivery of scientific advice on food and feed safety.



Pictured at the EFSA inauguration are, from left to right, Elvio Ubaldi, Mayor of the City of Parma; José-Manuel Barroso, President of the European Commission, Silvio Berlusconi, Italian Prime Minister; Stuart Slorach, Chairman of the Management Board of EFSA and Geoffrey Podger, Executive Director of EFSA.



Enjoying the celebrations in Parma are EFSA Advisory Forum Members (l-r): Dr Michael Beer, Swiss Federal Office of Public Health, Switzerland; Prof Paolo Aureli, Istituto Superiore di Sanità, Italy; Dr Dace Santare, Food and Veterinary Service, Latvia; Dr Isabel Maria Meirelles Teixeira, Agência para a Qualidade e Segurança Alimentar, Portugal; Mrs Kirstin Faerden, Norwegian Scientific Committee on Food Safety, Norway and Prof Andreas Hensel, Bundesinstitut für Risikobewertung, Germany

nomination of competent national organisations operating in the fields of efsa's mission

When the European Food Safety Authority (EFSA) was set up in January 2002, it was envisaged that it would develop close collaborative links with organisations in Member States which are active in the fields of its mission. These areas include assisting with preparatory work for scientific opinions, scientific and technical assistance, the collection of data and identification of emerging risks. EFSA has now initiated the process for the designation of competent organisations by the Member States for a scientific network according to Article 36 paragraph 3 of Regulation 178/2002. The European Commission has specified the criteria for qualification of EU Member State

organisations to join the network in Regulation 2230/2004.

EFSA has now requested Member States to forward the names and details of organisations that are qualified to take part in scientific co-operation within the network via their Permanent Representations in Brussels. As these organisations will be entrusted with certain tasks with a view to assisting EFSA with its general mission, it is essential that they are independent, efficient, possess a high level of scientific and technical expertise and must be legal entities that pursue objectives of public interest. Financial support for certain

tasks entrusted to the organisations in the network may be awarded by EFSA.

Details of the announcement from EFSA and a questionnaire to be filled out by organisations wishing to join the scientific network can be found on the EFSA website. FSai has been requested by the Department of Health and Children to assist with collating the response from Ireland. Organisations and bodies that would like to join the scientific network should fill out the questionnaire and send it to info@fsai.ie by Monday 3 October 2005 for transmission by the Department of Health and Children to the Permanent Representation of Ireland in Brussels.

national microbiology surveillance programme,

The national microbiology surveillance programme continued during 2004 and the results are now available. This programme featured targeted surveillance of three foods (Table 1) and required collaboration between the FSAI, the health boards and the Department of Agriculture and Food.



Bacteriological safety and quality of fermented meat

The aim of this study was to investigate the bacteriological safety and quality of fermented meats available on retail sale in Ireland. Fermented meats are those which have been subjected to the action of microorganisms so that the product characteristics (e.g. flavour, texture, shelf-life) are altered significantly. Fermentation is one of the oldest food technologies and continues to play an important role in the preservation of meat in many parts of the world.

Microbiological analysis was carried out on 762 fermented meat samples. Of these, 754 were analysed for all three microbiological parameters (*L. monocytogenes*, *S. aureus* and *Enterobacteriaceae*). Applying the national guidelines for ready-to-eat foods, 93.1% of these samples were classified as satisfactory, 5.3% as acceptable and 1.6% as unsatisfactory. No sample was classified as unacceptable/potentially hazardous. While this finding is very encouraging it is imperative that every effort is made to ensure the continued safety and quality of this product.

Bacteriological safety of cheeses made from raw or thermised milk

This EU wide study investigated the bacteriological quality and safety of cheese made from raw or thermised milk. Sampling was carried out in production and retail premises.



Applying the criteria proposed by the European Commission (EC) for this survey:

- all production samples (n=28) were classified as satisfactory for *Salmonella* spp., *L. monocytogenes*, *Campylobacter* spp. and *E. coli*; while 71.4% were satisfactory for *S. aureus*
- all retail samples were classified as satisfactory for *Salmonella* spp. (n=506) and *Campylobacter* spp. (n=509); while 94.5% (483/511), 97.0% (492/507) and 99.4% (506/509) of samples were classified as satisfactory for *S. aureus*, *L. monocytogenes* and *E. coli* respectively. This study highlighted a problem with *L. monocytogenes* in cheese from one manufacturer. This problem was addressed by the authorities and the manufacturer.

While the overall findings of this study are encouraging, there is room for improvement and it is imperative that the industry does not become complacent. This is essential, considering that:

- epidemiological studies have shown that cheeses made from raw/thermised milk have been implicated in outbreaks of food poisoning
- the infective dose of many pathogens is quite low (e.g. *L. monocytogenes*)
- many pathogens are capable of surviving and proliferating through the manufacturing and ripening stages.

