

# Newsletter

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## An ingredient functionality approach to shelf life extension of foods

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New member-funded research is focusing on the functionality and interaction of starches with other flour components and ingredients in a range of products, in order to get a better understanding of factors leading to staling, and develop strategies to counter these changes.

## Maintaining quality

Baked products and other starch-based foods undergo undesirable changes after production that result in changes in their physical or textural properties. This can lead to increased firmness of products such as bread and cakes, as well as syneresis in chilled dairy products and sauces. The result is loss in eating quality and the products being considered unfit for purpose and discarded. This is a wasteful process, not just in terms of the raw materials used, but also in the energy spent on manufacturing the product in the first place. Extension of shelf-life has a considerable economic advantage. Changes in starch are considered to be responsible for firming and other changes in bread crumb during storage. This can vary depending on the starch types used. Storage temperature is also important, particularly for chill storage, where recrystallisation of starches can lead to a rapid increase in firmness and also in the amount of water separation in chilled ready meals containing starch-based sauces.



## Training matters, academies help

The emerging 'skills shortage' facing the sector was one of the major areas of need identified during our recent major consultation on the needs of industry.

Our members reported that with many experienced staff either approaching retirement, leaving the sector, or seeing their roles expanding to include additional areas of responsibility, there is a real concern that much of the applied industrial skills base is being eroded.

We are actively supporting industry to both encourage and attract newly qualified scientists, technologists and managers into the industry and to build the skills and expertise of its workforce via our wide range of specialist food and drink training courses, seminars and conferences.

Often this is bespoke - to address company-specific requirements. In addition to our comprehensive range of scheduled courses, we also deliver tailored courses specific to address specific needs at a time and place of your choosing. In fact, for many companies, we have now established a more structured approach through bespoke academies - providing programmes of training to their employees or more widely to their suppliers. The approach is entirely flexible, but through it we are increasingly supporting companies and their employees' continuing development as they move through roles and along their career path.

To find out more about our training services visit [www.campdenbri.co.uk/training.php](http://www.campdenbri.co.uk/training.php) or email [training@campdenbri.co.uk](mailto:training@campdenbri.co.uk)

Steven Walker, Director General



Dr Mike Stringer

It is with great sadness that we report that Dr Mike Stringer recently passed away after a short illness. Mike joined the then Campden Food Preservation Research Association in September 1985 as Head of the Microbiology Department and retired in June 2010 as Director of the Food Technology Division.

He was a key figure in the development of the business during this period and was widely known and respected by our industry and government clients. Many of our staff benefitted greatly from his knowledge and leadership.

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## New laboratory honours local family

A new state-of-the-art food analysis laboratory at our Chipping Campden site has been named the Halls' Laboratory in honour of a Gloucestershire family who have been involved with the company since its establishment.



The lab contains cutting edge instruments worth over £2.5 million, which will be used for the analysis of contaminants, food authenticity testing and flavour analysis.

The new laboratory was officially opened by Professor Martin Hall, Director of Science, who celebrated 40 years of service with the company on the 1 July.

The Halls have had a member of their family working continuously at the company since 1919 and together the family has given 148 years' service.

## Roy Betts reappointed to ACMSF

Dr Roy Betts, Head of Microbiology at Campden BRI, has been reappointed to the prestigious Advisory Committee on the Microbiological Safety of Food. Roy has already served for 4 years, and this appointment is for a further 4 years. This emphasises our reputation in the area of food microbiology.



## Global food safety training survey

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Our third annual global survey of food safety training has revealed some interesting developments:

- There has been an improvement in both the quality and quantity of food safety training since last year
- Content is king - relevant, current training is more important than both the cost and delivery method
- Lack of resources and time are cited as the biggest challenges to effective training
- Developing a strong, positive food safety culture is now recognised as a key success factor

The survey was sent to over 25,000 food manufacturing and processing sites worldwide, so the results provide a complete useful snapshot of the current activities and practices in food safety training. The companies surveyed represent a cross section of the industry and ranged in size from under 50 employees to over 1,000 and cover many sectors including cereal and baking, dairy, meats, fish and poultry, and packaging.

### Developing solutions to industry's food safety challenges

Bertrand Emond, Head of Membership and Training said: *"The survey provides us with invaluable information, allowing us to respond to the needs of industry and develop solutions to the challenges they face in this area. We have recently partnered with TSI to develop a Food Safety Culture Excellence program, which allows a company to get a comprehensive picture of their food safety culture and measure the impact of training."*

The results of the survey are an excellent way for food manufacturers and processors to benchmark their performance against their competitors and identify any opportunities for development. The survey results can be found at [www.campdenbri.co.uk/training/GFST.pdf](http://www.campdenbri.co.uk/training/GFST.pdf).



## Knowledge for the alcoholic beverages industry

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A wide-ranging portfolio of technical and legislation-based databases and update publications is available to help clients to solve brewing problems, help with product development and keep up to date on technical developments in the industry.

