

Newsletter

July 2011



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Pasteurisation of dry ingredients

We have installed a major new piece of equipment for pasteurising dry ingredients. This will allow us to work with clients to quantify the heat processing that their products require to achieve the desired microbiological reduction. The system can be used for any product that can be conveyed via vibration, that is not water soluble and that does not become too sticky if brought into contact with steam.

There has been growing interest in problems associated with uncooked nuts, seeds, spices and other dry ingredients, which potentially carry *Salmonella*. The equipment heats these ingredients to kill vegetative pathogens. It consists of two spirals, one for heating and one for drying and cooling. Steam is introduced into the heating coil as desired, typically in the first few loops of the spiral. The pipe walls are electrically heated to a maximum of 400°C, while the steam can be superheated to 180°C. After steam injection the heated pipe can be used to remove residual moisture.

This new system complements the long-standing expertise at Campden BRI in heat processing and microbiological heat resistance.

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Fish authentication

We are providing technical support to seafood operators following a survey of processed fish products and subsequent media coverage. In addition to providing consultancy on DNA methods and testing strategies, we can offer fish product authentication services using a UKAS accredited DNA profiling method.

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Training...

Campden BRI partnerships win funding for two new food industry training schemes

Advanced Training Partnerships are formal collaborations between users and providers of high-level skills in the agri-food sector, and bring together companies with research and training organisations.

Four partnerships have been awarded a total of £12M by the Biotechnology & Biological Sciences Research Council (BBSRC), with each one operating under the leadership of an academic institution. Each programme will focus on a particular research area, and the four are complementary, covering the full range of food production. The training will include distance learning, short-courses, work-based training, research placements and secondments. Training modules can be built into full masters degrees, and partnerships will also be developing professional doctorates in agricultural and food sciences.

We are involved in 2 of these partnerships:

1. Establishment of a strategic training hub for the advancement of the UK agri-food industry - led by the University of Nottingham with Harper Adams University College, Cranfield University, Rothamsted Research, and a number of industrial partners.
2. Food quality and health - Sustaining the future - led by the University of Reading with Rothamsted Research, University of Birmingham, Leatherhead Food Research, and a number of other industrial partners.

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Food chain traceability - seminar

Traceability: we know what it means, and also know how important it is - it strengthens the integrity of the food chain by supporting safety and authenticity control mechanisms. But how can it be effectively achieved? This seminar, to be held on 20 October 2011, will update you on current developments and opportunities to apply traceability technology in the food sector.

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Antimicrobial surfaces - new member-funded project

Surfaces can be impregnated or coated with a biocide or technology that generates a biocide, or with substances that make the removal of micro-organisms easier. All these surfaces can be termed 'antimicrobial'. A number of surface antimicrobial technologies are already commercially available and some are still under development.

The efficacy of surface antimicrobial technologies in the food manufacturing environment has still not been established and, as such, their usefulness in contamination control is unclear. However, they could provide enhanced food safety, quality and shelf life, and help reduce food waste and cleaning chemical use, if they can be demonstrated to be effective.



This project is evaluating and validating appropriate assessment methods for the technologies being developed so that the food industry can be confident in their use. It will provide: information on surface antimicrobial technologies available/under development; surface antimicrobials testing methods, and facilities that can be used to evaluate and validate the technology; and access to an improved service with respect to advice and support on the selection and use of appropriate antimicrobial surface technology.

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Clare's tips



Use us as a venue

Our purpose built meeting and training rooms can be booked for your own meetings. We have a range of rooms to accommodate practically any size of meeting. They are air-conditioned and fully equipped for conferences and presentations. We can also provide catering/refreshments.

An increasing number of members are taking advantage of this facility and find that using our meeting rooms brings the added advantage of being able to incorporate our technical input into their own event. For example, given sufficient notice, our experts can provide a scientific or technical update on a subject matter of your choice, or participate in an informal discussion on your "hot topics". We can also provide a "Site Tour" of our technical facilities, giving your delegates a chance to stretch their legs and return to the meeting refreshed.

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Campden BRI Day 2011

Building on the successful new format piloted last year, Campden BRI Day 2011 was a tremendous success, with around 450 registered members and guests.



