



April 2010

#### **Biofuels**

On Friday, January 29, DuPont Danisco Cellulosic Ethanol LLC (DDCE) and the University of Tennessee/ Genera Energy held a grand opening celebration for one of the nation's first cellulosic ethanol demonstration plants, and the only one dedicated to converting both agricultural residue and bioenergy crops to fuel ethanol.



The facility, located in Vonore, Tennessee has initiated start-up and commissioning and began producing ethanol in mid-January. The 20,600 metre square-facility has the capacity to produce 950,000 litres of ethanol from corn cobs and switch grass and is preparing DDCE's innovative integrated technology for commercial production by 2012. Press release (http://www.ddce.com/media/100107.html))



Powerase<sup>TM</sup> 16000HS is a powerful amylase with vastly improved per-

formance when compared with previous amylases. In Australia, we will be replacing Purastar ST 6000 E with Powerase 16000 HS and customers will see better results at a lower dose and better in use cost. Call for more details and literature.

Purafast TM is a protease specifically targeted for the Asia-Pacific market that calls for cool wash performance. The new granules contribute to improved performance. Properase will be phased out in Australia and some customers have already made the switch successfully. See www.coldhardfacts.net for a comprehensive promotion. Also available in Blue Granules for a Cool point of Difference.

# GEOFF'S COLUMN

2010 has started very well with the commissioning of a new technical services laboratory at our Croydon facility. While we have always been able to provide a good level of Technical support in the past, the new lab will give us more options in terms of the tests we can do and the formulations we can develop on site.

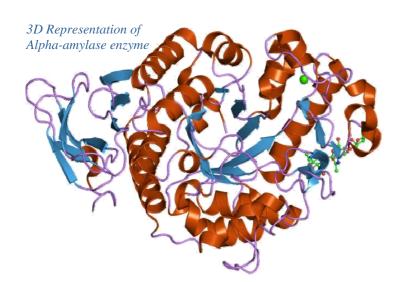
The laboratory is not for routine QA work. We choose to contract out all our QA work to labs specialising in Food micro.

Routine enzyme analysis is still a big issue in Australia with commercial laboratories choosing not to provide routine enzyme analysis – with the exception of Bromelain. This means it is necessary for us to send some samples back to our overseas suppliers for analysis where possible.

We are working on a new method for detecting airborne enzyme dust in the workplace. Initial trials look encouraging and now the emphasis will be on quantifying the results.

Enzyme Solutions has made a commitment to a new website that will be operational by the time the next Link is published. While the current site serves us very well and is informative, the new technology available today will bring us up to date and provide us with better communication tools.

We look forward to your feedback in June.







Many of the enzymes that are being used commercially find their origins in naturally occurring bacteria and fungi. However, overlooked species can be key to discovering new powerful enzymes for use in everyday products such as low temperature,

energy efficient laundry detergents and specialized food or even medical applications.

This is why Danisco has, as part of a larger project group, been granted 4.85 million dollars from The Danish Council for Strategic Research to look into the nature of the

enzymes derived from snakes, spiders and carnivorous plants.

'When a spider catches a fly in its web, it injects digestive enzymes into its prey to liquefy it. This makes it easy for the spider to devour the fly. The digestive enzymes are highly effective and we are very keen to look into the dynamics of these enzymes,' says Charlotte Poulsen, Genencor Enzyme Development. The same mechanisms are applicable to snakes and carnivorous plants.

(www.danisco.com).



## **Asia Pacific Brewing Conference 2010**

Geoff, Tom and Rob spent a week in Surfer's Paradise catching up with a lot of people from the brewing industry in pretty convivial surroundings. In this we were well supported by our Principal - Danisco, with Martin Eagle from Danisco Australia, Derek Horne from Danisco NZ and Aart Mateboer from Danisco The Netherlands on the stand with us.

Our main talking point was Laminex Super 3G – our next generation Beta Glucanase for improved brewhouse performance and better filtration results. As usual, there was plenty of interest in Low Carb beer production with our Diazyme range of glucoamylase products providing the solution.

Congratulations to the winners of the Wenger watches, who were:

Peter Fraser – Foster's

Chris Willcocks – Bluetongue Brewery Robert Retford – Ingredient Resources Grant Keith – Pall Filters



## **Preservative Free Enzyme Formulations**

We have mentioned this before, but it certainly is something that bears repeating.

We have a range of products that are GM free and do not contain any preservatives. Most of these will also meet the standards for the organic certification bodies.

A good example is Diazyme X4NP, a Glucoamylase used by the brewing and fruit juice industries to reduce starch to sugar, which helps to make low carbohydrate beers and keep fruit juices haze free!

Not only does it have no preservatives, it also has higher activity: a full 33% higher than the industry standard.

As well, most of our pectinase range for fruit juicing and winemaking are similar – allowing users to meet their customer's desires.

Contact us for more information

### Mission Statement

To deliver unique, innovative biotechnology derived products and technical services which provide environmentally positive solutions to customer needs.



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