Members have access to our [Regulatory Updates](#) covering alcoholic beverages, a database of monthly updates focusing on beer and malt. We also have a bimonthly update specifically for the wine sector. Issues relating to novel beverages are also covered. In addition, specific Food Safety Databases give details of legal levels and briefings on important topics.

For knowledge on the latest patents and research being published, our Brewing Literature database is accessible via our [Beer Knowledge Subscription Service](#). This is the world's largest database on brewing, malting and cider and is complemented by a number of monthly alerts digesting the information into areas such as brewing microbiology, sensory science, malting, process innovation and NDP.

Brewing companies of all sizes have a need for understanding labelling requirements, either nationally or internationally. Our beer labelling database covers 43 countries and is a widely used service. For those working with other alcoholic beverages a number of the labelling requirements are generic for alcohol so this database can also be used to help. Our label check service complements this database.

The sources available to you are wide-ranging, so contact us to find which combination best fits your needs.

## Food labelling: COOL rules

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Country of Origin Labelling (COOL) has recently been in the news due to the publication of 2 long awaited reports by the European Commission. COOL is already mandatory where failure to indicate the origin of food might mislead the consumer, for swine, sheep, goat and poultry meat (fresh, chilled or frozen) and for specific products such as honey, beef and olive oil.

If you need help interpreting the mandatory COOL legislation, or would like advice on how to make legally compliant voluntary COOL declarations please contact our Regulatory Affairs team.

The Commission reports conclude that an indication of the country of origin or place of provenance should remain voluntary for unprocessed foods, single ingredient products, ingredients that represent more than 50% of a food, meat (other than those types for which it is mandatory), milk, and milk used as an ingredient in dairy products. There had been concerns about the effect of mandatory COOL on selling prices, the internal market and EU trade. These commission recommendations mean that where COOL is provided voluntarily, consumers can choose products with specific origins if they want to.



## Keeping up to date with vulnerability

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If you are working in a technical role in the food industry then chances are that the new vulnerability clause in the latest BRC Global Food Standard has not escaped your attention. It requires that a documented vulnerability assessment be carried on all raw materials to assess the potential risk of adulteration or substitution. This, of course, addresses one of Professor Elliott's eight pillars (intelligence gathering) and moves the standard into the domain of Donald Rumsfeld's famous 'unknown unknowns'! So, how do you possibly find out what these unknown unknowns are? Well, there is the traditional route of monitoring what is going through published horizon scanning documents such as our own Food Law Alert which comes free as part of your membership with us.

Or you could take advantage of a very different approach we have recently developed by using a bespoke horizon scanning portal. Based on AMI Smart Horizons it is tailored to your individual company needs. It continuously scans hundreds of key global information sources and automatically updates a dashboard on your computer on a daily basis, making it easy for you to know what is going on with minimum effort! Great for keeping up to date, and for showing compliance with that new BRC clause. Contact us for more information and a demo.



## Our experts at events

Our staff are regularly invited to give presentations at external conferences and events. Coming up in the next few weeks we have speakers at:

|                          |                                  |
|--------------------------|----------------------------------|
| <b>Pangborn 2015</b>     | 23-28 August, Gothenburg, Sweden |
| <b>Hygiene for food</b>  | 29 September, Antwerp, Belgium   |
| <b>Lab Innovations</b>   | 4-5 November, NEC Birmingham     |
| <b>Food Matters Live</b> | 17-19 November, Excel, London    |
| <b>FIE Paris</b>         | 1-3 December, Paris              |



## Improved discrimination in sensory tests

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The triangle test has been long established in the food industry to pick the 'odd one out' of three samples, as a means of measuring the impact of an ingredient or process change on the overall sensory character of a product.

Now a relatively new discrimination method, the Tetrad Test, is available at Campden BRI. The test objectives (testing for difference or similarity) are similar to the Triangle Test, but the test protocol is different: four samples are presented instead of three and assessors asked to form 2 groups of 2 samples based on similarity. This protocol provides the potential to increase the power levels of the test and potentially reduce assessor numbers.

We have extensive practical experience with the Tetrad test, with a range of simple and multi-component products. We can help you make a smooth transition from Triangle to Tetrad for your discrimination testing requirements.





## Training events

A full list of 2015 scheduled courses is available on our website [www.campdenbri.co.uk/training.php](http://www.campdenbri.co.uk/training.php) or by requesting a booklet from [training@campdenbri.co.uk](mailto:training@campdenbri.co.uk) +44(0)1386 842104

### September 2015

- 2-3 Threat Assessment Critical Control Point (TACCP) - intermediate level
- 7-10 Sensory evaluation workshop
- 8-9 HACCP - intermediate (level 3)
- 14-18 Food safety - advanced (CIEH level 4)
- 14-18 HACCP - advanced (level 4)
- 15-18 Principles of baking
- 16-17 HACCP for feed - intermediate (level 3)
- 16 Threat Assessment Critical Control Point (TACCP) - foundation level
- 17 Root cause analysis
- 21-25 FSSC 22000 Auditor/Lead Auditor Course
- 22-23 Internal auditing - principles and practices
- 25 Hygienic food processing: on paper and in practice
- 29 HACCP - foundation (level 2)
- 30-2 Oct Practical microbiology - foundation

Effective training  
designed for food  
and drink businesses

[www.campdenbri.co.uk/training.php](http://www.campdenbri.co.uk/training.php)

## Novel crops seminar

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[www.campdenbri.co.uk/novel-crop-seminar.php](http://www.campdenbri.co.uk/novel-crop-seminar.php)

Food security is based both upon sustainable production practices and crop diversity. Novel crops are now being considered an important part of food production. Crops such as sorghum, millet and teff are rapidly becoming part of mainstream crop production, and are now forming part of modern cultivation practices, for their suitability to current agricultural systems, health properties and the potential for new products. This seminar on 1 October will consider major issues surrounding novel crops and pseudocereals.

