

# newsletter

## Handling reduced-sodium dough

We are supporting post-graduate research at Birmingham University

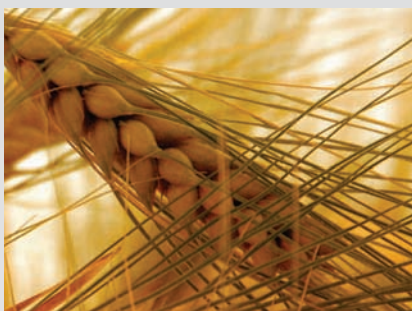
## Wine company wins international competition

How Corkwise contributed to this success

## ISO 22000

A series of training courses to help you with certification

## Cereals videos on the web



A series of clips to take you through the cereal processing chain

## Bacillus causes thinning of soups

Recent research at Campden BRI will help us in our troubleshooting services to clients who have problems with thinning of soup. Thinning is believed to result from starch breakdown, caused by heat resistant amylases from *Bacillus* species that are not inactivated by the heat process, and/or by the growth of *Bacillus* species that have survived the heating process and subsequently go on to produce amylase enzymes. However, in many of the problem samples we have received, it has been difficult to identify the cause with any certainty.

Three soups with different pH values (cream of tomato, potato and leek, and cream of chicken) were incubated with spores of *B. subtilis*, *B. licheniformis*, and *B. megaterium*, or *B. licheniformis* *alpha*-amylase at 3 different concentrations.

The 3 bacilli were able to grow to a high level in the potato and leek and cream of chicken soups within 48h, causing thinning quite rapidly. Addition of *alpha*-amylase had a similar effect. In the more acidic tomato soup, only *B. licheniformis* grew and growth was relatively small and slow. No thinning was observed in this soup following incubation with *Bacillus*, and only the highest enzyme level had a thinning effect.

These findings will help us target further research into the problem, and will complement our *Bacillus* identification and process validation services, as well our amylase expertise.

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For a copy of the full report send an e-mail to [auto@campden.co.uk](mailto:auto@campden.co.uk) with the subject line: **send RD296**



## Handling reduced-sodium dough

The impetus for a reduction in dietary sodium has resulted in bread currently being produced with significantly lower salt contents than previously. However, the technologies used to handle dough means that levels of waste from reformulated doughs can be unacceptably high. Salt reduction leads to changes in dough structure, which can manifest as “stickier” doughs that cannot be mechanically handled at high speed.

The techniques for measurement of dough handling properties under conditions reflecting commercial processing have not been fully developed to date. In recognition of this our members are supporting a post-graduate research studentship, which will be managed by us at the University of Birmingham. This study will characterise dough handling processes and identify routes to minimise the effects of reduced salt content on dough.

Funding is provided through the Campden BRI Club mechanism, which allows co-operating companies to make contributions towards the costs of the work. These contributions are more than matched by the Engineering and Physical Sciences Research Council, making this a very cost effective way to carry out research. The full results of the research will belong to the Club members.

For further information, including how to get involved in The Dough Handling Club:

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## Cereals videos on the web

As an introduction to the complexities of the cereal food production and processing chain, we have produced a series of short videos describing some of the operations. Starting with a cereals overview, the videos cover milling, flour testing, baking, and bread quality testing. They provide useful background information to anyone involved in flour-based food production, and would be particularly interesting for those new to the sector:

See: [www.campden.co.uk/videos.htm](http://www.campden.co.uk/videos.htm)

## Technical management academy

The 4th Annual Conference of the Sainsbury's Technical Management Academy® was held here in June. Run by Sainsbury's in conjunction with Campden BRI, the Academy is now well established as a structured development programme for Sainsbury's suppliers. This year's conference, which included a presentation by former international athlete Derek Redmond, involved a blend of technical discussions - looking in-depth at food safety, serious incidents and lessons to be learned, sustainability in raw material supply chains and customer panel testing. It also saw the announcement of Derek Croucher of Morning Foods Ltd as winner of the Technical Manager of the Year Award.

