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IDF
世界乳业大会

IDF2006 Shanghai China 上海 中国

WORLD DAIRY CONGRESS NEWS

Intense Cooperation with International Organizations

IDF与国际组织的紧密合作

By Christian Robert

IDF's network with more than 1,200 experts is committed to the science-based approach of establishing international standards for trade in foods, and has developed formal partnerships with international organizations. IDF is actively involved in the standardization work of the Codex Alimentarius Commission (see article in our Monday edition), the International Organization for Standardization (see interview of Joerg Seifert in this edition), and the World Organization for Animal Health (OIE). The Food and Agriculture Organization (FAO) is also one of its regular partners. All IDF submissions to intergovernmental organizations are science-based and technically validated.

OIE is one of these key international organizations. We are very pleased to acknowledge a number of past successful joint events including:

- IDF/OIE Symposium on On-farm Control and Diagnosis of Paratuberculosis in Brussels/BE, January 2001
- UBISI 2004 - International Symposium on Dairy Safety and Hygiene in Cape Town/ZA, March 2004 organized jointly by IDF, FAO and OIE
- The 5th International Mastitis Conference in Maastricht/NL in June 2005

OIE has taken an active part in the programme of the Congress.

IDF also works closely with the FAO, which has supported the organization of three of the congress conferences:

- Conference on Animal Health: Management and Control of Infectious and Production Diseases (21 October)
- Conference on Good Dairy Farming Practices related to Primary Production of Milk and Farm Management (22 October)
- Conference on Hygiene and Food Safety of Dairy products and Food Standards for International Trade (23 October)

In the future, two IDF/FAO joint events are already scheduled: a symposium on milk quality in 2007 and a symposium on revolution in food safety management in 2008.

This type of cooperation is crucial to IDF's mission. By sharing expertise and working closely with international organizations, we can extend our sphere of influence, and contributr through mutual collaborations to progress for the benefit of the whole dairy sector.

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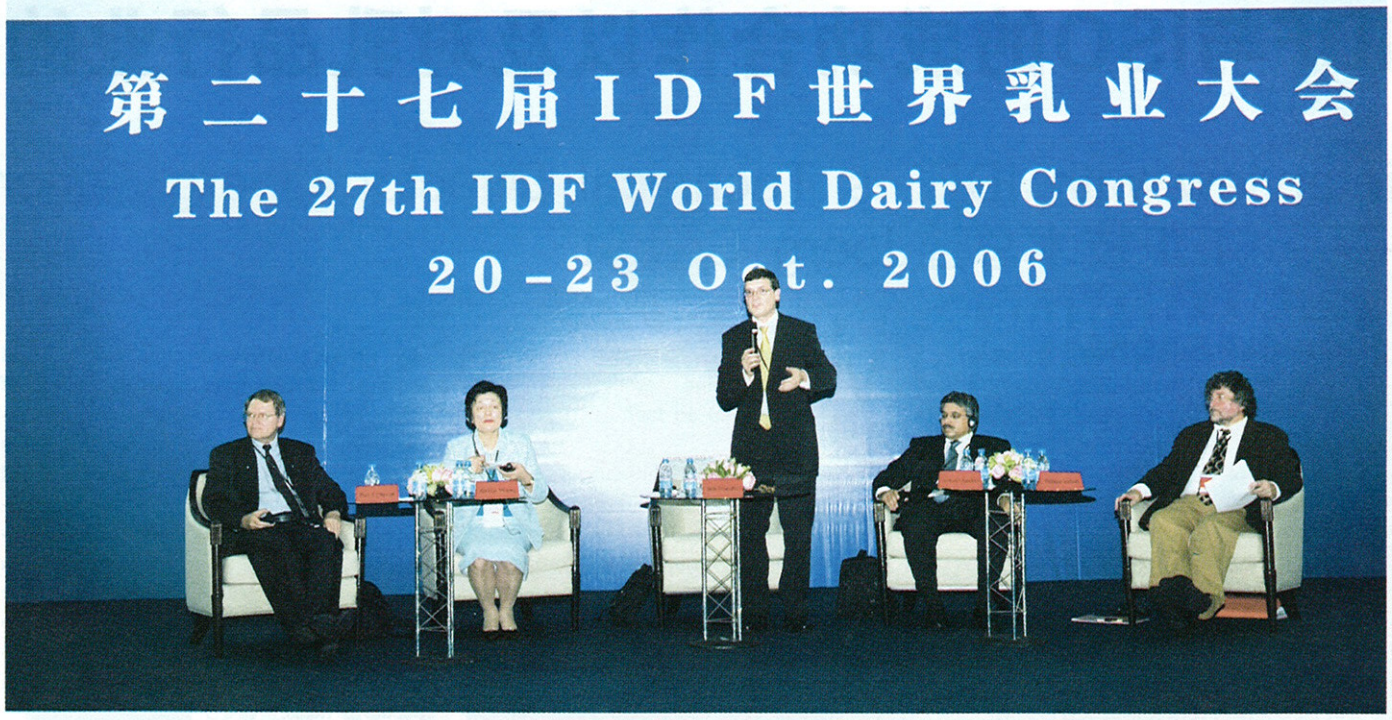

