

New research project

Effective control of viruses in food manufacturing

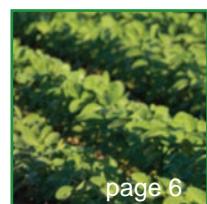
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Effective control measures and the assessment and validation of antimicrobial treatments for viruses are essential in the food industry. The selection of the correct surrogates to validate food control measures is vital as the problem viruses themselves cannot be used.

This new member funded research will provide members with data on the effects of product composition, processing and storage on the survival and inactivation of various virus surrogates. Data will be built up on a range of surrogates and used to assess the best surrogates to use for assessing the efficiency of different control technologies. The aim is to provide a service where the effects of manufacturing processes can be assessed from start to finish using surrogates.

Previous member funded research has developed virus capability at Campden BRI and investigated the effect of UV and heat treatments and pH on viruses and the persistence of viruses in food, under various pH conditions and low water activity with different solutes. ■

Get in touch to find out more about the project





Labelling

Preparing for Brexit

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Since the people of the United Kingdom voted to leave the European Union in June 2016 and Article 50 of the Lisbon Treaty was triggered in March 2017, the countdown to the UK's exit from the EU has been on.

The withdrawal raises questions regarding, for example, the legal implications of the labelling of UK produced food sold on the EU market and the changes that may be necessary to

ensure those food products remain compliant. Just some of the other challenges relate to food production rules, food hygiene rules for products of animal origin imported into the EU as well as origin implications.

The UK government has issued guidance and held consultations on changes to labelling.

Campden BRI's Food Law Advisers are following the developments closely as they evolve and are ready to advise as details become clearer. ■

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

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New members

We are delighted to welcome the following new members:

Absolute Taste - event design company
Leon Restaurants - food service business
LycoRed Ltd - producers of additives and supplements
Reiser UK Ltd - provider of food processing and packaging equipment
The Dairy Farm Group - retailer
Upfield Research and Development BV - plant based nutrition

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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.

News

Industry survey on rapeseed oil

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We are conducting an industry survey to build an understanding of the desirable breeding traits for rapeseed oil. The survey is part of a project that aims to influence a breeding program for rapeseed oil varieties. There are 10 quick questions and it will take a couple of minutes to complete. It can be completed anonymously. ■



Complete the survey here -
surveymonkey.co.uk/r/8V3MY75 or do it on your phone by scanning this QR code

Whiteboard presentation - how to set a shelf life

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In this whiteboard presentation, Linda Everis, our principal research officer for microbiology safety and spoilage, discusses how to set a shelf life. In this she covers:

- what shelf life is
- why the correct shelf life is important
- how predictive modelling can help
- what inoculated challenge test studies are and what they tell you ■

To find out more about setting shelf life get in touch.

View the whiteboard presentation here at
campdenbri.co.uk/talking-heads/set-shelf-life

Free bodily fluids clean up guides

We have developed a quick guide and three clean up packs to help food and drink businesses deal with human bodily fluids incidents. The quick guide covers what to do and when, and the clean-up packs cover: protocol, first aider safety, toilet facilities protocol, health questionnaire and incident report. The clean-up packs are tailored to food production, retailer and restaurant businesses. ■

The quick guide and clean-up packs are available on our website:
www.campdenbri.co.uk/viruses.php

REHIS HACCP tailored training courses in Scotland

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We have worked for many years with the Royal Environmental Health Institute of Scotland (REHIS) and have been a REHIS Approved Training Centre since 2009. We offer the following tailored courses in Scotland:

Elementary certificate in HACCP for food manufacturing

Suitable for all food handlers to raise awareness of food safety management systems based on HACCP principles

Intermediate certificate in HACCP for food manufacturing

Intended for those employed in food manufacturing or food handling who need to have a good understanding of HACCP at a supervisory level

Advanced HACCP

To provide knowledge and skills to design and implement food safety management systems based upon the Codex HACCP principles. ■

Get in touch to find out more





Feature

New validated method for challenge testing canned drinks

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Our brewing services microbiology team at our Nutfield site has recently validated a new method for inoculating carbonated canned beverages and soft drinks. It has the benefit of allowing shelf life trials to be conducted in original packaging, under minimally altered environmental conditions.

Food safety is a major concern for everyone involved in the food and drink industry from producers to policy makers and retailers to consumers, and it is imperative that all precautions are taken to safeguard consumers' health. Just because an organism is in a product, it does not mean that it poses a problem or will compromise product shelf-life. Most pathogens and spoilage organisms will need to survive and grow in order to reach levels at which the product is compromised.

Microbiological challenge testing

Microbiological challenge testing is the laboratory simulation of what can happen to a product during distribution and subsequent handling if it were to be contaminated with a microorganism. It involves deliberate inoculation of the product with these organisms, typically a specific pathogen or group of spoilage organisms, after which the product is stored and tested during shelf life.

When conducting microbiological challenge testing, thermal processing or stability studies, imitating the in-trade conditions a product will experience can be difficult. Beverages are mainly supplied in packaging that contains little oxygen, so it is important to maintain low oxygen concentration when conducting laboratory stability trials. Whilst this is achievable for most packaging types, trials with alcoholic beverages and soft drinks,

which are packed in aluminium or tin-plated steel pop-tab cans, pose a challenge as they are not easily resealable following addition of the test organisms.

