



## seasonal food safety greetings

# fsai news

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With the busy Christmas season now well underway, food businesses must be extra vigilant when it comes to food safety management. We would like to extend a seasonal food safety reminder to all food businesses, cautioning them to store food at correct temperatures and implement strict controls when dealing with larger food quantities during the Christmas period.

This is the time of year when large quantities of food will be bought in bulk and prepared several hours before consumption. This may place extra pressure on fridge and freezer facilities in catering establishments so food businesses must remember to store food appropriately at all times. Shortcuts in food safety practices simply will not be tolerated by our inspectorate regardless of the time of year.

Caterers may be tempted to use suppliers they do not know to avoid disappointing their customers and spoiling the Christmas festivities. It is important that proprietors ensure that they only go to suppliers they already know have stringent food safety management systems in place. Remember, food businesses are only as strong as their weakest supplier.

Consumers need to be confident that the food they are eating is safe and that the food industry is adhering to best practices - legally, food businesses must have appropriate food safety controls in place. It is a priority for the FSAI to push for compliance with food safety legislation at every level of the food chain to ensure maximum consumer protection is achieved. We simply cannot compromise when it comes to food safety and we urge the food industry to play

their part so 100% compliance with basic food safety standards can be achieved.

The New Year will bring with it changes in food hygiene legislation. From 1 January 2006 all the general Irish food hygiene regulations will be replaced by new European Regulations which apply to all food businesses. The new Regulations replace and simplify existing hygiene rules which are scattered across 17 Directives. Overall, the changes from existing rules are minimal. Regulation (EC) 852/2004 lays down common rules for all food businesses and Regulation (EC) 853/2004 applies additional requirements to businesses handling foods of animal origin. They cover all stages of the food chain including primary producers (farmers, fishermen and hunters) and impose the same hygiene requirements on food imported from outside of the EU. Further information on the new food law is available on our website.

So, for 2006, make compliance with basic food safety standards and the new food law your new year's resolution!

Happy Christmas!



- |   |   |     |  |    |  |
|---|---|-----|--|----|--|
| 2 | changes, challenges and opportunities ahead | 5   | local authority veterinary service supporting training for domestic abattoirs                            | 9  | new international standard for food safety management systems delegation from shanghai |
| 3 | ann westby memorial lecture                 |     | call for expressions of interest in membership of the scientific committee and scientific panels of efsa | 10 | fscc open meeting  |
|   | cross-agency residue laboratory meeting     |     |  |    | biotoxin working group   |
|   | commission produce audit guidelines         | 6-7 | controlling salmonella: the role of the nsrl and ireland's laboratories                                  | 11 | workshop on irish shellfish safety   |
| 4 | national food residue database              | 7   | regulations  |    | eu-rain conference   |
|   | recall and traceability training            | 8   | novel and functional foods   | 12 | fsai christmas card  |
|   | fvo scrapie mission                         |     |  |    | open consultation  |
|   |   |     |  |    | recent publications  |

# changes, challenges and opportunities ahead



Much has been written in the Irish and international press in recent weeks on the challenges facing farming communities. Changing trade rules are leading to changes in the economics of food production and we see increases in food imports and in the transport of food. Sugar beet producers and the sugar industry will see big changes. Other agri-food sectors will also face challenges. Although the actual numbers are disputed, it is agreed that the number of full-time farmers in Ireland will continue to decrease for the foreseeable future.

Against the backdrop of trade liberalisation and increasing international competition for markets, the health of the Irish agri-food industry depends more than ever on the ability to produce high added-value food products. While the Food Safety Authority of Ireland never takes its eye off the goal of achieving maximum consumer protection, it also cooperates with other State agencies and institutions dedicated to achieving a culture of excellence and innovation in the science and manufacture of food. Such cooperation extends to active collaboration with food agencies in other European countries and overseas. Effective consumer protection is not a static activity. We must search for synergies with other agencies and for opportunities to access expertise and

experience that we do not possess in-house. For example, one of the main concerns of 2005 was the discovery of illegal dyes in some imported foods such as chilli powders. The problem was successfully resolved as a consequence of collaboration among food agencies, labs and manufacturers. In 2005, the FSAI signed agreements to cooperate with several agencies in the area of food safety and this trend will continue in 2006.

We must react to incidents like the presence of illegal Sudan Red 1 dye in foodstuffs by developing new tools and reviewing our approaches using experience as our teacher. This means bolstering chemical surveillance where necessary. Another important approach is improving

**I am committed to making the FSAI more proactive in the protection of consumer health by developing our collaboration with other agencies**

our ability to conduct rapid risk assessment of chemicals and microorganisms in foods. FSAI staff contributed to a recent workshop hosted by the World Health Organization and the European Food Safety Authority which addressed the risk assessment of genotoxic carcinogens in foods. The outcome of the workshop will be a better methodology for assessing genotoxic carcinogens present in foods. Refined approaches will help to prioritise our responses to a range of substances that may be in the diet, including naturally occurring toxicants such as acrylamide and aflatoxins, and synthetics such as Sudan Red 1.

I am committed to making the FSAI more proactive in the protection of consumer health by developing our collaboration with other agencies and by building capacity in-house in key areas where it is needed. In addition, innovators should be able to push the envelope while agencies like the FSAI apply state-of-the-art risk assessments that give maximum consumer protection.

The trend in implementation of new European food regulations of recent years will continue in 2006 and beyond. The legislative requirements will not necessarily be more onerous. There will be opportunities for those business operators willing to explore the opportunities that some of the regulations, such as the draft Health Claims Regulation, have to offer. The FSAI has prepared a number of information leaflets to help food business operators to understand the implications for them of the new hygiene package of food regulations which will become law on 1 January 2006. These leaflets will be available early in the New Year. The FSAI has also proposed an increase in its training budget to help address the need for training, especially among food control agency staff.

