



newsletter

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Healthy food choices

Understanding the factors that influence food choice is important in product development and guiding programmes that encourage healthy eating. The HELENA* project focused specifically on those factors affecting food choice amongst adolescents. Three R&D reports (Nos. 267, 273 and 279) detail Campden BRI's output as part of this major EU-wide project.

The research involved both qualitative and quantitative studies. Focus groups were used to gather information on eating habits, factors influencing choice, and sources of information on healthy eating. These provided insight into aspects such as snacking, the perceived importance of 'health' in influencing choice, and barriers to healthy eating.


Central Locations Tests were also used to evaluate the acceptability to adolescent consumers of new healthier products - including whole grain cereal drinks, snack bars with fibre and milk protein, and lower calorie hamburgers.

A purpose-built 'food choices and preferences' questionnaire was administered to over 3,200 adolescents across 10 European countries. It revealed, for example, that boys were more concerned with the taste of food, whilst believing their diet to be healthy, whereas girls claimed to prefer choosing healthier options.

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*Healthy Lifestyle in Europe by Nutrition in Adolescence

Copies of the reports are available to members via automated e-mail response. For a list, send an e-mail to auto@campden.co.uk with the subject line: send index



Sensing fish freshness

Innovative sensors have been applied to the rapid, objective and non-destructive determination of fish freshness, as part of a Campden BRI research project funded by Seafish. Freshness is recognised as the key element of fish quality, and is significantly affected by storage time and temperature. Established sensory methods are commonly used but require skilled assessors. Using cod as a test species, the project explored the use of specific imaging technologies for measuring freshness-related changes - looking at whole fish, fillets and gills.

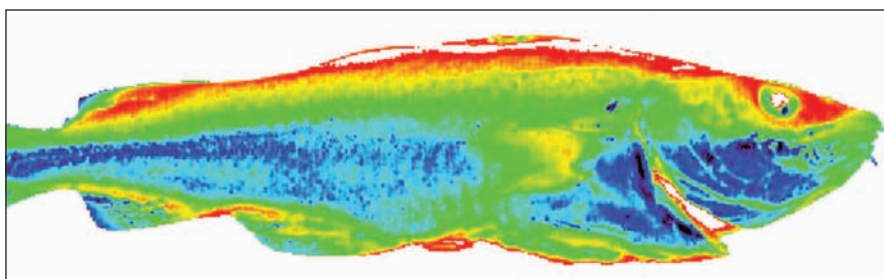
Using digital colour imaging (DigiEye) it proved possible to measure changes in gill filament colour; and eye cloudiness correlated with deterioration in freshness. Meanwhile, near-infrared (NIR) hyperspectral imaging and NIR bulk spectroscopy were applied to raw fish. With NIR imaging it was possible to identify which part of the fillet gave the best results for measuring freshness. For bulk spectroscopy, measurements of gill filaments gave the best model prediction of time stored. The work will be reported in full on the Seafish website.

Enquiries are welcome on our growing portfolio of activities for the fish and seafood sector, as well as the application of our range of imaging technologies across sectors and products.

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New look website

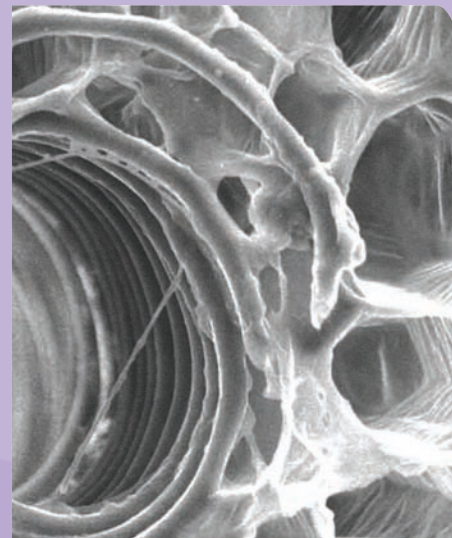
The Campden BRI corporate website has recently been completely redesigned and restructured. It provides access to extensive information on our research, technical services, training and publications activities, panel activities, and news - the latter including our podcasts page. Feedback from members is welcome.

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Services UPDATE



Solving foreign body problems, improving product quality and packaging defect assessment provide just three examples of how members benefit from our state-of-the-art microscopy facilities.

> Foreign bodies

Rapid identification of foreign bodies found in foods is often essential for quick resolution of the problem and preventing recurrences. The scanning electron microscope (SEM) enables detailed visual examination of samples and, linked to the X-ray analyser, definitive identification of materials such as glass, metal and stone. Mike Edwards, Microscopy Section Manager adds:

"To the naked eye, glass fragments from potentially different sources may look exactly the same. X-ray microanalysis allows us to identify the elemental composition of glass, and therefore distinguish between different types of glass, for example heat resistant, lead crystal or soda-lime. This can help identify potential sources and prevent further problems."



