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IDF in 2015

Since the IDF business meetings were held in Paris last December, the IDF has achieved the following:

- Contributed to the FAO-LEAP deliverables on feed, biodiversity and large ruminants
- Following comments made by the IDF, the WHO guidelines on sugars now state that there is no evidence that the consumption of sugars naturally present in milk has any adverse effects.
- Published the following four Bulletins (details can be found on page 13):
 - ◆ **478/2015:** Interlaboratory collaborative study on a flow cytometry method for lactic acid bacteria quantification in starter cultures, probiotics and fermented milk products according to ISO 19344/IDF 232
 - ◆ **479/2015:** A common carbon footprint approach for the dairy sector: The IDF guide to standard life cycle assessment methodology
 - ◆ **480/2015:** The Contribution of School Milk Programmes to the Nutrition of Children Worldwide
 - ◆ **481/2015:** The World Dairy Situation 2015
- Released the following factsheets:
 - ◆ The Role of Dairy in Sustainable Nutrition - [download](#)
 - ◆ The Role of Dairy in Optimal and Under-Nutrition - The First 1,000 days - [download](#)
 - ◆ Microbial food cultures – [download](#)
 - ◆ Risk-based food safety management – [download](#)
 - ◆ Why semicarbazide is not a suitable marker for nitrofurazone in dairy products – [download](#)

Dr Judith Bryans joins IDF Board of Directors

Dr Judith Bryans, Dairy UK's Chief Executive, was elected onto the IDF Board of Directors during the IDF General Assembly that was held at the World Dairy Summit in Vilnius.

Judith has been actively involved in IDF activities since 2005, not only at the national level as a member of the UK National Committee, which she chaired for two years, but she has also already held a number of senior positions within the IDF, including Chair of the Nutrition and Health Standing Committee from 2008 to 2011 and then being elected as the person responsible for nutrition on the Science and Programme Coordination Committee (the body responsible for progressing IDF's work programme throughout the year), a position she held for three years.



The UK is also represented at a senior level within the IDF by Chris James (AHDB Dairy Board member) who is the person responsible for the Dairy Sector (Farming) on the Science and Programme Coordination Committee.

Judith (far left) is pictured with Cary Frye (outgoing member), Thierry Geslain (incoming member to represent National Committee Secretaries), Ines Coldewey (outgoing member representing National Committee Secretaries), Jeremy Hill (IDF President), Michael Hickey (outgoing Chair of the Science and Programme Coordination Committee), Tova Avrech (existing member), Jorgen Hald Christensen (existing member), Clay Hough (incoming member for Dairy Sector – Processing) and Luc Morelon (existing member).

IDF WORLD DAIRY SUMMIT 2015

Conferences overview

Chris James (UK-IDF Chair, AHDB Dairy Board Member and member responsible for the Dairy Sector (Farming) on IDF's Science and Programme Coordination Committee)

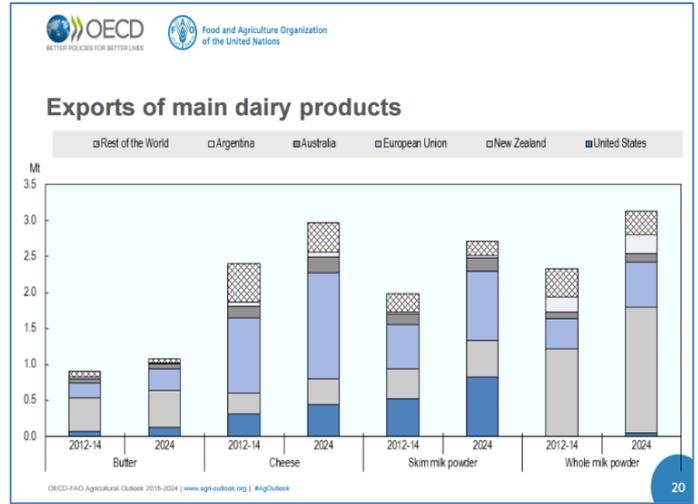
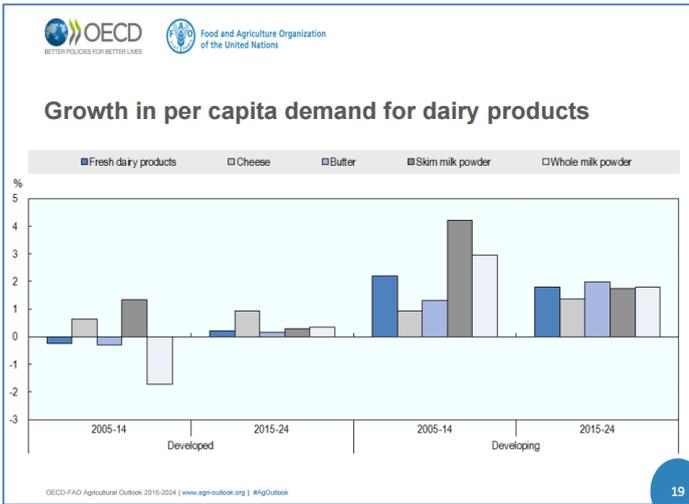
With average milk yield per cow increasing globally, UK dairy farmers are being urged to tap into readily accessible information on genetic and management technique improvements that are driving higher production levels.

At the 2015 International Dairy Federation Summit in Vilnius, Lithuania, Professor Larry Chase, of Cornell University, said many US farmers were already averaging more than 13,000 litre/cow/year; this, he predicted, could be the average yield in that country by 2025. Professor Chase told the conference that only 15% of this yield increase would be the result of improvements to dairy cow rations; the uplift would be largely due to improved management and genetics. The route to increasing yields was no secret, he insisted. The information is readily available for farmers to access and use.

