

Summit Daily

Rediscovering Milk

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IDF World Dairy Summit 2013

Rediscovering Milk

**YOKOHAMA
JAPAN**

**28 October - 1 November 2013
YOKOHAMA, JAPAN**



<http://www.WDS2013.com>



Milk is a treasure house of functional substances not only for science, but for the industry



Dairy Science and Technology

The Dairy Science and Technology Conference featured three sessions exploring the research and technical application of Biofunctionality, Palatability and Processing Technology Application for Product Development. Proceedings from the conference will later be published by IDF.

The first morning session on Biofunctionality unveiled both an overview of Japanese legislation for the commercialization of “Foods for Special Health Uses” (FoSHU) and detailed technical research on biofunctional properties of milk’s micro-components, such as milk fat globule membrane (MFGM), methods for protein and peptide separation, and a better understanding of the activity of milk-derived growth factors.

Makoto Shimizu provided an overview of Japan’s rich history of milk and foods to promote health, explaining that 1,072 products can be marketed in Japan under the different categories of FoSHU totaling 500 billion yen of sales in 2011.

These products, which have been approved based on scientific evidence demonstrating their functional benefits, include probiotics, prebiotics such as oligosaccharides (OS), components that enhance calcium absorption to promote bone health, and peptides fermented from milk that regulate body systems like blood pressure.

Milk-derived peptides have been studied extensively and now show promise in new areas of immunity and preventing infection. Over 6,000 scientific papers on lactoferrin functions are being reviewed for the Japanese Consumer Affairs on Aging, suggesting that this is the next promising functional ingredient. Dr Shimizu concluded that, “Milk is a treasure house of functional substances not only for science, but for the industry.”

Milk fat globule membrane (MFGM) molecules provide challenges for the chemical and sensory attributes as a result of oxidation.

Koen Dewettinck explained that there are also great opportunities to confirm the health benefits for beneficial properties in infant formula and nutraceuticals as well as technical function of emulsification in dairy and other foods.

Mr. Dewettinck covered the applications of microfiltration and diafiltration to extract MFGM and a new Proteomic analytical method that has identified 25 new MFGM proteins.

Mr Dewettinck stated that, “This demonstrates the MFGM is a rich source of highly biological proteins” which show not just nutritional properties but also promise for the future with antibacterial and anti-cancer effects.

Ulrich Kulozik shared new methods that are being used to separate whey peptides using novel membrane adsorption chromatography (MAC) and monolithic chromatographic systems that can increase throughput of whey proteins and reduce cleaning and investment.

He extensively reviewed information from a case study on Caseinomacropeptide separation of cCMP/gCMP. It was emphasized that the approach for production of active peptides may differ in technical and biofunctional properties, not just for single peptides but for also groups of peptides.

Pia Ollikainen reviewed the influence of heat treatment and membrane fractionation on milk-derived growth factors. She explained that milk is rich in growth factors that are small peptides.

Ms Ollikainen has studied the importance of growth factors TGF-beta 2 and IGF-1 in bovine milk, including the influence of heat treatment on their activity. Her talk also focused on the digestibility of TGF-beta 2 and IGF-1 in the infant and adult model.

The afternoon sessions focused on the palatability of dairy foods, with talks on evaluation and methods for engineering the interactions of flavor and texture.

In-depth presentations provided insights into consumer perception and preferences with an understanding of the complex interactions in the human brain.

Speakers, including students making oral presentations, also addressed processing technologies and product development applications for biofunctional dairy products.

Children and Milk

After an introduction by Chair Kazuhiro Uenishi, the Children and Milk programme was opened by keynote speaker Lynn Moore of Boston University.

Ms Moore focused on the benefits of dairy consumption, in particular how a dairy diet for children in conjunction with high levels of fruit and vegetables reduces blood pressure. She also looked at how protein insufficiency during pregnancy can programme a foetus to be obese, as the baby is prepared for survival in a protein poor environment.

Professor Hiromi Ishida spoke on the role of milk as part of Japanese school lunches. In all, 1.8 billion bottles of milk were supplied in 2012. Calcium intake has increased by 150mg a day thanks to school milk provision. Dr Hiroko Kodama spoke on vitamin D deficiency. There has been an increase in rickets among Japanese children that has coincided with a decrease in outside play and sunscreen use.

Katarina Erikson of Tetra Laval explained how 66 million children are given school milk across 55 countries.

Graphs shown by Professor Nakasawa indicate change in growth of 10cm of children since the programme began. Dr Judith Bryans looked at the results of the new survey involving the IDF and FAO and Tetra Laval networks.

