THE FOOD CHAIN

THE FIGHT AGAINST FOOD WASTE

With one million tonnes of food waste discarded in the Republic of Ireland every year, it is an area that requires a lot of attention, says Environmental Consultant Researcher Colum Gibson.

Colum Gibson works at the Clean Technology Centre (CTC) at the Cork Institute of Technology (CIT), a not-for-profit environmental organisation which focuses on waste prevention. For the last 15 years he has been working with businesses and households to tackle the issue of food waste, which he admits is a busy field.

"We run different projects for households and businesses. When working with businesses we look at waste water and energy use. Part of our work involves waste surveys where we go through bins to find out what’s in mixed and recyclable waste, and we also identify where the food waste is being generated. We then provide a report to the participating business so they can reduce costs. The key thing is that we're always looking at the prevention angle.”

The reason this topic is so important is that food waste has a major impact on the environment, contributing to pollution, a shortage of resources and land wastage. Colum warns: "We have a very good waste management system in the Republic of Ireland – our waste disappears and we forget about it quite quickly – but when you're dealing with it first hand and you see a lot of stuff that really shouldn’t be thrown out, or could be managed in a different way, it’s hard not to get charged up about it.

"Food waste is a local problem but it’s also a global problem. We are part of a global food system so if we end up using and wasting a lot of food here, that will have an impact in other countries.”

Cutting back on food waste also has financial advantages: "We’re looking at it from an environmental perspective, but from the perspective of a business, or household for that matter, the benefit is financial. The average cost estimate for a household wasting food equates to about €700 per year. It’s not that people are throwing out a full slice pan but if you throw out a slice of bread, that’s worth about eight or ten cent. You throw out ten of those and that’s a euro. Things start totting up. In terms of businesses, we estimate that every kilo of food waste thrown out costs between two and five euros. That’s not just disposable costs – it’s the cost of purchasing, storing, serving and disposing, so there is a huge cost implication.”

He adds: “There’s the time aspect as well. If you can be more efficient, it will take less time in the kitchen and there will be less waste to handle. It can also be promoted to customers. The Minister for the Environment, Denis Naughten, recently signed a Food Waste Charter which means that food waste needs to be reduced by 2030, so both he and the Environmental Protection Agency (EPA) are encouraging businesses, communities, organisations and individuals to take one action this year to try to reduce food waste.”

Before individuals and businesses can adopt preventative measures, however, research is needed. CIT are currently involved in a project aimed solely at commercial food wastage: "We’re trying to identify what exactly is happening in a variety of different types of..."
businesses. Say a restaurant serves 100 people and, at the end of the day, they have a pile of food waste, we’re asking where that’s coming from – is it preparation, plate-scraping (leftovers from customers), prepared food that was never sold or poor stock control? We’re breaking down the food waste that comes out of businesses into these four categories and we’re hoping to get a broad picture of what is happening within the sector, whilst drilling down into the core reasons as to why certain places generate more food waste than others.

“Take portion control for example. We go into restaurants and highlight that there’s a lot of plate waste coming back; the portions are too big. We’re not saying they should change their ethos but they could change the way they serve; they could give smaller portions at the start and then offer people more at the end of their meal. This means less plate waste and the service is better because the customer will like being offered more.”

The research has revealed other ways in which businesses can reduce food wastage. Colum explains: “Tackling food waste is individual to each business but one of the things that we’d often come across would be in delis where you have coleslaw tubs, and a lot of the time the stuff at the bottom is thrown in the bin because it’s been out all day. Having shallower dishes and topping them up throughout the day is a way of controlling that stock.

“Another example would be a restaurant that makes its own homemade bread and used to put a basket of bread on the table. The first thing that happens is the customer would eat it all. What this restaurant has started doing, after realising that there was more food wastage coming back than there should have been, is to now offer bread at the start of the meal. They offer another bit during the starter and, if somebody wants it, at the main course again. Because people aren’t overloading on bread, there’s less food waste coming back and customers now eat more desserts. They’re also throwing out less bread and probably producing less bread. It’s the combination of thinking about the food waste and the serving process that has helped the restaurant substantially reduce their food waste. Of course, there will always be some food waste – we can’t beat ourselves up about that – but I think the challenge is to always try to reduce it.”