Russia is leading research into herd genetics and cow nutrition too. Professor Serhii Oliinyk, of Stravropol State Agrarian University, told delegates that achieving improvements in both these areas was a key focus. Russia also came under the conference spotlight for its ban on imports of milk and dairy products. The conference heard that the ban had forced previous suppliers to find alternative markets by matching the requirements of buyers to product characteristics.

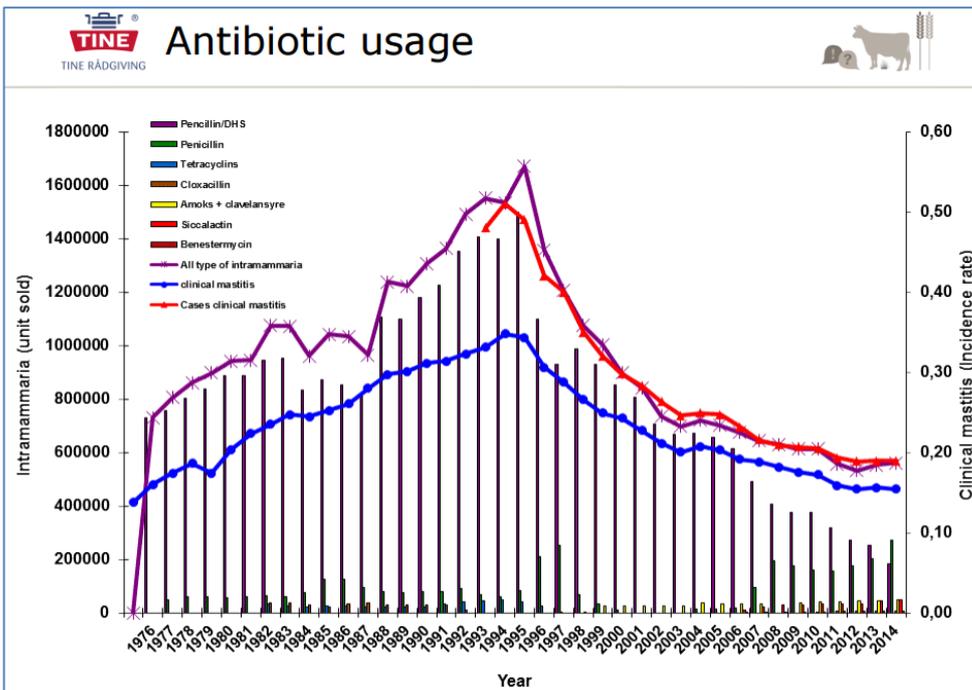
But there had been beneficiaries of the ban – Russia’s dairy farmers. Belarus had also been able to capitalise on its strong trade relationship with Russia to grow its exports. This, however, could not be achieved by Belarus’ own supply alone – the country had needed to import milk.

For Ukraine, the loss of exports to Russia has forced a contraction of the country’s milk production. In contrast, there is growth in the dairy sector fuelled by rising incomes.



For global dairy markets as a whole, the key findings of the FAO-OECD outlook showed that most growth in demand will occur in developing countries where there are insufficient levels of milk production. Exports will therefore grow and become more concentrated.

Restructuring in the dairy sector was another central theme at the conference. An overview of the investment activities of the top dairy companies had shown two distinct investment trends; there is investment to facilitate access to low cost milk supplies and to areas where demand growth is high.



Antibiotic use in the dairy industry also came under the spotlight. Norway has made great strides in reducing antimicrobial use – by 70% in the last 20 years.

Dr Elisabeth Erlacher-Vindel from OIE (France) highlighted the wide availability of counterfeit drugs that either had either no or low efficacy. France is introducing four key changes to tackle resistance - reduced use for prevention, specificity of dry cow therapy, restriction of availability and a focus on alternative methods for reducing and treating disease.

A key message at the conference was that milk and dairy products had a vital role to play in the provision of nutritional security to a growing global population.

Dairy nutrition is essential to meet the world’s growing demand for food, delegates were told during the IDF World Dairy Leaders Forum debate. But nutritional demand is changing and innovation is needed to meet the needs of both the poor and the affluent.

IDF Dairy Farmers Forum – Technical Tour (Chris James)

Higher milk yields are a driving factor behind the automated milking system at one of Lithuania's largest dairy farms

The farm has been owned by JSC Lytagra for 20 years and the cows are managed by a system of milking robots and computers.

We visited the enterprise for the first of our IDF Dairy Farmers Forum visits. It was clear that the business focus was on innovation and this had driven an upturn in milk yield per cow, from an average of 24.5 kg in 2013 to 28 kg today. This has been achieved by improving quality of forage and balancing rations.

It is not just production per cow that has increased; the farm has invested in facilities to expand its cow numbers six-fold in the last two decades, to 3,550 animals, of which 1,170 are milking cows.

Despite the automation of the milking system, the scale of the enterprise requires a large labour force, which currently stands at 71 employees.



It was difficult to decipher which of the enterprises utilised the labour, but even with robotic milking, there seemed to be a high labour demand in the dairy unit. Perhaps this is an unintended consequence of when the farm had been run as a Soviet collective farm.

At the other end of the scale, we saw how a diversification into cheesemaking had secured the future of one family farm.

Farmer Eugenijus Paliulis processes around a tonne of milk daily from his herd of 75 dairy cows to produce 100kg of branded cheese. This cheese is processed in an on-farm facility which Mr Paliulis built in 2009.

There were different soft cheeses, some flavoured, mainly sold in the markets in Vilnius.

Even though the scale of the enterprise is much smaller than the JSC Lytagra operation, it too is highly mechanised with a computerised system for herd management and modern milking equipment.

These innovations bring efficiency to feeding and have an obvious influence on the health of the herd; the milk produced has a Bactoscan reading 8-10 times lower than that stipulated by the cheese buyers and a somatic cell count between 1.5 and 2 times less.