I wish to thank the staff of the FSAI, agency staff, members of the FSAI Board, the Food Safety Consultative Council, Scientific Committee and Sub-committees and all our collaborators for their support and contribution to food safety in Ireland in 2005.

A handwritten signature in dark ink, appearing to read 'John O'Brien', written in a cursive style.

Dr John O'Brien

Chief Executive, FSAI

# ann westby memorial lecture

This year's Ann Westby Memorial Lecture was held in the Royal Irish Academy, Dawson Street, Dublin on Thursday 10 November. The annual lecture is in honour of our former Chief Executive, Ann, who sadly passed away in 2003. The annual lecture, entitled *Consumer Perspectives on Food - The Brand Leading the Bland?* was presented by Mr Martin Higgins, Chief Executive, safefood.

Mr Higgins' lecture focused on consumers and on how much information is being fed to them from different sources on a daily basis, be it the food industry or food safety professionals. He said "as food safety professionals we have a responsibility to engage with people all along the food chain so that they will take action to protect themselves, their customers and their

families. By building on their own expertise and capability, food safety professionals will win the trust of consumers. Expertise is built on scientific evidence and the ability to

interpret it. The big challenge for the future, for all food safety professionals, is to keep the messages simple, understandable and memorable."



*Pictured at the Ann Westby Memorial Lecture were Dr Daniel O'Hare, Chairman, FSAI Board, Dr John O'Brien, CEO, FSAI and Mr Martin Higgins, CEO, safefood.*

## cross-agency residue laboratory meeting

As part of the coordination of the national residue control plan, a meeting was held on 24 November with the laboratories involved in analysis for the plan. Under Directive 96/23/EC, Ireland, along with other Member States, is obliged to implement an annual programme for the analysis of veterinary residues and contaminants in foods of animal origin. This includes samples of animals on farm, animals at slaughter, animal products and foods of animal origin imported from third countries.

There are seven Irish laboratories that test samples for the Irish residue control plan. These laboratories are the Central Meat Control Laboratory, the Pesticide Control Laboratory and the Dublin Dairy Science Laboratory, all Department of Agriculture and Food laboratories, the Marine Institute, the State Laboratory, Ashtown Food Research Centre and the Irish Equine Centre.

The purpose of the cross-agency laboratory meetings is to provide a forum where the laboratories involved in testing samples under the national programme can discuss and address common issues relating to the programme with the Competent Authorities. The items addressed at the 2005 meeting included progress on issues raised at the previous meeting, updates on the corrective actions from the 2003 EU Food and Veterinary Office Mission on residues and the 2004 FSAI follow-up audit, progress with the 2005 sampling plan, EU legislative developments, chain of custody of samples and the role of Irish National Reference Laboratories for residues. The meeting was very useful with a lot of debate and discussion between the laboratory representatives on the issues for laboratories.

## commission produce audit guidelines

Under Article 4(6) of the Official Feed and Food Regulation 882/2004, competent authorities must carry out, or have carried out, audits on their control systems in order to ensure that they are effective. To assist competent authorities to meet these responsibilities the European Commission has produced guidelines on carrying out these audits. The guidelines will be published following the adoption by the Standing Committee on Food Chain and Animal Health of a document produced by a working group chaired by the EU Food and Veterinary Office. The guidelines will be published as a Decision of the Commission.

# national food residue database

The National Food Residue Database (NFRD) is available on a public website, <http://nfrd.teagasc.ie>, and provides access to a database of scientific studies covering monitoring, surveillance and surveys of chemical contaminant residues in food. The NFRD was launched in June 2005 by Ashtown Food Research Centre, Teagasc (formerly The National Food Centre) and is the outcome of a research project funded by the Food Institutional Research Measure (FIRM) programme of the Department of Agriculture and Food. The NFRD website contains a fully searchable, user-friendly database on chemical contaminants in food.

The database currently includes data on veterinary drugs, prohibited substances, pesticides, heavy metals, dioxins and PCB's, mycotoxins, and other contaminants such as nitrates and PAHs, in a broad range of foods. Included in the database are the monitoring programmes for foods of animal origin and for pesticides in food (Department of Agriculture and Food) and the monitoring programmes for aquaculture and for fish and shellfish (Marine Institute). Data from studies by the Environmental Protection Agency (EPA) on dioxins in cow's milk and from Teagasc's Food Residue Database 1995-2000 are included. Approximately 300,000 test results are contained on the NFRD and the database is being expanded on a continuing basis through addition of data from each year's residue monitoring activities and from studies on residues in

food from the contributing agencies and laboratories.

Some highlights from the data are:

- (a) In the monitoring programme for food of animal origin, the incidence of samples of meat and milk non-compliant for antimicrobial residues has reduced from 1 - 4 % in 1999 to < 1 % in 2004.
- (b) A significant problem with the anticoccidial feed additive, nicarbazin, in poultry was observed.
- (c) In the monitoring programmes for fish and shellfish, a generally good picture is emerging for contaminants (trace metals and chlorinated hydrocarbons) in fish and shellfish.
- (d) A number of samples of farmed finfish have been found to be non-compliant for malachite green.
- (e) The monitoring programme for pesticides in food shows that residues of pesticides occur in fruit and vegetables above the specified MRLs (maximum residue limits) in 3 - 5 % of samples tested, but do not occur, generally, above MRLs in cereals or foods of animal origin.
- (f) Results of studies on dioxins by Teagasc (fat of meat animals and dairy products) and by the EPA (milk) show relatively low levels in Irish food and the environment.

The NFRD is being expanded to include data from other agencies, such as the Public Analyst Laboratories, the Radiological Protection Institute of Ireland, the FSAI, Universities/Institutes of Technology, etc.