As for new businesses, the issue should be at the forefront from the beginning, helps householders reduce their food waste. “I manage a team of six people around the country who work on different community based projects trying to help householders reduce food waste. A big part of this is home composting. People that compost tend to generate less food waste because, as soon as you start managing your own food waste, you become more aware of it and this is a great motivator to reduce it. That’s why the roll-out of brown food waste bins is really important too.”

For more information and support regarding commercial food waste, contact an Environmental Health Officer, your Local Enterprise Office or one of the three Regional Waste Management Offices. You can also refer to the Green Business Programme at www.greenbusiness.ie or the Local Authority Prevention Network at www.localprevention.ie.

What is the Clean Technology Centre?

The Clean Technology Centre (CTC) is a not-for-profit organisation that focuses on waste prevention in the Republic of Ireland. One of the main strands of this is doing research on, educating people and businesses about, and helping to reduce food wastage. Food waste is defined as food that is discarded uneaten and can happen at any stage from production to consumption. The CTC is involved in a number of programmes in this area and previously worked with safefood on a Date Labelling initiative to educate consumers about different dates in the hope of reducing food waste.

ABOUT COLUM

Hobbies/Interests: I love to surf and I used to golf when my kids didn’t interfere with my time. I also enjoy cycling to work and giving out to other road users.

Favourite Food: My favourite dish to cook (not my favourite food) is peas and pasta. You cook frozen peas with some olive oil and garlic. You cook your pasta, mix the two and add a bit of parmesan. It’s simple and delicious.
Declan Billington, Chairperson of the Northern Ireland Food and Drink Association (NIFDA), discusses the potential impact of Brexit on food safety issues in Northern Ireland (NI) and the importance of reputation and quality control for NI’s export trade going forward.

Everyone sees Brexit as this big wall that we are going to run headlong into. We need to stop thinking like this and instead figure out how to get around the wall.” This ‘can do’ approach is what Declan Billington is well known for. Chief Executive of major agri-food business John Thompson & Sons and chairperson of NIFDA, Declan has also held positions on a host of business lobby groups and is currently involved in a move to set up a marketing promotional body for food from Northern Ireland.

One of the biggest issues coming down the line, Declan believes, is the issue of international competitiveness and the safeguarding of standards for exports. “Everyone is talking about trade within the EU. What is just as concerning is that once the UK goes out and is competing with the rest of the world, will the same standards be applied across the board? Northern Ireland needs to start building a reputation or ‘brand’ for its food, similar to what Bord Bia has done with Origin Green. This should be built on two pillars: environmental sustainability, including investing in the natural heritage of the UK landscape; and robust quality assurance in our supply chain. This means that when a supermarket chooses to do business with Northern Ireland it knows its reputation is protected best by our Northern Ireland supply chain. The long and short of it is that the UK market is a large market for us and it will come under rising price pressure once it starts trading internationally after Brexit. We need a point of difference and to start building a more robust supply chain in terms of traceability and quality assurance. The Republic of Ireland has been brilliant at opening export markets in the food industry. However the UK sees itself as an import market and therefore has neglected building export markets outside Europe. But Northern Ireland, which exports 24% of its food to Europe and 4% to the rest of the world, sees a huge export exposure here. We need to not only increase market share in the UK but also around the world. The biggest issues for markets like China and South Africa when importing food are about food integrity and the environment. We are currently working with the government here to create a marketing body, to build and promote the Northern Ireland food industry. We want international markets to feel that Northern Ireland is the safest place to source food from. Building trade to these export markets is a way of diversifying our exposure to the EU, which might become closed because of tariffs.”

