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Introduction

2012 took off at full speed for IDF with several events planned in the first six months.

After the brilliant success of the [Regional Conference on milk supply and demand systems](#) in Seoul, Korea, IDF members visited Madison, Wisconsin, USA in May and St-Malo, France in June.

Madison welcomed the [Cheese Ripening & Technology Symposium](#) while St-Malo brought together IDF and INRA for the [5th Symposium on Spray Dried Dairy Products](#).

Earlier in June, another hundred experts also gathered in Tel Aviv, Israel for the [IDF/ISO Analytical Week](#).

The 2012 IDF events will come to a close in November with the next IDF World Dairy Summit in Cape Town, South Africa. [Don't forget to register!](#)

This Events Special Issue features reports on activities and pictures on the last three events. Most presentations will be available soon on the events' websites.

Enjoy!

The IDF team



IDF Cheese Ripening & Technology Symposium

Following the outstanding success of past IDF symposia on the topic, the 6th IDF Cheese Ripening and Technology Symposium took place in Madison, Wisconsin, USA, from 21 to 24 May 2012. Over 300 participants from 34 countries debated on latest scientific insights with focus on three key areas of topical relevance to the dairy industry.

Presentations and pictures will soon be available on the event website at www.idfcheeseus2012.com.

Ripening & Flavor

Ripening and flavor development in cheese remains an important link in the chain of ultimate cheese performance. A whole day session presented the various facets of the science necessary to understand microbial ecology, flavor formation and sensory perception and the control of cheese ripening. The session also focused on application of new omic technologies to understand the diversity of starters/cultures and their impact on cheese ripening.

Physical Properties / Performance

The event underlined the importance of cheese texture as a key attribute that determines consumer acceptance. Physical properties of cheese also dictate its performance in various applications. The session explored recent developments that employed a materials science (e.g. rheology, microstructure, modelling) approach in understanding and modifying cheese texture/performance. With the ongoing trend of trying to improve the quality of reduced fat/sodium cheese, greater research emphasis was focused on understanding how cheese products were perceived by consumers including oral processing and flavor/texture perception.

Health & Wellness

The growing importance of health and wellness has significantly altered the consumption of cheese. Cheese is a highly nutritious food and opportunities exist to further enhance its health promoting properties. The symposium has demonstrated once again the natural health benefits of cheeses, some of the scientific and manufacturing challenges that arise when reducing fat or sodium contents, supplementing cheeses with functional ingredients/cultures (such as probiotics) and also what effect these nutrient transformations have on cheese flavor development, physical properties, texture and appearance, as well as overall cheese performance.

What's Next?

IDF will continue to promote the generation of new scientific knowledge, to provide the best international platform for its presentation and debate and to assist the dairy industry in identifying new pathways for improving manufacturing technologies and ripening procedures and ultimately the quality of cheese.

The 2012 IDF Cheese Ripening and Technology Symposium has contributed to fulfilling the dairy industry's commitment to meet the global challenge of increasing demand for dairy products, and in particular cheese, following economic progress and growing wealth in some rapidly developing countries and changes in dietary patterns all over the world. Technological innovation and enhancement of functional and physiological properties of cheese will result in greater nutritional value and consumer confidence.

IDF/ISO Analytical Week 2012

Over 100 participants from 20 countries attended the IDF/ISO Analytical Week from June 4 to 8 in Tel Aviv, Israel.

The IDF/ISO Analytical Week featured about thirty project group meetings, a workshop, a symposium, and meetings of five Standing Committees.

A special meeting of the chairs, deputy chairs and project leaders was held at the beginning of the week to provide advice on how to conduct the project group meetings, and to provide a platform of exchange with the Methods Standards Steering Group. This initiative will be reiterated next year.

The symposium focused on “Safeguarding the food safety in the dairy chain” and included presentations on the Israeli dairy sector, update on the development of a new screening system to detect possible adulteration of milk, safety of products during process and packaging. The international participants were joined by 120 local participants for the symposium. The symposium was followed by a visit to the largest dairy farm in the center of Israel.

More information can be found at www.idf-iso-analytical-week.org.