Forum of World Dairy Leaders

World Dairy leaders in the dairy industry met together yesterday at the 27th World Dairy Congress. A unique opportunity to discuss and understand current preoccupations, current issues challenging the whole of the dairy sector at international dairy level. An impressive number of participants attended this forum, an ideal platform to exchange views with eight chief executives of the largest dairy groups of the world.

Bioactive Dairy Ingredients Will Have to Prove Their Point

乳制品中的生物活性成分

Interview with Peter Roupas (CSIRO Food Futures Flagship and Food Science Australia) and Peter Williams (National Centre of Excellence in Functional Foods, University of Wollongong, Australia)

功能性食品给传统的管理方法带来了挑战。这些挑战也同样适用于乳制品及其成分。你们发现了什么问题？乳品业将如何应对？

科学研究已经发现许多食品成分有益于健康。这些促进健康(具有生物活性)的食品成分可能天然存在于食品之中，也可能是生产商人为添加。这些生物活性成分已经对传统食品的营养强化带来挑战，进而影响食品法规。

在不远的未来，生产商会将会面临这样的要求，即在获得健康声明批准前提供高质量科学数据，这样食品上出现的声明将赢得消费者更高的信任。

在食品标识、安全和健康声明的法规中，相关要求正越来越严格。未来几年将会出现怎样的改动？

国与国之间以及各组织之间（如Codex、澳大利亚新西兰食品标准(FSANZ)）的食品法规和标准都有很大区别。但是通常来说，一种新"食品"进入市场之前，生产商需要从相关管理机构获得认可。许可过程取决于食品或其成分是否被视为全新或非传统的(如，在那个市场有没有消费史)。

乳品业如何应对这些挑战？

世界各地的管理机构和食品生产商都在争论食品标识以及证实健康声明方面的要求。与新食品相比，乳品及其成分的一个优势就是它们被视为"传统"食品。人们饮用或食用历史很长，因此获得管理许可也就更加便捷。

Functional foods are challenging some aspects of conventional regulatory approaches. Which issues do you see emerging?

Scientific research has identified potential health benefits of many food ingredients. These health-promoting (bioactive) food ingredients may be naturally present in a food, or may be added by manufacturers into foods that do not naturally contain such components. These bioactives have challenged traditional concepts of food fortification and consequently food regulations. Dairy foods and ingredients have significant potential as vehicles for the delivery of such bioactives and health-promoting physiological effects, if regulatory hurdles can be overcome.

While nutrient content claims and general level claims (e.g. calcium and healthy bones) are allowable in many countries, higher level claims or specific claims relating to disease conditions are generally not currently allowable by most regulatory bodies worldwide. In contrast with the scientific substantiation of health claims required by countries such as the USA and Canada, regulations in China (for example) rely more

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IDF-ISO Successful Collaboration and Its Impact on the Dairy Sector

IDF与ISO的成功合作以及对乳品行业的影响

interview with IDF´ s Technical Director, Joerg Seifert ——访IDF技术总监Joerg Seifert

IDF与ISO何时开展合作，取得了什么成果？

1963年，在Codex Commission的要求下，IDF和国际标准化组织(ISO)就国际贸易中在食品标准领域发展牛奶和乳制品的采样和分析的标准正式开始合作。IDF和ISO已经在2001年开始合作，宣传分析标准方法，到2006年底已经合作印刷出版了90项标准。

