



Robotics and automation in food production



Food safety systems at Killeen Farmhouse Cheese



Upcoming events



Knowledge Network

THE FOOD CHAIN

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GREY AREA

Ambiguous vegan food labels could pose a safety concern for allergy sufferers, writes Nick Hughes

Pay a visit to your local supermarket this weekend and you won't be short of choice if you fancy a meat-free supper. The growth of vegan or plant-based products (the terms are often used interchangeably) has been one of the defining food trends of the past five years as businesses latch onto an opportunity to build a lucrative new product category. The number of new packaged consumer goods launched globally with a plant-based claim increased by 302% between 2018 and 2022, according to data from market research company, Mintel. In January 2024 alone, at least 2,100 new vegan products and menu options were launched to mark this year's Veganuary campaign during which 25 million people worldwide gave up animal products for the month, organisers reported.

Although the number of people identifying as strictly vegan, whereby they eschew all animal products, remains relatively small in Western European countries (research company



Nick Hughes

Statista puts the figure at between 2-4% of national populations), the trend for people to adopt flexitarian diets, whereby they cut down on meat and dairy for environmental or ethical reasons without abstaining entirely, has further boosted market demand for plant-based meats, milks and all manner of other products.

But this newfound demand for vegan foods has come with risks attached for businesses, regulators and consumers – in particular those with allergies to animal proteins. Under EU, Irish and UK food law, there is no clear definition of the term 'vegan' which is considered a dietary suitability claim, not a food safety description. This means it shouldn't be taken as a guarantee that a product does not contain animal-derived ingredients. The same is true of 'plant-based' descriptions, which are arguably even more ambiguous and marketing-led than a vegan claim (is it just the 'base' of the product that consists of plant ingredients or the entire product?).



Consumer expectations

The problem is that an ambiguous legal position doesn't align with clear consumer expectations of products labelled as vegan or plant based. Last year, the UK's Chartered Trading Standards Institute (CTSI) published the results of a consumer attitude survey which found that over three quarters (76.4%) of consumers believed that food labelled as vegan should be completely free of anything derived from an animal, while almost half (49.6%) thought that foods labelled as plant-based are vegan. Among respondents with an allergy to milk, 84.6% believed vegan foods were safe for them to eat.

The CTSI has warned that the lack of a legal definition for vegan food could be putting lives at risk. In a policy paper accompanying the 2023 survey, it cited the tragic case of Celia Marsh, who had a known allergy to milk and died in 2016 as a result of anaphylaxis after eating a 'vegan' wrap from the food-to-go chain Pret A Manger, which contained milk protein as a result of unintentional cross-contamination.

The CTSI also highlighted research carried out by Hampshire and Kent Scientific Services which found that 24 (39%) out of 61 products labelled as vegan contained egg or dairy when tested in a laboratory, including 13 dairy alternatives and 48 meat alternatives.

The professional body is now calling for more clarity on what can and can't legally be described as vegan and plant-based food, including legal thresholds for how much of an animal-derived ingredient a vegan product can contain. So how are regulators responding to the challenges around vegan product descriptions and the risk to consumers?

Raising awareness

In the UK, the Food Standards Agency (FSA) ran an awareness campaign in March highlighting the risk of food labelled as vegan to people with allergies. It followed FSA research

showing that 62% of people who react to animal-based products, or who buy for someone who is, are confident that products labelled vegan are safe for them to eat.

The FSA's campaign was aimed at supporting people who have an allergy to milk, eggs, fish, crustaceans or molluscs and encouraged people with allergies, or who buy for someone who has, to always check for a precautionary allergen labelling (PAL) statement such as 'may contain' on products labelled vegan to decide on whether it's safe to eat. The campaign followed a similar warning issued by the Food Safety Authority of Ireland (FSAI) in 2020, which advised consumers allergic to, or intolerant of, animal-derived food on the possible dangers of consuming vegan products in the belief that such foods are completely free from animal-based allergens.

Legal loopholes

The reality is that foods labelled as vegan currently carry no such guarantee. EU food law (retained in Great Britain following Brexit) places the responsibility on food businesses to ensure that any information they provide does not mislead the consumer. Vegan descriptions are voluntary labels used to support a dietary choice and should not be used for food safety purposes since they could contain traces of animal-based ingredients where they are prepared in areas alongside products such as egg, milk, fish, crustaceans or molluscs.

