

# 16<sup>th</sup> European Grain Network Meeting

*Over 50 delegates attended the 16th European Grain meeting 18th-19th March in Dijon, France.*

The perennially popular European Grain Meeting brings together players from the grain industry to discuss the latest news and topical issues from the industry, and is appreciated by all grain network administrators, not only in Europe, but from around the world. This year the event was hosted by grain testing and research specialists Agrosreso.

## Healthy grain

Jan Willem van der Kamp, from testing and inspection services provider TNO Quality of Life, The Netherlands, gave an introduction to the EU integrated HEALTHGRAIN project.

Dietary shifts from refined grain products to whole grain and high bran products can significantly reduce the incidence of obesity and related diseases, including cardiovascular diseases and type-2 diabetes. The HEALTHGRAIN project is providing the scientific basis for better understanding of the health impact of dietary fibres and other bio-active components of whole grains and for developing a new generation of healthy products.

In a related session, S. Gergely and A. Salgó from the Department of Applied Biotechnology and Food Science, Budapest University of Technology and Economics, Hungary, presented new possibilities for measurement of bioactive components in grains and products with NIR.

Dr Anton J. Alldrick from the Cereals & Cereals Processing Division of Campden BRI, UK presented the role of analysis in managing mycotoxins in cereals. It has been estimated that in excess of 25% of the world's arable crops (including cereals) are to one degree or another contaminated with mycotoxins.

## Importance of sampling

As the distribution of components is far from homogeneous in grain consignments, and homogenisation is difficult, if not impossible to reach, sampling is of paramount interest in grain analysis. Mr Marc Provot, Laboragro/ In Vivo Group and Chairman of CEN TC 338 gave a

comprehensive overview of sampling methods, with a focus on the new EN ISO 24333 standard, and of equipment for sampling in different situations.

Oil seed and wheat and barley ring tests

Dr Jürgen Möller from FOSS presented results from a ring test undertaken to establish the performance of NIR calibrations and the reference methods regarding analysis of oil seeds. He also provided an update on the ring test completed in 2009 on the FOSS ANN (Artificial Neural Network) Infratec calibration for wheat and barley. Results confirmed the stability of the ANN model.

Staying with the Infratec™ ANN calibration, Dr Möller gave an update on progress towards acceptance of the calibration as a standard. The new EN 15948 "Cereals – Determination of moisture and protein – Method using Near-Infrared-Transmittance in combination with an Artificial Neural Network (ANN) Prediction Model and Associated Database" has been approved as a preliminary European standard in a CEN Enquiry in 2009. Work is continuing towards a final vote and acceptance of this standard. The standard will make it easier to get accreditation and official approval for the Infratec grain ANN calibration.

New ways to look at grain and flour  
FOSS introduced a new analysis solution that is set to revolutionise the way grain quality is assessed.

Matching developments in imaging technology with FOSS's experience in grain analysis has resulted in a powerful grain assessment tool – the EyeFoss™.

The EyeFoss provides an objective supplement to existing checks by human eye. It provides an accurate quality assessment that avoids any discussions about grading. A range of defects can be caught in the digital spotlight, including all the main problems such as black spot, insect damage and mould, frost and germ damage. The analyser can assess 10,000 kernels in 2.5 minutes.

Relating experience with the new solution, Mr Ian Sproul from CBH Australia was enthusiastic about the

instrument and stressed the good cooperation with FOSS.

Using networking software called Mosaic, the instrument can be connected into a network, allowing calibration and software updates to be made by an expert user via the internet. The expert can also monitor the instrument to ensure optimal performance at all times.

The recently released ProFoss™ online near infrared analyser is also built on recent advances in technology – in this case, high-resolution diode array technology that provides a precise and reliable picture of products as they are being made. The system helps to make the best use of costly wheat varieties in flour production while controlling protein, moisture and ash in the final flour for optimal yield. Jan-Åke Persson from FOSS said: "ProFoss allows you to get laboratory accuracy measurements unattended, automatically and directly from your running process."

More information from Market

Manager, Josef Schweizer,

js@foss.de.