The data has been presented also in the form of a printed report; the NFRD Report, 2005. Copies of the printed report are available from the Ashtown Food Research Centre by contacting [kcoen@nfc.teagasc.ie](mailto:kcoen@nfc.teagasc.ie). In addition to the database, an extensive library of information on food residue regulations, norms and specifications has been incorporated into the website to assist the user's interpretation and exploitation of the data. The target audiences for the NFRD are the food industry, regulatory bodies, policy makers, scientists and consumers. The overall aim of the NFRD is to provide a user-friendly single source of information on chemical residues in foods that will assist in the production, manufacturing and sale of Irish food as well as supporting risk assessment and the development of food safety regulations.

The NFRD is part of a development of similar residue databases in other European countries, notably the KAP database in The Netherlands.

By Karen Coen and Michael O'Keeffe, Ashtown Food Research Centre, Teagasc.

## recall and traceability training



*Pictured are attendees completing a training exercise during the workshop in the Clarion Hotel, Dublin on 3 November 2005.*

The FSAI hosted four Recall and Traceability Workshops for Health Service Executive staff during November this year.

These workshops were held in Cork, Galway and Dublin and the objectives were to:

- Provide an overview of the main provisions of Regulation 178/2002
- Discuss issues around 'unsafe' food
- Provide details of recall, traceability and notifications
- Give examples of traceability systems that exist in food businesses
- Review findings of the FSAI traceability audits conducted on food businesses.

The interactive workshops gave the groups the opportunity to raise and discuss any issues they may have come across in the area of recall and traceability.

## fvo scrapie mission

An EU Food and Veterinary Office (FVO) mission concerning scrapie took place in Ireland from 10 to 14 October 2005. The objective of the mission was to evaluate the implementation of certain protective measures against scrapie. The Department of Agriculture and Food are the agency responsible for monitoring and controlling scrapie in Ireland. FSAI attended the opening and closing meetings as well as some on site visits to district veterinary offices and meat plants. The report on the mission is awaited.





# local authority veterinary service

## supporting training for domestic abattoirs

Nationwide training for the domestic abattoir sector was carried out in October and November this year and comprised the following two modules:

- *Module 1 - Best Practice in an Abattoir*
- *Module 2 - Implementing HACCP*

The training course has been accredited by the Further Education and Training Awards Council (FETAC) and each module is one day in duration. In total, 107 abattoirs have taken part in this training programme with approximately 159 people undergoing training in module one and 107 people completing training in module two. *Best Practice in an Abattoir* and *Implementing HACCP* are the essentials required to ensure food safety during cattle and sheep slaughtering.

The training programme was devised by the FSAI and the Local Authority Veterinary Service (LAVS), in conjunction with Denis Kiely (training consultant), Liam Cannon (meat industry expert), University College Cork, Enterprise Ireland, FÁS, FETAC and the Associated Craft Butchers of Ireland. The LAVS was key to the success of the training and excellent work was carried out on the pilot training initiatives in Munster and Connaught prior to the nationwide rollout.

Support for the domestic abattoir sector was palpable from the start and the critical stakeholders, abattoir owners and slaughter personnel have taken valuable time to engage with this food safety training. Training proved to be both enjoyable and interesting with

the inevitable discussions on important technical issues. Due to the high level of interest, courses are oversubscribed and individuals are now seeking places on future courses.

Excellent quality local meat was produced in 259 local authority abattoirs during 2004; with a total of 452,555 cattle, sheep and pigs slaughtered. Domestic consumption of beef and lamb has been growing over the last four years and our traditional large consumption of pig meat and poultry is continuing.

Under the new EU Hygiene Regulations (commonly referred to as the Hygiene Package) due to be implemented on 1 January 2006, there will be one Regulation for approved premises, regardless of throughput, and the domestic abattoir sector is meeting the challenge. This FETAC approved training course will leave food business operators well placed to comply with the new Hygiene Regulations and will assist them to produce safe products well into the future.

The domestic abattoir sector carries a great tradition, continues to produce quality, safe meat products, and following this training will be well placed to face the future with confidence.

Further information on this training programme can be obtained by contacting Margaret Masterson on 01 8171392 or [mmasterson@fsai.ie](mailto:mmasterson@fsai.ie).

*By Mr Michael King, President, Local Authority Veterinary Service*

## call for expressions of interest in membership of the scientific committee and scientific panels of efsa

This call is addressed to scientists wishing to be considered for membership of the Scientific Committee or a Scientific Panel of the European Food Safety Authority (EFSA), established by Regulation (EC) No. 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the EFSA and laying down procedures in matters of food safety. EFSA has its permanent seat in Parma, Italy.

Irish scientists currently participating on the EFSA scientific advisory structure are:

**Professor John D Collins**, Faculty of Veterinary Medicine, University College Dublin. Prof Collins is **Chair of the EFSA scientific panel on Biological Hazards and a Member of the EFSA Scientific Committee**. He is also a Member of the FSAI Board, Member of the FSAI Scientific Committee, Chair of the FSAI TSE Sub-committee, and member of the FSAI Microbiology Sub-committee.

**Professor Albert Flynn**, Professor (Nutritional Sciences), University College, Cork. Prof Flynn is **Chair of the EFSA scientific panel on Dietetic Products, Nutrition and Allergies, and a Member of the EFSA Scientific**

**Committee**. Prof Flynn is also a Member of the FSAI Board, Chair of the FSAI Scientific Committee and Chair of the FSAI Nutrition and Novel Foods Sub-committee.

