



Risks to human health associated with chemical contaminants in the food and feed chain require constant vigilance. Hazards may arise from the natural environment or from inputs applied at the stage of primary production or during further processing. The control of contaminants in staple foods is especially important given their major contribution to the human diet.

Factors affecting levels of chemical contaminants in food products are likely to include the history of the growing site, source of fertiliser/organic manure, soil pH, irrigation water and varietal choice.

To help members understand where chemical contaminants originate from and the route by which they can enter food products during primary production, we are conducting an ongoing member-funded project.

We have looked at the presence of chlorate and perchlorate in leafy vegetables (rocket salad leaves and pea shoots). Chlorate has been banned as a pesticide since 2008. Current potential sources include irrigation and other water sources and disinfectants. We will produce guidance to help members minimise levels of these compounds through agronomic interventions, selection of growing sites and cultivar choice.

Preventing contamination at source

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Food safety

Product safety is an imperative for food and drink companies. This was echoed by Heather Hancock, Chair of the Food Standards Agency, during her speech at our annual open day last month when she said, "Years spent building reputation and trust are undermined in the blink of an eye by someone, somewhere in the food system, getting it wrong. And we are all back at square one when that happens."

We can help you maintain and manage your product safety throughout its entire journey to assure its safety and maintain trust with consumers. We have a comprehensive range of services and expertise to assess, manage and monitor hazards - from food safety systems such as HACCP and TACCP, to microbiological and chemical sampling and advanced testing. We can also help with food safety culture assessment and provide advice and guidance on food safety regulatory frameworks. Food and drink safety is also one of the strategic themes underpinning our research programme and is core to many of our training courses, seminars and conferences.

If you would like to find out more how we can help you with product safety, please email information@campdenbri.co.uk. To listen to Heather Hancock's speech in full, please visit the podcast section of our website.

Steven Walker, Director General

Switch channel

You Tube

LinkedIn - company news www.linkedin.com/company/campden-bri

YouTube - videos on the science and technology of food and drink production www.youtube.com/campdenbri

Twitter - keep up to date with our latest news and activities *https://twitter.com/campdenbri*



Facebook - find out about our history and lighter side www.facebook.com/campdenbripage



IFTSA thesis video challenge

The IFTSA (Institute of Food Technologists Student Association) thesis video challenge encourages students to hone and creatively develop their scientific communication skills. Students were asked to produce a fun, creative three-minute video related to original research carried out during their post-graduate studies.

Zachary Cartwright won the 2017 competition for his video about his research into *Brettanomyces bruxellensis* (a yeast) contamination of oak barrels and grape vines. We are delighted to sponsor the competition again this year to help attract young talent and raise awareness of the food industry as a career option. We will host Zachary for a 10 day visit to the UK to learn more about the European food and drink industry; including spending some time at our headquarters in Gloucestershire and with our Wine team at our Nutfield site.

Staff at events

IAFP 2017 Annual meeting 9-12 July Tampa, Florida, USA www.foodprotection.org/annualmeeting

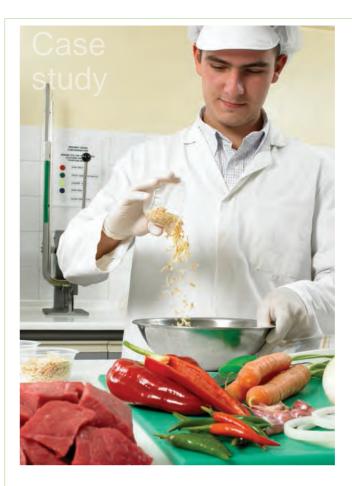
Roy Betts, Head of Microbiology will be giving presentations at this event

- In defence of the European 100 CFU/g of *Listeria monocytogenes* limit in ready-to-eat foods
- Risk assessment for fresh produce: Issues faced while putting "Formal MRA" into industrial practice in the field
- Setting risk-based performance standards

12th Pangborn Sensory Science Symposium

20-24 August Rhode Island Convention Centre, Rhode Island, USA www.pangbornsymposium.com/

