

Newsletter

July 2012



Don't destabilise your products!

New member-funded research is investigating how changes in product formulation - principally reducing sugar levels - can affect the microbiological stability of a product.

There are many pressures on food manufacturers to develop new foods or alter the formulation of existing foods so that they are better positioned to contribute to a healthier lifestyle. This is complemented by the drive for 'clean labels'. Examples include removing artificial preservatives such as sorbate and benzoate, and reducing the levels of sugar and salt.



Many of the ingredients that are under consideration for reduction/removal may have sensory and structural influences on foods; however, they may also have an impact on shelf life, many being fundamental preservatives that are used to make many types of food stable. Whilst it may be possible to replace them with alternatives that can maintain the sensory and structural properties, these may not have equivalent preservative properties.

Gail Betts, project leader, comments: *"In order to assess the potential microbiological risks with changing formulation, there is a requirement for data on the growth characteristics of relevant organisms under different levels of preservatives and sugars. We are focusing on fruit-based foods and drinks, and the data generated will be modelled and added to our Forecast system for shelf-life prediction."*

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Services...

Lower legal limits for Ochratoxin A

New tighter legislation for ochratoxin A levels in some spices comes into force this month; we are able to analyse these and other products to ensure that you have any potential problems under control.

A wide range of food stuffs are covered by existing legislation: cereals, dried fruits, coffee, cocoa products, wine, grape juice, beer, liquorice, blood products, baby foods and spices. Maximum permitted levels in some spices are being reduced from 30ppm to 15ppm.

Ochratoxin A (OTA) is a carcinogenic compound produced by several species of moulds belonging to the *Aspergillus* and *Penicillium* genera. These moulds can and do affect a wide range of foodstuffs in a wide range of climates - contamination is not restricted to region or food type.

In our accredited services, we typically report to a limit of 1ppb, but we can achieve lower limits to meet individual client requirements. Analysis is carried out by using proven methods of extraction, immunoaffinity clean up and then determination using HPLC fluorescence detection.

If you are not sure whether your ingredients, raw materials or products might be affected, or just want to discuss the options open to you, please get in touch.

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Make your manufacturing operation more efficient

New advances in automation and robotics, and the development of the concept of 'lean' manufacturing have opened up new opportunities for improving manufacturing efficiency in the food and drink industry. To discuss these and associated hygienic design issues, we are holding a seminar at our Campden site, in collaboration with the Processing and Packaging Machinery Association, on 18 October.

The aim is to bring together equipment manufacturers and suppliers to address the growing demands of the industry and its customers.

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Campden BRI Day highlights



With over 450 members and guests registered, Campden BRI Day 2012 was a tremendous success. The Annual Campden Lecture was a highlight, given this year by Fiona Dawson, President of Mars Chocolate UK. Taking 'A sustainable future?' as her theme, Ms Dawson

emphasised the need to work in partnership to move towards 'one planet living' and away from living beyond our planet's capacity. The lecture is available as a podcast at <http://www.campden.co.uk/campdenbriday.htm>.

For a transcript, send an email to auto@campden.co.uk with the subject line: send Lecture2012



Prizes

The **Heinz Award for Excellence** is awarded to an employee of Campden BRI who has demonstrated extraordinary scientific contributions to the food

processing industry in recent years. This year it was presented by Dr. Chris Lowe, Global Quality Strategy Manager at H.J. Heinz, to Dr. Craig Leadley for his work on innovative process technologies. David Leeks was awarded runner-up prize for his work on food labelling.



The **Marks and Spencer Millennium Prize** is to recognise an early career scientist, technologist or engineer employed at Campden BRI who has the potential to positively impact on the food, drink and allied industries.

The winner was Danielle Sweeney for her work on chemical migration in packaging materials, and she received her award from Yvette Sowerby, Technical Manager - Meals, Desserts and Frozen at Marks and Spencer. A runner-up prize was awarded to Farinaz Monadjemi for her work on application of statistics in the business.

Exhibits

The exhibits and displays this year were based around 4 themes: research and innovation; analysis and testing, knowledge management, and operational support. Visitors also took the opportunity to tour our processing, product development and sensory science facilities.

Website address www.campden.co.uk/campdenbriday.htm

Improving process safety with CTemp

CTemp is a computer program for calculating food internal temperatures during heat processing. Used for establishing safe processing conditions and in-process optimisation, its value to the heat preserved foods sector is illustrated by the release of Version 10. Specifically, CTemp can be used to predict temperatures for any in-pack product, optimise processes, analyse process deviations, and efficiently set retort times and temperatures. Version 10 includes the capability to calculate a broken heating curve with a break point at 0°C. Surface F and C values are calculated and displayed, and log reduction calculations have been added for various food safety and spoilage microorganisms of relevance to the selected product/food type.