**Dr Michael Gunn**, Department of Agriculture and Food, **Member of the EFSA Animal Health and Welfare panel**.

**Professor Colin Hill**, Department of Microbiology, University College, Cork. Prof Hill is a **Member of the EFSA panel on Genetically Modified Organisms**. He is also a Member of the FSAI Scientific Committee and is Chair of the FSAI GMO Sub-committee.

**Professor Fergal O'Gara** from University College, Cork is **joint vice-chair of the EFSA Genetically Modified Organisms panel**.

**Dr Iona Pratt**, Chief Specialist: Toxicology, FSAI, is a **Member of the EFSA scientific panel on Food Additives, Flavourings, Processing Aids and Materials in Contact with Food**.

Published in the Official Journal of the European Union of 22/11/2005 - reference C-289A, the call is open until 07 January 2006.

See: [www.efsa.eu.int/opportunities/general\\_advice/catindex\\_en.html](http://www.efsa.eu.int/opportunities/general_advice/catindex_en.html)

# controlling salmonella: the role of the nsrl and

## What is the NSRL?

The National Salmonella Reference Laboratory (NSRL) was officially opened in 2000. It is funded by the Health Service Executive and based in the Department of Bacteriology, National University of Ireland, Galway. Its work in subtyping salmonella is pivotal in combating salmonellosis in Ireland.

Working closely with the Food Safety Authority of Ireland, the Health Protection Surveillance Centre and the various departments of public health, the NSRL helps ensure trends in salmonella epidemiology are recognised and, if necessary, acted on. The NSRL also links with Enter-net, an EU-wide network of reference laboratories set up to detect and monitor trends across the European Union.

## Primary Analysis

Throughout Ireland, human, food, animal and environmental samples are tested for salmonella. Samples are collected for a variety of reasons such as:

- Investigating the cause and/or source of an illness
- Following up a consumer complaint
- For national surveillance programmes
- During inspections of food premises

Hospital, food or veterinary laboratories carry out the primary analysis to determine if salmonella is present.

## Secondary Analysis

Confirmed salmonella isolates are then sent to the NSRL. Here the isolates are subtyped using serotyping, phage typing and antimicrobial resistance typing and pulsed field gel electrophoresis (PFGE). The typing service is free of charge. Sub-dividing the salmonella isolates into different groups allows links to be drawn between individual cases of infection, even where outbreaks are widely dispersed. Sub-typing is also required to examine if there are links between infections caused by common serotypes such as *S. Enteritidis*.

It is much easier to recognise trends or links, when all salmonella isolates are typed in detail by standardised methods and the data are assembled into a coherent database. The strain collection of the NSRL, which is now thousands of isolates, is also a valuable resource for researchers.

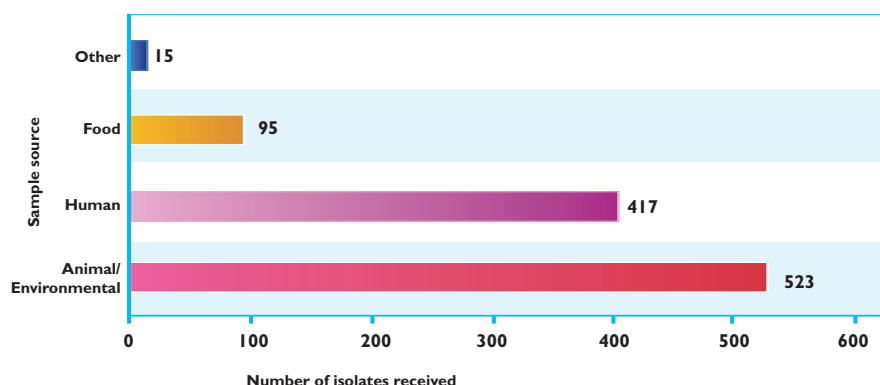


Figure 1: Source of salmonella isolates received by NSRL in 2004, n=1050 Source: NSRL, provisional data

## Laboratory Participation Required

The effectiveness of the NSRL's work is dependent on the support of colleagues in the many laboratories around the country that perform the primary analysis and undertake the additional work of preparing cultures for submission to the NSRL.

In 2004, the NSRL received and subtyped over 1,000 salmonella isolates (Figure 1).

The more isolates the NSRL receives, the more accurate a picture it can paint of the epidemiology of salmonella in Ireland. At present, virtually all of the human salmonella isolates are sent to the NSRL for subtyping as are isolates from the official food microbiology laboratories. In addition many isolates are received from other food, animal and environmental samples.

## Serotypes in Ireland

The predominant serotypes (or serovars) among the different types of samples in 2004 are summarised in Table 1. As in previous years, the two predominant serotypes causing human illness are *Salmonella* Enteritidis and *S. Typhimurium*. Since the typing work began in 1998 (initially on a pilot basis), the percentage of salmonellosis caused by *S. Typhimurium* has decreased and that caused by *S. Enteritidis* has increased - a trend observed in most EU countries. In Ireland, *S. Enteritidis* has been the predominant serotype implicated in human infection since 2000.

*S. Enteritidis* is not the most common serotype isolated from non-human sources. The limited correlation between the serotypes causing human illness, and those isolated from food, animal and

Table 1: Serotypes of salmonella isolates received by NSRL in 2004

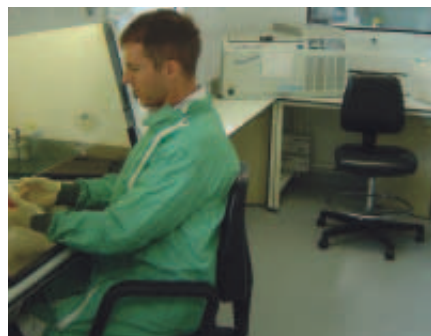
Sample Type	Serotypes	No. Isolates	% Sample Type
Human	<i>S. Enteritidis</i>	172	41
	<i>S. Typhimurium</i>	125	30
	Other	120	29
	<b>Total</b>	<b>417</b>	<b>100</b>
Food	<i>S. Typhimurium</i>	34	36
	<i>S. Livingstone</i>	14	15
	Other	47	49
	<b>Total</b>	<b>95</b>	<b>100</b>
Animal/Environmental/Other	<i>S. Indiana</i>	136	25
	<i>S. Typhimurium</i>	89	17
	Other	313	58
	<b>Total</b>	<b>538</b>	<b>100</b>
<b>Total</b>		<b>1050</b>	

Source: NSRL, provisional data)

# ireland's laboratories



Geraldine Doran and Jean O'Connor, Medical Scientists, NSRL



Niall De Lappe, Medical Scientist, NSRL

environmental samples may be related to a number of factors although the importance of each individual factor is unclear. Sample bias may be one explanation.