Poster presentations will be given by members of our Consumer & Sensory Science Department - Peter Burgess, Sarah Thomas and Marleen Chambault,



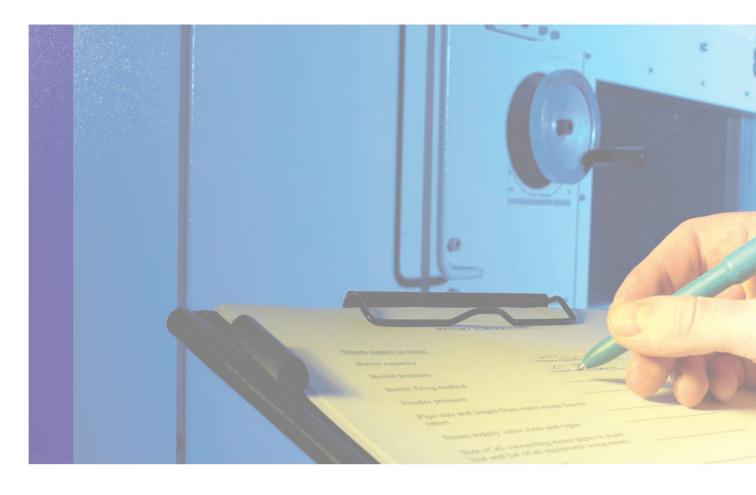
Specifications case study - Baxters

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The Scottish family company Baxters approached us to support their in-house technical team with the management of product specifications for three of its sites. The product specifications were for a range of products, including soups, condiments and preserves, which are sold around the world.

From a standing start, we were able to launch a customised specifications process within just two weeks to provide additional support to the Baxters' Technical Team and integrate smoothly into their system. We handled various different aspects of the specifications management including writing pack copy, checking and signing off artwork, and delivering via retailers' specification portals. We also helped Baxters submit new product development submission forms and complete ingredient risk assessment documents.

We acted as the main specifications contacts for Baxters' internal and external clients. We worked closely in partnership with Baxters to manage communications with the retailers' technical managers and third-party contacts to ensure a smooth service. We delivered all of the branded and private label projects for Baxters successfully with turnaround times in line with their critical path and retailer expectations.



HACCP non-conformances

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Even though HACCP plans have been a requirement of food safety legislation since 2006, the same nonconformances crop up time and again. This is surprising given the importance of HACCP in safety assurance and that HACCP systems are the basis for a company's due diligence defence. HACCP systems protect businesses, but they can also fail them if they are not correctly implemented. It's therefore critical to make sure that your HACCP plan is effective.

Here are five typical non-conformances that we have identified in recent months when carrying out HACCP audits:

Validation

The HACCP team often inherits a previously validated HACCP plan. This can make it difficult to find the validation information. Without validation a company will not know when challenged if its food manufacturing system produces safe food or is vulnerable to a hazard that is not properly managed - and so can't be confident that food reaching the consumer is safe. Often a business will only discover that validation evidence isn't available when a problem occurs - when it's too late.

Hazard analysis

Companies often group hazards together under the same banner, for example grouping physical hazards such as plastic, metal and glass. Just because hazards can be grouped together does not mean that they originate from the same source, or have the same control measures, or have the same implications for a business. Each hazard should be considered separately - allowing for these differences.

Critical control point determination

Often a company identifies the wrong decision tree within its HACCP plan, which can mean that it identifies the wrong Critical Control Points (CCP). The team may also identify one decision tree in the HACCP plan but actually use another tree to get the answers they want. The auditor should and must use the correct decision tree named in the plan to ensure that the company has understood the decision tree mechanism and identified the correct Critical Control Points.





Corrective action

Often businesses become more concerned with dealing with the symptoms of a problem than finding and addressing the cause. Sometimes staff may deal with the symptoms by finding a temporary fix, hoping the problem goes away! This is a disaster waiting to happen. Root cause analysis is one tool that can be used to identify the correct cause so that the problem can be resolved.