Table 1: Sampling Plan for the 2004 National Microbiology Surveillance Programme

Period	Food Topic	Microbiological parameters	Official Agencies
January - April 2004	Bacteriological safety and quality of fermented meat	<i>Listeria monocytogenes</i> <i>Staphylococcus aureus</i> <i>Enterobacteriaceae</i>	Health Boards
May - August 2004	Bacteriological safety of cheeses made from raw or thermised milk*	<i>Salmonella</i> spp. <i>Campylobacter</i> spp. <i>Staphylococcus aureus</i> <i>Escherichia coli</i> <i>Listeria monocytogenes</i>	Department of Agriculture and Food and Health Boards
September - December 2004	Bacteriological and toxicological safety of herbs and spices*	<i>Salmonella</i> spp. <i>Bacillus cereus</i> <i>Clostridium perfringens</i> <i>Enterobacteriaceae</i>	Health Boards

* These surveys are undertaken as part of the EU Co-ordinated Programme for the Official Control of Foodstuffs, 2004 (Commission Recommendation 2004/24/EC)

Bacteriological and toxicological safety of herbs and spices

This EU-wide study investigated the bacteriological and toxicological safety of herbs and spices. Sampling for this survey was carried out in a variety of premises including retail, catering, wholesale and packaging. Either single or batch samples (comprising of five individual samples) were obtained. The bacteriological element of this survey involved:

- assessment of the bacteriological safety of herbs and spices with respect to *Salmonella* spp., *Bacillus cereus* and *Clostridium perfringens*
- quantification of *Enterobacteriaceae* as an indicator of irradiation or other similar treatments (the EC proposed that samples with an *Enterobacteriaceae* count ≤ 100 cfu/g should be suspected of having been irradiated or submitted to similar treatments).

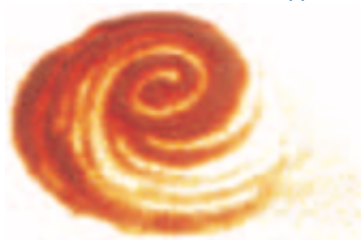
The toxicological element of the survey involved assessment of compliance with the regulatory limits for aflatoxins.

The following are the findings of this study:

- applying the bacteriological criteria proposed by the EC for this survey, the majority of samples were classified as satisfactory. Only 1.2% (8/647) of single samples and 4.0% (1/25) of batch samples were classified as unsatisfactory. These samples were unsatisfactory for either *B. cereus* or *Salmonella* spp.
- *Enterobacteriaceae* counts of ≤ 100 cfu/g were recorded for 73.8% (478/647) of single samples and 64% (16/25) of batch samples suggesting that these samples were irradiated or were submitted to similar treatments
- there was a high degree of compliance with the legal limits for aflatoxins.

Despite these findings, it is imperative that efforts are taken at every stage of the food chain to ensure the continued safety of these products. These include the implementation of good agricultural practices, good hygiene practices and a food safety management system based on the principles of HACCP. In addition, supplier control is essential considering that many of these products are imported from countries where conditions favour the growth of microorganisms.

Detailed reports of these surveys are published on our website: www.fsai.ie/surveillance/food/surveillance_food_micro2004.asp



visitors to the fsai

Chilean delegation visits

The Chilean Deputy Minister for Agriculture, Mr Arturo Barrera led a delegation to Ireland to learn about the organisation of food control here. He visited the FSAI and the Department of Agriculture and Food, and also took the opportunity to visit a modern food production facility at Dawn Farm Foods.



Mr Barrera is pictured here with Mr Larry Murrin, Chief Executive of Dawn Farm Foods and a member of the FSAI's Food Safety Consultative Council, during a visit to one of the company's plants.

Study tour to Ireland for Iraqi food safety officials

While the main focus of the rebuilding in Iraq is on infrastructure and political structures, food safety is also under review. A national workshop, *Food Safety Programmes for Iraq* was held in Amman in July 2004. One of the actions recommended during that workshop was a study tour to Ireland for food safety officials. The FSAI was pleased to offer assistance in organising the recent visit by a delegation from Iraq, who have the challenging task of planning the renewal of the official food safety control system for their country and its 26 million people. During their stay here, the delegation met with food control staff in many of the official agencies including the Department of Agriculture and Food, the Health Service Executive, the Radiological Protection Institute of Ireland, the State Laboratory as well as the FSAI, the Department of Health and Children and Bord Bia.