Laboratory confirmed cases of human salmonellosis are universally acknowledged to be a minority of all cases and may be biased towards detection of serovars associated with more severe disease. Likewise there may be bias in food and

animal sampling and in submission of isolates to NSRL. In 2004, a total of 98,270 food samples were tested for salmonella, 537 of these samples were positive for salmonella, but the NSRL database includes only 95 food isolates. Other factors that may contribute to the apparent discrepancy between predominant isolates in human and non-human isolates are possible differences between serovars in survival and pathogenicity. A serovar of low virulence for

humans could be very widely disseminated but rarely associated with disease.

The continued support of laboratories in submitting isolates for subtyping by standardised methods and the collation of all results into a coherent database is vital to enhance the work of the NSRL.

By Professor Martin Cormican, Chair, FSAI Microbiology Sub-committee.

## For further information:

- Cormican, M. (2004). The essential role of the national salmonella reference laboratory in fighting human salmonellosis. *fsainews* 6 (5): 6-7  
Online: [www.fsai.ie/news/newsletter/nl\\_04/newsletter\\_511.pdf](http://www.fsai.ie/news/newsletter/nl_04/newsletter_511.pdf)
- NSRL website: [www.nuigalway.ie/salmonella\\_lab/](http://www.nuigalway.ie/salmonella_lab/)
- Enter-net: [www.hpa.org.uk/hpa/inter/enter-net\\_menu.htm](http://www.hpa.org.uk/hpa/inter/enter-net_menu.htm)
- WHO Global Salm-Surv: [www.who.int/salmsurv/en/](http://www.who.int/salmsurv/en/)



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

### S.I. No. 551 of 2005

European Communities (Pesticides Residues) (Products of Plant Origin including Fruit and Vegetables) (Amendment) (No. 2) Regulations, 2005

### S.I. No. 552 of 2005

European Communities (Pesticides Residues) (Cereals) (Amendment) (No. 2) Regulations, 2005

### S.I. No. 553 of 2005

European Communities (Control on Imports of Animal Products from China) (Amendment) Regulations, 2005

### S.I. No. 555 of 2005

European Communities (Control on Imports from China) (Amendment) Regulations, 2005

### S.I. No. 565 of 2005

European Communities (Avian Influenza) (Control on Imports of Avian Products and Live Birds from Several Third Countries) Regulations, 2005

### S.I. No. 677 of 2005

Diseases of Animals Act, 1966 (Registration of Poultry Premises) Order, 2005

### S.I. No. 678 of 2005

European Communities (Avian Influenza) (Precautionary Measures) Regulations, 2005

### S.I. No. 669 of 2005

European Communities (Avian Influenza) (Control on Imports from Russia) Regulations, 2005

### S.I. No. 679 of 2005

European Communities (Avian Influenza) (Control on Imports from Turkey) Regulations, 2005

### S.I. No. 707 of 2005

European Communities (Animal by-Products) (Amendment) Regulations, 2005

### Designation Order

Live Bivalve Molluscs (Production Areas) (No. 2) Designation, 2005

# novel and functional foods

The emergence of new types of food and food ingredients (novel foods) on the EU market continued at pace in 2005, with more novel foods being authorised. The profile of 'functional food' continues to increase with greater visibility on retail shelves and in advertising. Functional food can be broadly defined as food that provides potential health benefits to consumers in addition to its intrinsic nutritional value. In relation to food law, functional food is a 'virtual category' and is regulated with respect to authorisation and labelling through existing food legislation such as the novel food Regulation (EC No. 258/97) and the general food labelling Directive 2000/13/EC respectively. Some functional foods easily recognised and already on the EU market include those where the cholesterol lowering plant sterols/stanols are added, as well as a variety of probiotic drinks. As this sector of the food industry expands, so too do the associated health and nutrition claims which are the focus of pending EU legislation such as that relating to food fortification as well as nutrition and health claims. The FSAI is in the final stages of preparing an information leaflet on functional food that will clarify issues related to the definition, authorisation and labelling of functional foods.

Novel food, by definition (Regulation EC No. 258/97), does not have a significant history of consumption in the EU prior to 15 May, 1997 and must receive specific authorisation before it is placed on the market. However, some new food may be placed on the market following a simple notification of the European Commission if it can be established as being substantially equivalent to a food or ingredient already on the EU market. Substantial equivalence can be established by providing evidence directly to the Commission or by obtaining an opinion from the Competent Authority of a Member State. An FSAI information leaflet is available that outlines the novel food authorisation process in the EU and Ireland ([www.fsai.ie/publications/leaflets/Novel\\_Food.pdf](http://www.fsai.ie/publications/leaflets/Novel_Food.pdf)).

The FSAI is the Competent Authority responsible for enforcing novel food legislation in Ireland, a role that includes carrying out or reviewing safety assessments and delivering opinions on substantial equivalence.