Scope

The scope of your HACCP plan should summarise your company's intent with regard to food safety in a concise statement at the front of the HACCP plan. Often the scope will be lacking key statements, so the auditor is unable to understand the company's intent. A good scope will lay out for the business and the auditor what the HACCP plan aims to do.

Our HACCP specialists can audit your HACCP system and highlight any corrective action or improvements needed. To find out about the Campden BRI HACCP Auditing Standard please get in touch.

HACCP audit scheme

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Food businesses need to demonstrate competence through recognised audits. The Campden BRI HACCP audit scheme (CHAS) is a means of strengthening due diligence regimes and satisfying customer requirements for an assurance of the appropriateness of their HACCP plans.

Independent HACCP expertise

CHAS helps businesses meet that brief by:

- Offering a practical independent third party assessment and certification
- Conducting regular appraisals of the HACCP plan
- Satisfying customers' requirements for verification
- Assisting in a due diligence defence
- Providing specialist knowledge

We enjoy wide recognition within the food and drink industry for our expertise in HACCP and are therefore well placed to provide you with clear, accurate advice to assist with the implementation and maintenance of your HACCP plans.



Training and events

A full list of scheduled courses is available on our website www.campdenbri.co.uk/training.php or request a booklet from training@campdenbri.co.uk +44(0)1386 842104

Plugging the skills gap

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Potential skills shortages across the industry are a big concern for many of our members. Examples of how we are helping to plug the skills gap include courses tailored for industry newcomers and initiatives to encourage and engage students - such as Ecotrophelia and the IFT video thesis challenge (see article on page 3).

Ecotrophelia

www.ecotrophelia.uk.org

The competition challenges teams of students to develop innovative, eco-friendly food and drink products. From idea generation through to the final packaged product, teams get a hands-on experience of what it takes to bring an eco-friendly food or drink to market. A team from the University of Reading won the gold prize and were presented with a cheque for £2,000 by Patrick Carter of Marks and Spencers at Campden BRI Day 2017. Their product was Yasai Caulirice Sushi, comprising of carrot, roasted cauliflower leaf, pickled beetroot, cucumbers and spinach, in cauliflower rice rolls. The team will compete in the Ecotrophelia Europe final, which will be held at Food Matters Live in London in November.

The other products that made the final were:

- Colipop: a cauliflower based savoury snack that uses advanced techniques in tunnel drying systems to create crunchy cauliflower bites without the need of frying -University of West London
- Lagom Veg: dried spiralised vegetables infused with chilli and lemongrass that makes infused 'spaghetti' when hot water is added - Nottingham Trent University
- Chocolate Strawberry Torte Donut: a baked cacao donut that has been dipped in dark chocolate, sprinkled with freeze dried strawberry pieces and topped with a dairy free white chocolate drizzle - University of Reading
- Windfall Fruit Jelly: natural jelly desserts made without gelatine and suitable for vegans. Made from fruit juice, no added sugar or preservatives from fruit which would normally be wasted - London Metropolitan University

The teams pitched their ideas to senior food experts from across industry including Marks and Spencer, Coca-Cola, Unilever, PepsiCo, Mondelez, Sainsbury's, Tesco, Warburtons, Food Manufacture, Institute of Food Science and Technology, and Campden BRI.

L-plate courses

www.campdenbri.co.uk/training/starter-courses

Those new to the food industry or changing roles to a less familiar discipline will need training. We are working with industry on a number of courses designed to help bridge the gap - from general courses about food technology, microbiology, packaging and HACCP to more specific topics such as canning, baking and brewing.

Member zone

www.campdenbri.co.uk/memberzone.php

to access privileged member information and services



Keep up-to-date with our research

www.campdenbri.co.uk/research/projects.php

Keep up to date with the latest results by opting-in to our research newsfeeds - www.campdenbri.co.uk/optin.php or checking our website

Each of our projects has a dedicated web page with links to reports, articles and presentations including videos, blogs and white papers, relating to the project, as well as background information on the aims of the project and the project team.

Our research summary sheets provide a brief and current overview of each project, and can be found on the individual project web page or via our project summaries page (www.campdenbri.co.uk/research/summary.php).