As one food safety expert explains, the undeclared and inadvertent presence of low levels of animal-derived contaminants in a vegan-labelled food would be difficult to legally prove as misleading since the term vegan is not defined and so doesn't necessarily mean completely free of animal-derived foods.

In its campaign, the FSA highlighted the distinction between allergen-absence claims, such as 'milk-free', and vegan



claims. The former, although voluntary, are considered absolute claims meaning they can be used as food safety information by consumers. Businesses making a free-from claim should only do so following a rigorous risk assessment of the ingredients, process and environment of the product's whole supply chain including finished product testing.

Yet the message that vegan descriptions should not be treated as gospel does not appear to be getting through to consumers. The FSA's research found that 54% of those who are hypersensitive to products of animal origin have used vegan labelling to indicate whether a food is safe to eat at least sometimes when buying packaged food, while 53% of those who buy for someone with a food hypersensitivity to products of animal origin have used vegan labelling in this way at least sometimes when buying packaged food.

Although the CTSI welcomed the FSA's campaign to raise awareness of the issue and acknowledged consumer education as "a crucial cog in the consumer protection landscape", it wants to see regulators go further and create a legal definition for vegan and plant-based food including the development of tolerance thresholds for animal protein in vegan or plant-based products.

"Consumer education alone should be seen as a stopgap whilst we campaign for changes in the legal framework for selling food so that consumers can make informed choices, and food businesses have clarity about what the phrases means," says CTSI Chief Executive, John Herriman.

Regulators themselves have previously highlighted the benefits in having certainty around the use of terms like vegan. On issuing its warning to consumers in 2020, FSAI Chief Executive Officer, Dr Pamela Byrne said: "Once the legal status of vegan-labelled foods is fully addressed at EU level, it will be clearer as to what levels of animal-derived ingredients will be tolerated in foods calling themselves vegan. Only when such guidelines are available will susceptible consumers be

better equipped to judge for themselves whether or not they can safely consume vegan foods."

Yet four years on, there remains little sign that the issue is seen as a high priority for EU policy makers. The EU Food Information to Consumers (FIC) Regulation states in article 36, regarding voluntary food information, that the European Commission shall adopt implementing acts on information related to suitability of a food for vegetarians or vegans. However, agreement on a legal definition for vegan food is not expected to be reached in the near future.

In the UK, since a vegan label is not a food safety label, responsibility for policy sits not with the FSA but with the Department for Environment, Food & Rural Affairs (DEFRA), however it is understood there are no immediate plans to create a legal definition for vegan foods along with tolerance thresholds.

Voluntary measures

For now, non-legislative measures to help consumers make more informed choices are filling the regulatory void. The Vegan Society has operated its Vegan Trademark since 1990 which is used to certify over 65,000 vegan products around the world including food and drink items.

"Our Vegan Trademark shows products are vegan to our rigorous standards as far as is practical and possible, and that efforts have been made to avoid cross-contamination," says Claire Ogley, Head of Campaigns, Policy and Research at the Vegan Society. However, she says it's essential people understand that a vegan label does not necessarily mean the product is allergen-free and people with allergies should always check the allergen labelling on products before consuming them.

The use of a PAL on a vegan product will feel to some like an unsatisfactory compromise since it too is a voluntary statement, albeit work is ongoing to integrate the use of PALs into regulatory frameworks. For its part, the FSA rejects the notion that its advice to use a PAL alongside a vegan label if cross-contamination can't be ruled out will simply create greater confusion among consumers over whether they can or can't safely consume these products.

"It remains our fundamental principle to ensure consumers have clear and accurate allergen labelling to support people in the UK living with a food allergy," says Dr James Cooper, Deputy Director of Food Policy at the FSA.

In the meantime, the market for vegan food products is expected to continue its rapid expansion: a 2021 report by Bloomberg Intelligence predicted fivefold growth in the global market for plant-based foods between 2020 and 2030 to reach a whopping \$162bn by the end of the decade.

With the stakes getting higher with each passing year, some clarification on the use of terms like vegan and plant-based cannot come soon enough for businesses and consumers alike.

ABOUT NICK HUGHES

Nick Hughes is a freelance writer and editor specialising in food and environmental affairs. He contributes articles to specialist publications including *The Grocer* and *Footprint* and is the author of numerous reports and whitepapers on food-related issues. Nick has previously worked in advisory and policy roles for DEFRA and the World Wildlife Fund.