Pictured here during their visit to Cork County Council are:

Back (l-r): Dr Hasim Sadiq Hamood, Ministry of Health, Dr Haytam Abdul Wahab Ahmed, Ministry of Science and Technology, Cllr Michael Creed, Mayor of County Cork, Dr Waleed Aziz Petros, Ministry of Industry, Engineer Nabeel Mansor Abbawi, Ministry of Health, Nutrition Research Institute, Ms Patricia Power, Director of Service Environment Department, Cork County Council.

Front (l-r): Mr Jim Buckley, Chief Veterinary Inspector, Cork County Council, Dr Ali Hussain Al-Wardy, Deputy Director Food Control Central Laboratory, Baghdad.

surveillance of foods for evidence of irradiation

Unlabelled irradiated herbal supplements on sale in Ireland

The FSAI recently published the results of a survey of herbal supplements carried out to determine whether they had been irradiated and if they were labelled appropriately. Previous surveys had shown that up to 50% of herbal supplements on the Irish market were irradiated to some extent and in response the industry had agreed to address the problem with their suppliers.

Herbal supplements (20) were purchased in Dublin, of which all but one had previously been shown to be 'irradiated' or to contain an 'irradiated component'.

Thermoluminescence testing showed that five of the new batches of samples were classed as having been 'irradiated' (Table 1), 13 as containing an 'irradiated component', and two as negative. The two negative samples were Red Kooga Korean Ginseng and Sona Herbal Remedies Black Cohosh. The Red Kooga product was negative in a previous survey and was used as a form of negative control, however, the Sona Herbal Remedies product had previously been found to have been irradiated. These results show that despite the efforts of the Irish health food industry in tackling this problem with suppliers, the illegal sale of unlabelled irradiated herbal supplements in Ireland has not been fully resolved. For technical reasons, the FSAI focused on products identified as 'irradiated' and requested that

the health food and pharmacy industries withdrew the implicated batches. The FSAI also indicated that enforcement proceedings may be considered against operators in the future where the sale of unlabelled irradiated products persists.

The sale of irradiated unlabelled herbal supplements has also been identified as a significant problem in the UK and thus the FSAI is co-operating with the Food Standards Agency on this issue.

Further details of this survey can be viewed on our website:

www.fsai.ie/industry/Irradiated_Herbal_Supp.pdf

Routine surveillance of the Irish market for irradiated foods

Each year, the Health Service Executive and the public analyst laboratories (PALs) sample and test various foodstuffs for evidence of irradiation. Processing of results for 2004 was recently completed by the FSAI and those results were forwarded to the European Commission.

A total of 586 food samples (Table 2) were screened by PALs in Cork and Galway using the photostimulated luminescence (PSL) method. Positive samples were subsequently sent to a specialist laboratory in Scotland for the more sensitive thermoluminescence (TL) test, which confirmed nine positives. Two spice samples were not TL tested due to insufficient sample but were deemed positive due to the PSL result, making a total of 11 positives.

Food irradiation can enhance food safety or preserve the quality of certain foods and is considered safe when used to accepted standards and in authorised facilities. When unauthorised and unlabelled irradiated foods are identified it raises the question as to why they were irradiated, whether the correct dose of irradiation was applied and in what facility.

Irradiated foods should be on the market only if they are authorised and labelled appropriately. While the presence of less than 2% of these foods illegally on the market does not give rise to immediate health concerns, continued vigilance through routine sampling and analysis is critical to ensuring that it does not become a significant problem.

Table 1: Sampling Plan for the 2004 National Microbiology Surveillance Programme

Product name	Brand	Best Before date	Batch code	TL result
Dong Quai	Boots	00/03/2007	F001104	irradiated
Kyolic garlic 1000	Quest	28/02/2007	410084	irradiated
Siberian Ginseng	FSC	31/03/2005	A03351	irradiated
Aloe Vera superstrength tablets	Aloe Pura - Optima	31/07/2007	2044	irradiated
Saw Palmetto Extract	Nature's Aid Herbal range	30/06/2006	882012	irradiated

Table 2: Food Samples Analysed for Evidence of Irradiation, 2004

Food analysed	Number of analysed samples	
	Result: non-irradiated	Result: irradiated
Soups, broths and sauces	43	2 (mushroom soup; chicken and vegetable soup)
Cereals and bakery products	7	1 (vegetable flavour noodles)
Fruit and vegetables	79	0
Herbs, spices and seasonings	342	5 (garlic & basil seasoning cubes; chilli powder x2; cayenne pepper* x2)
Coffee and tea	23	2 (camomile tea; peppermint tea)
Seeds	62	1 (sunflower seeds)
Chicken sausages	1	0
Prawns	10	0
Foods intended for special nutritional uses	1	0
Food supplements	7	0
Total	575	11
Total in % of analysed samples	98.1%	1.9%

* Confirmation test not performed on 2 cayenne peppers due to insufficient sample size.

survey of foods labelled with GM free type claims

The FSAI has recently published the results of a survey of foods with labels such as 'GM free', 'non-GM' etc. that indicate they do not contain genetically modified (GM) ingredients. A total of 47 food samples were collected in 2004 for this survey, 16 were provided by environmental health officers in Cork and Waterford while the remainder were purchased by the FSAI in Dublin.