Topline data reveals that milk is consumed rather less among school children today than other drinks. The most popular packaging format by some considerable margin is aseptic. Educational resources and sponsorships are good but there is competition from other beverages. More data mining and analysis is underway. .

FAO and IDF Globally Survey School Milk Programmes

The dairy industry has provided milk and dairy products to school milk programs worldwide for many years.

We know that milk is a nutrient-rich food and can help enhance the nutrition of school children across the globe. However, we have long lacked up-to-date information on the general benefits of school milk programmes and how they have evolved. Indeed, the last school milk survey was conducted by the FAO and the International Milk Promotions Group in the early 1990s.

Against this background, Michael Griffin from the FAO School Milk Program and the IDF network of experts in nutrition and marketing collaborated to establish the first major review of global school milk programmes in a decade.

The FAO School Milk Program has long-established networks to share information on all aspects of school milk. Its expertise was vital to the success of the project.

The 56 countries participating in the programme supplied a lot of information on consumption, programme structure, nutrition, promotion, administration and distribution.

To our knowledge, this is the largest survey of its kind in many years and provides an in-depth look at school milk programmes in the Americas, Asia, Africa, Australia and Europe.

Key findings:

- In 31% of programmes, children were provided with free milk; 79% of this was received by primary school children.
- In 52% of programmes, children were provided with subsidised milk; 79% of those receiving subsidised milk are in primary school; another 53% are in nursery school.
- Worryingly, when asked whether milk was consumed more or less compared with other drinks, 47% of respondents said that milk was consumed a lot or a little less than other drinks.

Dairy Policies and Economics Conference

“Local production models are emerging as an alternative to dairy imports, but many challenges to sustainable, local dairy development exist,” according to Kevin Bellamy of Rabobank during his presentation entitled “Global Emerging Dairy In Context.”

The fastest growth in dairy demand is coming in developing economies, driven by high birth rates, relatively youthful populations, rising household incomes, and growing government support for improved nutrition. However, those same markets also have the least developed dairy supply chains and face challenges which hamper local milk production. This creates an asymmetry in dairy supply and demand around the globe, which is why we have seen substantial growth in dairy trade.

While importing dairy products is one approach to the challenge of growing demand in markets with limited farm milk production, another avenue is to foster local, sustainable dairy development. In many cases, it may make the most sense to use imports while the infrastructure is created to support local farm milk production.

A key requirement for local dairy development is the availability of credit. One factor which may limit capital investment in developing markets is land title/ownership issues since land is often a key source of collateral for credit. Other issues include clarity and transparency of government intent with respect to trade barriers and food safety, stability of the general economy, and even the level of corruption and the physical security of bank staff.

In a presentation entitled “The milk value chain model – a catalyst for sustainable development,” Ulla Holm of Tetra Laval AB presented one example of how to drive sustainable, local dairy development, the Dairy Hub Concept. Small holder farms in a region are supported by a central milk collection and advisory center which in turn works with a dairy plant to provide a stable market for local farm milk production. This model includes access to farm production assistance and veterinary services to foster improved animal nutrition, cow comfort, animal health and milk quality. One example cited by Ms Holm is in Bangladesh, where 30 months after the start of a Dairy Hub there average milk yield per animal increased by 80% and average small holder monthly income increased from US\$100 to US\$187.

Government support for improved nutrition in schools often creates a demand for sustainable, local dairy development. Ms Holm noted that, “School milk programs promote private sector investments in food processing, creating jobs, expanding the local economy, and increasing the local tax base.” Increasingly, this leads to public-private partnerships to support the simultaneous development of markets for finished milk products and local farm milk production and dairy processing. Ms Holm concluded that, “Public-private partnerships are the most powerful tools to creating sustainable, local dairy development.” During the question and answer period, when asked about the future prospects for farm milk prices, Mr Bellamy noted that, “Rabobank sees the world market as supply-constrained at least for the next 10 to 15 years as world dairy demand growth continues.”

IDF Welcomes a New Member!



The IDF President Dr Jeremy Hill and Director General Dr Nico van Belzen, pictured with Dr Svetlana Minkova, Secretary of the Bulgarian National Committee of IDF, welcome Bulgaria as a new member country.

Animal Health and Welfare

Hisao Itabashi
Conference Programme
Organiser
Schedule: Sessions 1 & 2
Oct. 31 (Thu)
8:45-12:40
Venue :
Yokohama City Education
Center Hall (4F)

Two sessions are scheduled in the Conference. The first will focus on animal infectious diseases of importance to the dairy industry.

