

FOOD MATTERS

AT LOUGHRY

**View the Food
Innovation Centre
facilities** *page 04*

Meat Technology
page 14

**Training course
dates** *page 29*



**Be creative at the
Food Innovation Centre**

Welcome to Food Matters

This edition, also available on line, provides a flavour of the knowledge, technology transfer and training support service available at Loughry Campus.

I am delighted our New Food Innovation Centre is now open and I extend an invitation to visit and view the new facility.

In this and future editions, we will continue to highlight how we can help support your business. We recognise the importance of partnerships and working collaboratively with others. In this edition we will highlight the Food Innovation Centre and the facilities which are available for all to use.

We will also continue our theme of recent editions and re-introduce one of our sector support teams – the Meat team on this occasion.

Further details on our support services can be found at www.cafre.ac.uk.

If you have any comments on the information provided in this issue or wish to suggest topics for editions, please contact me.



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Food Innovation Centre



Agriculture Minister Michelle O'Neill officially opened the Food Innovation Centre on 20th May 2015. Over 100 invited guests representing all sectors of the agri-food industry attended. Addresses were given by the Minister O'Neill; Tony O'Neill, Chair of the Agri Food Strategy Board; Stephen Trainor, President of Loughry Campus Student Representative Council and Joy Alexander, CAFRE.

The project was jointly funded by the Northern Ireland Executive 'Economy and Jobs' Initiative and DARD.

The Food Innovation Centre has two broad aims:

- 1) to stimulate, encourage and support the process of food innovation within the Agri Food sector, and
- 2) to showcase innovation in sustainable building design and renewable technologies. We have set ourselves the challenging target of being one of the first public sector buildings in Northern Ireland to achieve BREEAM excellence accreditation.



Dr Mike Johnston, College Advisory Group/Dairy UK; Agriculture Minister Michelle O'Neill; Dr David Dobbin CBE, United Dairy Farmers; Dr John Fay OBE, CAFRE.



Michelle O'Neill, Minister of Agriculture and Rural Development helping a Loughry student.



The Food Innovation Centre Design and Construction Team.



Dr John Fay OBE, CAFRE; Maureen Edmondson, IFST and Tony O'Neill, Agri Food Strategy Board.



Michelle O'Neill, Minister of Agriculture and Rural Development and Loughry students.



Michelle O'Neill, Minister of Agriculture and Rural Development.

Food Innovation Centre facilities are available for your business



Technical facilities to assist in the new product development process are located on the ground floor and here is what is available:



Sensory analysis suite

The sensory analysis suite includes a dedicated preparation kitchen, ten individual computer booths with adjustable lighting and a focus group room with an observation facility.



Behavioural assessment room

A focus group area designed to stimulate product assessment through group discussion and product interaction.



Commercial kitchen

Situated in a discreet location, with lock down access to allow confidential product development.



Packaging laboratory

Prototype packaging facility with computerised packaging design, print and card cutting technologies.



Process control laboratory

A small laboratory to conduct process control evaluations to assist in technical problem solving during the product development process.

Food Innovation Centre facilities are available for your business



First floor

Located on the first floor is a range of meeting and conference rooms which have been specifically designed for use by the food industry. The modern, professional meeting rooms can be used for off-site training, meetings or seminars.

The building has been designed to provide businesses with the opportunity to use together, the technical kitchen facilities situated on the ground floor and the meeting rooms on the first floor, to prepare and present product samples to colleagues and customers.

Why not consider using this centrally located venue? To book Food Innovation facilities please contact Claire Heron.



028 8675 7576
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Seminar room

Accommodates up to 150 people or can be subdivided into one, two or three smaller rooms offering access to IT and Wi-Fi facilities.



Boardroom

Formal boardroom accommodating up to 16 people offering access to IT and Wi-Fi facilities.



Ideas hub

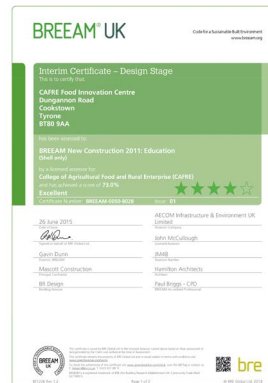
Space for mind mapping/ideas generation with access to market and other food related reports and databases.