Milk from farms in Lithuania is tested at the country's very modern national milk sampling laboratory. During our visit we saw some of the most up to date technology from Western Europe in action. All the milk produced in the country is analysed here as well as some milk from other Baltic states.

Many of the dairy farms in Lithuania source their feed from Kauno Grūdai, one of the biggest producers of compound feeds and premixes in the Baltic States.

During our visit we heard that the exceptional production quality of compound feeds was ensured by a feed granulation line with an expander.

Feeds pass through a high pressure and high temperature short-time treatment which kills harmful pathogenic bacteria and mould to improve absorption of nutrient materials by livestock.

Dairy Policies and Economics Conference

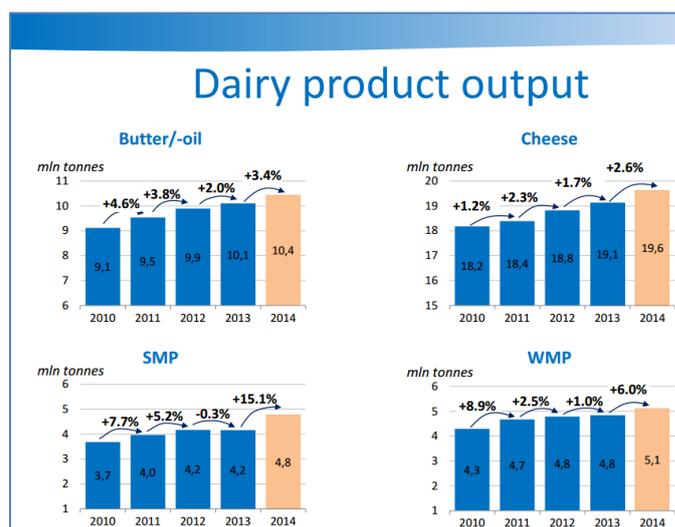
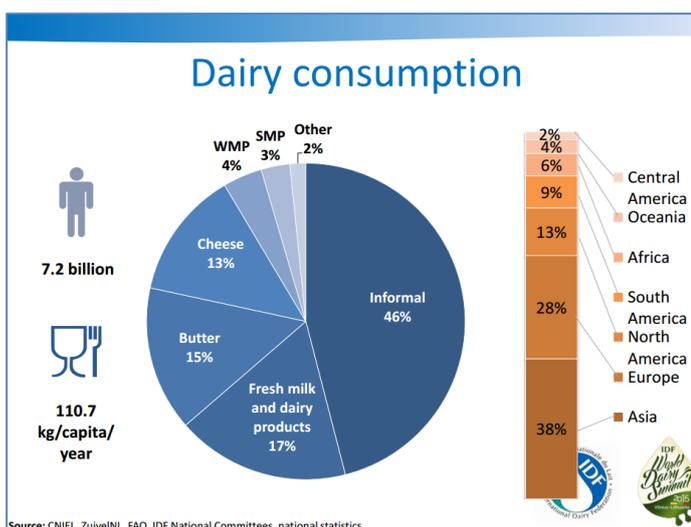
Peter Dawson – Dairy UK (Member of the IDF Standing Committee on Dairy Policies and Economics)

The key messages that came across in the economic sessions included:

- the expectation of continued growth in global milk production in the order of +2% per annum over the next ten years with a continued rise in nominal prices;
- further expansion of the volume of trade in dairy products but concentration of major exporters into fewer countries;
- Brazil and India expected to be unable to meet domestic demand growth;
- further consolidation amongst major international dairy companies with the largest player still only accounting for 4% of global production;
- greater multi-directional investment flows with Chinese and far eastern investors looking for opportunities and much greater interest in Africa;
- the probable continuation of the Russian ban as it presented a major growth opportunity for the Russian domestic sector.

Reviewing the key findings of this year's World Dairy Situation Bulletin, Veronique Pilet reported that:

- 2014 had seen a significant increase of 3.3% in milk production to 802 million tonnes with further increases of between 1.5 to 2% per year expected over the next two years to bring the total to around 830 million tonnes by the end of 2016.
- The abundant milk deliveries had led to further growth in the production of dairy products, especially milk powders (SMP +15.1%, WMP +6.0%), but butter/butteroil (+3.4%) and cheese (+2.6%) also rose.



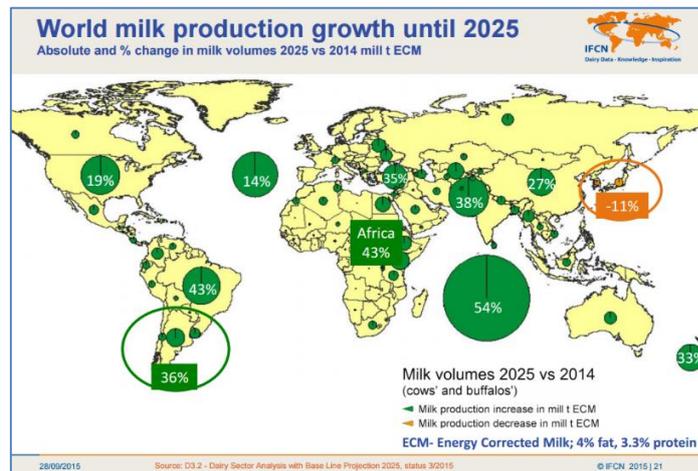
- There had also been a strong increase in world dairy trade (+6.0% to 66.5 million tonnes in milk equivalents) and it now represents nearly 9% of global milk production.
- Global per capita dairy consumption was estimated at 110.7 kg and, according to the OECD and FAO, it is expected to increase by 13.7% by 2023, with most of the growth coming from developing countries.

2015 has seen the higher milk volumes depressing the market and stocks building up which, in association with the Russian export ban and the easing of demand from China, had led to strong falls in dairy prices, although some evidence of a recovery had been noted in September and October.