To date, the FSAI has not carried out the initial safety assessment of any novel food, though discussions are underway with two potential applicants. However, in 2005, with the aid of the Nutrition and Novel

Foods Sub-committee of the FSAI Scientific Committee, the FSAI reviewed five novel food safety assessments carried out by the Competent Authorities of other EU Member States. Two of these applications related to foods with added plant sterols/stanols while two others were for sweeteners.

In 2005, the European Commission issued Decisions 2005/457/EC and 2005/581/EC, that authorised Cargill Inc. and Südzucker AG, respectively, to market isomaltulose, a sweetener that is less intense than, though structurally similar to, sucrose.

Another Commission Decision (2005/580/EC) refused the authorisation to market a novel food called betaine, which is chemically similar to the amino acid glycine and commonly found at low levels in many animals and plants. The applicant intended to enrich foods with betaine extracted from sugar beet in order to lower homocysteine levels and thereby reduce the risk of cardiovascular disease in humans. Though the initial safety assessment by the Finnish authorities concluded that this product was safe, a subsequent assessment by the European Food Safety Authority determined that the data submitted in the application was insufficient to demonstrate the safety of the product.

Since the novel food Regulation came into force in the EU in 1997, a total of 18 applications to market novel food have been authorised, while four have been refused and many more are in the authorisation process. In addition, a total of 74 foods have been notified to the Commission as being substantially equivalent to foods already on the market. Of these notifications, 25 were foods with the cholesterol lowering plant sterols/stanols added, including a dairy spread produced by an Irish food company and on the market based on an FSAI substantial equivalence opinion. Noni juice, derived from the fruit of a tropical plant called *Morinda citrifolia*, was authorised in 2003 for the EU market (Decision 2003/426/EC), with 30 similar products subsequently being notified. Of the remaining foods notified to the Commission since 1997, 14 were derived from GMOs.

Detailed information on novel foods is available to the public on the Commission website:

[http://europa.eu.int/comm/food/food/biotechnology/novelfood/index\\_en.htm](http://europa.eu.int/comm/food/food/biotechnology/novelfood/index_en.htm)

## Novel Food Applications Assessed by FSAI in 2005

Applicant	Novel Food	Application Date
Berry Ottaway and Associates Ltd	Lycopene oleoresin from tomatoes - extension for food use	September 2004
Teriaka	Diminicol® rice drink with added phytosterols	October 2004
Coca-Cola Services	Fruit juices and fruit nectars with added phytosterols	October 2004
Bioresco / Wacker Chemie	Alpha-cyclodextrin	October 2004
Bioresco / Arla Food Ingredients	D-tagatose	March 2005



# new international standard for food safety management systems

Recently the International Standards Organisation (ISO) introduced ISO 22000:2005 'Food Safety Management Systems - Requirements for Any Organizations in the Food Chain'. Due to the existence of this new ISO standard, the National Standards Authority of Ireland (NSAI) is obliged to revoke the equivalent Irish standard (I.S. 343:2000 'Food Safety Management'). NSAI has already certified a number of client companies to the new standard, I.S. EN ISO 22000.

## The New Standard

The standard was developed within ISO by experts from the food industry, along with representatives of specialised international organisations and in close cooperation with the Codex Alimentarius Commission. A major resulting benefit is that ISO 22000 will make it easier for businesses worldwide to implement the Codex HACCP (Hazard Analysis and Critical Control Point) system for food hygiene in a harmonised way, which does not vary with the country or food product concerned. Another benefit of ISO 22000 is that it extends the management system approach of the ISO 9001:2000 quality management system standard which is widely implemented in all sectors but does not itself specifically address food safety.

The development of ISO 22000 was based on the assumption that the most effective food safety systems are designed, operated and continually improved within the framework of a structured management system, and incorporated into the overall management activities of the business.

To assist businesses with the implementation of the new standard, ISO has also published a technical specification document ISO/TS 22004:2005 'Food Safety Management Systems - Guidance on the Application of ISO 22000:2005', which provides guidance to businesses, with a particular emphasis on small and medium-sized enterprises.

Two further technical specifications are in preparation:

- ISO/TS 22003 'Food Safety Management Systems - Requirements for Bodies Providing Audit and Certification of Food Safety Management Systems', which will give harmonised guidance for the accreditation of ISO 22000 certification bodies and define the rules for auditing a food safety management system as conforming to the standard. This document is at an advanced stage and is expected to be published in the first quarter of 2006.
- ISO 22005 'Traceability in the Feed and Food Chain - General Principles and Guidance for System Design and Development', which will shortly be circulated as a Draft International Standard.

## Comparison of I.S. 343 and I.S. EN ISO 22000

The new standard contains all of the elements of I.S. 343 and additionally requires and/or emphasises the following:

- Communication of appropriate information to interested parties throughout the food chain
- Control of outsourcing
- Evidence that food safety is supported through the business objectives
- An emphasis on both internal and external communication
- Senior management review of the system at planned intervals
- Competency based training of staff
- A risk assessment based approach to hazard analysis
- Documented rationale for the chosen critical limits.