Aiming for BREEAM excellence

The Food Innovation Centre is aiming to be one of the first public sector buildings in Northern Ireland to achieve BREEAM Excellence under the 2011 guidelines. BREEAM is the Building Research Establishment Environmental Assessment Method for buildings and large scale developments. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe environmental performance of buildings and communities.



The impact of the renewable technologies which we have incorporated into the Food Innovation Centre is available for you to evaluate. Although we are at the preliminary stage in our data generation, if you would like to find out more about the environmental and financial benefits of these technologies, please contact claire.heron@dardni.gov.uk.



BREEAM Accreditation comprises of two parts;

- the design phase
- the post construction phase.

We have now received our BREEAM accreditation for the Design Phase, with an Excellence rating.



Biomass heating

With a predicted output of 340,000 kWh/year this technology is estimated to generate £5100 income/year from the RHI, combined with a carbon saving of 60 tonnes/year CO₂ equivalent.



Solar Photo Voltaic

This 50kW system (200 panels) is estimated to generate £9000/year income from RoCs and a saving of £4000 in electricity use, combined with a carbon saving of 23 tonnes/year CO₂ equivalent.



Rainwater harvesting

With a roof area of 746m² harvesting rainwater for toilets, we estimate to save £350 per year.



Electric vehicle

Cushman Hauler 72 (22HP) with the capability of travelling 50 miles/charge at a cost of 66p will have an estimated carbon saving of 2.5 tonnes/year CO₂ equivalent.

The Food Innovation Centre is a finalist in the Construction Employers Federation – Construction Excellence Awards entered in the Health and Education Infrastructure Category; the winners will be announced In October 2015.

Food Innovation Centre visitors

Since the Food Innovation Centre (FIC) opened in May 2015 we have welcomed many food companies, industry representatives and organisations to either view or use our new facilities. If you would like an opportunity to find out what the Food Innovation Centre can offer your business, please contact us. Here are a few examples of recent visitors.

Marks & Spencer

M&S
EST. 1884

The FIC provided the venue for M&S Primary Foods Packaging Technologist and Packaging Innovation Lead, Kevin Vyse to deliver a one day workshop for M&S suppliers aimed at integrating packaging into the Product Development Cycle.

Kevin said *"This Centre is a great venue and resource. I look forward to holding future M&S events here."*



Food Science and Technology

The Institute of Food Science and Technology (IFST) held the finals of their 'Young Scientist' student research project competition, which was open to students studying a food degree. Well done to the two students from Loughry who made the final; Aisling Beacom and Alex King.



Dr David McCleery Northern Ireland Chair of IFST with finalist Alex King.

Ulster Bank



The Ulster Bank Food and Drink Team held an 'Innovation for Growth' conference with speakers from ASDA, Invest NI, Cavanagh Kelly, Ulster Bank and CAFRE. Over 80 small to medium sized food businesses attended.



Shauna Burns, Ulster Bank; Michael McCallion, ASDA; John Hood, Invest NI; Joy Alexander, CAFRE and Des Kelly, Cavanagh Kelly.



Dairy Council NI

Key representatives from the dairy industry gathered at the FIC for the Dairy Council for Northern Ireland, AGM. Dr David Dobbin CBE was elected Chairman, and dairy farmer, Mark Blelock, was elected Vice Chairman.

Ulster Food Producers' Group

The newly formed Ulster Food and Drink Producers' Group, which includes many local artisan producers many of whom gained success at the Great Taste Awards, attended a familiarisation evening at the FIC.



Meat Technology

Recent DARD statistics emphasised the importance of the local meat and fish processing sector to Northern Ireland's economy with the gross turnover of the sector at *£2.5 billion, and employee numbers at just over *12,300 full-time equivalents. This represents just over 50% of NI's total food and drink output.