Dessie Brady, a Senior Food Technologist in CAFRE's Knowledge Advisory Service, writes about the expanding role of robotics and automation in food production for SMEs

Food technologists at the College of Agriculture, Food & Rural Enterprise (CAFRE) support industry in a number of ways including technical support in food innovation, minimising food waste, food for health, food regulatory requirements, food packaging alternatives and plastics reduction. I lead advanced manufacturing support in areas such as food processing, robotics and automation, and digitalisation. CAFRE also delivers food education courses and I'm keen to bring current industry themes and challenges into the learning environment to support knowledge transfer. Our collaboration with the Advanced Manufacturing Innovation Centre (AMIC) at Queen's University Belfast helps Northern Ireland's agri-food small and medium-sized enterprises (SMEs) to optimise their operations for the present and future. This includes learning about demands, identifying constraints, and pinpointing areas for improvement. We partner with the AMIC on digital simulation models to virtually explore potential solutions that incorporate robotics, automation, and other advanced manufacturing tools. Digital simulation enables businesses to investigate the benefits and potential risks associated with these interventions before they invest in costly equipment or overhaul their production lines. Several businesses have adopted automation solutions after considering the digital concepts identified through simulations, resulting in increased efficiency and throughput, labour redeployment and enhanced food safety and quality for their operations. By embracing these advancements, SMEs can unlock significant advantages. While there's an initial investment, automation can free up staff for higher-skilled roles and potentially reduce overall labour costs in the long run. Another benefit is improved sustainability: smarter factories can optimise resource usage and minimise waste, leading to a more sustainable food production system. CAFRE's collaboration with the AMIC is pioneering a future where Northern Ireland's agri-food SMEs can leverage the power of digital simulation to empower them to make informed decisions about their future, unlock efficiency gains, and become more competitive in the global marketplace.



Dessie Brady

However, integrating these technologies can pose challenges:

- **Financial constraints:** Robots and automation systems can require significant upfront investment.
- **Skills:** Operating and maintaining these systems may require additional technical skills or training for existing staff.
- **Limited labour availability:** For SMEs with a small workforce, there may be concerns that automation could displace existing staff. The focus should be on redeployment, with automation freeing up employees for higher-value tasks.
- **Time constraints:** Busy SMEs may struggle to dedicate the necessary time to thoroughly research, plan, and implement automation solutions.
- **Stock keeping unit (SKU) range:** Many SMEs frequently make a wide range of products; this reduces the plant efficiency due to line changeovers often requiring line adjustments. In addition, many food manufacturing businesses have different allergen and 'free from' claims to manage to ensure product authenticity and quality.
- **Space limitations:** Established businesses may not have space to accommodate robots or automated production lines. Careful space planning and potentially reconfiguring existing layouts might be necessary. This is where digital simulations can help SMEs to visualise potential interventions.
- **Return on investment (ROI) uncertainty:** Accurately calculating the ROI for automation can be complex for SMEs. Factors like production volume, labour costs, and product type all influence the ROI equation, making it difficult to predict the true payback period.
- **Integration challenges:** Existing production lines and equipment may not be readily compatible with new automation systems. Ensuring seamless integration and smooth data flow between old and new technologies can be a challenge.

Despite these challenges, the potential benefits of robotics and automation are significant for SMEs in the agri-food sector. By carefully considering these hurdles and exploring options like collaborative robots (cobots) and scalable

automation systems, SMEs can make informed decisions and pave the way for a more efficient, productive, and competitive future.

Benefits of automation

Automation can help to improve food safety throughout production processes. Repetitive tasks like product handling, weighing and cleaning are prone to human error. Automation removes this human element, ensuring consistent and accurate execution. Automated systems offer better precision, minimising the chances of mistakes which reduces the potential of introducing foreign objects or cross contamination.

Automated cleaning systems can thoroughly sanitise equipment and surfaces, promoting a cleaner production environment. These systems implement rigorous cleaning protocols consistently, eliminating the risk of human error or shortcuts. The use of input sensors to monitor water pressure, volume, chemical concentration, time and temperature during the cleaning process can help verify that the cleaning process is adequate. This is key for clean-in-place (CIP) operations but also for general object cleaning. The data that the sensors collect can be analysed and stored digitally for audit purpose.

Maintaining consistent temperatures throughout production is crucial for food safety and automated monitoring and control systems ensure precise temperature regulation across storage, processing, and packaging stages. Sensors on the production line continuously gather data, allowing for real-time adjustments and minimising the risk of bacterial growth or spoilage due to temperature fluctuations.