Foods that contained soya or maize as ingredients were sent for DNA analysis to determine whether or not GM ingredients were present while the packaging of the remainder were examined to determine if the labelling was accurate. Four out of the 24 food samples tested (17%) were found to contain low levels of GM ingredients (Table 1); one a GM maize and three Roundup Ready (RR) GM soya. Two of the foods containing GM ingredients were produced by a UK based company, some of whose products had

previously been found to contain low levels of GM ingredients despite carrying GM free type claims. The FSAI requested that retailers remove the implicated batches of foods from sale and advised that in order to preserve consumer confidence in such labels, enforcement procedures may be necessary in the future where they are found to be inaccurate.

Of the 47 food samples collected, 23 did not appear to contain any ingredients that could be derived from a GM source, even though the packaging carried GM free type labels. The general food labelling Directive (2000/13/EC) stipulates that food labels may not mislead the consumer to believe that a food possesses special characteristics when in fact all similar foods possess those characteristics. The FSAI communicated by letter with the 21 manufacturers of these products requesting justification of the GM free labels. Responses were received from 18 manufacturers, four agreed that such labelling may not be appropriate on their products and consented to address the issue, while eight other responses satisfied the FSAI that the products in question contained ingredients that could be produced from a GM source. These minor ingredients included glucose syrup from maize, soya lecithin, rapeseed oil, hydrolysed vegetable protein and citric acid from fermented beet molasses. However, the remainder (6) contended that the use of such labelling was appropriate for their products despite the fact that none of the ingredients could have originated from a GMO. These results indicate that some in the food industry label their products as 'GM free', 'non-GM' etc. as a marketing ploy rather than to provide consumers with product information.

Further details of this survey can be viewed on the FSAI website at: www.fsai.ie/surveillance/food/GM_survey_2004.pdf

Table 1: Foods Found to Contain GM Ingredients			
Product	Batch	Claim	GM Result
Direct Foods Sosmix Direct Foods Burgamix	L4264/2/4 L4299/2/1	Made from non-genetically modified soya beans	RR soya
EcoMil instant soya drink powder	19804 22347361-A	GMO free ingredients (controlled from origin)	RR soya
Free & Easy vegetable gravy sauce mix	4288/05	GM free (non-GM) in ingredients list	GM maize

gm food labelling

Unless specific exemptions apply, any food or ingredient that contains, consists of or is produced from a GMO must be labelled to indicate this fact, regardless of the presence or absence of detectable levels of GM DNA or protein.

- The words 'genetically modified' or 'produced from genetically modified (name of ingredient)' must appear clearly on the labelling of a GM food, or in the list ingredients (in parentheses after the relevant ingredient or a footnote) for a multi-ingredient food.
- Ingredients identified by category (for example 'starch') must be labelled with the words 'contains genetically modified (name of organism)' or 'contains (name of ingredient) produced from genetically modified (name of organism)' in the list of ingredients, or as a footnote.

Footnotes must be in a font of at least the same size as the list of ingredients.

Where non-pre-packaged food is offered for sale to the final consumer, clearly visible information about the GM food must be placed adjacent to the food display.

Additionally, any characteristic or property of a GM food that renders it different from its conventional/non-GM counterpart should be highlighted on the label. Such differences could relate to composition, nutrition, proposed use, potential health effects or ethical or religious concerns.

Labelling Threshold

A food that contains, consists of, or is produced from an authorised GMO in a proportion of 0.9% or less does not require specific GM labelling provided the operator can show that this presence is adventitious or technically unavoidable. The threshold applies to ingredients considered individually and is not cumulative for different ingredients. For example, a food containing 0.5% GM soya and 0.8% GM maize does not require GM labelling.

'Non GM', 'GM free' and similar labels

Terms such as 'non GM', 'GM free' etc. are not defined by EU or national legislation and thus are subject to the general food labelling Directive 2000/13/EC which stipulates that labels should not mislead the purchaser. Therefore, a food labelled to indicate that no GM ingredients are present may not contain any level of GM ingredients.

food incident review

In the first six months of 2005, there was no observed change in the number of food incidents dealt with by the FSAI compared to a similar period in 2004.

There were 35 incidents up to the end of June and these were classified as chemical (22); microbiological (6); foreign body (5); irradiation (1) and other (1).