As Senior Meat Technologist at Loughry Campus I lead a team of food technologists dedicated to supporting the meat and fish processing sectors. Support is through the provision of meat technology solutions tailored to suit the requirements of individual businesses and through the delivery of meat technology training programmes. Our emphasis is very much on practical application within the processing environment, and with a wealth of industry experience behind it, the team relishes a hands-on approach. Technology support activities engage us with businesses of all sizes; from small artisanal meat producers and start-up businesses, through to large multi-site operations and takes us across multiple sub-sectors including beef, sheep meat, poultry meat, pork, fish, animal by-products and value added meat and fish products.

Over the next few pages some of the types of work conducted by our team are highlighted.

If you have a particular meat technology issue you would like to explore with the help of one of our technologists then we'd like to hear from you.



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*DARD (2015) Size and Performance of the Northern Ireland Food and Drinks Processing Sector, Subsector Statistics 2013, with provisional estimates for 2014

Our Meat Technologists



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Meat technology support:

Last year we provided technical support to over 140 businesses in the meat and fish processing sectors, responding to over 2,000 individual advisory requests. Through working in tandem with companies, either on their own premises or at Loughry, the practical hands-on approach of our team has assisted many businesses in facing some of their technical challenges. Types of support available include:

- Product innovation
- Process development
- Developing and embedding quality management systems
- Complying with legislative standards
- Factory/premises design
- Sensory and laboratory analysis

One company recently benefiting from the support of the team is Rule of Crumb. Working through an Invest NI Innovation Voucher, Company Director Colm McLornan accessed a Loughry meat technologist for assistance in developing a range of gluten free breaded chicken poultry products. In June, the company's Gluten Free Chicken Kievs were crowned the winner of the Innovation Award

2015 at the 'International Trade Show for Free From Food/Ingredients' held in Barcelona.

"I was surprised and overjoyed to scoop the award. We are a small company from Ireland competing against companies from all over Europe, so to win was a great achievement for us. The guidance and support given from the Meat Technology team at CAFRE was vital in our product development"

Colm McLornan



Processing support facilities:

Our facilities provide a resource whereby businesses, working with the technologists, can access technical advice and practical support in progressing product development and process design projects without the downtime, material wastage and labour costs normally associated with conducting such work on larger industrial batch sizes. The Food Technology Centre is equipped with an extensive range of pilot scale meat processing equipment, with capabilities including:

- Meat size reduction technologies (eg bowl chopping, mincer-mixing, meat flaking)
- Vacuum and non-vacuum filling and forming
- Brine injection
- Vacuum tumbling
- Breeding, battering and frying facilities
- Smoking
- Wet and dry heat cooking systems

Meat packaging equipment includes a range of:

- Pouch and in-line vacuum packing machinery
- Thermoform MAP systems
- Skin-packing

If you would like to access these resources then please contact one of the team.



Meat technology training programmes:

The advisory and technical support services provided by our Meat Technology team can be further embedded through a range of training programmes aimed specifically at the meat sector. Courses offered cover a range of topics and are particularly suitable for supervisors and first-line managers from production, quality assurance and new product development disciplines who are seeking to improve their understanding of the processing technologies and controls behind successful meat product processing:

- Post slaughter control of meat eating quality
- Meat microbiology and shelf life
- Meat product legislation and labelling
- Curing technology
- Sausage and burger manufacture
- Meat packaging

In addition a range of practical workshops in meat processing are also offered, aimed at small scale producers who are new to meat processing.

In recent years the production of artisan foods has been a growing sector of the Northern Ireland agri-food industry and food production by small rural businesses has been recognised as playing a significant role in the future growth of the sector. To support small enterprises our meat technologists recently ran a beef processing workshop for artisan and small producers. The session included:

- commercial breakdown of a beef carcass
- manufacture of selected meat products made using some of the lower value cuts
- meat technology principles behind successful meat product manufacture
- prevention of common quality defects

Customised training:

Our meat technology courses are constantly being adapted and tailored to address the training needs of individual businesses. Customised courses designed to improve the technical understanding of particular meat processing operations at a company site are regularly developed and delivered by the CAFRE team on the premises.

If you have a particular topic or area in which you would benefit from further technical training then we would be delighted to discuss your needs for the development of a bespoke training programme.