Until now the only way to conduct laboratory trials of canned (carbonated) beverages and soft drinks was by dispensing the test liquid into alternative containers.

This leads to a significant reduction in carbonation and introduces oxygen, which can affect the results.

Reduced carbonation and increased oxygen levels will favour microorganisms which normally would not be able to grow under anaerobic conditions. Additionally, strict (obligate) anaerobic bacteria are not able to grow in the presence of oxygen and, in some cases, these microorganisms would die.

Our new method deals with these issues. A small hole is drilled into the can under aseptic conditions and, following the microbial inoculation, sterilised rivets are used to reseal the 'inoculation hole'. The rivet is able to withstand increased pressures that may occur during the growth of fermentative gas-producing organisms.



Our challenge testing methods cover all potential microorganisms that companies may wish to consider. Manufacturers also have the option to use our microbial growth prediction service, based on mathematical growth models. These predictive models are the quickest method, allowing cost effective testing of different 'what if' scenarios when reformulating or developing new products, to predict the levels of microbial growth. ■

We offer a range services that look at the flavour and quality of products and their ingredients. Get in touch to find out more.



New regulation on spirit drinks in the EU

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The European Council and the European Parliament have reached an agreement on new rules for the protections and labelling of spirit drinks and for the registration and protection of spirit drinks registered as geographical indications (GIs).

The new regulation enhances and clarifies rules for use of protected spirit drink names when used in allusions or compound terms, whether in foods generally or other alcoholic beverages. Requirements for declaring age of spirits in a dynamic aging system such as criaderas y solera are also provided for.

The European Parliament ENVI Committee is due to vote on the draft regulation in January 2019, with a vote in plenary of the European Parliament expected in March 2019, after which the regulation would be expected to become law. This new regulation will replace current Regulation (EC) No 110/2008. ■

Get in touch to find out more about EU spirits regulation.

Member zone

to access privileged member information and services

Meet a MIG - Agri-Food

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In a new bi-monthly feature, we pick a Member Interest Group and take a look at what it's working on: What it's members are interested in? What type of research projects it is steering? What are the current hot topics? What's in store for future meetings?

First up is the Agri-Food MIG

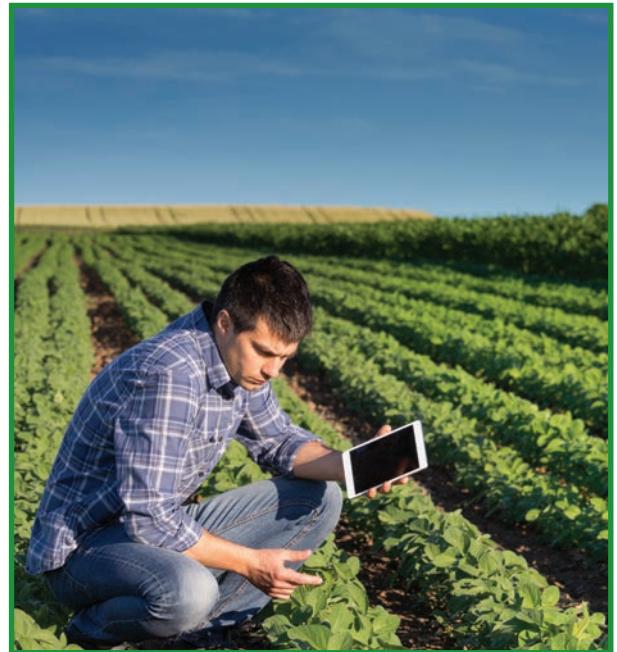
The Agri-Food MIG looks at primary production, primary processing, storage and distribution of food and feed crops. Members work to promote the supply of safe, legal and quality products that meet the needs of the food and feed chain, in a way that is both sustainable and commercially viable.

Research projects the group is currently steering include risk reduction strategies for chemical contaminants, improving the nutritional status of crops, and the potential of plant proteins for ingredient and product development.

One discussion at the last agri-food meeting was literally a hot topic - the weather, and its effects on crops. In common with most MIGs, plastic and recycling came up as well as the other regular issue of Brexit - in this case, potential labour shortages being the main concern.

Agri-food's next meeting on 14 February promises to be another interesting and stimulating event with a guest speaker on sustainable soil management and an update on viruses, in particular norovirus, and fresh produce. ■

Want to join in? Just email migs@campdenbri.co.uk and we'll add you to the group. ■



Save the date - Campden BRI Day 2019

campdenbri.co.uk/campdenbri-day.php

Campden BRI Day 2019 will be on Wednesday 12 June; attendance is free to members. The day will allow you to explore how science and technology is being used to tackle industry needs. You will have the opportunity to network with industry peers, view scientific and technical exhibits, attend briefings, take the pilot plant tour and hear the annual Campden Lecture. We will also be marking our centenary year. Registration will open soon. ■

Access experts

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Whether you have a processing problem or are trying to understand a specific technical issue, we have over 200 scientists and technologists who are experts in their fields. They are here to help you. And if you aren't sure about the best person to talk to, we have a support team ready to help you. ■

Members have exclusive access to a wide range of member only information and discounts

Design for cleanliness

Equipment design for hygiene

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As well as performing its intended purpose, food processing equipment must be designed so that it can be easily and effectively cleaned. Good hygienic design of premises and equipment makes maintaining hygiene easier, cheaper and more effective. Not only will it reduce your running costs but will also give you better safety assurance - protecting your products and your brand.