There were seven national food alerts issued relating to some of these incidents. All of the food alerts issued can be found on our website: www.fsai.ie/alerts

The largest incident involved the contamination of a number of food products with the Sudan Red 1 dye. This occurred in February, when Premier Foods, UK identified the contaminant in Worcester sauce which was subsequently incorporated into a range of other ready prepared meals and snack foods. In Ireland, 67 products were recalled, while in the UK there were approximately 570 recalled products. The investigation into the incident identified that the original spice ingredient was imported from India into the UK before the EU requirements for certification and analysis of all imported dried chilli products took effect. Products containing the contaminated sauce were distributed to at least 15 countries.

A similar contaminant, Para Red, was the basis of another incident in May, also involving spice mixtures. While not on the same scale as the Sudan Red 1 incident, a number of prepared meals with the spice as an ingredient were recalled.

Other products involved in the incidents include shellfish (scallops and mussels), honey, cheese, figs, pistachio nuts, infant formulae, breakfast cereal, chocolate, soup and soft drink.

The Rapid Alert System for Food and Feed (RASFF) is the food alert system which operates between the European Commission and Member States (MS). Where a food product which potentially poses

a risk to consumers is known to have been distributed from one MS to another, a notification is made by the system to alert the relevant authority. Where a food problem is identified in one country which relates to food produced in another country, the same system is used. The FSAI receives these communications in Ireland and in the first half of the year 20 notifications were received regarding products distributed to or from Ireland which did not comply with food safety legislation. Many of these related to Sudan Red 1 and similar contaminants, but others included *E. coli* in cheese, parasites in mackerel, sulphites in prawns, pesticide residue in fruit and *Listeria monocytogenes* in raw milk cheese. Most were small consignments easily identified and controlled by environmental health officers of the Health Service Executive.

The FSAI issued four RASFF notifications relating to products which either originated in or may have been distributed to other countries. These related to a foreign object in breakfast cereal, benzo(a)pyrene in canned fish, undeclared irradiation of food supplements and *L. monocytogenes* in cheese.

Under the General Food Law requirements which took effect from 1 January 2005 (Regulation (EC) 178/2002) food business operators must notify either the FSAI or an official agency of trade initiated withdrawals and recalls where unsafe food is on the market. In the first six months of the year there were only two such notifications to the FSAI.

Food businesses are reminded of their obligations to notify such instances and there is a standard form on the FSAI website that can be used for this purpose. (www.fsai.ie/legislation/notif_forms/food_alert_not_form.doc). Code of Practice No. 5 gives more detail about these communications and explains the food alert and RASFF systems.



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

S.I. No. 362 of 2005

European Communities (Avian Influenza) (Control On Imports of Avian Products and Live Birds from Certain Asian Countries) (Amendment) Regulations, 2005

S.I. No. 368 of 2005

European Communities (Sampling Methods and Methods of Analysis for the Official Control of the Levels of Certain Contaminants in Foodstuffs) (No. 2) Regulations, 2005

S.I. No. 369 of 2005

European Communities (Food Additives other than Colours and Sweeteners) (Amendment) Regulations, 2005

S.I. No. 514 of 2005

European Communities (Labelling, Presentation and Advertising of Foodstuffs) (Amendment) (No. 2) Regulations, 2005

geoffrey podger to leave efsa

Geoffrey Podger, Executive Director of EFSA, has resigned from his current position to take up the post of Chief Executive of the British Health and Safety Executive (HSE). He will take up his new role at the HSE on 28 November next. The HSE is the British Executive Agency for health and safety covering a broad range of issues, including occupational safety and health and nuclear safety amongst others.

Mr Podger was the first Executive Director of EFSA, appointed on 1 February 2003, by the EFSA Management Board following an open

competition across the European Union. He was responsible for setting up EFSA as a body of real value in food safety to the European Union during its crucial and important first years. Before joining EFSA in 2003, Geoffrey Podger was Chief Executive of the Food Standards Agency in the UK from its inception in 2000.

EFSA's Management Board will now be asking the European Commission to make arrangements for the selection of his successor as soon as possible.

service contracts - update

Service contract review

The current service contracts will expire on 31 December 2005. The introduction of the new EU Hygiene Regulations on 1 January 2006, agreed in Brussels in 2004, will present a significant change to the content of current contracts. The first step of the process, to review the contracts internally, is complete. In-house teams met to review the old contracts, identify the main issues for inclusion in the new contracts and to prepare drafts. Official agency personnel have been nominated by the agencies to negotiate the new contracts, and the second phase, reviewing the contracts with the agencies, has recently commenced. Draft service contracts have been circulated to the Department of Communications, Marine and Natural Resources; the Marine Institute; the Department of Agriculture and Food; the Health Service Executive and the local authorities. Follow-up meetings are currently underway.