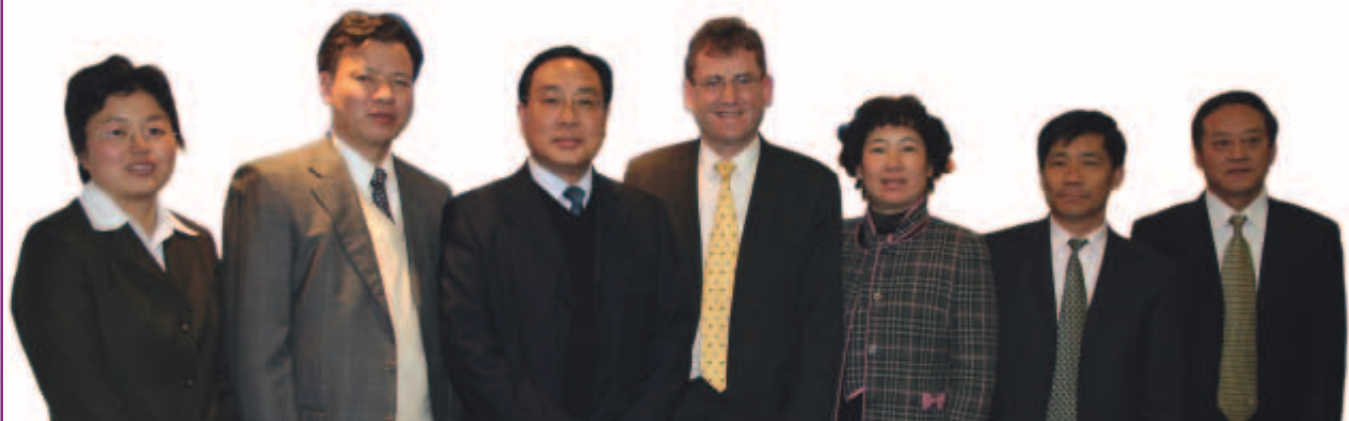
Copies of I.S. EN ISO 22000 may be purchased from the NSAI, 42-44 Northumberland Road, I.L.I. Standard Distributors, Ballsbridge, Dublin 4.

Tel: (01) 8576730 / 8576731.

Fax: (01) 8576729.

## delegation from shanghai

A group from the Shanghai Municipal Bureau of Quality and Technical Supervision recently visited the FSAI. The main purpose of their trip was to visit related organisations in Ireland to learn about regulation and standardisation, methodology, quality and special equipment safety supervision. They also visited a food production company while in Ireland.



Pictured here is Mr Chai Junyong, Vice Secretary General of the Shanghai Municipal Government (third from left) with his staff from Shanghai and Mr Alan Reilly, Deputy CEO, FSAI.

# fsc open meeting

The importance of gauging the current thinking on food safety issues and areas of consumer concern has been addressed by the FSAI in its appointment of the Food Safety Consultative Council (FSCC). The FSCC represents the key stakeholders in Ireland in relation to food production and consumption, and is a positive mechanism for consumers and the food sector to debate issues and provide input to the agenda of the FSAI.

The FSCC held an open meeting on 25 October at the Radisson SAS Hotel, Limerick, the theme of which was 'Functional Foods and Fortification of Foods'. Members of the general public, the medical profession and the food industry were invited to attend this informative half-day event. The meeting covered the topic of functional foods and the fortification of food with nutrients in general. It examined in particular the issue of possible fortification of food with folic acid to reduce the prevalence of Neural Tube Defects (NTDs) such as spina bifida in Ireland. In addition, consumer attitudes to food safety, hygiene and nutrition in Ireland were discussed. There was an opportunity for the audience to express views and put questions to the Council at the meeting and an information discussion ensued.

*Pictured are the speakers at the FSCC open meeting: Back row (l-r): Fiona Gilligan, safefood, Nick Killian, Irish Association for Spina Bifida and Hydrocephalus and Dr Mary Flynn, FSAI. Front row (l-r): Oonagh Monahan, St Angela's Food Centre, Pat Caulfield, Food Safety Consultative Council, Caoimhe Lalor and Orlaith Maher-Lalor.*



# biotoxin working group

At the most recent meeting of the Sub-committee on Food Additives, Chemical Contaminants and Residues of the FSAI Scientific Committee, it was agreed to form a working group to consider the issue of marine biotoxins. Biotoxins are naturally occurring toxins produced by certain species of microscopic phytoplankton, which bloom from time to time in the sea. Shellfish become contaminated when they feed on these phytoplankton. The main types of food poisoning caused by consuming shellfish that have been contaminated in this way are diarrhetic shellfish poisoning (DSP), paralytic shellfish poisoning (PSP), amnesic shellfish poisoning (ASP) and azaspiracid poisoning (AZP).

Irish, EU and international legislation sets limits on the levels of the various toxins that are permitted in shellfish, and the Marine Institute analyses samples of shellfish submitted to it through a programme managed by the Department of Communications,

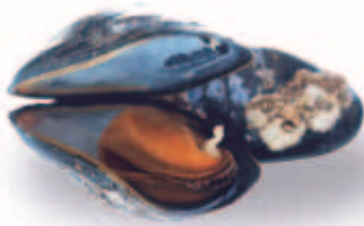
Marine and Natural Resources on a weekly basis. At present, the statutory limits as well as the testing methods used to determine the safety of shellfish are under review. Ireland is committed to contributing to this review process given the critical importance of the shellfish industry to Irish coastal communities.

As part of the contribution, the Marine Biotoxin Working Group will consider and report back to the Sub-committee and Scientific Committee on a number of issues relating to biotoxins, including their toxicity and their analysis, before this matter is considered further at EU and international level. The working group is composed of representatives from the Marine Institute, the Department of Agriculture and Food, the Health and Safety Authority and the FSAI. It is chaired by Professor Michael Ryan of University College Dublin.

# retail foodshow

The Associated Craft Butchers of Ireland held its annual trade show at Citywest Hotel on Sunday, 6 November. The show is aimed at butchers, their staff, delicatessens, catering outlets, wholesalers, processors and small food firms, speciality food retailers and suppliers and chefs. The FSAI participated at the show, as it has done for the past number of years. Retail FoodShow is a well organised event, aimed at a specific industry type, therefore providing the FSAI with a good opportunity to meet with a very relevant audience. Many of the queries FSAI staff received on the day related to the New Hygiene Regulations due to be implemented on 1 January next year.