The SC on Harmonization of Microbiological Methods (SCHMM) will meet later this year in September (date to be determined)



Symposium on "Safeguarding food safety in the dairy chain"

Methods Standards Steering Group (MSSG)

The MSSG met prior and after the analytical week on 2 and 8 June 2012. They have reviewed the MSSG strategic plan, and in particular updated the list of objectives, and the communication plan for the year.

Collaboration with AOAC – SPIFAN project

A number of informal exchanges between IDF, ISO and AOAC happened in the past year. The organizations have met in Brussels in May to discuss an agreement of collaboration on development of standards for methods of analysis on infant formula and adult nutritionals. The agreement will be signed by ISO and AOAC in June during the week of SPIFAN meetings. IDF will be involved through ISO. This achievement fulfils one of the MSSG objectives to avoid duplication of work, and enlarge the methods portfolios. Following a dispute between an infant formula manufacturer and the authorities in China, the SPIFAN group has been asked to consider expanding the project to review available methods for whey/casein ratio. IDF has a significant history on protein analysis, and has been specifically invited to join. Different stakeholders will be present in June: manufacturers, local authorities, IDF and ISO.

IDF/ISO Analytical Week 2013 – 3-7 June – Rotterdam, the Netherlands

The organizers are currently considering having a full day technical tour from Rotterdam including venues such as Qlip and Wageningen, with a possibility to have technical presentations. Project leaders are requested to confirm the needs for their PG meeting as early as possible.

IDF/ISO Analytical Week 2014, in conjunction with ICAR/INTERBULL congress – Berlin, Germany

Due to the link of the week to the ICAR INTERBULL congress, the schedule of the week will be different than the past years. The week will start on Thursday 15 May till Tuesday 20 May, with the Sunday off, and a full day symposium with ICAR on the Saturday 17 May. The full day symposium will focus on the topic of the IDF/ICAR project: Reference System for Somatic Cell Counting, and related presentations.



Special meeting of the chairs, deputy chairs and project leaders

SC on Analytical Methods for Additives and Contaminants (SCAMAC)

Determination of melamine in milk products and infant formulas - Several ways of validation have been considered, however no one is available to lead the collaborative study. There is a horizontal project at CEN level for which a first draft method is available. The method developed is prescriptive, unlike the semi criteria approach taken in the ISO/IDF Technical specification. However the CEN method fits the criteria and will be collaboratively studied on a wide selection of products, including dairy products. The PG and SC will monitor and check whether the horizontal standard meets the expectations, in which case a study for the IDF/ISO TS would not be necessary.

Two NWI under consideration are the revision of the standard for determination of Aflatoxin M₁ in milk products, and a method for the determination of vitamin K₂ in fermented milk products, following a request from the SCNH.

SC on Analytical Methods for Composition (SCAMC)

ISO 8968| IDF 20 Protein Determination by Kjeldahl

The PG and SCAMC reviewed comments and agreed to progress the method to ISO voting DIS stage. IDF national committees shall receive a questionnaire in due course.

Milk products and infant formula

Direct determination of labelled fatty acids – the method is currently being tested on SPIFAN (Infant formula and adult nutritionals) selected products. Following presentation of data, a cheese will be included in the next collaborative study to possibly extend the scope of the method to cheese.

SC on Analytical Methods for Dairy Microorganisms (SCAMDM)

A survey on the future of SCAMDM was sent to the SCAMDM members in view of assessing the current workload and proposed to maintain the SC, merge with the SCHMM, or create a Task Force with the only active subject (Enumeration of microorganisms by flow cytometry). Although the majority of replies indicated a merger of the SCAMDM with SCHMM, a few replies against brought strong arguments.

It was also brought to the attention of the SCAMDM and MSSG that Project leaders volunteered for two of the NWI proposals (Enumeration of L Casei and PCR). Therefore the MSSG recommended that the SCAMDM shall be maintained with the aim of gaining more active members.

Although no election was called upon due to the outcome of the survey, candidates were nominated, J Combrisson (FR) for Chair, and D Ellekaer (DK) for deputy chair and therefore elected for one year. A call for candidates will be issued for the next meeting in June 2013, and formal election will be held during the meeting.