The IFCN's Torsten Hemme considered what the situation might be like in 2025 and he forecasts that total milk production for all animals (cows, buffalo, goat, sheep and camel) might increase from 819 million tonnes in 2014 to 1,059 million tonnes in 2025, a total rise of 29% or 2.4% CAGR. This extra milk will be produced from rises in both yield (+16%) and cow numbers (+12%) but actual farm numbers will be down to 101 million from 120 million currently, a fall of 16%, as inefficient operations close down and the average farmsize increases from 2.9 to 3.8 head per farm.

Dairy World in 2014 and 2025						
IFCN Baseline— produced in 3/2015						
	Unit	Annual values		Change 2025 vs 2014		
		2014	2025	Absolute	%	CAGR %/ year
Milk Supply & Demand*	Mill t ECM	819	1059	241	29%	2.4%
Supply Drivers						
Number of milk animals	Mill head	364	407	44	12%	1.0%
Average milk yield	t/milk animal/year	2.2	2.5	0.3	16%	1.3%
Dairy farm number	Mill	120	101	-20	-16%	-1.6%
Average farm size	Head/farm	2.9	3.8	1.0	34%	2.7%
Demand Drivers						
Population	Billion	7.2	8.2	1.0	14%	1.2%
Demand per capita	Kg ME/ capita/year	113	129	16	14%	1.2%
World dairy trade**	Mill t ECM	54	99	44	82%	5.6%

IFCN Baseline: This is an
* Milk from all animals (cows, buffalo, goat, sheep, camel) Small deviations of total supply and demand due to changes in stocks
** Excl. EU28 intra-trade - Representing volume traded from surplus countries; imports from net exporters not included



Food Safety Conference

Luisa Candido – Dairy UK (Member of the IDF Standing Committee on Dairy Science and Technology)

The focus of this year's food safety programme was food safety modernisation.

The first session on food safety risk analysis discussed how the global dairy industry can work towards developing comprehensive food safety plans and how issues of food safety can be communicated effectively to a number of stakeholders, including the general public.

Allen Saylor, managing partner of Centre for Food Safety and Security, focused particularly on the importance of communication strategies for safety issues and how training and education of staff play an important role in their development. His talk included the dos and don'ts of food safety communication, as well as the effective use of social media in their implementation.

The second session focused on emerging food safety risks, and was opened by Dr. Paul Hanlon (Associate Director of Regulatory Affairs, Abbott Foods) who identified allergens and antibiotics as high-risk priorities for the dairy supply chain. Following speakers discussed their countries' controls of these particular substances, including Russia, Lithuania and the United States.

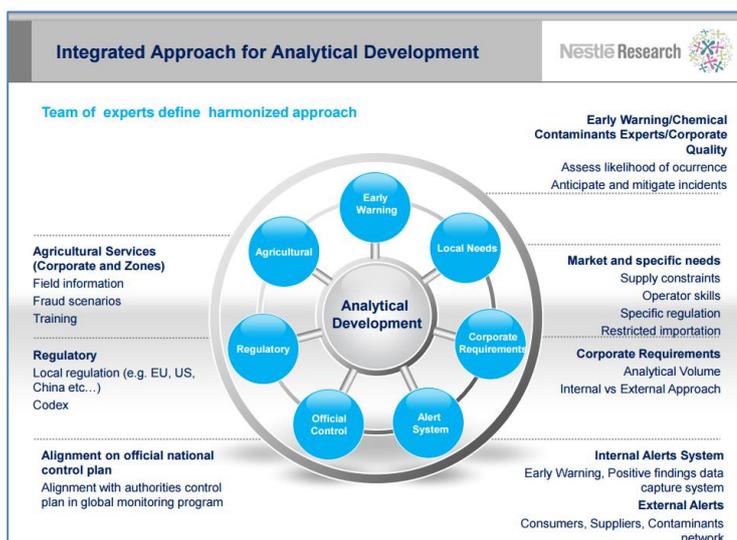
Three Steps to Targeted Communication

- 1. Identify your audience:** Who specifically do you want to reach?
 - *Tip:* When you narrowly define your audience, it's easier to customize content and make it relevant to them.
 - *Example:* Not "All dairy industry professionals in Asia" but "food companies in Korea interested in using dairy ingredients in infant formula".
- 2. Determine the best channel:** What media do they use regularly? How do they want information packaged?
 - *Hint:* Social media isn't always the best channel.
- 3. Write your key messages:** What do you want to say? What do they need to know?
- 4. Keep the conversation going:** Find ways to continue providing information that your audience wants and needs.
 - *Hint:* Think about what interested and concerns them. Bring them unique information relevant to their interests.



The third session addressed how emerging pathogens are controlled across the world. Dr. Valérie Michel (Actalia Dairy Products, France), concentrated on bacillus cereus and tools for determining the specific strain pathogenicity.

Dr. Francois Bourdichon (Food Safety Governance Analytical Director of Danone) focused on risk management strategies for listeria contamination, with a comprehensive look at effective controls from farm to fork. Other speakers of the session discussed the microbial indicators essential for the verification of hygienic conditions and strengths and weaknesses of different analytical testing methods (e.g. PCR).



A special afternoon session on analytic tools for the control of food safety across the world was held on the same day. It highlighted the importance of integrating analytical methods from farm to dairy to guarantee a comprehensive control of milk across the supply chain. Lucie Racault from France discussed the need for a harmonised analytical control of raw milk across different markets.

Only cooperation amongst stakeholders can guarantee the safety of the final product and the control of both raw milk and dairy products must cover all relevant geographical areas and processing stages.

