

Newsletter

February 2012



Research brings knowledge and opportunity

Four new research reports highlight the value and variety of our member subscription-funded research programme.

Gluten-free bread (RD 321) reports on a project that is looking at ways of producing an acceptable product for those with coeliac disease or a gluten allergy. Results show that the use of lower oven temperatures and additional steam during a two-phase baking process improves crumb structure through better control of batter viscosity.

Advances in eTongue technology (RD 319) and *Advances in biosensor technology (RD 320)* both review the commercial marketplace for these important areas of rapid at- and on-line analysis of product quality and safety. Although currently used primarily for research, rather than for routine quality control, there is significant potential for these analytical techniques in the industry, if robustness and reliability issues can be resolved.

Validation of the thermal inactivation of four Bacillus species in soups (RD 318) throws new light on the problem of thinning of soups, caused by residual amylase activity in the product, which may derive from heat-resistant bacilli. Readjusting the processing parameters by increasing the temperature or reducing the pH of the product helps control the problem.

Members can receive a free electronic copy of any of these, by sending an e-mail to auto@campden.co.uk with the subject line: send RDxxx (where xxx is the number of the report).



Contaminant
detection and analysis
www.campden.co.uk





Services...

Product innovation trends

The development of new products and the reformulation of existing ones are vital to the food and drink industry. If you are looking for a fresh approach, we can help. Recently we have supported clients in the development of ideas such as:

- convenient baby food for busy families
- dairy free desserts for those with lactose intolerance
- fortified drinks to help boost vitamins in the diet
- a variety of clean label food and drink products

Emma Hanby, of our Product Innovation team, comments:

"Product innovation will continue to be important in 2012. Key drivers and trends will include:

- convenience
- 'free from' claims
- 'clean label'/'natural' ingredients
- reducing salt and fat to meet government targets
- functional foods to help with a healthy lifestyle

We have 3500m² of pilot scale processing facilities and a dedicated NPD laboratory. Coupled with these, our storage rooms allow the evaluation of the shelf-life of new products. Our multidisciplinary team of chemists, microbiologists and sensory scientists is a key ingredient in our support for the development of a wide array of food and drink products. And our team of processing experts can help with developing and validating thermal and novel methods to ensure that all products meet the requirements of food and drink safety and quality."

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See you there!

We will be present at two major exhibitions next month: **Nutraformulate** is the only event of its kind specifically for the UK's functional foods industry and takes place on 7-8 March (see www.nutraformulate.co.uk). We will be at stand 108, demonstrating our eye-tracking software amongst other things.

On 25-28 March we will be at the UK's largest trade show for the food industry - **Food and Drink Expo** (www.foodanddrinkexpo.co.uk) - at stand F190. Come and meet the faces behind the names!

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New bakery plant

Our bakery processing area is being further enhanced by the installation of new bakery equipment. The Rondo Smartline processing machinery is particularly adept at the automatic processing of very soft, sticky doughs, which result from long bulk fermentations. It will allow us to investigate different formulations and processing regimes, for example through the low-stress sheeting of pastry and bread doughs.

Gary Tucker, Head of our Baking and Cereal Processing Department, comments: *"Smartline allows particularly gentle and tension-free dough sheet production. The gluten structure is not destroyed and the gas bubbles remain in the dough. We will use it to work with clients as part of their continuous drive to introduce new products and processes, and to modify and improve existing ones."*

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Forthcoming events



If you are considering the training that you and your staff might need in the near future, in the next two months, we have:

March 2012

- 5-9 HACCP - advanced
- 6-8 Brewing - an introduction (Nutfield site)
- 6-8 Intermediate microbiology
- 7-8 An introduction to food law
- 20 Managing bakery quality using the C-cell platform: a user-friendly approach
- 20-22 Train the trainer
- 20-23 Principles of baking
- 21-22 HACCP - intermediate (workshop)
- 26-28 ISO 22000 auditor/lead auditor conversion
- 27-29 Food processing hygiene management (module 1)
- 27-29 Thermal process validation
- 29 HACCP - refresher
- 30 Thermal processing - quality optimisation

April 2012

- 17-18 HACCP - intermediate (workshop)
- 18 Beer labelling requirements (Nutfield site)
- 19 Marketing terms - potential pitfalls
- 19 Sensory evaluation - an introduction
- 25-26 HACCP - feed manufacturing - intermediate
- 25-26 Sainsbury's Technical Management Academy Workshop D - Allergen Management 2012
- 26 Practical campylobacter workshop
- 30- Food Safety Management System Auditor/Lead
- 4 May Auditor training course (ISO 22000:2005)

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Campden BRI Day 2012

Campden BRI Day 2012 is on Tuesday 12 June. In addition to extensive networking opportunities, we will be exhibiting highlights of our work based around 4 themes: analysis and testing; operational support; research and innovation; and knowledge management.