Automation goes beyond basic tasks: vision systems equipped with advanced cameras and image recognition software can inspect products for blemishes, foreign objects, or imperfections at high speeds and with unmatched accuracy. This significantly reduces the risk of faulty or contaminated products reaching consumers.

Modern automation systems offer real-time tracking and data-logging capabilities through integrated sensors. This data allows for precise identification of ingredients, batches and processing details for each product. In the event of a food safety concern, this detailed traceability, coupled with sensor data, enables swift and targeted product recall, minimising risk to consumers. Additionally, sensor data can be analysed to identify trends or potential problems before they occur, promoting a proactive approach to food safety.

By minimising human error, enhancing cleaning protocols, ensuring temperature control with real-time monitoring, utilising vision systems for reduced non-conformances and improved quality assurance, facilitating traceability with sensor data, and enabling data-driven decision making, automation plays a vital role in safeguarding food safety within the agri-food sector. This not only protects consumers but also bolsters brand reputation and consumer confidence.

Future focused

The use of robotics in food production is rapidly evolving and the future holds exciting possibilities. As part of CAFRE's future campus redevelopment plans, we are keen to support the demonstration of new robotic capabilities in our new Robotics, Automation and Packaging Innovation Centre (RAPIC) in Loughry, which we hope to construct in the years ahead. The ambition is to establish an innovation space for key equipment suppliers to create bespoke solutions for food manufacturers. This facility will also use Industry

4.0 technologies like digitalisation to de-risk investment and promote technology transfer. The current rate of technological advancement is exponential. Here are some of the key trends I predict:

1. Increased collaboration and dexterity

Cobots will become even more sophisticated, seamlessly working alongside human employees in tasks requiring dexterity and adaptability. Imagine cobots or humanised robots assisting with delicate food handling, packing, or final product inspection.

2. AI-powered automation and smart factories

We'll see an increase in automation systems that will use artificial intelligence to learn, adapt, and optimise production processes in real-time. This could involve robots autonomously adjusting settings based on product variations or dynamically re-routing production lines for maximum efficiency. The concept of 'smart factories' where robots, sensors and AI work together will become increasingly prevalent.

3. Advanced robotics for unfavourable environments

Robots designed for harsh or hazardous environments will play a bigger role. e.g., robots equipped for high-heat sterilisation processes or handling tasks in cold storage facilities, thus minimising human exposure to these conditions.

4. Sustainable and hygienic robotics

This could involve biodegradable materials in robot construction or robots with self-cleaning capabilities to minimise contamination risks.

5. Greater integration

Robots will become even more integrated with big data and the Internet of Things (IoT) networks. This will allow for real-time monitoring of food production processes, predictive maintenance for robots, and data-driven optimisation of food quality and safety.

6. Ethical considerations and transparency

As robotic integration becomes more widespread, discussions around ethical considerations and transparency in the food production chain will gain importance. Consumers will want to know how their food is produced, and the responsible use of robotics will be crucial for maintaining trust.

The future of robotics in the food industry promises greater efficiency, improved food safety, and potentially even more personalised food experiences for consumers.

ABOUT DESSIE BRADY

What activities do you enjoy in your spare time?

My first love is Gaelic football. I have been both a player of the sport, and a coach of young football teams. When I finished playing Gaelic, I took up golf and I'm a member of the challenging Warrenpoint Golf Club. My favourite meal is a steak dinner and my quest to create the perfect meal continues, someday I will nail it.

What are you currently watching?

I tried to watch as much of the Paris Olympic Games as possible. I'm always amazed at the dedication and ambition of all the athletes regardless of the sport. I was delighted to see Armagh win the All-Ireland – for the players, the manager and their sponsors.

A DAY IN THE LIFE

Co-founder and cheesemaker at Killeen Farmhouse Cheese, Marion Roeleveld shares her rules for food safety and quality

Killeen Farmhouse Cheese was established 20 years ago by Marion Roeleveld and her business partner, Haske Knippels. "Haske had a goat farm when I moved to Ireland in 2001, and in 2004 we received our license to make cheese. At the time, we had a small farm with 120 goats, and we rented most of the land."

In 2007, the company bought a bigger farm, building a new goat shed and dairy, and growing the herd to 200 goats. "When I started out, cheese made from goats' milk was not that popular, so our first offering was cheese made from cows' milk. Now, we use all our goats' milk, and we buy in some cows' milk."

According to Marion, it is a small operation, and she shares the cheese production with two part-time workers. "We supply delicatessen shops and market traders and have a wholesale channel too. Our cheese is available in Dunnes Stores in the Simply Better range.