您如何定义这种合作以及双方的不同角色？

IDF提供科学、技术以及牛奶和牛奶产品分析的相关经验。ISO已经开发了一个起草国际标准的标准方法。IDF/ISO方法标准指导小组正在负责IDF/ISO一项合作项目的协调工作。

IDF/ISO标准对各地区和国家有何影响？

ISO/IDF标准对地区标准化活动有重大影响。地区和国家的食品立法常常在现有的Codex标准和内容基础上进行。其结果是Codex食品标准里的一些IDF/ISO分析方法也就在各地区和国家使用。

您如何看待IDF/ISO未来的合作？

现在的趋势是加强发展横向标准方法。这些方法正替代产品牛奶和乳制品具体的微生物标准方法。ISO/IDF将通过加强和扩展合作以应对未来的挑战。

When did IDF-ISO cooperation start and what has been achieved so far?

In 1963, IDF and the International Organization for Standardization (ISO) initiated formal cooperation with regard to the development of standards for sampling and analysis of milk and milk products in respective food standards in international trade. Since that time, IDF/ISO and their former collaboration partner AOAC International have worked on the creation of a harmonized system of analytical standard methods for compliance end quality control of dairy products. IDF and ISO have started joint publication of analytical standard methods in 2001 with approximately 90 standards published under joint logo by the end of 2006.

How would you define the partnership and different roles of both organizations?

IDF provides unique scientific and technical expertise and experience regarding analysis of milk and milk products. This ensures the applicability of the standard methods in dairy laboratories and beyond. ISO has developed a unique standardized way of drafting international standards including first-class editorial input as well as a very transparent system of consultation and administration. The IDF/ISO Methods Standards Steering Group is coordinating a joint IDF/ISO work programme that currently comprises work on about 70 items.

What is the impact of IDF/ISO standards on regional and national level?

There is a tremendous influence of ISO/IDF standards on regional standardization activities. Regional and national food legislation is frequently based on existing Codex standards and texts. As a consequence, IDF/ISO analytical methods in Codex commodity standards that are used for the purpose of verifying product compliance are also used at regional or national level.

How do you view the future of IDF/ISO cooperation?

The current trend indicates increasing emphasis on developing horizontal standard methods. There is already substantial IDF/ISO work in the field of developing microbiological methods for foods taking into account the needs of the dairy sector. These horizontal methods are replacing product specific microbiological standard methods for milk and milk products. The new strategic direction of Codex can trigger further change in focus towards developing new methods, for example for the detection of specific bioactive dairy ingredients in functional foods.

Intense Cooperation with International Organizations

IDF与国际组织的紧密合作

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作为一个获得国际认可的科学类组织，IDF集合了来自学术界、政府和乳品行业的1200位专家。IDF致力于使用科学的方法建立国际食品交易标准，并已经和国际组织建立了正式的合作伙伴关系。 IDF积极参与Codex Alimentarius Commission(详情请见周一的会刊)、国际标准化组织(详情见本期会刊采访Joerg Seifert的文章)，以及世界动物卫生组织的标准化工作。世界粮农组织也是IDF的合作伙伴之一。所有IDF提交给政府间组织的报告都已经在科学和技术层面上通过了论证。

OIE是这些重要国际组织中的一个，与IDF进行过多次愉快的合作，并积极参与了IDF第27届国际大会的项目。IDF也同样和世界粮农组织紧密合作，该组织为IDF大会的三个会议提供了大力支持。通过技术分享以及与国际组织密切合作，我们可以扩大影响范围，充分利用这些合作项目为乳品行业带来发展。

Bioactive Dairy Ingredients Will Have to Prove Their Point

乳制品中的生物活性成分

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on long-established and accepted practice and experience developed in traditional Chinese medicine but have specific requirements with respect to food safety and public health. A newly agreed Food Labelling Directive attempts to harmonise food labelling issues and health claims across Europe which will result in more stringent levels of scientific substantiation.

In the immediate future, there will very likely be increasing demands on manufacturers to provide high quality scientific data before approvals for health claims are granted and this may result in higher consumer confidence in the claims that will appear on food products. However, manufacturers will also need to consider the time and expense in scientific substantiation / clinical data to support the claims being sought.

Regulations related to food labelling, safety and health claims are changing and becoming more demanding. Which changes do you foresee in the coming years?