Nutrition overview

Dr Anne Mullen and Erica Hocking - The Dairy Council (Members of the IDF Standing Committee on Nutrition and Health)

Three excellent sessions on Nutrition and Health were held at the IDF World Dairy Summit in Vilnius, Tuesday 22nd September. Over the day, 16 speakers addressed the role of dairy products in under- and malnutrition, bioactive components in dairy, and milk products and health through the ages.

The role of Dairy products in Under- and Malnutrition

Prof Inge Brouwer, University of Wageningen, highlighted the dual burden of malnutrition faced by many in low and middle-income countries, where micronutrient deficiencies persist alongside emergent obesity and non-communicable diseases. With both nutrient-richness of milk and dairy, and hygiene in mind, Prof Marta van Loan, University of California, addressed how dairy, particularly in the form of dry powder, may be an effective and efficient means of bridging the nutrition gap in under- and malnutrition.

MILK AGAINST MALNUTRITION

Milk is one of the most nutritious foods

- It is rich in high quality protein providing all essential amino acids.
- It contributes to total daily energy intake, essential fatty acids, immunoglobulins, and other micronutrients

Milk has a high nutrient to energy ratio

- It is widely considered source of affordable nutrition
- It is an important food group in many national dietary guidelines

Dairy ingredients play an important role

- In specially formulated foods to ensure adequate nutrition among pre-school aged children
- In treating acute malnutrition in developing countries.

BUT, to play a role for food and nutrition security in developing countries we are challenged by:

- Weak and undeveloped milk value-chains
- Dairy ingredients are a factor in the high cost of packaged foods

Indeed, Charlotte Pederson, Global Alliance for Improved Nutrition (GAIN), reinforced this view, but highlighted that in the context of ensuring food and nutrition security, milk poses challenges; its value-chains are weak and dairy ingredients are prohibitive in terms of packaging costs. She did, however, show four examples where GAIN is partnering with key players in the dairy sector to explore opportunities for delivering dairy to bridge the nutrition gap.

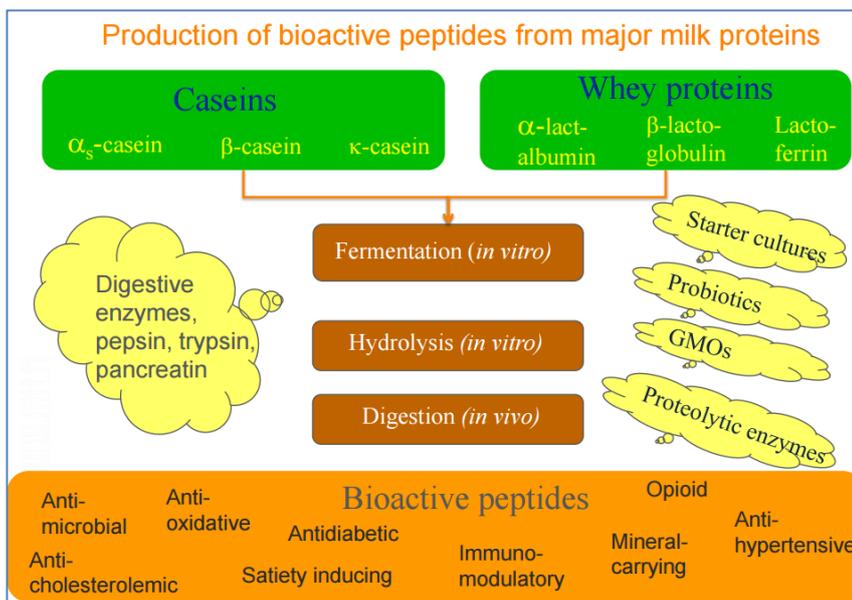
In India, GAIN has worked with the Rajasthan Cooperative Dairy Federation and Indian Institute of Health Management Research on delivering fortified milk to more than 8 million people.

In Ecuador, GAIN has developed a fortified yogurt-based complementary food supplement with Favorita, Tetrapak and IFC. In Kenya, GAIN supports a local entrepreneur to sell milk via a dispenser to poor people in slum areas. In Ethiopia, the GAIN Nordic Partnership is developing affordable biscuits containing whey ingredients and micronutrients.

This inspiring morning session showed theoretically, and then practically, the ways and means milk can be used as a vehicle for tackling micro- and macro- nutrient malnutrition in low and middle income counties.

Bioactive Components in Dairy: Present and Future

Nine speakers presented a wealth of diverse research on this topic.



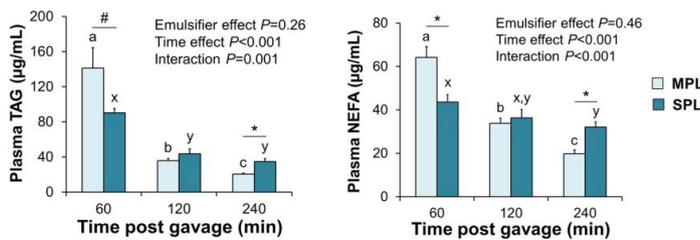
Dr Anne Pihlanto, Natural Resources Institute of Finland, began by defining bioactive peptides and methods for their derivation from milk and dairy. She focused on angiotensin-converting enzyme (ACE)-inhibitory peptides such as lactotripeptides as potential anti-hypertensive agents, but issued caveats that, with bioactives generally, the mechanisms behind observed activities are largely unknown, and the majority of claimed physiological effects have been observed *in vitro* and animal models. Thus Dr Pihlanto called for well-designed trials to substantiate evidence emerging from these observations.

Dr Joana Šalomskienė, Kaunas University of Technology, Lithuania, delivered a presentation on the antimicrobial activity of a selection of lactic acid bacteria (LAB). Her research shows that a number of strains have strong potential for improving the safety and/or shelf life of fermented food products.