Companies recently benefiting from this tailored approach to meat technology training include Moy Park, Dunbia and Linden Foods.



"CAFRE has helped develop our teams by understanding our industry and tailoring a bespoke training programme. The course provides a good balance of theory and practical application meeting our requirements."

Suzanne Mathewson, Moy Park



"The customised approach to training enables us to develop staff in a way which is applied and immediately relevant to our needs."

Ruth Devlin, Linden Foods

CAFRE presented with prestigious Environmental Health Award

Food Industry Training Team recognised by Awarding Bodies.

Catherine Devlin and Clare Millar attended a prestigious award ceremony at the House of Lords, organised by the Chartered Institute of Environmental Health (CIEH) and sponsored by Lord Rooker PC, former Chairman of the Food Standards Agency. Catherine Devlin on behalf of CAFRE, collected the Top Centre Award, Clare Millar received the Top Trainer Award with her student, Moy Park employee Alison Foster receiving the Top Student Award.

In November the Food Industry Training team will head back to London where they will receive similar accolades from the Royal Society of Public Health (RSPH).



Tim Everett, President CIEH; Alison Foster, Moy Park Ltd, **Top Student Award**; Clare Millar, CAFRE, **Top Trainer Award**; Catherine Devlin, CAFRE, **Top Centre Award**; Andy Stratham, President CIEH.

Risk profiling Listeria in ready-to-eat-foods

Risk profiling Listeria in ready-to-eat foods (RTE) and determination of control strategies and practical interventions

In July 2015 a project with AFBI, funded by Safe Food commenced to investigate the levels of listeria in ready to eat products. Where listeria is found, AFBI and CAFRE will assist companies to identify and apply tailored cleaning practices in processing environments.



Dr Bob Madden and Miss Pam Scates of AFBI's Food Microbiology department



If you would like to avail of one of the limited places left on this project please contact Roisin Lagan.



Dr Roisin Lagan
028 8676 6153
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Local business supporting Loughry students

Loughry Graduation Ceremony is a significant date in the calendar for our students. Throughout the academic year many food businesses support students through the provision of bursaries, placements and employment opportunities.



Kenny Greer, Operations Manager at Skea Eggs congratulates Katherine Willis who graduated with a First Class BSc (Hons) Degree in Food Design and Nutrition. Katherine has taken up a position as Quality Officer with Skea Eggs.



Glenn Patterson, Training Manager with Dunbia congratulates Nicola McLean and Eilish Raffety after their graduation. Nicola graduated with a First Class BSc (Hons) Degree in Food Design and Nutrition while Eilish graduated with a BTEC National Diploma in Food Science and Manufacturing Technology. Both Nicola and Eilish have taken up employment with Dunbia.



Eardley Liesching, Sales Manager at Willowbrook Foods congratulates Pamela Bruce on being awarded the 'Willowbrook Innovation Prize' having achieved the highest marks in Product Innovation. Pamela graduated with a First Class BSc (Hons) Degree in Food Design & Nutrition.



Kieran Given, Front Line Manufacturing Manger with Hovis Ltd, Belfast graduated with BSc (Hons) Degree in Food Technology, having completed his studies on a part-time basis.



Have you ever considered Knowledge Transfer Partnerships or Fusion Programmes?



Knowledge Transfer Partnership (KTP) is one of the UK's leading programmes, helping businesses improve their competitiveness and productivity through the better use of knowledge, technology and skills. KTP is a government funded programme and the major sponsor in Northern Ireland is Invest NI. If your company has a strategic project and you would consider partnering to take on a graduate to complete the project, then a KTP may be the ideal option. For further information about partnering with Loughry, please contact Fiona Ferguson

CASE STUDY:

The company: Kestrel Foods Ltd, Craigavon provides a range of dried fruit, nuts and seeds.

The project: New product development.

The graduate:



"The Knowledge Transfer programme has provided me with an opportunity to develop both my technical and project management skills. I have received great encouragement and support from both Kestrel Foods and

my CAFRE mentor."