The assessment of scientific safety and efficacy of the food or ingredient by the relevant authority is likely to require data on the characterization and source of the ingredient, manufacturing processes, concentration in the food product, and related safety considerations. The evidence for confirmation of efficacy may include in-vitro data, in vivo animal trials using levels of defined biomarkers as measures of a physiological effect, but more than one human intervention trial in different population groups is also likely to be essential. Evaluations will probably include a number of quality criteria such as the quality of the study design, conduct and analysis, with decisions based on the totality of the evidence. In the future, regulators may also require research to test how consumers are likely to interpret and use any health claim.

How is the dairy industry dealing with regulatory challenges?

The requirements for food labelling and the substantiation of health claims are currently being debated by regulatory authorities and food manufacturers worldwide. An advantage that dairy foods and ingredients have over novel foods is that they are considered as "traditional" foods, which would potentially allow an easier path through regulatory approval. Consumer research has also shown that dairy foods like yoghurt are viewed as much more credible and appealing carriers of functional ingredients than indulgent foods like chocolate. However, if dairy ingredients are isolated and concentrated, and manufacturers are considering adding such dairy ingredients into other food vehicles, the process for regulatory approval will still require demonstration of safety and efficacy.

New Technologies Enhance Milk Health Benefits
新技术提升牛奶的健康益处

Interviewing Professor Hannu Korhonen (MTT Agrifood Research Finland)
——对Hannu Korhonen教授的访谈

牛奶成分与健康之间有何联系？

许多研究表明饮用牛奶和其它乳制品能减少罹患与饮食有关的慢性疾病(如肥胖、骨质疏松，Ⅱ型糖尿病和心脏病)的危险。在过去20年中，科学研究取得的进展已揭示出牛奶和初乳包含大量对人体健康有益的生物活性成分，作用包括改善免疫系统、控制血压甚至情绪等。

现在有何新趋势？

鉴于存在着在有益健康的产品中添加主要牛奶成分(如钙和蛋白质)的可能性，功能食品的热潮还将继续。另外，乳糖和牛奶脂肪衍生物可能会发现新的应用领域。设计出包含固醇和类黄酮等源自植物成分的有益健康产品是一个前景喜人的研发领域。

乳业科学和技术以及营养在IDF的活动中占据什么位置？

新的IDF使命宣言显示出在乳业领域，将科学与技术知识相结合的重要性。在新的战略下，IDF将把科学、技术和营养作为我们活动的关键部分。

What is the link between milk components and health?

Many recent epidemiological and case control studies have provided evidence that the consumption of milk and various dairy products can reduce the risk of diet-related chronic diseases, such as obesity, osteoporosis, type 2 diabetes and heart diseases. The progress in scientific research over the last two decades has revealed that milk and colostrum naturally contain a number of biologically active components which can deliver specific health effects to humans, for example boosting the immune system, preventing and treating gastrointestinal disorders and controlling blood pressure and even mood. Most of these components, including immunoglobulins, lactoferrin, growth factors and enzymes are found in the whey fraction, which was traditionally considered as a low-value by-product. Recent research has discovered that the major whey proteins alpha-lactalbumin, beta-lactoglobulin and caseins are a rich source of bioactive peptides showing many different activities, which can be exploited for health promotion. Also, interesting new research data has revealed that dairy calcium has many important biofunctional roles, and that milk lipid and lactose derivatives can provide positive health effects in the gut functions.

Milk bioactives add natural value to milk and, therefore, the dairy industry should take full advantage of this potential. To this end, three action points can be envisaged:

1) to boost the unique image of milk
2) to transfer the scientific knowledge to innovative dairy products
3) to expand the potential to new business fields

What are the current directions for research?

Current dairy research is based on three pillars:

The first one focuses on establishing the underlying scientific principles behind the growing evidence that milk and certain milk products as part of daily diet can provide protection against chronic diseases.

The second one addresses the novel biomolecules, such as milk basic protein, recently discovered in milk or fractionated technologically from major milk components with potential positive health effects. This also includes development of appropriate technologies for production and recovery of bioactives from milk or colostrum and their application in different food products.

The third pillar, the nutrigenomic approach, attempts to elucidate on gene basis how milk components have developed through evolution and how they affect human nutrition and health at genetic and metabolic level.