## Hot topics in microbiology conference

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[www.campdenbri.co.uk/food-micro-conference.php](http://www.campdenbri.co.uk/food-micro-conference.php)

Food poisoning and spoilage are never far from the spotlight. This conference, on 8-9 October, will provide information and opportunities for discussion on a range of microbiological issues, with news and updates on food production related topics of key interest to the food industry. It will focus on *Campylobacter*, STEC, *Clostridium*, *Staphylococcus aureus*, predictive microbiology and viruses.

## Environmental technology seminar

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[www.campdenbri.co.uk/environmental-technology-seminar.php](http://www.campdenbri.co.uk/environmental-technology-seminar.php)

Improving the efficiency of manufacturing operations can deliver numerous benefits, including minimising running costs, meeting emission reduction targets, and gaining stakeholder approval. Held at Nutfield on 8 October this seminar will showcase a range of new and emerging technologies of real value to the food and drink industry, covering energy saving, improving the efficiency of water use, turning waste into potentially valuable resources and alternative chemical-free disinfection systems.

## Nutrition specialist appointed



We have appointed Dr Fraser Courts as a nutrition specialist. Fraser will be responsible for developing and delivering research and contract work for a wide range of food and drink clients.

Nutrition, health and well-being was identified as a major driver for industry during our recent consultation on industry needs. The role has been created in response to the growing industry need for advice and consultancy in this area. Philip Richardson, Head of Food Manufacturing Technologies Department said:

*"We are really excited to have Fraser join our product innovation team. His background combining research and developing foods with EFSA health claims will be invaluable as we support companies with new product development and reformulation."*

Our Product Innovation Team supports industry with innovative ideas for new product development, such as reformulation for health; current projects include researching new ways to reduce levels of sugar and the development of satiating food products using our extensive pilot plant facilities.



## member zone

## Visit Member Zone

[www.campdenbri.co.uk/memberzone.php](http://www.campdenbri.co.uk/memberzone.php)



to access privileged member information and services



## Determining the microbiological stability of low- and zero- alcohol novel beverages (R&D report 394)

Beers and ciders are inherently microbiologically stable and, in general, provide an inhospitable environment to most spoilage organisms. However, the alcoholic drinks sector has recently seen considerable growth in a range of novel beverages, many of which are lower in alcohol than most alcoholic drinks or contain higher levels of sugars. As a result, they may require different pasteurisation regimes. This project showed that an established laboratory based protocol has value in assessing thermal treatment regimes required for processing novel beverages, and can be applied to these novel beverages on an individual basis to optimise pasteurisation units.

To access the full report, go to [www.campdenbri.co.uk/research/report2015.php](http://www.campdenbri.co.uk/research/report2015.php)

## Welcome to new members

Campden BRI is delighted to welcome the following new members who joined recently:

Anton Paar Ltd - instrument manufacturer

Beak & Johnson - processor of meat products, soups, sauces and prepared meals

Brunel University London

Cambridge Research and Development Ltd - technical engineering business

Croproteine Ltd - manufacturer of high-protein cereal bars

De Sangosse Ltd - manufacturers of adjuvants, trace elements, fertilisers, slug pellets and rodenticides

EHL - Ingredients - trader in herbs, spices, dry fruit and vegetables

Glanbia Agribusiness/Agri Food - oat miller and producer of animal feed

Kosei Pharma UK Ltd - importer of Japanese food products

Machandel BV - producer of organic preserves, nut butters and mayonnaise

Martec of Whitwell Ltd - specialist in product recovery systems

Martin Mathew & Co Ltd - importer and distributor of canned and aseptic products, pasta, oils and vinegars

National Skills Academy for Food & Drink

Naturis (Part of ACI Group) - specialist in food solutions and innovative natural food ingredients

Rasha Al-Sanea - cafe business

SGS - an inspection, verification, testing and certification company

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

## Social media



**Facebook** - find out more about our history and our lighter side [www.facebook.com/campdenbripage](http://www.facebook.com/campdenbripage)

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

**YouTube** - a range of videos providing an insight into the science and technology underpinning food and drink production [www.youtube.com/campdenbri](http://www.youtube.com/campdenbri)

**LinkedIn** - company updates providing our latest news [www.linkedin.com/company/campden-bri](http://www.linkedin.com/company/campden-bri)

**iTunes** - subscribe to our podcasts

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