> Food structure and function

The structure of foods and ingredients plays a major role in determining their functional and sensory properties. Texture is markedly affected by the raw materials used and their processing and storage. Understanding the structure, and what factors influence it, enables better management of quality and can stimulate product innovation.

"Dynamic experiments to study the effect of moisture on food samples help improve product quality. For example, we can look at the dispersion of materials such as gums, milk powders and polyphosphates in products such as soups, ready meals, condiments, sauces and desserts, and at rehydration of dehydrated fruit and vegetable powders. This enables us to tackle questions like 'why is this batch of product unsatisfactory when the last batch was fine?'"

> Packaging and contact surfaces

Packaging failures - whether structural or chemical - can seriously compromise product safety. We can investigate internal or external corrosion of metal cans, delamination in plastic packaging, and failure of heat seals in plastic packaging. We can also assess the micro-topography of packaging and other food contact surfaces. This can help determine, for example, whether a particular finish is good enough for incorporation into a cleaning-in-place (CIP) system or is too uneven for effective removal of surface deposits or biofilms.

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European Brewing Convention

Our active participation in the 32nd European Brewery Convention Congress (Hamburg, 10-13 May) will include presentations on topics such as brewing with alternative natural raw materials, measuring consumer preference, and a new method for yeast characterisation and measuring metabolism. Campden BRI is also coordinating the international Premature Yeast Flocculation (PYF) network, which was established as a new initiative at the last World Brewing Congress: the group will be holding its first meeting in Hamburg on 10 May immediately before the Congress. Please visit us at Booth 9 or contact us to pre-arrange a meeting to discuss particular topics of interest.

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Campden day - Wednesday 3 June 2009

Members have the opportunity to update themselves on the full breadth of services and research available to them from Campden BRI and to hear Jonathon Porritt, Founder Director of Forum for the Future, deliver the 31st Annual Campden Lecture 'Sustainability through food security'.

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Use our venues

The meeting facilities at both our Nutfield and Campden sites are available to all members at significantly discounted rates. The Nutfield site is just off the M25 and around 20 minutes from Gatwick Airport. The Campden site is in the Cotswolds, an hour south of Birmingham airport. Members often use our sites to bring together groups of managers or suppliers for brainstorming or briefing sessions. We are able to support such meetings, where appropriate, by providing access to our on-site experts or including a tour of the pilot plant and laboratories. In addition to flexible and well equipped meeting rooms, we offer ample free parking and can include catering. Further details are available on request.

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Visit us at:

European Brewery Convention Congress
Hamburg, 10-13 May, Booth 9

IFT Food Expo
Anaheim, CA, 6-9 June, Stand 1319

Drinktec
Munich, 14-19 September
Hall B1 - Stand 309

FE
Frankfurt, 17-19 November
Stand 8F65

Alternatively visit us for a tour of site and discussions on how we can help you get the most from your membership.

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Ingredients corner

Traceability of food and feed

A new guide will help companies develop and maintain robust systems to identify the path from which a product has originated to the customers to whom it has been supplied. It covers identifying the source of all incoming materials ('raw material traceability'), recording processing history ('processing traceability') and identification of customers ('customer traceability') for each product lot, so that appropriate action can be taken in the event of a problem. Although regulations, international standards, and commercial standards require traceability systems, none are prescriptive in how traceability is to be achieved. 'Traceability in the food and feed chain' (Guideline No. 60) outlines the principles and the basic system requirements, with special reference to food safety and to legal and commercial requirements in the European Union. It is priced at £60 per copy (members) and £90 per copy (non-members).

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Allergens and natural toxicants - detection

Testing for food allergens is important in providing data for checking the efficacy of allergen management controls (e.g. segregation), confirming the allergen status of ingredients, and validation of cleaning. We have extended our allergen testing services to include lupin, which can cause severe reactions. Its seeds are consumed as snacks and lupin flour can be used in pastries and pasta. This complements our analytical services for a wide range of allergens such as nuts, milk components, egg, fish, gluten and celery.

The presence of natural toxicants in an ingredient can also pose problems. One example is the lectin naturally present in red kidney beans - used in products such as soups, recipe dishes and ready-meals. The lectin is inactivated when the beans are processed adequately. However, analysis to ensure that lectin has been inactivated is prudent following changes to the process, product formulation or source of the ingredient.

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WELCOME TO NEW MEMBERS

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

Al-Homaizi Food Stuff Company Ltd - a Kuwaiti business involved in food manufacturing and food service

Catering & Leisure Supplies Ltd - an importer and supplier of compressed gas cartridges and related catering, sports and industrial equipment

Euro Farm Foods Ltd - an Irish meat processor

FMC BioPolymer UK Ltd - a Scottish manufacturer of ingredients

Freshcut Foods Ltd - a supplier of high-care raw, roasted, char-grilled and blanched vegetables, fruit and carbohydrate products.

Reitzel India Private Ltd - an Indian producer of gherkins

Smiths Detection Ltd - a supplier of product inspection systems

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