Tripartite hygiene package meeting

The Department of Agriculture and Food (DAF), the Local Authority Veterinary Service (LAVS) and the FSAI met on 21 July last to discuss the implementation of the new EU Hygiene Regulations (known as the Hygiene Package), particularly in the meat sector. From 1 January 2006 this new legislation will

come into effect, replacing the 17 existing Directives with four Regulations. The meeting was opened with a presentation on the Hygiene Package from Ms. Paula Barry Walsh, Senior Superintending Veterinary Inspector in DAF.

Specific issues discussed at the meeting included:

- registration/approval of premises
- supervision of premises
- health marking
- HACCP
- food chain information
- emergency slaughter
- primary producers
- training

This meeting provided an opportunity for valuable discussion on implementation and implications of this new legislation as part of ongoing preparation for 1st January 2006.

Audit tracking database

A database is currently being developed to monitor audits which have been carried out at all the official agencies since 2000. This database facilitates the provision of consistent and thorough follow-up action highlighted in missions carried out by the EU Food and Veterinary Office, FSAI closeout audits and FSAI service contract audits.

Follow-up action is monitored through the service contract liaison process.

New web-based system for the reporting of zoonoses data

Directive 2003/99/EC of the European Parliament and of the Council on monitoring of zoonoses and zoonotic agents, was adopted at the end of 2003. This Directive replaced the previous Directive 92/117/EEC and the monitoring system based on it. The new Directive assigns the European Food Safety Authority (EFSA) the task of examining the annual reports on zoonoses submitted by the EU Member States (and Norway) and to publish, by the end of November each year, a summary report on the situation in the European Community. EFSA took up this responsibility from the beginning of 2005. A new web-based system for the reporting of zoonoses data was established by EFSA and was used for the first time this year for the collection of the 2004 zoonoses data. Member States were requested to submit their returns by 31st May 2005. Data on *Salmonella*, *Campylobacter*, *Listeria monocytogenes* and *VT E. coli* testing on foods, at processing and retail level were submitted by the FSAI.

seminar: analytical methods used in enforcement actions

Bord Bia, in association with the FSAI, played host to a lecture entitled "FDA Perspectives for Increasing Reliability of Analytical Methods Used in Enforcement Actions" on 28 June last. The lecture, introduced and facilitated by Alan Reilly, Deputy CEO, FSAI, was given by Dr Douglas L Park, Director of the Division of Natural Products at the Centre for Food Safety and Applied Nutrition (CFSAN) at the Food and Drug Administration (FDA), US.

Dr Park presented FDA perspectives on the use of analytical methods, both chemical and microbiological, used in enforcement programmes administered by FDA including naturally occurring toxicants (i.e. mycotoxins, toxic plant constituents, etc.), allergens, food defence and dietary supplements. The presentation also included an overview of tools for increasing the analytical result reliability, thus decreasing uncertainty.

Analytical method values play a crucial role in the food safety and food defence enforcement actions administered by the FDA. The food safety concept includes providing for a safe, wholesome food supply, providing for

nutritional needs and disease prevention, minimising foodborne hazards, and informing the public. Control programmes including prevention, setting regulatory limits, establishing monitoring programmes, decontamination procedures, and consumer/producer education were discussed during the lecture, as was the role analytical methods play in successful completion of each task.

Errors associated with analytical results (e.g. sample collection, preparation of sample for analysis, and analysis) were presented, as well as ways of reducing these errors. Analytical results can be strengthened and uncertainty can be lessened through method validation, qualified analyst, analytical reference standards and certified reference materials, proficiency testing and laboratory quality control. Application of these concepts to increase the reliability of analytical values were presented through specific examples of FDA food safety programmes

such as naturally occurring toxic chemicals (mycotoxins, dietary supplements, food allergens) and food defence/intentional adulteration.

Dr Park, PhD in Food Science/Toxicology from the University of Maryland, has been working with the FDA since 2000. He previously worked at Louisiana State University and the University of Arizona. He has also held previous appointments with the FDA, in the Office of the Commissioner and CFSAN and as Science Advisor to the Commissioner and Senior Research Scientist.



investigation into levels of dioxins, furans, PCBs and PBDEs in Irish food, 2004

The FSAI, in collaboration with official food agencies, has carried out a surveillance study of levels of dioxins (PCDDs), furans (PCDFs), polychlorinated biphenyls (PCBs) and polybrominated flame retardants (polybrominated diphenylethers, PBDEs) in a variety of food available on the Irish market, including meat, offal, dairy products, fruit and vegetables. The study was undertaken due to concern about the possible effects on human health of these biopersistent environmental contaminants known to be present in a number of foodstuffs, notably meat, fish, eggs and dairy products.

