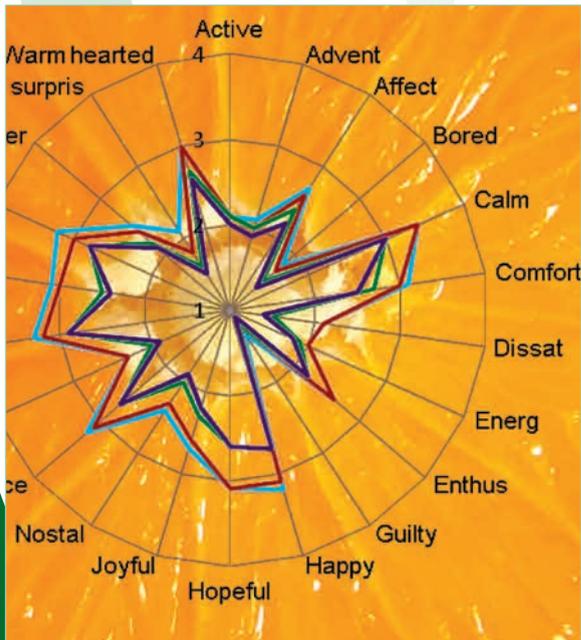


Newsletter

December 2012



Getting to know your consumers

Product developers and manufacturers have access to a deeper understanding of how products and prototypes can be differentiated and positioned in the market to optimise consumer appeal, following member subscription-funded research.

We undertook a quantitative consumer sensory central location test on six fruit juices. We used a recently published method (the EsSense™ Profile) to measure consumers' product related emotions. This successfully discriminated two 'groups' of products based on positive and negative emotions. The results were consistent with respondents' liking scores, but the small differences meant that the characterisation of samples in terms of the emotion profile attributes was not always significant.

To see if discrimination in terms of product related emotions could be improved, we segmented the Profile results using an Affect Intensity Index (i.e. a measure of emotional responsiveness). This segmentation showed that consumers with a higher AI discriminated between the samples for many more emotion terms and generally found larger differences between the samples.

Correlating emotions and objective sensory profile data with overall liking can help deliver products that are optimised at an emotional as well as a functional level, and could contribute to increased repeat purchase rates. This research provides a practical and effective tool for eliciting consumers' emotional response to food and beverage products.

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For a free electronic copy of the full report, send an e-mail to auto@campden.co.uk with the subject line: **RD330**



Training

Tailored HACCP training - I didn't know you did that!

In the latest in an occasional series, Andrew Collins from our HACCP training team comments:

"It may seem an odd thing to say about training at Campden BRI - and in particular about HACCP training. But it is a response I regularly get when speaking to clients, when we say that we can deliver on-site training.

In times when training is prone to be put on hold, we know how difficult it is to release delegates from the business for perhaps two complete days. What we are able to do, above all, is be flexible. For example, we have delivered our basic HACCP training course on-site on two days in consecutive weeks. For longer courses, such as our advanced HACCP course, we are able to split the delivery over a longer period of time.

Delegates still end up with the same qualification, they are not out of the workplace for an extended period of time, and you have the added advantage of being able to have more staff attend the course, making it more cost-effective for you. One of our clients has opened up the course to delegates from different sites, so sharing the costs. If you need HACCP training, then get in touch to see how flexible we can be."

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Campden BRI at Pangborn in Rio!

The biennial Pangborn symposium is the major event in the calendar of the sensory and consumer science community. As well as promoting the dissemination of new knowledge, Pangborn allows young scientists and students to meet senior professionals, contributing to the development of the field. On 11-15 August 2013, the 10th Pangborn Symposium will be held in Rio de Janeiro in Brazil, and once again Campden BRI is heavily involved in its organisation and promotion - particularly regarding commercial opportunities. See www.pangborn2013.com for more information, or contact:

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Improving wheat protein quality

A research studentship with Nottingham University has looked at how protein quality, which is a key determinant of end-product quality, is established in wheat. The objective was to investigate a potential alternative route to improving protein quality - more specifically to understand if two alternative storage routes could influence protein quality.

Protein quality in wheat is understood to be a function of protein types and their interactions. These factors determine the strength and extensibilities of dough derived from wheat, which in turn influences product quality for a wide range of baked products.

There are two proposed routes to storage locations in wheat endosperm cells. In this study one of the routes was blocked. The relative quantities formed of the types of proteins in gluten were not influenced, although the protein quality was different in the experimental samples. The mechanism behind this is not yet clear.

Understanding the impact of altered metabolic pathways during grain development will ultimately allow plant breeders to develop new and improved wheat varieties.

This research was supported by funding from the BBSRC (Biotechnology and Biological Sciences Research Council).

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Seeing through the haze

At the recent European Brewing Convention's 'Chiller to Filler' symposium, our brewing team presented their method to distinguish between the beta glucan hazes from yeast and from malt. This innovation allows us to offer better trouble shooting of haze issues, and the ability to advise clients on whether haze problems are due to yeast stress or raw materials and mashing issues. Our haze ID service can also identify the other common causes of haze (e.g. protein, polyphenols, oxalate, bacteria) and can carry out more detailed research for those who require more extensive support.