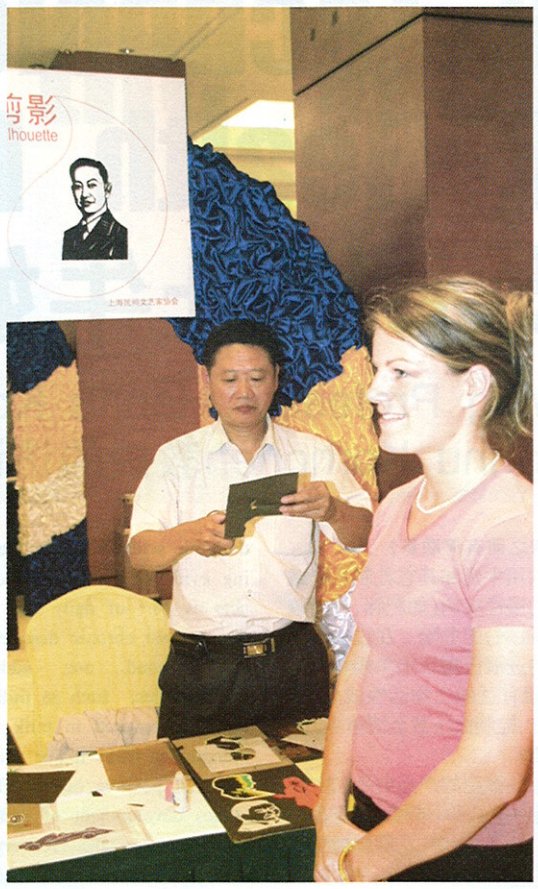
What new trends do you see emerging?

Lactose and milk fat derivatives may find new fields of application as a result of scientific research in progress. In development of functional dairy products, new applications and growing competition can be expected with regard to probiotics and prebiotics. A new promising area for R&D is to design health-promoting dairy products supplemented with components of plant origin, for example sterols and flavonoids, and targeted to consumer segments with specific health risks. In the future, consumers will demand more personalized diets, which fit their lifestyles, metabolism and even genes better.

How have technological advances evolved in the last 15 years?

The rapid scientific progress in the knowledge of milk bioactives has put a lot of pressure on the development of appropriate technologies for recovery, fractionation and application of such components in active form. To this effect, membrane separation processes have been developed and applied successfully up to industrial scale. Novel suitable technologies have emerged, such as high hydrostatic pressure and non-thermal processing techniques, but their introduction in the dairy industry seems to take place on a slow pace.

Zoom on 27th World Dairy Congress



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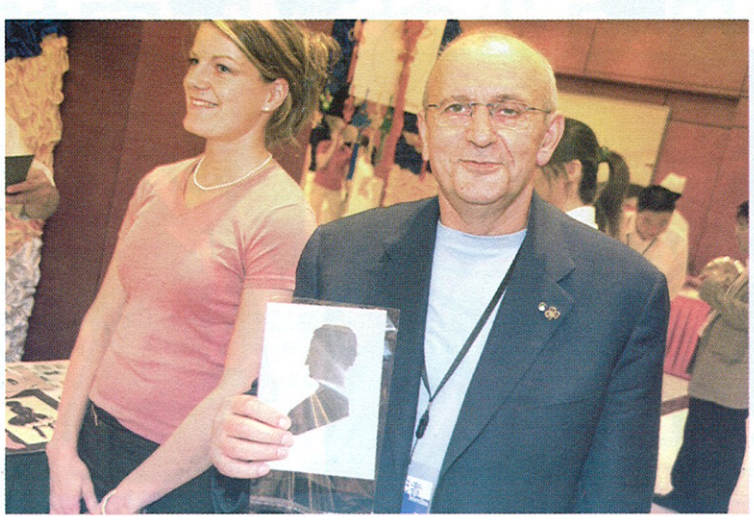

iry Congress Dinner

Dairy Farming In the World
世界畜牧业

Dr. Hemme, as the leader of the IFCN Dairy Network you have analysed dairy farming in over 30 countries in the world. Are dairy farms really affected by globalisation and the ongoing liberalisation of trade?

The simple answer is yes. Dairy farms and the families behind them are most affected by the milk price and the feed prices. The most important factor, the milk price, is determined on the one hand by the local supply and demand of milk and on the other hand by the world markets for dairy products. To make it simple, we can say that the maximum milk price a milk processor can pay to his suppliers is determined by the world market price for milk plus the tariff applied in the country. For example, in the EU, the upper price bound in 2004 was around 35 Euro per 100 kg milk.