The pre-biotic effects of exopolysaccharides, long chain sugars produced extracellularly by bacteria and microalgae, were discussed by Prof Inga Ciprova, Latvia University of Agriculture. Although the role of exopolysaccharides as food additives (thickening, texturing, emulsification, stabilisation), results from Prof Ciprova's work indicates that polysaccharides from lactic acid or acetic acid bacteria, such as *Gluconobacter nephilii*, may have application in dairy products to increase prebiotic functionality.

Prof. Dr Tadaaki Miyazaki, Hokkaido University Japan, presented his groups' work on the antiviral effects of *Lactobacillus gasseri*, and the potential of *Lactobacillus helveticus* to dampen down autoimmune responses in mouse models.

Milk PL emulsion induces an early increase in postprandial lipemia and a faster clearance



Milk Polar Lipids Affect In Vitro Digestive Lipolysis and Postprandial Lipid Metabolism in Mice¹⁻³
Manon Lecomte *J Nutr* doi: 10.3945/jn.115.212068.



MC Michalski – WDS Congress Vilnius 2015 7

Continuing with mice, Dr Marie-Caroline Michalski, INSERM, presented fascinating work from her group showing that mice tube-fed milk phospholipids had a higher concentration of circulating fats following feeding than mice tube-fed soya phospholipids but, most importantly, the duration of the postprandial lipaemia was shorter in the milk phospholipid group. Crucially, it is duration of postprandial lipaemia that is considered a risk factor, rather than the initial elevation of lipids entering the system after a meal. In this study, the mice fed the milk phospholipids appeared to have greater clearance of fat from their systems after a meal than the soy phospholipid-fed animals.

Dr. Vaidotas Urbonas, University Clinic for Children's Diseases Lithuania, overviewed the health benefits of fermented dairy, including effects on immune system, cancer, inflammatory and non-inflammatory bowel disease, allergy, obesity, lactose intolerance and diseases of the mucous membranes. Prof Jean-Paul Perraudin, Taradon Laboratory Belgium, described lactoferrin, the iron-binding protein found in milk, and its range of biological functions.

With relevance to practicalities in clinical and public health, Dr Anna Bannikova, Saratov State Agrarian University, Russia, discussed sarcopenia, the age-related decrease in lean muscle mass experienced by those aged 60 and over, and the role of branched-chain amino acids found in milk and dairy in the mitigation of sarcopenia. Dr Bannikova addressed the challenge of palatability of protein-enriched dairy products, specifically texture and mouthfeel, and here she presented the work her group has done on developing a range of products that meet consumer's nutritional expectations with a high acceptability.

Dr Geoffrey Smithers, Food Industry Consulting Services, Australia, completed the bioactive components section of the Nutrition and Health session. He discussed the effects of manufacturing and processing on the nature and activity of bioactives, and presented a number of examples where bioactives were preserved with advances in technology. Dr Smithers described a 'dairy bioactives pipeline' in the journey towards efficacious nutraceuticals, from discovery, characterisation, validation of activity, technology and engineering approaches to optimising delivery, and marketing.

Manufacturing effects

Treatment	Effect	Consequence
Heat	Protein denaturation	Loss of biofunctionality, better digestibility
	Intramolecular reactions	Cross-linkages
	Reaction with sugars	Loss of lysine, Maillard reactions
pH change	Solubility changes	Risk of oxidation, loss of biofunctionality
	Acid/alkaline hydrolysis	Cross-linkages, proteolysis, amino acids
Enzymes	Proteases	Peptides
	Oxygenases	Oxidation of amino acids, lipids
	Glucosidases	Oligosaccharides
MF/UF/NF	Fractionation	Component enrichment
Formulation	Sensory, texture	Organoleptic impact
Storage	Reaction with sugars	Loss of lysine, Maillard reactions
	Reaction with oxygen	Oxidation of amino acids, lipids
	Absorption of water	Caking, solubility/dispersibility problems



www.idf.wds2015.com

Modified from Frøning (1994), Korhonen et al. (1998)

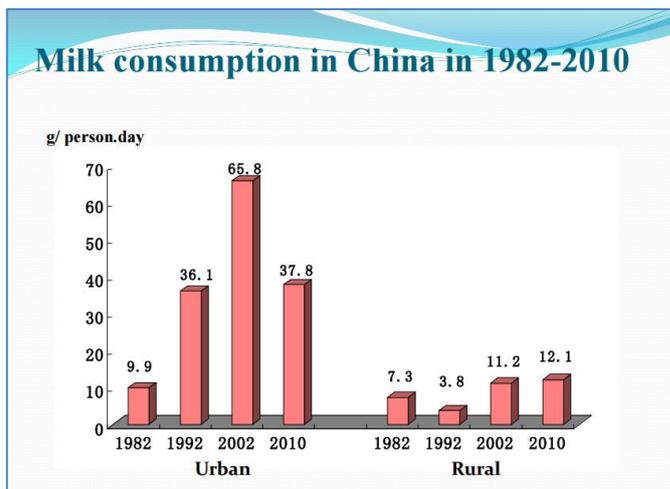
Milk Products and Health Through the Ages

Dr Anthony Fardet, INRA, gave an overview of his research looking at associations between dairy and chronic diseases. With complex modelling and analysis, his conclusions were that healthy diets are generally associated with low-fat dairy products; unhealthy diets are associated with full-fat dairy products, meat and derived products, alcohol and snacks; dairy can be part of the framework of healthy diets; dairy is intermediate between meat/fish and plant-based foods in terms of greenhouse gas emissions; and excluding dairy products from the diet does not necessarily reduce the impact on climate change but instead may have deleterious nutritional consequences.