Nigel Dickie presents award



Miles Templeman delivers lecture

As ever, the Annual Campden Lecture was a highlight of the day, given this year by **Miles Templeman**, Director-General of the Institute of Directors. Taking 'Challenges for business' as his theme, Mr. Templeman reflected on both the specific and general issues faced by businesses in today's economic climate, and set these in the context of current socio-political developments - commenting on issues as diverse as the development of leadership within business to the influence of regulation and government policy. You can listen to the lecture as a podcast at <http://www.campden.co.uk/podcasts.htm>.

Prizes

The Heinz Award for Excellence is presented to an employee of Campden BRI who has demonstrated extraordinary scientific contributions to the food processing industry in recent years, with specific attention to contributions during the past year. This year it was presented by Nigel Dickie, Director of Corporate and Government Affairs at Heinz, to Sarab Sahi for his work on promoting ingredient functionality as a route to a sustainable relationship with the food industry. Gary Freeman received a special runners-up prize for his work on process optimisation.

Exhibits

The exhibits and displays this year were based around four themes: research and innovation, analysis and testing, knowledge management, and operational support. The format of the day allowed time to network and view the exhibits, some of which can be viewed online at www.campden.co.uk/campdenbriday.htm. Highlights included new eye tracking software, pasteurisation of dry ingredients, and a new electronic food law guide.

Campden BRI and KWA win grant funding

Campden BRI and KWA Business Consultants, based in the Netherlands, have jointly been awarded a grant by The Brewers of Europe for a project on "The Contribution of the European Brewing Sector to Good Environmental Practice". The project will collect quantitative data on water use, climate change, packaging and waste management; it will give a country-by-country summary of environmental impact. It will also include case studies of good practice to reduce environmental impact.

Campden BRI and KWA have collaborated previously on projects to benchmark energy and water use in the brewing sector worldwide. Gordon Jackson from Campden BRI said "this prestigious project will be a valuable contribution to highlighting the efforts taken by the European brewing sector to minimise its environmental impact". Fons Pennartz from KWA added that "this project combines the different expertises of KWA and Campden BRI and complements other sustainability services that we offer jointly for the brewing sector".

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Electronic Food Law Notes

Building on the long-standing printed product, *Electronic Food Law Notes* will provide the food industry and enforcement authorities with a comprehensive, fully-searchable, clear source of information on the key aspects of UK and EU food legislation, with extensive hyper linking to the source material.

Acts of Parliament, Statutory Instruments and EU Regulations and Directives are summarised and appropriate industry codes of practice, guidelines and local government Regulation opinions are outlined.

The notes are a guide to legislative requirements. Where there is any doubt as to the legality of a certain practice in relation to food, the legislation itself must be consulted, although Campden BRI's Legislation Team is able to provide specific information and offer advice.

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Welcome... to new members

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

Adlington Limited - a turkey producer and processor

Freudenberg Nonwovens LP - manufacturing based around the addition of carbon to products

Hershey Company - manufacturer of chocolate products

Hygiene Chemicals Limited - supplier and distributor of chemicals for the food production industry

ISR-Bio Foods - processor of wheat by-products

North Country Cooked Meats - a manufacturer of cooked meats

Partner Foods Ltd - a manufacturer of canned food

Qatar National Food Security Programme - QNFSP - a government agency

Rondo Ltd - producer of machines and installations for the manufacture of bakery products

Saha Farms Co Ltd - poultry farm and producers of cooked products

Vegpro (K) Ltd - grower, processor and exporter of prepared and pre-packed vegetables

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

Yeasts, moulds and sorbate

Foods contaminated by fungi look unacceptable, invariably have an alteration in taste and may contain mycotoxins. As a consequence, large quantities of food are discarded due to spoilage by fungi. Preventing this wastage is important - and a member-funded research project has been looking at various characteristics of fungi. The third report from this project has addressed resistance to preservatives.

Many mould species can grow in the presence of preservatives such as sorbate, benzoate and propionate, with the number of preservative resistant moulds reported to be on the increase. To evaluate this, a number of strains were tested for their resistance to sorbate. Differences were seen between the strains in their abilities to grow in the presence of this preservative, and in their ability to degrade sorbic acid and produce the tainting compound 1, 3-pentadiene. Of the strains tested, *Penicillium roqueforti* was the most active in producing 1, 3-pentadiene from sorbic acid.

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Members can obtain a free electronic copy of the report by sending an email to auto@campden.co.uk with the subject line: send RD314