A total of 65 samples (Table 1) were collected, the majority being pooled samples, comprising a number of sub-samples (Sub-N, see Table 1). Analysis of the samples was undertaken by the Central Science Laboratory (CSL), York, UK, under contract to the FSAI. Samples were analysed using established methodology accredited to the ISO 17025 standard and to meet EU quality legislation for analysis of dioxins in food.

The study showed that levels of PCDDs and PCDFs in Irish produce were well below existing legal limits. Whereas the lowest concentration (frequently below the limit of detection, (LOD)) of all the substances tested were observed in fruit, vegetables, cereals and soup powder, the highest concentrations were found in animal liver, which, due to the nature of the substances tested and the metabolic function of this organ, was to be expected.

The total mean upper-bound levels of PCDDs, PCDFs and dioxin-like PCBs, expressed as World Health Organization-Toxicity Equivalents (WHO-TEQs), ranged from <0.13 ng/kg fat - 5.46 ng/kg fat for meat, offal, dairy products, soup powder and fats and oil; whereas fruit, vegetables and cereals, which are expressed on a whole weight basis did not exceed a level of WHO-TEQs <0.06 ng/kg wet weight. The result of 5.46 ng/kg fat was obtained in sheep liver, and was by far the highest level observed in all samples tested.

For PBDEs, the same pattern was observed with concentrations ranging from <0.8µg/kg - 1.29µg/kg fat (found in liver). No PBDE levels were found above the Limit of Detection in vegetables, fruit and soup powder and levels reported in Table 1 represent the maximum possible levels, calculated at their limit of detection (upper-bound values).

The results of the study are in line with those from previous FSAI studies on dioxin and furan levels in milk, fish and eggs and support the conclusion that levels in Irish food are relatively low compared with similar products from more industrialised countries in the European Union, and well

below limits in current and proposed European Regulations. The findings indicate that exposure of consumers of Irish food to dioxins and furans in food is therefore likely to be lower than the European average.

The full study report is available on our website: www.fsai.ie.

Table 1: Mean upper-bound levels (<LOD=LOD) of PCDD/Fs, dioxin-like PCBs and total TEQs (Sum PCDD/F & dl-PCB) expressed in ng/kg TEQ and sum (Σ) of 7 Marker PCBs and PBDEs in Irish foods expressed as µg/kg.

		WHO TEQs ng/kg				µg/kg	
		N (sub-N per N)	dl-PCBs	PCDD/PCDF	Σ dl PCBs & PCDD/F	Σ ICES 7 PCBs	Σ PBDEs
fat weight based (upper-bound)							
			ng/kg			µg/kg	
Carcass fat	Bovine	10(10)	0.45	0.43	0.88	1.73	1.01
	Avian	7(10)	0.19	0.18	0.37	1.04	1.26
	Avian (Duck)	1(10)	0.05	0.12	0.17	0.26	0.89
	Ovine	8(10)	0.29	0.35	0.64	1.87	1.01
	Porcine	8(10)	0.08	0.09	0.17	1.14	1.33
Dairy products	Butter	1(10)	0.27	0.24	0.51	1.24	1.00
	Cheddar	1(10)	0.22	0.23	0.45	1.21	1.06
	Processed Cheese	1(8)	0.24	0.25	0.49	1.35	1.13
	Soft Cheese	1(10)	0.18	0.2	0.38	0.78	0.86
	Dairy Spread	1(10)	0.05	0.08	0.13	0.92	1.03
	Yogurt	1(4)	0.12	0.11	0.23	0.78	1.00
Offal (Liver)	Bovine	1(10)	0.52	1.6	2.12	2.72	1.10
	Avian (Chicken)	3(40)	0.13	0.39	0.51	0.99	1.36
	Avian (Turkey)	1(40)	0.49	0.47	0.96	2.97	1.49
	Ovine	1(10)	1.42	4.04	5.46	3.34	1.02
	Porcine	1(10)	0.13	1.09	1.22	0.75	1.35
Soup	Soup	1(3)	0.07	0.12	0.19	0.47	0.85
WHO TEQs ng/kg							
		N (sub-N per N)	dl-PCBs	PCDD/PCDF	Σ dl PCBs & PCDD/F	Σ ICES 7 PCBs	Σ PBDEs
fat weight based (upper-bound)							
			ng/kg			µg/kg	
Cereals	Various	3	0.03	0.03	0.06	0.11	0.22
Fruit	Various	3	0.03	0.03	0.06	0.07	0.17
Vegetables	Various	8	0.03	0.03	0.06	0.07	0.17
Fat	Vegetable/Animal	1(6)	0.21	0.24	0.45	1.16	0.75
Oil	Vegetable Oil	2(3)	0.05	0.05	0.1	0.43	0.34

domestic abattoir training programme - awards ceremony

An awards ceremony for participants from the first pilot of the domestic abattoir food safety training programme was held in Cashel on 22 June 2005. Dr Brian Redahan, Director of Consumer Protection, FSAI opened the ceremony and welcomed participants to the event. Mr Michael King, President of the Local Authority Veterinary Service spoke about the importance of the training programme to the domestic abattoir sector. The significance of obtaining

awards accredited by the Further Education and Training Awards Council (FETAC), recognised throughout Europe, was outlined by Mr Seamus Hogan from FETAC.