In sections 4.4 (building fabric, raw material handling, preparation, processing, packaging and storage areas) and 4.6 (equipment) of the BRC Global Standard for Food Safety Issue 8 there are requirements for food factory buildings and equipment. These requirements are general statements, and it is the food manufacturer's responsibility to decide the design characteristics of factory buildings and equipment. Our approach is to apply European Hygienic Engineering Design Group (EHEDG) and Campden BRI guidelines to ensure compliance with legislation and best practice in the food industry.

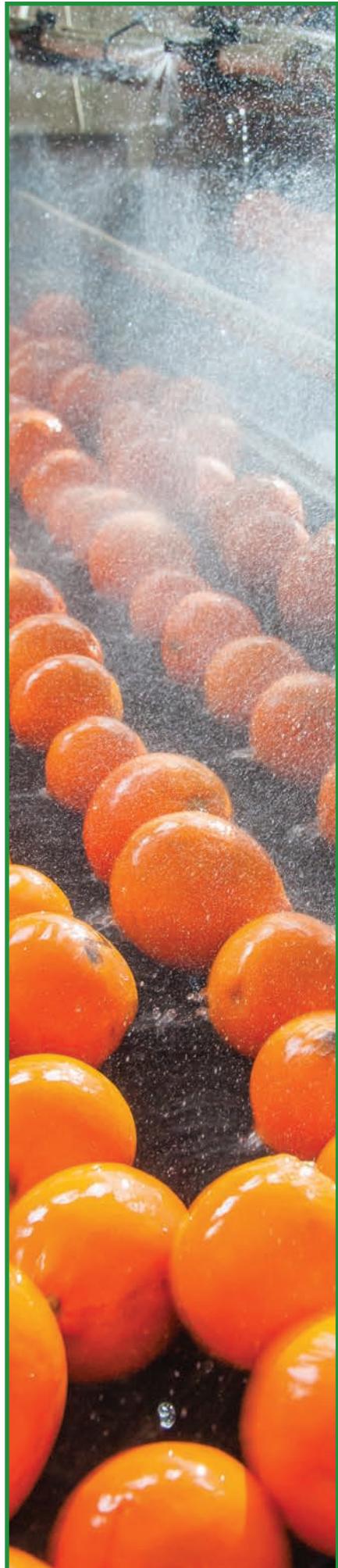
The Machinery Directive (2006/42/EC) also stipulates requirements for equipment cleaning. Food machinery must be designed and constructed so that:

- it can be cleaned before each use and can be easily dismantled for cleaning
- materials coming into contact with food are suitable and surfaces in contact with food are smooth, with minimal edges or recesses
- cleaning or disinfecting chemicals can be completely discharged from the machine
- insects and organic matter cannot accumulate in areas that cannot be cleaned
- machine lubricants cannot come into contact with foods

Additionally, instructions must be provided to indicate recommended cleaning products and methods for cleaning, disinfection and rinsing.

Campden BRI is acknowledged as the leading independent centre of expertise on issues relating to hygienic design of equipment and factories.

As members of the EHEDG we are a significant contributor to the development of guidelines to help industry comply with European Commission legislation for the safe and hygienic processing of foods. We can offer initial advice and assessment of factory and equipment design through to the inspection and assessment of installed process lines. ■



Training and events

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

March events

Training and development group workshop 5 March 2019

www.campdenbri.co.uk/training-development-group.php

This workshop will focus on best practise in training, learning and development - Campden BRI members only.

Sampling for food safety seminar

19 March 2019

www.campdenbri.co.uk/sampling-food-safety.php

Looks at practical approaches and issues associated with sampling in the food industry. Covers sampling for microorganisms and chemical and food safety, as well as how sampling applies to food safety systems.

Sustainable packaging: smart choices and shelf life testing 19 March 2019

www.campdenbri.co.uk/sustainable-packaging.php

Will help you make informed choices on reduced packaging use and increased recyclability. Also focuses on shelf life challenges associated with sustainable packaging.

Gluten free and free from bakery conference 26-27 March 2019

www.campdenbri.co.uk/gluten-free-from.php

'Free from' is one of the fastest growing bakery sectors. This conference will bring together industry experts and academics to discuss key research and share solutions with the sector.



Training

March 2019 courses

- 4-8 HACCP - advanced (level 4)
- 20 Packaging technology for non-packaging technologists
- 25-29 Food safety - advanced (level 4)
- 26-28 Thermal processing validation
- 27-28 HACCP - intermediate (level 3)
- 28 Cooking (heating) instruction development and validation (including BRC 8 compliance)

Your partner for skills and knowledge development along the whole food and drink supply chain