



2nd ESST Conference in Bratislava

The 2nd ESST (European Society for Sugar Technology) Conference, which took place in Bratislava, Slovakia from 30 May to 1 June 2011, was jointly hosted by the ESST, the Verein Deutscher Zuckertechniker (VDZ) and the Fachverein der Zuckerindustrie Österreichs (FVÖ). This was the third conference that the ESST (or its predecessor CITS) and VDZ organised together. The first, took place in Rostock in 2007, the second in Rotterdam in 2009. In Bratislava, the Fachverein der Zuckerindustrie Österreichs took over local organisation of the conference, and the ESST planned the scientific programme. Every eighth year, the Austrian Fachverein is responsible for organising the VDZ conference, in continuation with the long tradition of Austrian sugar conferences.

In total 350 participants from 25 countries (including accompanying guests) came to the Slovakian capital, which has experienced tremendous development since the fall of the iron curtain, 20 years ago. The Austrian organisers, headed by *Konrad Mikulcik*, chose the renovated 19th century hotel, Radisson Blu, as the venue for the conference. Located in the center of town, it was only a few steps away from the lively old city.

New ESST Board elected

An ESST Council meeting was held the day before conference started, during

which a new Board was elected:

Denis Bourée (Saint Louis Sucre/Südzucker) as President, *Paul J.H. Mesters* (Suiker Unie) as Incoming President, *Piotr Wawro* (Nordzucker) as Treasurer and *Karl Carter* (British Sugar) as Outgoing President.

Axel Aumüller (Incoming President) and *Bengt Högberg* (Treasurer) resigned from the Board.

Paul Mesters and *Piotr Wawro* were elected for the first time to the Board.

The Scientific Committee of ESST

The Scientific Committee of the ESST met during the conference, chaired by its President *Jan Maarten de Bruijn*. The Scientific Committee consists of 25 scientists from the research departments of sugar producers and universities. It coordinates the scientific work done within the society. Among other topics, the problem of nitrate in molasses (see below) was discussed and it was decided to form a working group on this matter under the leadership of *Stephan Frenzel* (Südzucker). As new members of the



Conference hotel Radisson Blu Carlton, Bratislava

Committee were elected:

- *Niels Andersen*, Nordic Sugar
- *Garry Bowler*, British Sugar
- *Gillian Eggleston*, ARS-USDA
- *Florian Emerstorfer*, Agrana
- *Fernando Martin*, Azucarera
- Peter Burroughs* (British Sugar), *Ian Iciek* (University of Lodz, Poland), *Alexander Dandar* (University of Bratislava, Slovakia) retired from the Scientific Committee.

Scientific Programme

The ESST was responsible for the scientific programme. Under its Chairman *Jan Maarten de Bruijn*, the Programme Committee of the Scientific Committee selected 22 presentations and 7 posters on topics proposed by the ESST Scientific Committee. Themes chosen, included:

- New developments and challenges, e.g. raw sugar refining;
- Beet quality related to long processing campaigns;
- Nitrite in molasses.

The abstracts of these papers and the 7 poster presentations, were published in issue 6 of this journal, 2011, p. 373–379.

Sessions

The newly elected ESST President, *Denis Bourée*, greeted the Secretary of State of the Slovak Ministry of Agriculture, *Gabriel Csicsai*, who opened the conference in the afternoon of 30 May 2011. His opening remarks centered on EU agricultural policy and referenced the reform of the EU sugar regime.



The new ESST Board (from left to right): *Piotr Wawro* (Treasurer), *Denis Bourée* (President), *Karl Carter* (Outgoing President), *Paul J.H. Mesters* (Incoming President)



The President the Agrana subsidiary Slovenké Cukrovary, *Dušan Janíček* (left), the Secretary of State, *Gabriel Csicsai*, who opened the ESST conference, and *Denis Bourée* (right)

EU Sugar reform has led to the closure of one sugar company, Slovakia Eastern Sugar, and there are now only two sugar factories left in Slovakia, those belonging to Agrana in Sered and Nordzucker in Trenčianska Teplá. Slovakia has a total sugar quota of 112,000 t and now needs to import around 30% of its sugar.

Plenary Session

Johann Marihart, CEO of Agrana Beteiligungs-AG and President of the CEFS, the Association of European sugar producers, was invited to speak at the plenary session and spoke on “The 2020

Challenge for the EU Sugar Industry”. Mr. *Marihart* sees the main challenges for the European sugar industry as the prolongation of the EU sugar regime and the Doha Round of WTO. He discussed in detail competition between beet and grain on the agricultural side, and sugar and isoglucose from grain on the industrial side. European beet sugar might have to compete with cane sugar from the world market in the future. Despite the fact, that the current EU sugar regime will continue until 2014/15 there is already a lively debate on its future due owing to the reform of the Common Agricultural Policy after 2013.