Keynote speaker Elisabeth Erlacher-Vindel will make a highly anticipated presentation on infectious animal diseases, referring to recent OIE activities.

Elizabeth Berry from the United Kingdom will update us on zoonotic diseases from dairy cattle in contact with wildlife and talk about successful eradication from some countries.

Tomohito Hayashi will speak about causative bacterial species of contagious mastitis and introduce recent diagnostic developments that harness DNA from bacteria. He will also cover such areas as cytokine treatment techniques.

Makoto Yamakawa will present a paper on arthropod-borne viral diseases in Japanese cattle.

Han-sang Yoo will cover a case study on constraining foot-and-mouth disease in Korea.

Finally, Yasuyuki Mori will introduce strategies for controlling Johne's disease in Japan. He will look at recent sensitive molecular methods for diagnosing this disease and talk about new preventive measures.

The second session will focus on recent progress in animal welfare. Tomoko Ishibashi will highlight the development of OIE animal welfare standards.

Seiji Kondo will overview animal welfare in Japan and present recent developments. Sira Abdul Rahman from India will present animal welfare issues under five broad rearing systems.

Finally, Frank Berthe will discuss the relationship between animal welfare and farm economics and food safety.

These reports should contribute to efforts worldwide to address animal welfare issues.

Dairy Farming

The first of two Sessions in this Conference will focus on meeting dairy farm challenges in the years ahead.

Keynote speaker Torsten Hemme will update us on an overview of global dairy farming. He will point out recent increases in the cost of milk production owing to such factors as higher feed and labour costs. Tomohiro Mitani will describe the great diversity of Japanese dairy farming as a result of extensive variation in feeding management and climates, translating into broad milk compositions.

Masahito Oba will present a paper on new insights into ruminal acidosis. Sub-acute rumen acidosis (SARA) is a persistent metabolic disorder affecting profitability. Mr Ota will look at the great variation in the severity of SARA among cows. Janneke van Wagendonk from New Zealand will speak on sustainable milk growth in pasture systems. She will present and discuss the challenges and opportunities of feed in pasture-based farming compared with TMR systems. Osamu Enishi will report on increasing the use of efficient feed resources and feed self-sufficiency rates in Japan.

The second Session will focus on new approaches in reducing green-house gas (GHG) emissions from the rumen. In the keynote speech, Karen Beauchemin will introduce future perspectives on reducing GHG. A number of GHG mitigation options have been suggested, and Yasuo Kobayashi will show new approaches by using natural byproducts. Asian dairy farming is a major GHG source, and case studies for reducing GHG in China (by Jian-Xin Liu) and Korea (by Jong Kyu Ha) will also be introduced. Finally, the latest information and future perspectives for technologies to streamline feed utilization will be discussed.

Hisao Itabashi
Conference Programme
Organiser
Schedule: Sessions 1 & 2
Oct. 31 (Thu)
13:50-17:30
Venue :
Yokohama City Education
Center Hall (4F)



Nutrition and Health

Toshimitsu Yoshioka
Conference Programme
Organiser

Schedule: Sessions 1 & 2
October 31 (Thu)
9:00-17:30

Venue :
The Yokohama Bay Hotel
Tokyu, B2F
Ambassador's Ballroom SN

Schedule: Session 1 & 2
Nov. 1 (Fri)
9:00-12:30

Venue :
The Yokohama Bay Hotel
Tokyu, B2F
Queen's Grand Ballroom CD
SN

This Conference focuses on the benefits of milk for human nutrition and health, which few medical professionals, let alone consumers, truly understand.

The Conference consists of four sessions that cover metabolic syndrome, intestinal health, future directions, protein quality and dairy nutrition and sustainability, and elderly nutrition and age-related diseases.

Session 1 will address the benefits of dairy products in tackling metabolic syndrome. After reviewing the positive effects of dairy products on the reduction of metabolic syndrome risk, epidemiological results will be presented focusing on the varieties in food culture in different countries. Research on interventions and mechanisms will also be presented.

In Session 2, the benefits of dairy products on intestinal health and gut microbiota will be discussed, focusing particularly on the immune functions of the gut. In addition, a scientific basis obtained from clinical trials on probiotics and dairy products commercially available worldwide will be proposed.

Session 3 will present new specific findings on the health benefits of milk and dairy products. They include preventing infection, dementia, and heat stroke. Also, this session will focus on protein quality, and dairy nutrition and sustainability as global issues.

