BRAU BEVIALE 2012

THE REFRESHING EVENT FOR THE BREWING INDUSTRY – IN PLASTIC WITH A HOPPY NOTE?

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This year's Brau Beviale, the beverage industry's most important capital goods exhibition, was held on 13-15 November. On the following pages, Jens Eiken presents some interesting highlights from the exhibition.

The 32,810 trade visitors (2011: 31,693) were apparently very satisfied with the new opening days of Brau Beviale – now Tuesday to Thursday – and the extensive range of products from the 1,284 exhibitors (2011: 1,384)[1].

If you didn't know what to do at the exhibition, there were many workshops or theme pavilions to attend. You could for example choose between:

1. An 'Energy and Water' pavilion – offering the latest in sustainable technologies and opportunities for potential savings in energy and water.
2. The Future Beverage Industry 20xx theme – where various companies presented innovative ideas for meeting the ever-growing requirements for quality, flexibility and cost stability.
3. The European Beer Star pavilion – offering visitors a chance to try the gold medal winning beers on the first day of the exhibition, and choose their favourite beer: the Consumers' Favourite in gold, silver and bronze. The consolidated results of the 2012 European Beer Star competition were also presented at the fair (http://www.european-beer-star.com/ebs12_en/gewinner/rueckblick/gewinner2012.php?navid=12). The consumer's favourite was the Firestone Walker Brewery in Paso Robles, California, for the imperial IPA 'Double Jack'.
4. The Brau Beviale Exhibitors Forum – where more general information on current trends and technologies could be found
5. The European MicroBrew Symposium – that offered insight into the markets, trends and technology relevant to the growing craft beer segment

Or one could choose to attend some of the many supplier-after-hours-events.

One of these events was a dual presentation from Novozymes under the headline 'Sharpen your innovative edge' with individual presentations on 'Lessons in practical innovation from 50 break-through drinks' and 'New opportunities with flexible optimizations using enzymes to support the Brewing Business'.

According to a study from Dutch Rabobank ('Best of Times, Worst of Times – Global Beverage Outlook 2012'), from January, fluctuating or and increasing prices for raw materials are one of five so-called megatrends that beverage producers see themselves confronted with these years. The other four trends, which have an impact on sales planning, are: The ever growing importance of the emerging markets, the splitting demand between cheap and premium brands (bifurcation), strategic sourcing and convergence between beverage segments (e.g. juice and beer, e.g. from Austria Juice)[1].

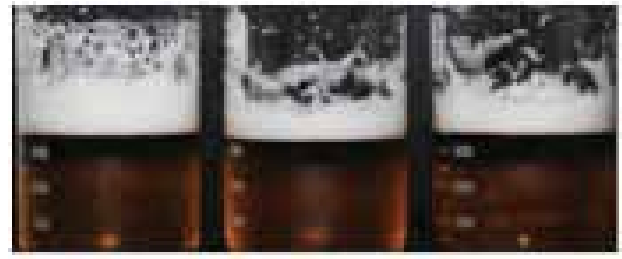
Japanese, Ethiopians, Canadians, English, French, Danish, German, and Swiss, you name it; we were all present and very busy looking; looking around to spot ways to address the five megatrends, finding a new movement, bumping into an old colleague, getting the last raw material news, getting inspiration for product and process innovations.

There were loads of students from the nearby German universities and people with heavy bags filled with brochures including the latest brewing news and set-ups; e.g. the formation of Austria Juice or Ziemann, KHS and Oettinger merging in a green initiative.

It was extremely busy in 'Hall 1' around the hop-stands; maybe due to the launch of unusually many new aroma hop varieties from Huell: Mandarina Bavaria, Polaris, Hallertau Blanc or Huell Melon. Or the Dr Rudi or Wakatu varieties from New Zealand. Or the newly developed aroma varieties – Triskel and Bouclier – from Cophoudal in France, produced in cooperation with Peter Darby, the well-known hop researcher behind Wye Hops Ltd. in England.

Figure 1: A new variety Triskel from French Cophoudal

Do Hopsteiner have a replacement for Tetrahop, which do not require any label requirement? It really seems so with the natural foam enhancer called 'Alpha Foam'.



4 ppm Alpha Foam *Control* *40 ppm PGA*

Figure 2: Lacing of an American premium light beer, 270 seconds, at 3 °C.

The difference between Tetrahop and Alpha Foam is that Alpha Foam does not contribute to any extra sensoric bitterness. If the difference in bitterness is corrected by using either Iso-Pellets or Iso-Extraxt, Alpha Foam will be a cheaper alternative to Tetrahop and comparable to alginates (good news for our colleagues in England)[2]. Please also think about why some laboratories perform foam analysis at 20 °C instead of e.g. 3 or 5 °C? Maybe time to rethink…

Interestingly, exactly the opposite purpose was served by a new product from the Barth-Haas group, who launched a hop based anti-foaming agent called 'HopAid Antifoam' enabling increased fermenter capacity.

The company GranMalt launched granulated hopped wort for NAB opportunities with allegedly great taste.