R&D reports provide detailed information on our research projects. You can find links to these on the individual project web page and on our R&D reports page (www.campdenbri.co.uk/research/reports.php).

Our research database contains all the R&D reports in a searchable archive (www.campdenbri.co.uk/knowledge/research.php).

Campden BRI Day

www.campdenbri.co.uk/campdenbri-day.php

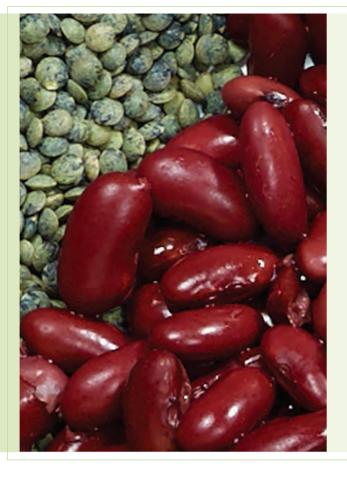
39th Campden Lecture

This year's Campden BRI day lecture - "A coming of age for the Food Standards Agency" was delivered by Heather Hancock, Chair of the Food Standards Agency.

In it she discussed the changes the FSA has undergone since its birth 18 years ago, its focus on science, sustainability and trust, and the agency's ambition to be the go to organisation for the truth on food. An audio podcast of this, the 39th Campden Lecture, can now be heard or downloaded from the web page.

Campden BRI Day briefings

We held a series of briefings on Campden BRI Day to help keep industry up-to-date on the latest developments and challenges in the food industry. Our experts explained how imaging can help assure product quality, the challenge of product labelling for multiple international markets and how metagenomics is revolutionising microbial analysis. The briefings were very well attended, with standing room only. If you missed any of the briefings, the presentations are available on our website.



Legumes - an alternative to cereals?

www.campdenbri.co.uk/news/white-papers.php

Legumes and pseudocereals are widely consumed and play an outstanding nutritional role in the human diet. There is increasing interest in their applications in novel foods. They are gluten free and high in protein making them suitable for use as cereal substitutes in many vegetarian and gluten-free products. They are also rich in vitamins and minerals and, when blended with wheat, legumes and pseudocereals can be used to enhance the nutritional content of products and provide amino acids that are lacking in cereals. They also have applications for formulated products, starch extracts, flour, thickening agents, protein concentrates, weaning food, and whole seeds.

To find out more about the functional characteristics of the starch in different pseudocereals and pulses read the full white paper.

Welcome to new members

We are delighted to welcome the following new members:

Abbott - manufacturer of oral nutritional supplements and tube feeds for people at a risk of malnutrition

All About Food Limited - sales and marketing company developing food service brands for retail

Calington Ltd - supplier of a range of paper and board products

Clearspring Ltd - organic and authentic foods

Cote Restaurants Ltd - group of brasserie type restaurants

Fortnum & Mason plc- retailer

Jeffrey's Tonic Ltd - manufacturer of a range of tonic syrups

KCC Ltd - international packaging company

Marine Harvest - processing and packing of fresh, cold smoked and hot smoked salmon

NKD Pizza - pizza restaurants and delivery

Shire Foods - manufacture of frozen, unbaked pastry products

Stephenson Group - speciality chemical manufacturer

The Children's Healthy Food Company - supplier of healthy children's meals to schools and the $\ensuremath{\mathsf{NHS}}$

Westcountry Spice Limited - organic food production and sachet packaging

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Please notify the Membership Department of any changes to your company's name or address to allow us to keep our records up to date.

Updated publications catalogue

publications@campdenbri.co.uk

Our publications catalogue has been updated. The catalogue gives brief details of the many publications we publish on topics such as HACCP, traceability in the food and feed chain and the establishment and use of microbiological criteria. For more information visit www.campdenbri.co.uk/publications/pubs.php. You can also find details of the textbooks we distribute on behalf of other publishers on our website.

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For other sites, see www.campdenbri.co.uk/campdenbri/contact.php

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