These presentations are particularly important to help us to rediscover the additional value of milk and dairy products in providing solutions for current and future world health issues.

Marketing

This year's Marketing Conference will be unique for two reasons. As the summit theme is "Rediscovering Milk" and the venue is Japan, there will be more emphasis than in previous years on how product innovation can influence dairy demand. In addition, there will be a marketing tour of local retail shops to allow attendees to better understand the local market.

Session 1 will include presentations from the finalists of the annual IMP Awards. These presentations consistently offer noteworthy examples of outstanding marketing strategies from around the world. The winner will be announced at the Gala Dinner.

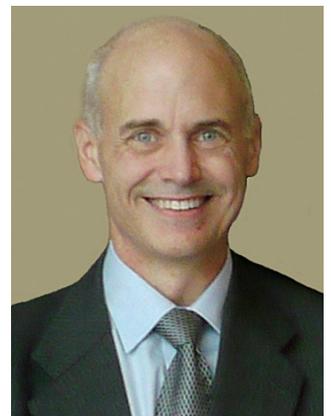
Session 2 is titled "Product Innovation for Communication" and will include talks on product innovation from Japan, Korea, Chile, and Finland. Some of the talks will be country surveys, while others will focus on specific product innovations. The final speaker in this session will be Claire Phoenix, who will give an overview of innovation from around the world that is driving demand for dairy.

Session 3 covers "Marketing for Communication (New communication strategies for dairy)". This Session will focus on the unique demands and marketing strategies needed for communication in different countries and regions around the world. Emphasis will be given to non-traditional marketing techniques, which differ greatly from country to country. Presentations from Israel, France, Norway, the United States, the United Kingdom, India and Japan will provide insight into how customers in a wide range of different dairy markets can be reached.

The morning after the Marketing Conference a special tour of local retail stores will be held and an introduction for the tour will be given after Session 2.

We are very excited about the speakers and topics to be covered in this conference and hope as many people as possible are able to attend.

Richard Walton
Conference Programme
Organiser
Schedule: Session 1 & 2
Animal Health and Welfare
Oct. 31 (Thu)
8:30-17:30
Venue :
The Yokohama Bay Hotel
Tokyu, B2F
Queen's Grand Ballroom CD



The probiotic consumed around the world – Yakult



Probiotics are live microorganisms that benefit a person's health by improving the balance of intestinal flora. It has been recognized that the probiotic strain *Lactobacillus casei* strain Shirota reaches the intestines alive and it is currently consumed as "Yakult" in 33 countries and regions throughout the world, including Japan.



IDF World Dairy Summit 2013

Rediscovering Milk

Yakult is a sponsor of the IDF World Dairy Summit 2013



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The Israeli National Committee of the International Dairy Federation, in proud collaboration with the Food & Agriculture Organization of the United Nations (FAO), will host the 2014 IDF World Dairy Summit in Tel Aviv, Israel on October 27 – 31, 2014. With a theme of "The Future Begins Here", the Israeli Organizing Committee is creating an attractive and innovative program that promises to educate and challenge your thinking on the opportunities and issues faced by the dairy sector.

With thousands of years of history, Israel is a society of multi-ethnic communities living side by side and true to its chosen theme, this technology-driven country of only seven million people spends more of its GDP on research and development than any other nation. Israel is one of the world's leaders in agricultural technology and we take great pride in our cutting-edge inventions, innovative knowledge and creative solutions to the various matters that concern the global agriculture sector.

Israel has a relative advantage regarding increasing yields in the dairy chain, mainly in the first stages of production: Feed, farm management, animal health, genetics and environment. All these topics, and more, will be expressed in the 2014 Summit program. The 2014 Summit Host, Tel Aviv, is known as "The City That Never Sleeps" for its 24-hour culture and cosmopolitan lifestyle. Our historic zone, the White City, is recognized by UNESCO as a World Culture Heritage Site, surrounded by trendy cafes and restaurants and artistic institutions. Claiming its rightful place along the beautiful 14 kilometer Mediterranean coastline, Tel Aviv has been ranked by National Geographic as one of the Top Ten beach-cities in the world.

Make sure to stop by our promotion booth at the IDF WDS 2013 Summit in Yokohama, Japan, as we look forward to meeting you all and sharing with you the wonderful events and exhibitions we have planned for the 2014 Summit!



Photo Gallery

World Dairy Leaders Forum



Dairy Policies and Economics



Cheese Happy Hour