From a brewhouse perspective, take a look at the smaller possibilities from Brumas – a 34 litre brewhouse – or why not the GEA Compact-Star brewhouse concept delivering a solution for capacities from 40 hl to 100 hl per brew. ➜

The PET solutions for non-returnable kegs seem to be a very hot area of innovation, as an increasing number of brewers look to this solution for both local distribution, but even more so to increase their export possibilities. Petainer, one of the leading suppliers in this field, had issued a press release on a partnership between Sovereign Beverage Company, Frederic Robinson Ltd. and Thomas Hardy Ltd. in England and an investment in the KHS 'PetBoy F2' filling machine that most probably will be attractive for the craft and specialty segments of the market – Good luck!

For the packaging interested, I found the balloon-principle filler from Leibinger SMB of interest. They claim faster fillings and elimination of CO_2 use in the filling process with limited oxygen pick-up. For those into distilling, you might want to try having a look at the 38 to 500 L capacity stills from Brew & Distill System Ltd. in Korea.

The company EUWA's water cleaning plants are increasingly being implemented world-wide, and some in areas where water cleaning via ultrafiltration, reverse osmosis and carbon filtration is essential, creating an increased part of the COGS (cost of goods sold).

THE APPROACH TO THE DESIGN OF BEER GLASSES IS TAKEN TO A NEW LEVEL

The two glass companies Sahm and Rastal both presented innovations based on a more thorough and scientific approach to the interaction between glass design and the perceived aroma, flavour and taste for beer served in them.

From Rastal came the 'Beer de Luxe' glasses – Four different glass designs that allow the specific characters of different beer styles to be enjoyed to the full by enhancing the release and development of their particular aroma and taste characters.

Sahm launched their new 'Senso' tasting glass developed together with Sommelier World Champion Markus Del Monego. Markus demonstrated that the taste impression of a beer is decisively determined by the shape of the glass. With the 'Senso' glass – a further development of a whisky tumbler designed by Del Monego and the Spiegelau crystal factory in the late '90s – sensory components can supposedly be compared irrespective of the type of beer.

The fact that beer glassware and its impact on the drinking experience is beginning to be taken as seriously as within the wine world delights and excites us at SBR, so much that we will let Markus Del Monego elaborate on his

views on the topic of beer glass shapes and their influence on perceived aroma, flavour and taste of the beer:

'The important aspect is the freshness of a beer. The first glass is usually drunk very quickly and the second ordered before the first emptied. However, the third glass is only ordered if there is still appetite after the last sip of the second glass. Therefore, this last sip is crucial. It has to be fresh, with appetizing flavours, so that the consumer orders the next beer.
Therefore, the shape of a glass is very important. It has to be designed in a way that the flavour remains fresh. In addition, the shape should never pronounce alcohol. A widely opened shape does not produce an alcoholic impression, but leads also to a less aromatic flavour impression. A shape which is rather closed will concentrate flavours, but could also concentrate the alcoholic impression. The solution is a so-called flavour chimney. As alcohol gets stuck/concentrated in the area where the shape gets narrower, it is important that the glass is built in a way so that the nose of the taster will not touch the area where alcohol is concentrated. In addition, the chimney has the effect to accelerate and therefore concentrate the more ethereal aromatic compounds. The result is a well-defined flavour profile.
Concerning the taste, shape is important, too. The shape will lead the liquid either in a narrow or in a broader stream. Therefore, the areas where the taste buds are concentrated are reached in a different order, which can be determined by the shape. A shape that brings the beer just on the tip of the tongue, will always lead to a "sweeter" impression of the beer. A shape that brings the beer further behind the tip of the tongue will produce a drier, slightly more bitter impression. In addition, the shape influences the speed; how fast a beer flows over the tongue. A very round shape will be slowing down the speed; a linear shape will produce more speed'.

Vetropack Austria GmbH has melted black glass in its Croatian plant for the first time. Up to now, paint has generally been used to create black bottles.

Black has become a much discussed and thus highly interesting 'colouration' for glass bottles. There are two main challenges to overcome: opacity and the colouring of the molten glass. The Hirt brewery in Austria agreed to run a filling test using this new glass colour variant. 330 ml black glass bottles were filled with 'tekno trance beer' for a project being launched on the Italian market – an unusual project being put to a unique use[1].

Did I find an answer to Rabobanks mega trends? Well, one way could be to consult Alectia:

Alectia, the leading independent brewery consultant to the global brewing industry, uses simulation for optimization of complex production facilities. Simulation provides a much stronger and clearer linkage between design and operation. BrewSim and LogiSim is the names of the models developed, and these show how any change to your supply chain, whether driven by operations or by investment, will impact how you run your daily operations.

Alectia's simulation model helps to ensure that the consequences will be quantified.

This is not a full summary, but some indications for the future.

See you in 2013 at Drinctec Interbrau!

REFERENCES

[1] Press release Brau Beviale June 2012
[2] 'A Natural Foam Enhancer from Hops' by Wilson, R. et al, P-142, World Brewing Congress 2012