Declan believes that setting a high standard is at the heart of success in a post-Brexit marketplace. “There is a big fear – people talk about maintaining an equal balance of standards between the UK and EU but their view is too narrow. Yes, we need to work to European standards if want to trade with the EU but if we want to trade to China, America or other international countries we have to set as our base, for each product, the highest standards that exist across all customers. That is the only way. Nor do we want to see a divergence with the EU in terms of the regulatory environment, but the fear is that the UK will lower its domestic standard – say, for example, with chlorinated chicken or hormone fed beef... both of which are accepted by the World Trade Organisation, but which the UK sees itself as an import market and therefore has neglected building export markets outside Europe. But Northern Ireland, which exports 24% of its food to Europe and 4% to the rest of the

“If we want to trade to China, America or other international countries we have to meet the very highest standards”

the board? Northern Ireland needs to start building a reputation or ‘brand’ for its food, similar to what Bord Bia has done with Origin Green. This should be built on two pillars: environmental sustainability, including investing in the natural heritage of the UK landscape; and robust quality assurance in our supply chain. Concluding, Declan is keen to highlight the cost of policy, an issue he believes will become increasingly important in the coming years. “A large number of countries we could be competing with don’t believe in a living wage, holiday pay or pensions, much of which was required by the EU. It is not only the environmental standards but also the social standards that could destroy our industry if the UK allows an uneven playing field here. If countries trading into the UK don’t believe in the same social and environmental policies we do, there should be a tariff or a levy to level the policy cost such that we compete on our relative production efficiencies but not lose on the back of policy cost differentials.”

About Declan

Hobbies/Interests: I’d love to have them but I just don’t have time! I like to holiday in Donegal and that is where I recharge my batteries, cycling and hill walking.

Favourite Food: I like to cook meat, particularly a barbecue. I did a BBQ cookery course in Dublin before and I made risotto on a barbecue – it was the best risotto I have ever tasted!
The past five years has seen the online sale of food increase steadily. The introduction of third party sellers, such as the likes of Deliveroo and Just Eat, as well as large retailers offering shopping online and delivery services, has aided this trend. So, what are the challenges and food safety implications when selling food online?

Mark O’Neill, Senior Advisor (Hygiene) within the Local Authority Policy and Delivery team of the Food Standards Agency in Northern Ireland, explains. “This is a hugely expansive and growing area, including everyone from supermarkets providing online shopping, to ‘Jo Bloggs’ Cupcakes selling on Facebook. Food related e-commerce grew by 17.6% last year. There is a big spectrum here. But the key issues are the same for a static business as for online. The same rules apply for the online sale of food as for food being sold from physical establishments. The company must be registered or approved by the relevant authority; they must ensure that the food sold and supplied is safe to eat; and the labeling, advertising and presentation of food must be correct and not misleading.”

He notes that hygiene and food safety are the predominant issues when selling food online: “When selling food online you need to determine the safety parameters for that product. If you are sending food from Newry to Boston, the controls are different (than sending it a short distance): is it shelf-life stable at ambient temperature, will it arrive in a safe manner? The key priority is product safety.”

Standards in labelling and traceability, he continues, are also very important. Those selling food online must supply the same information as if buying from a physical retail environment. Mandatory food information must be available online before purchase and mandatory information must be provided at the moment of delivery to the consumer. “Whatever you have on your label, you should be displaying online also, so your consumer can view it before purchasing – including ingredients and allergen information.”

With regards to traceability, Mark highlights that online sellers possibly have an advantage within the supply chain. Traditionally, it is a ‘one step forward, one step back approach’: “You need to know where you got the product from and where the product is going to. You don’t necessarily need to know the final customer. But online gives you an advantage in that you will be recording details for sale, maybe email addresses. This is data that may be helpful if, for example, you become aware that a product is unsafe. You can contact those people directly affected and limit product recall, rather than having to recall from a batch code or expiry date. The tighter a traceability system, the more cost efficient it will be for businesses in the long run and for a company’s reputation,”

NEW LEGISLATION OR UPDATED TECHNOLOGY CAN BE VERY COMPLEX AT TIMES AND THINGS ARE MOVING VERY FAST”
as well as for safety.”