How can a local dairy farmer be really affected if only a very small share of world milk production is traded?

This is indeed difficult to understand. Let me clarify some figures. Based on our IFCN Dairy Sector Model analysis only about 11% of the world milk production is traded i.e. exported. If you have a look at the processed dairy products like butter, cheese, condensed milk and the various milk powders, the traded share increases to 25%. This figure would be significantly higher if we included the trade within the EU-25 countries.

Does the price the dairy farmers receive matter for the price of the dairy products?

The biggest cost component of a dairy product is the price for buying the milk from the farmers. In some cases the "farmers' milk price" counts for about 70% of the cost to produce a dairy product.

What does this mean for the dairy sector?

I will focus on this question in my presentation given the 22.October. It means:

a) A competitive milk price is the starting point to be viable in the market for dairy products.

b) Dairy regions where farmers have low cost will gain market shares.

c) Dairy regions where farmers need a higher milk price will loose market shares.

These drivers become more and more relevant as we liberalise the trade of dairy products.

How do we know which region has high or low costs?

We have established the IFCN, a research network, to create a better understanding of milk production worldwide. One part of our work is the analysis of typical dairy farms and their costs. The local researchers participating in the IFCN do the data collection. The cost analysis is standardized by the software TIPI-CAL. Based on that, we are able to compare the costs of a farm in the USA with 2000 cows with the costs of a farm in India with 2 cows. We are happy to have research organisations from 34 countries joining the network at the moment. Moreover we cooperate with 20 agribusiness companies "around" the dairy farm, which use the IFCN knowledge as a navigation system in the rapid changing world.

What is the magic about a low costs system?

Usually people expect large farms with high yield to be most competitive. A common belief is that an "optimum farming system" exists, which would be the right one in all parts of the world. Both are wrong!

The most important for low cost milk production is to have the optimum region specific farming system and the ability to adjust it to changes in milk prices, input prices and the social developments in the country.

Workshop Updates Members On Useful New Technologies
对实用新技术应用的研讨

chaired by Professor Rafael Jiménez-Flores

“新的分析工具及其在乳业科学中的应用性”研讨会将通报最新的乳业研究技术。

对牛奶和牛奶成分(蛋白质、脂质和碳水化合物)的研究持续了50多年。对于这一复杂生物系统的知识在不断发展。乳清蛋白及产品就是一个很好的例子。然而,接下来我们面临着更大的科技挑战——生产出包含牛奶成分的增值食品。新产品需要新技术,消费者对于健康的关注使得食品的营养和生物活性变得日益重要。

下午的研讨会旨在向成员通报在探索牛奶、及其生物功能和加工过程中所发生的变化的过程中所采用的工具。这些工具所提供的结果有助于推进保持牛奶中有益的营养和生物学因素的技术。

Milk and its components (proteins, lipids and carbohydrates) have been studied continuously for over 50 years. Knowledge of this complex biological system has evolved in recent decades, largely coinciding with advances in technology. The whey protein industry and its products are a good example. However, the next decade will have to answer to even greater scientific and technological challenges to produce value-added foods containing milk components. New products will demand new technology, and the consumer's focus on health and wellness indicates that nutritional advances as well as biological activity of foods will be of greater importance. The main drive to develop the required technology is probably the scientific information we can gather to further our understanding of milk, its composition, its interactions, and its biological role beyond basic nutrition.

This afternoon's workshop aims to update our members, to some extent, on the tools that are being used today in the exploration of milk, its biological function and its changes during processing. The results provided by these tools are a basis for advancing technology that will preserve the positive nutritional and biological factors found in milk.

IDF World Dairy Summit 2007 - Dublin

IDF2007年世界乳业峰会将在都柏林举行

By Michael Hickey 作者:Michael Hickey

IDF2007年世界乳业峰会将于2007年9月29日至10月4日在爱尔兰都柏林举办。

鉴于国际上普遍的竞争压力以及围绕乳制品创造增值机遇所必需的技术措施,"乳业能适应变化吗?"这一主题尤为合适。研讨会将涵盖全球贸易、营销、乳业科技、营养和健康、畜牧业和环境问题。这是一次您与专家、IDF同事和宾客交流的良机。