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## Service FEATURE

## UK vineyard wins international competition - with our help



Camel Valley Vineyard, a client of our Corkwise wine technical support service, has won an International Wine Challenge Trophy, beating over 450 competitor products, including many Champagne 'giants'. Its victory, in the sparkling rosé wine category,

is the first ever by an English wine. Geoff Taylor of Corkwise explains our association with the company.

*“Camel Valley has been a Corkwise customer for at least 15 years. The wine analysis, advice, and consultancy goes back many years. Each year the wines are assessed and recommendations are taken on board for the next vintage. Some of this could involve getting better grape quality (Camel Valley is meticulous about the quality of grapes used in its wines) when to pick and what yeast to use, fermentation conditions, what can be done to optimise flavour aroma profile, ageing and the balance between sugar and acid at bottling.*

### > Quality at point of sale

*The rationale behind all of this is optimisation of quality at point of sale. The advice we have given for this winning wine is an accumulation of knowledge over several years and in*



several stages. First, the base wine is produced; this needs to have certain flavour, colour and analytical profiles on which to build other flavours. The second stage is the secondary fermentation in bottle to produce the pressure (bubbles), then ageing on the lees (yeast cells) for a minimum of 9 months. This produces what are termed yeast autolysis characteristics. Logically the longer it is left, the more this character is obvious, but too much is not desirable, so timing is crucial. The final stages are riddling, disgorging, adding the dosage (a sugar solution) to ensure that the flavour balance is harmonious, and corking. A further period of resting is advised to ensure that the flavours are integrated.

All of these stages have an impact in terms of quality, and timing is crucial. Camel Valley has been very successful over the last few years, and we have been able to help them achieve their aims and objectives in producing high-quality English wines”.



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Camel Valley: [www.camelvalley.com](http://www.camelvalley.com)

## ISO22000

Is your company looking to gain ISO 22000 certification? Do you want to be able to audit food safety management systems against ISO 22000? Then we have the courses for you.

ISO 22000 is an international certification standard that defines the requirements of food safety management systems (FSMS). It can be used by all organisations in the supply chain - from farmers to retail. We provide a range of services to assist members in gaining certification - from training courses to advice, consultancy and pre-audits.

We have teamed up with Lloyds Register Quality Assurance to deliver the IRCA accredited ISO 22000 Auditor/Lead Auditor Course, which satisfies the training requirements should you wish to become an IRCA certified auditor. The course focuses on the underpinning principles and benefits of an ISO 22000 system, as well as including auditing processes and techniques required to evaluate against the standard. The next scheduled training event is in September at our Nutfield site or November at our Chipping Campden site.

Other courses in this range include a one day awareness course called 'ISO 22000 - understanding the requirements', which focuses on the technical requirements of the standard and helps delegates to interpret them. We also offer a conversion course for ISO 22000, which is a 3 day course for those delegates who already have a lead auditor qualification and want to be able to audit against the ISO 22000 standard.

Alternatively our training courses can be offered at your own site/location; this can be a cost effective solution should you need to train several staff.

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## Panel meeting dates 2011

If you think colleagues could benefit from panel attendance, please encourage them to join a panel. If you are unable to attend you are welcome to send a substitute. You can also bring colleagues from your company to a meeting if you think the agenda is of interest to them

Panel	Autumn 2010	Winter 2011	Spring 2011	Autumn 2011
Agri-Food	30 September	3 February	25 May	29 September
Cereals, Milling and Baking	14 October	9 February	10 May	13 October
Chilled and Frozen Foods	22 September	1 February	12 May	4 October
Food and Drink Science	6 October	20 January	4 May	5 October
Food Service	7 October	15 February*	19 May*	6 October
Heat Preserved Foods	12 October	8 February	24 May	11 October
Manufacturing Technologies	23 September	2 February	23 May	22 September
Meat and Poultry	13 October	19 January	11 May	28 September
Microbiology	28 September	25 January	17 May	27 September
Packaging	13 October	10 February	5 May	12 October
Quality Management	5 October	26 January	18 May	21 September
Sensory and Consumer	21 September	27 January	26 May	20 September