Overall, the biggest factor that affects online food sales in comparison to sales from physical establishments is the added complexity of the delivery element. “You need to assess the product, bearing in mind issues of safety and hygiene. Issues such as temperature control – can you ensure that you can get the food to the customer at the required temperature? This is why many delivery services only operate within a particular radius and companies invest in insulated packaging and refrigerated vehicles. Also, can you ensure that no contaminants or foreign bodies – from glass all the way to dust – comes in contact with the food? If you employ a third party to deliver you need to be satisfied that they are capable of meeting all requirements. It is your responsibility to do sufficient testing to guarantee that the food arrives in a safe manner.”

Another significant area of Mark’s work is in the Food Hygiene Rating Scheme (FHRS). This is awarded to businesses based on findings of inspections by district councils and is a key part of food hygiene and safety for food businesses in Northern Ireland. The three component scores which make up the food hygiene rating (awarded a score of 0-5) are: 1) Compliance with hygiene requirements – how the food is prepared, cooked, re-heated, cooled and stored; 2) Compliance with structural requirements – the condition of the structure of the buildings, including the cleanliness, layout, lighting, ventilation and other facilities; 3) Confidence in management/control procedures – how food safety within the business is managed.

“It is a statutory requirement for the food hygiene rating sticker to be displayed on food premises to allow consumers to make an informed choice and this will soon be the case for online food sales.”

“ISSUES SUCH AS TEMPERATURE CONTROL – CAN YOU ENSURE THAT YOU CAN GET THE FOOD TO THE CUSTOMER AT THE REQUIRED TEMPERATURE?”

ABOUT MARK

Hobbies/Interests: I suppose I am considered a stereotypical Irish man – I come from a farm in Armagh and enjoy playing Gaelic football! I also enjoy cooking.
MAINTAINING STANDARDS IN FOOD SAFETY

Playing a key role in safeguarding the quality of our food and drinking water, the Public Analyst’s Laboratory underpins food safety systems in the Republic of Ireland.

As recently as the late nineteenth century Dublin had the highest death rate from infectious diseases in Europe. To help counter this, Dr Charles Cameron was appointed as the first Public Analyst for Dublin. Later, a progressive health policy was adopted in the Republic of Ireland. Today, the country has a total of ten food safety health laboratories, including three Public Analyst’s Laboratories (PALS) which perform chemical testing, and seven Official Food Microbiology Laboratories (OFMLs). One of these OFMLs is integrated in the Public Analyst’s Laboratory, Dublin making it unique in that it provides both a chemical and microbiological analytical service.

Rosemary Hayden, Interim Public Analyst at Dublin’s PAL, explains: “The statutory role of the PAL is to test food and cosmetics for compliance with relevant legislation and guidelines. We have a vital role in food safety, providing objective scientific evidence for the safety and quality of food we eat. We analyse samples of food, water, clinical specimens, cosmetic products, environmental and miscellaneous items. An important aspect is responding to new and emerging contaminants and toxins and extending existing parameters to new matrices and sample types.”

Rosemary has a B.Sc. in Chemistry as well as a M.Sc. in Organic Chemistry and a M.Sc. in Management Practice. She has held a variety of roles in the PAL including Quality Manager and Health and Safety Manager and took up the position of Interim Public Analyst in October 2016. Rosemary holds a Specialist Diploma in Quality Management - Lean Healthcare Systems and has recently been awarded a Diploma in Executive and Life Coaching.

The laboratory is approved under the control of foodstuffs legislation EU Regulation 178/2002, which details the general principles and requirements of food law and procedures in matters of food safety. Its wide range of customers include the Health Service Executive, the Environmental Health Service, Food Safety Authority of Ireland, other Government departments and Local Authorities, the Sea Fisheries Protection Authority, safefood, the general public, hospitals and private food companies. The laboratory is also the EU National Reference Laboratory for Food Contact Materials, Polyanaromatic Hydrocarbons (PAHs) and Mycotoxins including Plant Toxins.