The CEFS wants to prolong of the EU sugar regime but with minor changes related to, amongst other things, the removal of production charges. The EU Commission favours the abolition of sugar quotas, whereas

the European Parliament has voted to keep quotas. In future, the beet price will have to follow the grain price on the world market, otherwise the farmers will not grow beet. If the grain world market price is high and the world market price for sugar is low, this could cause difficulties for European sugar producers. The grain price itself will also be dependent on the oil price due to ethanol production. If sugar quotas are abolished the competitive situation with isoglucose in Europe will also change, so he favours maintaining of sugar quotas. Biogas production with the guaranteed price for renewable electricity brings another competitive factor in the beet and grain price.

Nitrite Symposium

One of the themes selected by the ESST Scientific Committee was “Nitrite in Molasses”.

In EU regulation 2002/32/EC, the European Commission stipulates a nitrite limit of 15 mg/kg for all animal feed materials, therefore also molasses and beet pellets. Most analyses of European beet molasses have shown much higher nitrite levels, which would make molasses unsuitable as a feed component. Due to the intervention of the sugar and starch industry this regulation has been suspended for the time being.

A CEFS working group has been established and the ESST Scientific Committee has also founded a subcommittee to deal with this subject. *A. Waterlander*, *H. Puke* and *S. Frenzel* summarised information on this subject during the session on nitrite in molasses.

Methods for nitrate analysis

At the present time, no internationally standardised and validated meth-



Stanisław Swietlicki (left), *Krystyna Wasinska* and *Dominik Stefanski*



Bertrand Gaillac and *Coraline Trintignac*



Jan Maarten de Bruijn (left) and *Arend Wittenberg*

ods exist for determining nitrite content in molasses. Analytical methods, developed and published to date, are, in general, limited by product specific difficulties when it comes to applying the method to sugar industry feed materials. For example, instability of the analytical target compound due to pH value, temperature, matrix composition

time, it was acknowledged that care had to be taken, regarding the establishment of new limits for compounds contained in minute amounts in commercial products.

Best Paper

In closing the conference, the President of the ESST Scientific Commit-

tion of classical music, and therefore a visit to the Bratislava Opera House was a must. On the first evening of the conference members of the ensemble of the Bratislava Opera sang well known arias from various operas. The vivid and varied programme found large and long applause from the participants of the conference. On the second evening, the



Pavel Kadlec (left) and Zdenek Bubnik



Manuel Ruiz-Holst (left) and Ernst Saueregger



Hanjo Puke (left), Stefan Frenzel and Anne Jacob Waterlander (right) during the discussion nitrite in molasses



Giorgio Pezzi (left) and Gilles Schrevel

etc., colour interference in photometrical measurements, sample preparation procedures etc. The method must also be suitable for sugar factory labs with relatively simple equipment. During the 2011 beet campaign 2011, one photometric and one chromatographic analytical method for nitrite determination in sugar industry products is to be evaluated for repeatability, reproducibility and precision in collaborative studies.

In a literature review, no study was found, which deals with formation, distribution and degradation of nitrite during the sugar manufacturing process. Nitrite seems to be formed, amongst other points, during extraction. But it was recognized that investigations into the behaviour of nitrite during the sugar manufacturing process needed to be carried out in the near future, in order to find ways to minimize the content of the compound in molasses. At the same

time, *Jan Maarten de Bruijn*, thanked the organizers (FZÖ; VDZ / Zweigverein Süd), the members of the ESST Programme Committee (*Martin Bruhns*, *Thomas Frankenfeld*, *John Jensen* and *Gilles Schrevel*), the Chairman of the sessions (*Martin Bruhns*, *Walter Hein*, *John Jensen* and *Stefan Frenzel*), the ESST Secretary (*Jürgen Bruhns*), and all speakers. In his view, *Jan Maarten de Bruijn* judged the Best Paper presented at the conference to be "Factors affecting colour removal in a refinery," written by *M.G^a de Quevedo* and coauthors from Ebro Azucarrea.

Evening and Guest Programmes

Bratislava is geographically very close to Vienna, and the two cities have enjoyed close ties over the centuries especially during the time of the Austrian-Hungarian empire, of which Vienna was the capital. Both cities share a long tradi-

Fachverein der Zuckerindustrie Österreichs (FZÖ) hosted an event at the Flagship Restaurant, where conference participants enjoyed Slovakian Food and traditional music and dance. The diversity of the musical traditions of this Slavik nation in the heart of Europe were appreciated by all guests.

On 31 May, accompanying guests visited Modra, in the Little Carpathian mountains to see local pottery. Afterwards a guided tour through Bratislava was very much enjoyed by participants.

Next ESST Conference

The new ESST President, *Denis Bourée* and the VDZ President *Axel Aumüller* invited conference participants to the 3rd ESST Conference, which will be from 6 to 8 May 2013 in Warsaw, Poland. *Axel Aumüller* invited to conference participants to the VDZ Annual General Meeting, 14 to 16 May 2012 in Magdeburg, Germany.