All meetings will be held at the Chipping Campden site unless otherwise indicated:

\* - off site

Further information on the panel system, including panel interests, minutes and FAQs, can be found at <http://www.campden.co.uk/research/panels.htm>

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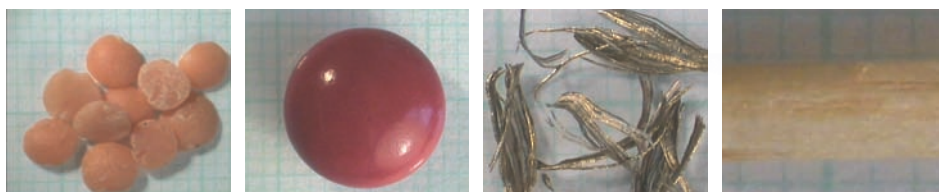
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## Foreign bodies quiz

Those of you who attended this year's Campden BRI Day can view the answers to the foreign body id quiz at [www.campden.co.uk/services/foreign-body-competition.htm](http://www.campden.co.uk/services/foreign-body-competition.htm). If you weren't there you might like to have a go at the quiz - before revealing the answers on the page!

For more information about our identification services in this area, go to [www.campden.co.uk/services/physical-contaminants.htm](http://www.campden.co.uk/services/physical-contaminants.htm).

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## Seminars

*Campden site unless stated otherwise*

**Country of origin labelling**  
17 September 2010

**Food contact materials**  
30 September 2010

**Meat and poultry**  
21 October 2010

**International food microbiology conference**  
24-25 November 2010

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## Review on biodegradable packaging materials

Biodegradable polymers may replace commonly used oil derived plastics in many applications, including food packaging. Although they are still expensive and their performance and production volumes do not match those of conventional materials, some of them have properties that make them unique.

Building on and superseding Campden BRI Review 56, *Biodegradable and compostable packaging materials for foodstuffs (Review 64)* describes the full potential of biodegradable and compostable food packaging materials, reviewing both the market for these materials and their technical properties. In the first part, the sector is considered as a whole, highlighting both weakness and growth opportunities. In the second part, individual biodegradable plastics are described. This section includes those that are commercially available, and those still being developed.

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## WELCOME TO NEW MEMBERS

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

**Brilliant Pickles** - a manufacturer of Indian pickles and chutnies

**Clegg Food Projects Ltd** - a specialist food and drink industry design and construction management company

**Dalgety (UK) Ltd** - an importer of tea products

**G Mondini (UK) Ltd** - a supplier of packaging equipment to the food industry

**Grace Davison Materials & Packaging Technologies** - a supplier of formulated products used in food and beverage packaging

**James Fleming & Co Ltd** - manufacturers of quality food products generally using sugar based raw materials

**La Gemm Ltd T/A Celia's Kitchen** - a manufacturer of gluten-free and other "free-from" baked products

**Northumberland Foods Ltd** - a manufacturer of pre-cooked frozen vegetable products

**Olam Ivoire SARL** - a company specialising in the agro commodities supply chain based in Abidjan, Ivory Coast

**Proventec plc** - a supplier of a range of environmentally friendly cleaning machines and protective coatings

**Stiletto Foods UK Ltd** - a manufacturer of the Mrs Crimbles brand of gluten free products

**The Food Kitchen Ltd T/A Bread & Honey** - a caterer and food service company

**Thomas Tomson (Blairgowrie) Ltd** - a producer of soft fruit

**We love Food Ltd T/A The Street Food Co.** - a supplier of food packs consisting of specialist ingredients and recipe cards

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