Food fraud is also an important part of the laboratory’s remit. “The horse meat scandal in 2013 really increased public awareness of food fraud and how widespread it can be. When dealing with these issues the fraud may or may not affect public health but on all occasions it deceives the customer and damages industry. Two projects in which the laboratory is involved relate to Manuka honey and vodka. The Manuka honey issue is a worldwide one. There is more sold annually than can be physically produced in New Zealand so we need to verify authenticity and quality. A chemical called methylglyoxal is the active ingredient and it has antibacterial and antiviral activity. The level of methylglyoxal needs to be checked to ensure the honey is genuine Manuka honey and the customer is getting the quality for which s/he is paying. For vodka, this has become a local issue in Ireland with a considerable amount of illegal vodka on sale here. In this case a number of tests have been devised to verify the authenticity of the vodka, including, in some cases, specific markers unique to the brands under test.”

The laboratory is also responsible for testing drinking water and bottled water (which comes under the auspices of food from a legislative point of view). “We perform analysis of drinking water supplies and testing according to drinking water legislation. This includes the testing of water for fluoride and we also analyse the acid that is used to fluoridate water. In addition, samples such as bottled water and water for hospital renal dialysis are tested.”

The Laboratory is ISO 17025 accredited and has a flexible scope with the Irish National Accreditation Board (INAB) meaning that it can develop some of its accredited testing as needed. “With a fixed scope if we wanted to, for example, add extra matrices to a test to extend our scope we would need to wait until the INAB come to assess the validation data. As a flexible scope has been awarded and the agreed procedure is followed we can report results in real time as accredited and INAB examines the validation data retrospectively at the next visit.”

Looking towards 2018, Rosemary is currently involved in the preparation of a new food sampling plan as well as assessing the overall strategy for the laboratory: “I am looking at the current operational needs and future plans of the laboratory. There is a high level of expertise and teamwork. We have an extensive training programme for staff including training provided by safefood which is greatly appreciated.”

ABOUT ROSEMARY

Hobbies/Interests: I am a member of a book club and my other interests include music and interior design.

Favourite food: I like French food, Italian food and vegetarian dishes. I love to cook.
During 2017, safefood hosted 11 food safety workshops throughout the island of Ireland, in partnership with Teagasc and the College of Agriculture, Food and Rural Enterprise, Cookstown. The aim of these workshops was to help small and medium-sized food businesses and provide practical advice on good food safety practices. Workshops were attended by 181 participants representing 121 businesses. Feedback was overwhelmingly positive and attendees provided some great feedback and ideas which will influence new workshops now being planned for 2018.

food safety workshops – 2017 round-up

FOOD SAFETY WORKSHOPS – 2017 ROUND-UP

Four internal auditing training courses for food testing laboratory staff were held in Belfast, Galway, Cork and Dublin in September and October. The course enabled participants to effectively conduct an audit of their laboratory quality management system based on ISO/IEC 17025 requirements. The course was attended by 50 laboratory staff across the island of Ireland and the feedback was very positive with 100% of attendees saying that they would recommend this course to their colleagues.

Participants from the Internal Quality Management System Auditing course, Belfast.

SAFEGUARDING THE FOOD CHAIN

A two-day international conference to share information and explore challenges facing the safety, the integrity and the authenticity of the global food supply chain was held on October 4th and 5th in Dublin Castle. Over 300 delegates were in attendance. The event was hosted by the Food Safety Authority of Ireland in partnership with safefood. The conference brought together the key stakeholders to enable discussion on how regulators, inspectors, industry, scientists and academics can work in collaboration and partnership to protect consumers when violations of food law are detected in relation to food crime. The event examined current issues around the authenticity and integrity of food, the public health implications and effective prevention and control strategies.

Ray Dolan (safefood) with Dr Pamela Byrne (Food Safety Authority of Ireland) and Mairead McGuinness (MEP) at the Safeguarding the Food Chain – Protecting Authenticity and Integrity Conference in Dublin Castle.