Goda Denapiene presented Dr Partap Chauhan’s work on Ayurveda medicine and its link with today’s science, via a pre-recorded video presentation. The classical texts of Ayurveda describe the medicinal properties of milk, including goat, buffalo, sheep and cow, but places cow’s milk above others. Ayurveda describes cow’s milk as nutritive and good for vital organs including the eyes, brain, heart and immune system. Ayurveda advocates the use of ghee (clarified butter) for the treatment of diseases like depression, anxiety, schizophrenia, loss of memory, alzheimer’s disease and to promote the regeneration of brain cells. This fascinating presentation, though scant with evidence, was delivered with enthusiasm and conviction.

Finally, Professor Guansheng Ma presented data showing milk and dairy consumption in China, differentiating between urban and rural areas.

He showed data from several Chinese studies on milk supplementation studies among schoolchildren; supplementation increased bone mass accretion, body height and decreased the prevalence of malnutrition. Professor Guansheng Ma highlighted the benefits of school milk programmes and milk consumption amongst Chinese children.



Environment Conference

Peter Dawson – Dairy UK

Creating an industry framework for action and implementing technological opportunities were the keys to improving the dairy sector’s environmental performance.

The WWF argued that 40 million more cows by 2050 would be needed to meet demand and but that this was not sustainable, particularly with the pressure this would put on feed and water for feed. The industry needed to do more from less. However a large range of solutions already existed in the industry including improving lifetime feed efficiency through genomics and cross breeding, utilising ‘big data’ and precision farming, specialisation and consolidation, automation, better forage and feed, use of degraded lands and improving water efficiency.

In respect of collective industry action, the Australian industry was continuing to pursue improvements in its environmental performance through target setting under its Australian Dairy Industry Sustainability Framework.

Our 2020 targets - have 41 supporting Performance Measures

Priority area	Target
Enhancing Livelihoods	1. Increase the future competitiveness and profitability of the Australian dairy industry
	2 Increase the resilience and prosperity of dairy communities
	3 Provide a safe work environment for all dairy workers
	4 Attract, develop and retain a skilled and motivated dairy workforce
Improving Wellbeing	5 All dairy products and ingredients sold are safe
	6 Dairy contributes to improved health outcomes for Australian communities
	7 A commitment to best care for all animals
Reducing Environmental Impact	8 Improve nutrient, land and water management
	9 Reduce the consumptive water intensity of dairy manufacturers by 20%
	10 Reduce greenhouse gas emissions intensity by 30%
	11 Reduce waste to landfill by 40%

In Italy work was underway to determine genetic markers that could be used to identify traits that could improve the environmental performance of cows. For Elanco the key was the feed utilisation rate which could be raised by reducing the portion of feed used for cow maintenance. This could be achieved through increasing yields. Speakers also outlined a number of technological innovations in milk processing that provided opportunities to improve efficiency, particularly in energy and water utilisation.

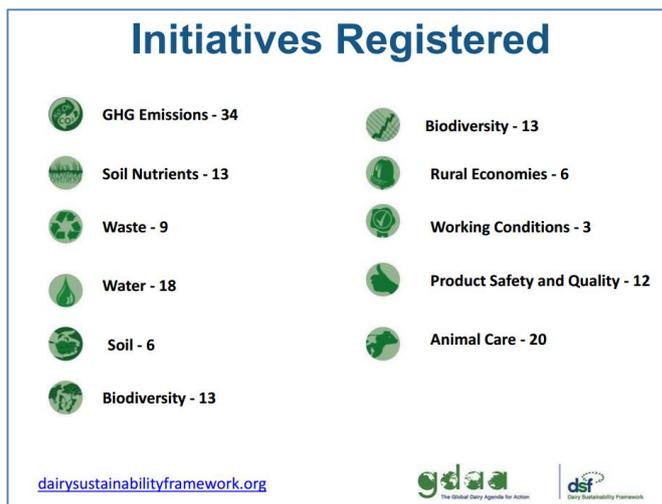
In France 4,000 dairy farmers were seeking to reduce carbon emissions through the Life Carbon Dairy project which the industry was seeking to extend to cover the rest of the industry.

According to the Global Sustainability Innovation Center for US Dairy reduction of food waste would also be a major contributor to environmental sustainability as globally a third of food was wasted.

The Chinese government is beginning to tighten environmental regulation of the dairy industry with water discharge standards and regulations covering pollution prevention and control of livestock breeding. The Chinese industry is also investing in a range of technologies to reduce its environmental impact and the government was encouraging the production of biogas.

At a global level the Dairy Sustainability Framework provides a program for aligning and connecting dairy sustainability initiatives to demonstrate leadership and progress globally. This is a programme of the Global Dairy Agenda for Action (GDAA), which was launched in November 2013 and focuses the industry on demonstrating continuous improvement under eleven key sustainability criteria and it has already started to connect with:

- 17.7 million cows
- 565,000 farmers
- 584,000 farms
- 800 processing plants
- 131 billion litres of processed milk
- 17% of the global milk production

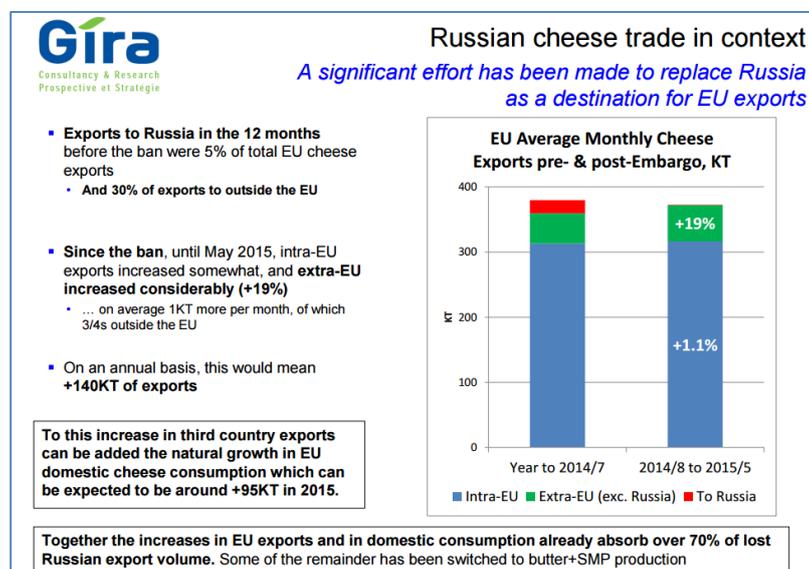


In order to visit the website, which gives all information about the programme (including the background, governance, benefits of membership and an online membership form, please visit <http://dairysustainabilityframework.org/>