CTemp can be used on a full range of combinations of product, package and process. It can be applied to various types of retorts, pasteurisers and ovens used for sterilisation and pasteurisation processes. Training courses are also available on using the software, tailored to the specific needs of the user.

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Training course dates

September 2012

4-7	Sensory evaluation workshop
5	HACCP - foundation
5-6	Supplier quality assurance - foundation
6	Weights and measures
10-14	FSMS Auditor/Lead Auditor training course (ISO 22000:2005) (Surrey)
11-12	Brewery microbiology - an introduction
11-13	Food technology for non food technologists
11-13	Basic microbiology
12-13	HACCP - intermediate (workshop)
14	HACCP auditing - foundation
17-21	HACCP - advanced
19-20	Food and drink labelling
19-20	Internal auditing - principles and practices
19-20	Laboratory quality systems - an introduction
25-26	Principles of pasteurisation
25-27	Train the trainer
26-27	Microbiology for non microbiologists
27	Beer labelling requirements
27	Food information regulation workshop

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Major investment in equipment

We are installing analytical and processing equipment worth £1.4 million, as part of an extensive and strategic investment in technology for the future. The new equipment, which will underpin key services for industry as well as fuel research and innovation, includes:



- Liquid chromatography/mass spectrometry for analysis of vitamins, pesticides, mycotoxins, acrylamide and other low-level chemical contaminants
- An ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry) system for simultaneous analysis of a wide range of heavy metals
- An FT-IR (Fourier Transform Infrared) spectrometer and microscope to analyse foreign bodies, packaging and food structure
- A high speed particle shape and size analyser - for particles from 2µm up to 3cm
- A soft drinks filler and carbonator
- Sparkling wine plant to support secondary fermentation, riddling (yeast removal) and bottling
- Rondo Smartline for sheeting, forming and cutting dough.

Commenting on the developments, Director General Steven Walker said: "Over the last couple of years we have consulted extensively with our members to identify their needs and have ensured that our strategy reflects those needs. We have been working extremely hard to deliver what has been asked for. This has been reinforced by strategic changes to the business structures, which has enabled us to deliver the necessary performance to implement these plans. It is very exciting and satisfying to see the first elements of these plans coming to fruition. These will ensure that we stay at the forefront of the practical application of technical excellence."



More details are available on the news page of our website
www.campden.co.uk/news.htm



Congratulations

Caroline Walker, Director of our Brewing Division, has been appointed an Honorary Professor at Heriot-Watt University in Edinburgh. Caroline's appointment will further strengthen our links with the University's International Centre for Brewing and Distilling (ICBD).

András Sebők, who heads up our Hungarian subsidiary, has been invited by the Minister of National Economy to be a member of the Hungarian Innovation Council, an advisory board to the Hungarian Government on developing and maintaining a national innovation strategy. We believe that Andras will be the sole representative from the food and agriculture sector.

Debbie Parker, who is Sensory Manager in our Brewing Division, was the invited Guest Speaker at the recent Royal Society of Chemistry Annual Dinner. Her presentation, entitled 'The Science behind Beer Flavour and Food Matching', immediately grabbed the attention of the audience.

RoSPA Award



Martin Hall (left), **Trudi Ade-Hall** and **Anton Alldrick** with the Silver Award that we received at the RoSPA Occupational Health and Safety Awards 2012 in recognition of our Health and Safety systems and performance.

Campden BRI

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Welcome... to new members

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

Arthur Mallon Foods Ltd - sausage manufacturer

Beverage Plastics Ltd - manufacturer of preformed bottles and closures

Brioche Pasquier UK Ltd - importer of brioche, patisserie and dried bread products

County Confectionery Ltd - manufacturer of chocolate and fudge

e2v Technologies (UK) Ltd - manufacturer of radio frequency and microwave components

Food East - Regional Food Group

Glendale Foods Ltd - producer of protein based components, ready meals, airline food and hand held snacks

Grants Smokehouse Ltd - hot and cold smoking of salmon

MSCANCO - manufacturer of aluminium beverage cans

Paper Pak Industries - manufacturer of absorbent pads

Poupart Group - fruit marketing company

Westlands (Westland Nurseries) - growers of cut micro leaf and speciality products

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