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Blogging at Campden BRI

Have you been following our blogs? Each month a Campden BRI expert takes a look at developments in their area. And with such a wide-ranging portfolio of activities here, the blogs are very varied. For example, in October, Anastassia Johnson looked at sustainability issues, and particularly the government's introduction of mandatory carbon emission reporting for large companies. Our environmental experts can help companies with their carbon and environmental footprinting, whatever their size.



Previously, Sarab Sahi discussed how to measure enzyme performance in cereals-based products. Enzymes are being widely used in the cereals industry to improve processing performance and product quality in a range of food products. Industrial baking in particular uses microbial enzymes as processing aids to improve dough properties as well as to improve product quality and shelf-life, and is an area where there is strong growth.

Functionality was also central to Sarah Chapman's blog - but she focused on drinks, in particular sports drinks, during the London Olympics. Sports drinks aim to provide water, energy and electrolytes in a form that is both palatable and easy to absorb. Energy drinks generally claim a particular energy boost (from something like caffeine or guarana). We are often brought in to advise on ingredient alternatives - perhaps to improve the stability or shelf-life of the product or enable it to be processed in a particular way, without losing the functionality being claimed. The product innovation team regularly liaises with our legislation advisors about this - changing a formulation can often invalidate a claim, sometimes in quite a subtle way.

To read all our blogs, go to
www.campden.co.uk/blogs/campdenbri-blogs.php



Training courses

January 2013

- 14-18 HACCP - advanced
- 16-17 Internal auditing - principles and practices
- 21-25 Food safety - advanced (CIEH level 4)
- 23-24 HACCP - intermediate (workshop)
- 28-1 Feb FSSC Auditor/Lead Auditor
- 31 Hazard Analysis - meeting the requirements of the BRC/IoP Packaging Standard

February 2013

- 5 HACCP - foundation
- 5-6 Brewery microbiology - an introduction
- 6-7 Food and drink labelling
- 6-7 Microbiology for non microbiologists
- 6-7 Sainsbury's TMA D Allergen
- 12-14 Basic microbiology
- 14 Risk assessment of raw materials for manufacturers
- 18-22 FSMS Auditor/Lead Auditor training course (ISO 22000:2005)
- 20-21 HACCP - intermediate (workshop)
- 25-28 Sensory evaluation workshop
- 25-1 Mar Principles of canning
- 27 Root cause analysis
- 28 HACCP - refresher

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Full list of 2013 courses now available on our website:
www.campden.co.uk/training.php



Member Zone

www.campden.co.uk/memberzone.php



Welcome to new members

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

Angus Soft Fruits Ltd - supplier of soft fruits to multiple retailers

Carton Bros Ltd - poultry processing organisation

Dacorum Borough Council - local authority

E H Worlee & Co (UK) Ltd - importer and manufacturer of dehydrated natural food ingredients

Erigal Seafood - supplier and processor of seafood

Invensys Eurotherm - manufacturer of process control instruments

Nestle R&D Center, AOA - regional laboratories and services in Africa, Oceania and Asia

O'Haras of Foxford Ltd - producers of a range of bread and confectionery products

Panzani - Unite Crecerpal - milling of Durum wheat for pasta production

Seda UK Ltd - specialists in manufacture of paper and plastic based food packaging

The Austin Company of UK Limited - facility design company

Clare Brett +44(0)1386 842125 membership@campden.co.uk

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

New Club project... How do we prevent metal closures going rusty?

We don't know for sure - so we are setting up a Club project to find out! We visited a UK brewery to help them with an issue regarding rusting of the crown closures on their beer bottles. Investigations suggested that this might be a more widespread problem affecting other products where metal packaging has exposed ferrous surfaces. If you are interested in being part of this Club, please contact us.

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Members...

It was your vote that counted!

With around £2M funds available, members recently voted for which research projects they want us to carry out through 2013 and beyond. The following projects, which start in January 2013, complement about 50 other projects in our ongoing research programme:

- Ingredient functionality
- Improved fibre enriched baked goods
- New technologies for food manufacturing
- New approaches to heat process validation: process design and process surrogates
- Shelf-life of pasteurised chilled foods
- Sweeteners and fat replacers for reducing calorie content of food and beverages
- Encouraging positive consumer attitude/behaviour change towards sustainable foods
- Validation, best practice and development of low a_w food and environment decontamination technologies
- Water from non-potable sources: uses and treatments

More details on these and on-going projects will be available in our [Research Programme 2013](#) document to be published in January. Members are able to access summaries of existing projects on our website (for which they will need their member username and password). For more established projects, members can also obtain copies of the full R&D Reports via the website or via our autoresponder system - for a full list of R&D reports available via the autoresponder, send an e-mail to auto@campden.co.uk with the subject line: **send index**