NEW CAMPAIGNS

RUFUS THE MESSY MONSTER

safefood’s recent campaign ‘Rufus the Messy Monster’ aimed to help teach children the importance of washing their hands and how handwashing can be fun and why it’s really important. The campaign material also communicated that it is not just about getting children to wash their hands, it’s also about when to wash their hands – so they needed to be taught that the best times are after using the toilet; after playing (inside or outside), after playing with pets and before they eat. A short video was created and spearheaded the campaign. This video included a catchy sing-along nursery rhyme where the cheeky little monster, Rufus, teaches children to “wash their hands the only way that works.” For more information visit www.safefood.eu

START CAMPAIGN

safefood, in partnership with the Department of Health and Public Health Agency in Northern Ireland; Healthy Ireland, Health Service Executive and Department of Health in the Republic of Ireland launched a new 5-year public awareness campaign aimed at maintaining a healthy weight in children across the island of Ireland. The campaign adopts a parenting approach that encourages role modelling and consistency. It offers families practical, achievable tips to help make healthier lifestyle changes. Visit www.makeastart.ie or www.makeastart.org

The INITIATIVE 2018

ASSET CONFERENCE 2018

Queen’s University Belfast in partnership with safefood will host the Belfast Summit on Global Food Integrity on 28th-31st May 2018. The Summit will bring together representatives from international and governmental agencies, the academic and industrial research community, non-governmental organisations and the commercial & technical leaders in the food industry and its supply chain. This will enable discussion and debate and provide leadership on tackling a range of serious challenges that face the integrity of our global food supply system. The Summit will feature a number of high level strategic presentations on key issues by internationally recognised leaders. For more information: www.asset2018.eu
The team at safefood would like to wish all our Knowledge Network members a safe and merry Christmas and a happy New Year! And don’t forget, we love to hear from you so keep in touch and if you have a personal announcement you would like to share in The Food Chain email us at: knowledgenetwork@safefood.eu

safefood is delighted to offer one lucky crossword winner a luxury hamper of gourmet food from Arcadia Delicatessen in Belfast. Simply find the hidden word in the crossword, made up from the letters highlighted, and send the answer to knowledgenetwork@safefood.eu before 31st January 2018. This competition is open to Knowledge Network Members on the island of Ireland only.

CONGRATULATIONS TO THE WINNER OF OUR LAST COMPETITION, EDEL HOUTON, EXECUTIVE ANALYTICAL CHEMIST IN UNIVERSITY HOSPITAL GALWAY. The answer to the previous crossword was HEALTH.

TURKEY CALCULATOR

Did you know that we have a handy Turkey Cooking Time Calculator on our website? Visit www.safefood.eu/Christmas to find out more. The calculator is also available as an App on Google Play and on the Apple App Store.

WEBINARS We are now doing webinars! Keep an eye out for the next one in January 2018

The team at safefood would like to wish all our Knowledge Network members a safe and merry Christmas and a happy New Year! And don’t forget, we love to hear from you so keep in touch and if you have a personal announcement you would like to share in The Food Chain email us at: knowledgenetwork@safefood.eu

ACROSS
1 To crush potatoes (4)
2 Deep fried squid (8)
3 An aromatic shrub known for its pale purple colour (8)
7 Sausages, often served with 1 ACROSS (7)
8 A traditional Japanese dumpling (5)
10 A list of items, or a device to indicate a value or quantity (5)
11 A yellow, acidic fruit which has a rind from which an aromatic oil is extracted (5)
16 A magical charm or incantation (11)
18 Word used to greet somebody in a casual manner (2)
19 Cigarette deposit / guitar making wood (3)
20 A relationship between two numbers indicating how many times the first number contains the second (5)
21 A piece of clothing worn across your neck in winter (5)

DOWN
1 Black treacle made from crushed sugar cane or sugar beets (8)
2 A small soft stone fruit that is typically a deep red (6)
4 To argue different points of view (6)
5 A flowering plant associated with love and romance (4)
6 Brushed on the surface of pastry before baking to achieve a golden colour (7)
9 Not for the vegetarians (4)
10 To conclude from evidence or reasoning (5)
12 A manor house found commonly in French regions (7)
13 To rot or decompose (5)
14 Slants or slopes, the Tower of Pisa does it (5)
15 Incomprehensible language, baby talk (6)
16 A material made up of at least two different chemical elements, one of which is a metal. Commonly used for car wheels (6)
17 The second letter of the Greek alphabet (4)