To register early interest, contact:

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Benefits of membership

Food production is a complex operation. Membership of Campden BRI gives you the comfort of knowing that, whether you have a technical or scientific problem related to food or drink, or are looking to innovate, there will be someone on hand to offer help and advice. Whether it be a query over legislation, an issue with microbial contamination, or difficulties in optimising your recipe or process, Campden BRI has an expert you can talk to.

Amongst the specific benefits for members are:

- Easy access to specialist facilities and expertise
- Influence over and access to the output from our R&D programme
- Preferential prices for services, courses and publications

So if you aren't a member, give us a call to discuss matters. And if you already are a member, make sure you use the facilities on offer.

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Research 2012 - what's going on?

Our Research Programme 2012 has recently been published. It contains brief summaries of all of the research and development projects that we are currently undertaking. To receive a free electronic copy of the document, send an e-mail to auto@campden.co.uk with the subject line: **send RP2012**

How good is your microbiology laboratory?

Our newly upgraded Proficiency Scheme will tell you.

In the food industry, major decisions are made on the basis of analytical results. But how do you know if results are valid? The answer is to compare them with a sample containing a known number of microorganisms, as Fiona Cawkell, manager of Campden BRI's relaunched Microbiology Proficiency Scheme, explains:

"The Campden Microbiology Proficiency Scheme is designed to allow laboratories to measure their performance in terms of how accurately they can recover and record known levels of microorganisms. It also allows them to compare their results against those of other laboratories. A freeze-dried sample is sent to all laboratories in the scheme with the simple instruction to detect or enumerate the microorganisms it contains. The laboratory can use whatever methods it likes and be as specific or generic as it wishes in what results it reports."

The laboratory then sends the results back to us to collate and statistically analyse. Individual laboratories can see all of the results anonymously, and are told which results are from their own analyses. Some laboratories may only want to report on total count (TVC), for example, whereas others may analyse for specific groups of organisms. Depending on the laboratories' needs, the sample may contain a mixture of pathogens and spoilage organisms, or merely a spoilage cocktail."

Test samples

Two test material samples are available. The first contains mixtures of non-pathogenic organisms, for enumerating TVC, coliforms, Enterobacteriaceae, lactic acid bacteria, yeasts and moulds, as well as pathogens that are usually quantitatively analysed. The second might additionally contain Salmonella, Listeria, Vibrio and Campylobacter, and is designed for companies with suitable laboratory facilities who have experience with handling pathogens.

Non-toxicogenic E. coli O157, and osmophilic yeasts and moulds have recently been added to our samples. Other new features include z scores for all count results and Trend Analysis, and a full statistical analysis is available for all results."

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Turning up the heat

Keep up with the latest industrial, regulatory and academic aspects of producing commercial heat preserved foods at the 7th International Thermal Processing conference, which is being held at our Chipping Campden site on 13-14 June 2012. Presentations will include topical issues in the safety and quality of thermally processed foods, with technical sessions organised around the following themes:

- International food safety and quality issues
- New and improved methods for thermal process modelling and validation
- New and emerging food thermal processing equipment
- The future environmental and sustainability demands on thermally processed foods

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Microorganism facts at your fingertips

How susceptible to heat is *Clostridium perfringens*? What are the environmental sources of *Alicyclobacillus*? And what are the minimum pH and aw for growth of *Listeria monocytogenes*?

These are the types of questions that are answered in our latest guideline, a series of one-page monographs on the pathogens and spoilage organisms of most concern to the food and drink industry. Each monograph contains a brief introduction about the organism, and the minimum conditions for growth and destruction, and then goes on to list its sources, foods particularly at risk, and guidelines or legislative limits for the organism in food. There are also paragraphs on key methods of control, and on the likely spoilage defects or illnesses caused by each organism.

Designed for microbiologists and non-microbiologists alike, Guideline 68 (*A guide to microorganisms and their control*) is a handy summary to help you answer those regular day-to-day questions.

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Welcome... to new members

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

Accolade Wines Ltd - importers of wine

Barry Callebaut (Banbury) - producers of a range of cocoa and chocolate products

European Union Chamber of Commerce in Korea

Kika Foods Ltd - sauce manufacturer

Marfrig Europe (Weston Importers Ltd) - the European Marketing division of the Marfrig Group

QIAGEN Ltd - provider of sample and assay technologies

Ritz Hotel - 5 Star hotel in London

Roach Bros (Curers) Ltd - curers of smoked fish

SCRO-Lion Foods SRL - manufacturer of canned ready meals, rice, pasta

Steritech SA - manufacturer of pasteurizing and sterilizing machines

Taylor Farms - producers of bagged salads

Ulrick & Short Ltd - manufacturer of additive free food ingredients

VARO Ltd - manufacturer of African ready meals

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Please notify the Membership Department of any name or address changes with respect to our mailing list.