"Our main product is goats' cheese, a semi-hard, gouda-style cheese. It has a very mild flavour, so it even appeals to people who do not traditionally like goats' cheese. We also make a goats' cheese with fenugreek seeds. The cows' milk is transformed into gouda; gouda with cumin, and Kilmora, which has a sweet nutty flavour like Emmental."

Killeen Farmhouse cheeses have proved popular, not just with consumers but with food judges. "We have won the Supreme Champion in the CÁIS Irish Cheese Awards three times, and this year, we won the award for Best Hard Cheese (flavour added) for our Killeen Goat's Cheese with Fenugreek, and the best Retailer Class-Semi-Hard/Hard for our Dunnes Stores Simply Better, Irish Farmhouse Killeen Goat's Cheese. We have been category winners in the British Cheese Awards many times and the highlight of those for me was winning the best goat cheese out of 145 goat cheese entries."



Marion
Roeleveld

that came years ago after a courier driver walked into the production room to deliver a parcel, without reading the 'no entry' sign at the door."

Maintaining food safety standards is a constant challenge, she says, particularly for SMEs. "Keeping up with the paperwork requests from large customers: as we are such a small company, we know our processes and how we maintain hygiene standards. We are very much in control. There is daily communication about

potential issues and solutions. I sometimes find it hard to deal with forms and questionnaires that are designed for places with many employees. The dynamic in a small business is very different. We do not have a food safety department. I am the cheesemaker, quality controller and food safety department all in one. On top of that I am also the sales rep, financial controller and HR manager."

Being a member of CÁIS (The Association of Irish Farmhouse Cheesemakers) has provided networking and education opportunities. "I have been on the committee of CÁIS for many years and was chairperson for two years. CÁIS has organised food safety training and seminars, and I learned a lot through the FACEnetwork, the Farmhouse and Artisan Cheese and Dairy Producers European Network, of which I am the Irish representative. We developed a European guide for good hygiene practices in small-scale dairy production and we discuss the issues and legislation around food safety." Her advice to other cheesemakers on ensuring food safety and quality is to know your raw product and treat it carefully. "Our primary product is milk and if you have bad milk to start with, you will never make a good and consistent cheese. This starts with what the animals eat, how clean they are kept, and the way they are milked. Do the same thing every day and write down any tweak in the process, whether that's depending on the milk or seasonal changes."

Safety standards

Killeen Farmhouse Cheese uses pasteurised milk in the production of its cheeses which can bring its own challenges. "Pasteurisation kills not only pathogens, but also the good bacteria. If we accidentally introduce any bad microorganisms to the pasteurised milk, they will grow very fast as there is no competition. As a result, we are extremely careful. We are aware that anything that would appear in a laboratory test has been introduced by us, and we don't ever want that to happen.

"Our rule is that everything that enters the cheese vat has been sterilised immediately beforehand and hands washed properly right before we touch the curd. I am always thinking about possible cross-contamination."

Marion shares one simple method she has introduced to ensure this is observed. "I implemented a fixed step-over bench inside the entrance to our building. It makes it super clear that you cannot go past it without changing your footwear and wearing protective clothing. The decision for

ABOUT MARION ROELEVELD

Tell us about yourself.

I am from the Netherlands where I grew up on a dairy farm. I started working on a cheese farm at weekends and during holidays when I was 16 and continued until I finished college.

What activities do you enjoy in your spare time?

I love animals, and as well as goats, we have hens, horses, cats and dogs. I like horseriding, running and yoga.

What are you currently enjoying?

I am currently reading a book about exercising and nutrition for women in the menopause years. I listen to podcasts about health, nutrition and news.

NEWS AND EVENTS



Pictured: Clodagh Lynch with Micheala Fox (QUB) and Prof. Geoff McMullan (Head of School for Biological Sciences, QUB). She graduated from the BSc in Food Quality, Safety and Nutrition.

Food Safety Awards

Congratulations to the following award recipients, recognised for their outstanding contributions and research in food safety, all supported by **safefood**.