The programme, designed for operatives and managers working in domestic abattoirs, was developed and designed by the FSAI, the Local Authority Veterinary Service, FÁS and Enterprise Ireland, Associated Craft Butchers of Ireland,

University College Cork, FETAC and Industrial Management Systems. The training programme modules covered general food safety in an abattoir, ensuring food safety during cattle and sheep slaughter and food safety management. For further information on this training programme contact Margaret Masterson at 01 8171392 or mmasterson@fsai.ie.



Pictured at the awards ceremony were:

Back row (l-r) John Kenna, Kenna's Abattoir, Co. Kilkenny, Cathal Cronin, Cronin's Abattoir, Co. Cork, Andrew English, English's Abattoir, Co. Tipperary, William Geary, Fitzgerald's Abattoir, Co. Limerick, Sean Fitzgerald, Fitzgerald's Abattoir, Co. Limerick, Clive Moriarity, Kenna's Abattoir, Co. Kilkenny.

Front row (l-r) Dr Brian Redahan, Director of Consumer Protection, FSAI, Michael King, President of the Local Authority Veterinary Service, James Sexton, McCarthy's Abattoir, Co. Cork, Seamus Hogan, FETAC, Liam Cannon, Industrial Management Systems, James Lonnergan, Cooke's Abattoir, Co. Limerick, Denis Kiely, Industrial Management Systems.

new information on the safety of aspartame under review

The European Food Safety Authority (EFSA) has just been informed of the outcome of a recent study carried out by a scientific institute in Bologna, Italy, on the artificial sweetener aspartame. Rats fed aspartame for a lifetime developed a low incidence of tumours at various sites, including tumours of the blood cells. The preliminary report on some of their findings is published in the European Journal of Oncology and can also be found at: <http://www.ramazzini.it/fondazione/docs/AspartameGEO2005.pdf>

The European Commission has asked EFSA to urgently assess this new study and has urged the researchers to provide all available data at the earliest opportunity while EFSA has issued a press release providing its initial reaction to the findings.

The safety of aspartame has been previously comprehensively evaluated by international scientific experts including the EU Scientific Committee on Food (SCF), the Joint FAO/WHO Expert Committee on Food Additives and the United States Food and Drug Administration (FDA). These experts agreed that aspartame is safe for use, and have established an acceptable daily intake (ADI) for aspartame of between 40 and 50 milligrams per kilogram of body weight per day (40 - 50 mg/kg bw/day).

The FSAI reviews the current information on approved food additives such as aspartame on an ongoing basis. When scientific and medical information becomes available on possible adverse health effects which have not been previously reported,

the FSAI will evaluate the information and will take appropriate action. The new information on aspartame has only just been reported to EFSA, which is not yet in possession of all the data it needs to reach a conclusion. The FSAI considers that the findings need to be carefully evaluated by EFSA before their significance for the safety of aspartame can be determined. The FSAI awaits further details to become available, either from EFSA or from the institute that carried out the studies on aspartame. In the meantime, FSAI concurs with the EFSA view that there is no basis for recommending any changes in consumers' diets in respect of aspartame, given the limited information currently available regarding the new study.



mailing list

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fsai wins pr award

The Food Safety Authority of Ireland (FSAI), together with its PR Consultancy, Weber Shandwick FCC, recently won an award at the 2005 Excellence in Public Relations Awards. The award was in the Best Crisis / Issue Management Communications category and was for the management of the Sudan Red 1 issue, the banned food colourant.



Pictured (l-r): Siobhan Molloy, Weber Shandwick FCC, Jane Ryder, FSAI, Conor Lenihan, Minister for State, Department of Foreign Affairs, Carol Flynn, PRCA and Dr John O'Brien, FSAI.

recent publications

The following publications have recently been produced by the FSAI:

- *Investigation into levels of dioxins, furans, PCBs and PBDEs in Irish food, 2004*
- *Guidance Note No. 16 – Food Stalls*

These publications are available on our website at www.fsai.ie/publications.



open consultations

There are currently no open consultations on our website.

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