SC on Analytical Methods for Processing Aids & Indicators (SCAMP AI)

A NWI proposal on determination of GGT (enzyme used as heat indicator) will be brought forwards to IDF NCs for approval.

Progress has been made on fluorimetric methods for the determination of phosphatase.

The SCAMPAI has elected a new chair, Jackie Page (US) and a new deputy chair Charlotte Egger (CH). The previous chair Bob Salter (US) and deputy chair Philippe Trossat (FR) were thanked for their four years of service.

SC on Statistics & Automation (SCSA)

Workshop on Challenges with New Applications of InfraRed Spectrometry

Three targeted presentations (available on intranet) brought lively and fruitful discussion about new opportunities and related challenges. 2 priority work items have been identified on approach to spectrum standardization and QA practices with new parameters.

IDF/ICAR Project Group on Reference System for Somatic Cell Counting

Good progress has been made with several building blocks of the system. This brings also the final aim, that is a better safeguarding of the equivalence in somatic cell counting worldwide, within closer reach. The document listing the requirements for reference materials will be finalized in the summer of 2012 and afterwards be made available to a wider audience. Together with the EU Joint Research Centre and the Institute for Reference Materials and Measurements in Geel (BE) an exploration is underway on the feasibility of the production of the concerned CRM. The road map for the implementation of the reference system for somatic cell counting will be updated during the summer of 2012. The implementation of the system is anticipated from 2014 now.



Visit of the largest dairy farm in the center of Israel

5th IDF/INRA Symposium on Spray Dried Dairy Products

The 5th International Symposium on Spray Dried Dairy Products marked the first collaboration on the topic between IDF and the Institut National de la Recherche Agronomique (INRA). The symposium was a resounding success with close to 500 participants from 40 countries gathered in Saint-Malo, France.

The symposium featured six sessions:

Advances in Dairy Powder Manufacturing: *Membrane Separation, Vacuum Concentration, Spray Drying, Fluidization, Storage*

Whey and Derivates: *Lactose and Crystallization*

Process Engineering and Alternative Technologies in relation to Energy Saving and Recovery

Powder Properties and Reactivity: *Analysis, Characterization and Behavior during Granulation, Rehydration*

Nutrition: *Physical Functionalities and Nutritional Values of Dairy Powders*

Commercial session

The 2012 edition developed several new sessions, including an economic presentation on global trade of dairy powders, a commercial session for companies as well as a conference dedicated to nutrition and the nutritional impact of dairy powders.



Nico van Belzen (IDF), Joëlle Léonil (INRA-STLO) & Pierre Schuck (INRA-STLO)

Economics of Dairy Powders

Benoît Rouyer, CNIEL and IDF expert, noted that global trade of dairy powders is on the rise. This analysis includes whole milk powder, skim milk powder, infant formula, whey powder and lactose. He also underlined the high volume of investments worldwide in dairy powders, over 3 billion \$US spread in 28 countries. This economic approach of dairy powders was welcomed by the audience as it integrated the topic in a global perspective.

Recent Developments

Experts recognized the importance of pursuing research on lactose crystallization given the complexity of the topic due to the high amount of whey types. Another topic of choice was stickiness behaviors of dairy powders.

The brand new session gave commercial companies an opportunity to present their own developments regarding energy costs savings and production added value.

Overall, the symposium showed that different uses of current technologies can help reduce energy costs, with a greater use of high concentration systems and spray drying of these high concentrated products. New approaches of current methods can also enhance functional properties of dairy powders.

Speakers also underlined the crucial link between spray drying technology and strict methods of analysis for the development of dairy powders.

The poster competition was won by Anna Pisponen from Estonia with her poster on the Influence of pH and concentration on the lactose crystallization from Ricotta whey.



Close to 500 participants gathered in St-Malo

What's Next?

This event brought together many stakeholders of the dairy chain and offered a unique platform for companies and academia to share their knowledge and experience. The next Spray Dried Dairy Products Symposium will take place in 2015 in Ireland.

Presentations and pictures will soon be available on the website at <https://colloque4.inra.fr/sddp2012>.



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