David Jones

The mentor:

"Working with David and Kestrel Foods is a great opportunity to transfer new product development skills within a dynamic, commercial food business. I enjoy sharing my food technology knowledge with the graduate and I am encouraged by seeing the positive contribution the KTP project is having within Kestrel Foods Ltd."

Dr Roisin Lagan

Other sources of Innovation Funding can be found by contacting Invest NI



FUSION, InterTrade Ireland's all-island technology transfer programme, can help you to bolster your business's bottom line and get ahead of the competition by partnering your company with a third-level institution, such as Loughry, to provide the specialist expertise you need and a high calibre science, engineering or technology graduate. The graduate is employed by you and is based in your company throughout the project (12-18 months) with mentoring from the academic partner and the InterTrade Ireland FUSION consultant.

For further information about partnering with Loughry on either the KTP or FUSION programmes, please contact Fiona Ferguson.



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CASE STUDY:

The company: Gallagher's Bakery Ltd, Donegal.

The project: Developing scientific process control systems within a gluten free bakery business.

The graduate:



"I thoroughly enjoyed the learning aspect of the Fusion programme by developing my business skills on the postgraduate diploma programme. I particularly enjoyed embedding scientific knowledge of gluten free ingredients into the product development, production and quality teams

within the bakery."

Annette Ferguson

The mentor:

"For over 10 years CAFRE have been supporting InterTradeIreland Fusion programmes. The project with Gallagher's Bakery is an excellent example which demonstrates the mutual benefits of the programme to the graduate, the company and the mentor."

Dr Roisin Lagan

Loughry News!

Loughry and QUB collaborate on microwave technology research

As part of a PhD studentship, we partnered with researchers at Queen's Institute of Global Food Security to evaluate the effects of processing raw tomatoes using microwave volumetric heating compared to conventional pasteurisation. The results proved very positive and have now been published. For further details please contact Alan Johnston.



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Loughry congratulates 2015 Great Taste Award winners



We would like to congratulate all the companies recognised in the 2015 UK Great Taste Awards. This prestigious annual event organised by the influential UK Guild of Fine Food saw over 70 local companies securing almost 200 gold stars in total.

In particular, three local companies, Dale Farm (Fivemiletown Ballyoak Cheese) Genesis Crafty (Supervalu Brown Soda Loaf), and Baronscourt Estate (Wild Sika Venison French Rack) were awarded the highest accolade of three gold stars for their products.

Threat Assessment Critical Control Point (TACCP)

TACCP is a systematic management tool which assesses the risks of vulnerable aspects of the supply chain. Since this has become a requirement of the BRC Global Standard for Food Safety issue 7 a TACCP (Threat Assessment Critical Control Point) study should be integrated into the existing Food Safety Management System therefore ensuring product safety. If you would like more information about TACCP please contact our team.

Loughry welcomed the Society of Dairy Technology

We were delighted to welcome the Society of Dairy Technology Spring Conference to Loughry Campus. Over 100 people attended, representing dairy processors from across the UK and Ireland.



Ian Marshall, President UFU; Mike Johnston, Dairy UK; Sophie Helaine, Agricultural Modelling and Outlook Unit –Dairy; Martin McKendry, CAFRE.



Loughry staff help out at Open Farm Weekend

Food Technologists from Loughry were delighted to support the Bank of Ireland's 'Open Farm Weekend' at the Glenwherry Hill Farm. Over the weekend hundreds of families visited our exhibition which demonstrated how food travels through the food chain from the pastures to our plate.



Loughry helps celebrate the Comber Potato

Loughry staff joined with a host of local food producers in Comber town to celebrate Comber's most famous export at the Comber Potato Festival. Food technologists had a fun filled exhibition highlighting the nutritional value of potatoes.



Increased demand for short course food training



McColgan's

Congratulations to the staff of McColgan's Quality Foods, who successfully completed their **Auditing for Continuous Improvement Level 3 Award**.



Mash Direct Ltd

Congratulations to Leah Deehan, Mash Direct Ltd who successfully completed her **Level 4 Auditing Food Quality Management Systems**.