全球的乳业科学家正在进行关于酪蛋白分子团以及它在加工和产品功能性上的中心作用的研讨。在"营养和功能食品"论坛上,日益重要的食品和健康问题将得到广泛讨论。在WDS2007预备通讯中将简要介绍这些论题,这本通讯可在IDF上海会场获得。

"Céad Mí le Fáilte", an Irish greeting that means "one hundred thousand welcomes", will await delegates to the IDF World Dairy Summit to be held in the Burlington Hotel, Dublin, Ireland from 29th September to 4th October, 2007. The venue is Dublin's largest and possibly liveliest hotel. Centrally located in the heart of Georgian Dublin, it is a ten minute walk to the city centre. With over 500 bedrooms, bars, restaurants and a business centre available in the dedicated meetings centre, the hotel can cater for all your business requirements.

The theme "Dairying - can it manage change? " was considered appropriate in the light of the competitive pressures being felt internationally and the technological initiatives considered necessary to create added value opportunities based on milk. Symposia will cover areas of global trade, marketing, dairy science and technology, nutrition and health, dairy farming and environmental issues. We invite you to take advantage of networking opportunities with the experts, fellow IDF members and guests while enjoying early autumn in Ireland.

Already, dairy scientists worldwide are rowing in behind the call to support a major review symposium that is earmarked on the casein micelle and the central role it plays in processing and product functionality. The increasing importance of Food and Health will be covered extensively in the Nutrition and Functional Foods symposia. These and other topics are outlined in the preliminary brochure for the event WDS 2007 that will be available at IDF Shanghai.

Online registration will be available via the World Dairy Summit 2007 website www.wds2007.com early in 2007. To received regular news and updates of the conference programme please email info@wds2007.com which you are invited to visit for regular programme updates and news over the next year.

So please do take this opportunity to mix Irish culture with what is promising to be an excellent World Dairy Summit programme in Ireland's capital city, Dublin.

Before then please call to see us at our 2007 IDF Summit Promotion Desk here in Shanghai.

IDF World Dairy Summit, Mexico 2008

IDF2008年世界乳业年会将在墨西哥召开

By Ing. Alfonso Moncada
作者:Ing. Alfonso Moncada

2008年秋季,IDF世界乳业峰会将在墨西哥城召开,这将是IDF峰会首次在拉丁美洲国家召开。对于墨西哥IDF国家委员会而言,目的之一就是助推其国内乳业的发展,提供技术、经济和科学信息。

会议议程、研讨会和各项活动将旨在满足乳业的需求。国际专家将介绍他们关于实施促进乳业发展的项目的经验。鉴于墨西哥的地理位置,我们预期拉丁美洲和加勒比海国家将出席和参与会议,分享他们的经验。

鉴于这一地区的经济状况,对牛奶所带来益处的探讨变得非常重要,会上将深入探讨有益于这一地区经济发展的增值产品。

考虑到大多数与会者是来自本地区的国家,探讨的议题主要围绕提升乳制品的生产技术展开。大会将是来自全球的专家分享关于不同议题的知识的集会地。

In autumn 2008, The IDF World Dairy Summit will be held in Mexico City, hosted by the IDF National Committee of Mexico, the Mexican productive and industrial sector, the investigation centers and several entities of the Mexican government. This will be the first time that a Latin American country will host the IDF World Dairy Summit. One of the objectives of the IDF NC Mexico is to contribute to the development of the dairy sector, providing technical, economic and scientific information, with the support of the IDF General Secretary. The active participation of the IDF NC Mexico in international fora in Latin America has contributed to the connection and exchange of successful experiences, which will support the integration of the region.

The conference programs, workshops and activities will be designed to meet the expectations of the dairy industry. International specialists will participate, showing their experience to implement programs for the development of the sector in primary production, industrialization, new technologies, nutrition and marketing between other. Given the geographical situation of Mexico, we expect the presence and participation of the Latin American and Caribbean Countries, that will share their experience.

Due to the economic condition of the area, it is important to discuss the advantages provided by milk. Taking advantage of the technology, added value products are elaborated, which contribute to the economic development of the area.

Considering that most of the attendees will come from local countries, the addressed topics will try to encourage and increase the techniques to produce dairy products with good practice procedures, to facilitate trade. The Summit promises to be a meeting point where the experts from the whole world share their knowledge about various topics. The idea is to contribute to the local dairy development through shared experiences, positioning milk as a basic nutritional element.

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