- Clodagh Lynch received the Best Food Safety Essay Award for her paper titled *Is Seaweed Safe to Eat? Navigating Contamination Concerns for Sustainable Nutrition*, as part of her BSc. in Food Quality, Safety, and Nutrition at Queen's University Belfast.
- Emma McNeilly achieved the highest result in the Applied Sensory Science and Quality Control module of her BSc. in Consumer Management and Food Innovation at Ulster University.
- At the 75th Anniversary Environmental Health Association of Ireland (EHAI) Forum 2024, Niamh McGuckian and Sinéad Oshokoya were honoured with the EHAI Best Food Safety Final Year Project Award. Niamh, an Environmental Health graduate from Ulster University, focused her project on macroalgae consumption, while Sinéad, an Environmental Health graduate from TU Dublin, explored dietary choices in the construction industry. The awards were presented by Trish Twohig, Director of Food Safety at **safefood**.



Pictured: Damien Lynch (EHAI), Niamh McGuckian, Sinéad Oshokoya and Trish Twohig (**safefood**) at the 75th Anniversary Environmental Health Association of Ireland Forum 2024, celebrating Niamh and Sinéad's achievements in food safety research.

Upcoming Webinar

The **safefood** Knowledge Network will host a free webinar on Pest Control: Tips and Tricks for Food Businesses. This session will offer practical advice and strategies for safeguarding businesses from pest infestations. Don't miss this opportunity to stay informed and protect your reputation in the food industry.

Who should attend?

Small food businesses, regulators, food safety consultants and trainers.

Speakers:

Ruth Conefrey, Training and Compliance Manager at the Food Safety Authority of Ireland (FSAI)

Mark Concannon, founder and Managing Director of PestCon Consultancy

Date: 17th October 2024

Time: 10am

To register, keep an eye on www.safefood.net/events

Food Safety Workshops for Small Food Businesses

The **safefood** Knowledge Network, in collaboration with District Councils in Northern Ireland, is hosting a series of specialised workshops for small food businesses across Northern Ireland. These workshops are designed to provide vital training to help you uphold high standards in food safety and compliance.

Workshop dates and locations:

17th September: Craigavon

18th September: Lisburn

1st October: Coleraine

2nd October: Newtownabbey

9th October: Derry/Londonderry

22nd October: Downpatrick

23rd October: Newtownards

Time: 10am-2:30pm

These sessions will cover essential topics for food businesses, including pest control, managing foodborne bacteria, cleaning and sanitation practices, HACCP and record-keeping, and managing food allergens. This is a fantastic opportunity to learn from experienced food safety trainers and network with other local food businesses. Ensure your food business meets the highest safety standards and sign up today. To register, visit www.safefood.net/events

QUIZ TIME

Try your hand at this issue's quiz and you could be in with a chance to win a fantastic prize!

Questions

1. What K is a fermented milk drink?
2. What is the fear of eating with other people known as?
3. What helpful kitchen appliance did Perry Spencer invent?
4. Kohlrabi, January King and Cannonball are varieties of what vegetable?
5. In the film, *The Big Lebowski*, what is The Dude's favourite drink?
6. What is a cooking slurry?
7. What is the national dish of Georgia?
8. Dried fruit like raisins, prunes, figs and apricots are a good source of calcium. True or false?
9. How often should you replace your dishcloth?
10. Where in Ireland is the Butter Museum?



safefood is delighted to offer one lucky quiz winner a fantastic food hamper (similar to pictured).

Congratulations to the winner of issue 29's quiz, Jackie Doody, Catering Officer in the South Infirmity Victoria University Hospital, Cork.

Answers to issue 29

- | | |
|--------------------------------|-----------------|
| 1. Red chilli paste from Korea | 6. Pomegranates |
| 2. The vanilla orchid | 7. Sandwiches |
| 3. Coca-Cola | 8. Anchovies |
| 4. Up to 24 hours | 9. Tea |
| 5. Bread | 10. False |

To enter: Simply complete the quiz above and send your answers to knowledgenetwork@safefood.net before 15th November 2024. This competition is open to Knowledge Network members on the island of Ireland only.

Food safety training

safefood for business is a free e-learning food safety tool for small businesses in the food industry, from manufacturing to catering, to service. It covers all aspects of basic food safety training for staff in eight short, practical and engaging modules using real-life scenarios and workplace activities. With **safefood** for business you can provide staff training and track their progress across any device as they work to achieve certificates of completion. Scan the QR code to sign up and access all the modules and resources to help keep your business food-safe. See www.safefoodforbusiness.com



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We'd love to hear from you. Would you like us to feature your research or industry sector? What else would you like us to cover in the world of food safety? Send your article ideas, feedback and suggestions to knowledgenetwork@safefood.net

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PERSONAL ANNOUNCEMENT

Have you got a personal announcement that you'd like to share in *The Food Chain*? Get in touch via email: knowledgenetwork@safefood.net
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