# workshop on irish shellfish safety



The sixth Irish Shellfish Safety Workshop took place on 1 December in what has become the confirmed centre of marine science excellence in Ireland, Galway. Sponsored by the Marine Institute, the Food Safety Authority of Ireland and Bord Iascaigh Mhara, the event is one of the many mechanisms used to facilitate communication between industry, scientists and regulators.

The event took place at the end of what has proven to be a very difficult and challenging year for the shellfish industry marked by a series of back-to-back prolonged closures attributed to a number of different causes.

Opinions as to how these closures and their underlying causes could have, and should have, been dealt with led to a number of robust discussions.

Delegates from across Ireland, as well as Europe, the United Kingdom and North America attended to hear presentations reviewing biotoxin monitoring in 2005, on shellfish virology and microbiology, updates on the various research projects currently ongoing in the area, and on developments in the sector both at EU and international level.

The workshop also provided an opportunity for a wider debate on a number of the major issues that adversely affected the industry in 2005, not least the prolonged closures due to Dinophysis toxins in the south west and their associated toxicity, and the more recent closures due to persistent azaspiracid toxicity.

Also in 2005, the industry was severely hampered by an exceptional bloom of the dinoflagellate *Karenia mikimotoi* which,

although not of direct human health significance, did cause substantial stock losses to producers as shellfish died off due to oxygen depletion of the water.

The impact of this event was felt along almost the entire western and southwestern seaboard of the country and led to an extensive deployment of the Marine Institute's monitoring capability to report on and assess its impact.

This bloom of *Karenia* aside, the Phytoplankton Monitoring Programme of the Institute still managed to meet and exceed all its service contract targets, with over 90% of samples turned around in one day.

It was also noted that thanks to the cooperative efforts of the Department of Communications, Marine and Natural Resources' sea fishery officers and their sampling coordinator, as well as industry and Institute samplers, the level of rejected samples had declined substantially in 2005 to 4%.

## eu-rain conference



(L to R) Dr Wayne Anderson, FSAI, Dr Declan Bolton, Ashtown Food Research Centre - Teagasc, Dr Clive Blackburn, Unilever and Dr Vivion Tarrant, former head of The National Food Centre.

The Science of Food: Safety and Nutrition conference took place in Croke Park on 1 and 2 December. Organised by Teagasc, Ashtown Food Research Centre, it was the final conference in a series of six EU-RAIN (European Union Risk Analysis Information Network) conferences held throughout Europe over the last three years. The conference reviewed some highlights from previous events and included discussion of future research needs and future

developments to achieve compliance with legislation.

The FSAI had an information stand at the event, which was a forum for food producers, food processors, scientists, nutritionists, health professionals, environmental health officers, food safety regulators, epidemiologists, health promotion agencies, consumers and all concerned with food safety and nutrition.

The conference was attended by over 200 delegates from Ireland and Europe.

Topics covered included:

- Agriculture, food and today's lifestyle
- Diet, sport and obesity: future challenges
- Risk communication: food safety and nutrition
- Functional foods and nutraceutical technology
- The future of food safety: research and legislation
- Food safety: microbiology and microbial techniques
- Food safety: processing and technology
- Food safety: audit and inspection
- Food safety: outbreak investigation and epidemiology.

EU-RAIN is a concerted action project funded by the European Union under the Fifth Framework Programme - Quality of Life and Management of Living Resources, Key Action 1 on Food, Nutrition and Health.





## mailing list

*fsainews* is a resource for all public health professionals, researchers, food scientists, food hygienists and quality control personnel working in food safety.

**We would like to ensure that anyone who may find it useful receives a copy.**

If you think there is someone else in your organisation who would benefit from receiving a copy please fill in the form below. This form can also be used to amend your own mailing details if required.

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**Bernadette Price, Food Safety Authority of Ireland, Abbey Court, Lower Abbey Street, Dublin 1.**

## fsai christmas card



Congratulations to Ruth Ellard, winner of our competition for this year's FSai Christmas card.

## open consultation

There is currently one open consultation on our website:

### **Draft Guidance Note on Production of Heat Processed and Chilled Foods**

Closing Date: Tuesday, 3rd January 2006.

The draft document aims to provide food businesses with information on designing, implementing, validating and verifying the safety of heating and chilling processes in order to eliminate or reduce pathogens that could endanger public health. The document also emphasises the need for all aspects of heating and chilling processes to be included as integral parts of a food businesses' Hazard Analysis Critical Control Point (HACCP) plan.

Further information can be accessed at: [www.fsai.ie/consultations/index.asp](http://www.fsai.ie/consultations/index.asp)

## recent publications

The following publications have recently been produced by the FSai:

- *Guidance Note No. 18 - Determination of Product Shelf Life*

These publications are available on our website at [www.fsai.ie/publications](http://www.fsai.ie/publications) or by calling the advice-line on 1890 33 66 77.

Editor:  
**Edel Conway**

Contributors:  
**Anne Marie Boland**  
**Martine Brennan**  
**Gail Carroll**  
**Judith Kells**  
**David Lyons**  
**Lisa O'Connor**  
**Jane Ryder**  
**Sharon Williams**

External Contributors:

**Karen Coen,**  
Ashtown Food  
Research Centre, Teagasc

**Martin Cormican,**  
Chair, FSai Microbiology  
Sub-committee

**Michael King,**  
President, LAVS

**Michael O'Keeffe,**  
Ashtown Food  
Research Centre, Teagasc

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**Abbey Court, Lower Abbey Street, Dublin 1**

**Tel: (01) 8171300**

**Fax: (01) 8171301**

**E-mail: [newsletter@fsai.ie](mailto:newsletter@fsai.ie)**

**Website: [www.fsai.ie](http://www.fsai.ie)**



I.S. EN ISO 9001:2000