MacNeice Fruit

Congratulations to Jeffrey Finch and Mark Clayton, MacNeice Fruit Ltd, who successfully completed their **Level 2 Award in Food Allergen Awareness**.

If you would like further details on food short course training opportunities please contact



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028 8676 8114
catherine.devlin@dardni.gov.uk
www.cafre.ac.uk

Short training courses 2015-16

- Food safety course
- HACCP course
- Auditing course
- Other course

Level 4 Award in Food Safety Management for Manufacturing	
Chartered Institute of Environmental Health	
Date	Thursday 1st, 8th, 15th, 22nd and 29th October 2015
Exam	Monday 9th November
Assignment	Thursday 12th November
Date	Tuesdays 9th, 16th, 23rd February, 1st and 8th March 2016
Exam	Monday 21st March
Assignment	Thursday 24th March
Costs	£420
For managers working within the food processing sector	

Level 3 Award in Food Safety Supervision in Manufacturing	
Chartered Institute of Environmental Health	
Date	Wednesday 7th, 14th and 21st October 2015
Exam	Wednesday 28th October
Date	Wednesday 17th, 24th and 2nd March 2016
Exam	Wednesday 9th March
Costs	£250
For supervisors working within the food processing sector	

Level 2 Award in Food Safety in Manufacturing	
Chartered Institute of Environmental Health	
Date	Monday 19th October 2015 or Monday 14th March 2016
Costs	£60
For anyone working within the food processing sector	

Level 4 Award in HACCP Management for Food Manufacturing	
<i>Royal Society Public Health</i>	
Date	Tuesday 22nd, 29th September, 6th, 13th, 20th and 27th October 2015
Exam	Monday 2nd November
Date	Thursday 7th, 14th, 21st, 28th April, 5th and 12th May 2016
Exam	Monday 16th May
Costs	£420 + course book
For managers and HACCP team leaders and members. (A sound knowledge of HACCP is essential)	

Foundation Certificate in HACCP	
<i>Royal Society Public Health</i>	
Date	Tuesday 24th November 2015 or Thursday 25th February 2016
Costs	£60
For all HACCP team members	

Level 3 Award in HACCP for Food Manufacturing	
<i>Royal Society Public Health</i>	
Date	Tuesday 10th and Wednesday 11th November 2015
Exam	Tuesday 17th November
Date	Tuesday 12th and Wednesday 13th April 2016
Exam	Tuesday 19th April
Costs	£250
For managers and HACCP team members (A knowledge of HACCP is essential)	

Level 3 HACCP Refresher	
Date	Tuesday 15th September 2015 or Tuesday 22nd March 2016
Costs	£50

Level 3 Award in Auditing & Inspection	
<i>Highfield Awarding and Inspection</i>	
Date	Tuesday 3rd November 2015
Exam	Wednesday 4th November
Date	Tuesday 10th May 2016
Exam	Wednesday 11th May
Costs	£130
For supervisors and managers preparing companies for internal and external audits	

Level 3 Award in Training Principles and Practice	
<i>Chartered Institute of Environmental Health</i>	
Date	Wednesday 18th and Thursday 19th November 2015
Assessment	9th or 10th December

Date	Tuesday 17th May and Wednesday 18th May 2016
Assessment	Tuesday 7th June or Wednesday 8th June
For those with Level 4 Food Safety or Health and Safety qualifications who wish to become recognised trainers	

Level 2 Award in Environmental Principles and Best Practice	
<i>Chartered Institute of Environmental Health</i>	
Date	Friday 6th November 2015 or Friday 8th April 2016
Costs	£60
For everyone involved in waste management and energy efficiency	

Level 2 Award in Health & Safety in the Workplace	
<i>Chartered Institute of Environmental Health</i>	
Date	Monday 23rd November 2015 or Monday 11th April 2016
Costs	£60
For everyone involved health and safety in the workplace	

Level 2 Award in Food Allergen Awareness	
<i>Chartered Institute of Environmental Health</i>	
Date	Tuesday 1st December 2015 or Thursday 10th March 2016
Costs	£50
For anyone working within the food processing sector	

**For more
information
please get
in touch**

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