Marketing Conference

Dr Mike Johnston – Dairy Council for Northern Ireland (Member of the IDF Standing Committee on Marketing)

The Marketing Conference was well attended, and had the theme “current and future challenges and approaches in marketing the value of dairy”. The Conference had 4 sessions: marketing challenges, marketing practices, dairy nutrition and social media, and presentations by the finalists in the IMP Yves Boutonnat Trophy.



In the first session, Christophe Lafougere from GIRA reviewed the effect of the Russian ban on imports of EU dairy products, and highlighted that as a consequence of the ban, EU cheese production had slowed, with some of the milk going to SMP and butter. However, increases in exports outside the EU and in domestic consumption had accounted for 70% of the volumes lost through the ban. In total, exports to non-EU had increased by 52.6%, a trend that was assisted by the devaluation of the euro against the US dollar. Within Russia, the impact of the ban has been higher production of cheese, and lower consumption, which may be due, in

part to a price increase of 23%. In other words, Russia is betting on replacing EU imports with local production, including analogue products. It is unlikely the ban will be lifted this side of the next Russian elections in 2018.

In Lithuania, the impact of the Russian ban has been significant, since Russia had accounted for 25% of Lithuanian exports, valued at €150 million per year. As a consequence of this loss of market, and low international prices, and a saturated domestic market, Lithuania had required special assistance from the EU. Since the ban, Lithuania has been active in increasing exports to USA, the Gulf region, SE Asia and China.

In the third session on dairy nutrition and social media, Merel Roes from DSM Food Specialities looked at global consumption trends and consumer perception of sugar and reduced fat dairy. The main driver of reduced sugar consumption, generally, is advice from bodies such as WHO, aimed at reducing overweight, obesity and tooth decay. Recent WHO guidelines recommend that adults and children should reduce their sugar intake, but this does not apply to the consumption of fresh fruit and milk. However, clear market trends are emerging, with sugar ranking higher than fat as a purchase criteria. This is now being reflected in new product launches, with new launches of low/no/reduced sugar products in USA during H1 2015 being 80% higher than for the whole of 2014. Consumer research in USA, China, Brazil, Spain and Germany found that 70% of consumers would be willing to pay more for sugar reduced dairy, especially if the product featured additional benefits.

New WHO guideline recommends adults & children to reduce free sugar intake

- Intake varies by age, setting and country. In Europe this ranges from:
 - Adults: 7-8% (e.g. Norway) to 16-17% (e.g. Spain, UK).
 - Children: 12% (e.g. Denmark, Sweden), to nearly 25% (Portugal).
- This guideline does not refer to the sugars found in fresh fruits and milk

“We have solid evidence that keeping intake of free sugars to less than 10% of total energy intake reduces the risk of overweight, obesity and tooth decay.”

World Health Organization

Source: <http://who.int/mediacentre/news/releases/2015/sugar-guideline/en/>
http://www.who.int/nutrition/publications/guidelines/sugars_intake/en/

www.idfwds2015.com

And finally, the winner of the IMP Yves Boutonnat Trophy was South Africa, with a programme for consumer education. Congratulations to Christine Leighton and all at SAMPRO CEP.

RECENT IDF PUBLICATIONS

All IDF publications can be ordered from the UK-IDF office.

Newsletter

IDF Animal Health Newsletter – Issue N° 9 (October 2015)

This newsletter contains short descriptions of recent research, including summaries of PhD theses, current activities in the Standing Committee on Animal Health and Welfare (SCAHW), different projects and campaigns from member and features contributions ranging from recycled manure and antimicrobial resistance to nutrition, mastitis pathogens and paratuberculosis. It contains 24 pages, is free of charge and can be downloaded [here](#).

IDF Bulletins

Bulletin of the IDF No. 481/2015 – The World Dairy Situation 2015

This authoritative publication contains chapters on milk production, milk processing, developments in the dairy industry in 2014/15, consumption, world dairy trade and prices. The Bulletin also features reports on 54 of the major producing and consuming countries containing statistical information and key developments as well as their main processors. There is also a statistical annex containing tables on dairy farming, processing, trade, consumption and prices.

Pages: 252 - Electronic: 250.00€

Bulletin of the IDF No. 480/2015 – The Contribution of School Milk Programmes to the Nutrition of Children Worldwide

Conducted jointly by FAO and IDF, with the support of Tetra Laval, this survey is the largest of its kind in many years. It provides an in-depth look at school milk programmes in the Americas, Asia, Africa, Australia and Europe.

The 60 countries who participated in the survey supplied a large amount of information on consumption, programme structure, nutrition, promotion, packaging, market value, administration and distribution.

Pages 230 – This Bulletin is free of charge and can be downloaded [here](#).

Bulletin of the IDF No. 479/2015 - A common carbon footprint approach for the dairy sector: The IDF guide to standard life cycle assessment methodology

In 2010, Bulletin 445/2010 (the first edition of 'A Common Carbon Footprint Approach for Dairy: The IDF Guide to Standard Life Cycle Assessment Methodology for the Dairy Sector') was published. The guide has now been reviewed and revised to reflect evolving science and standards in carbon footprint methodology and this Bulletin replaces Bulletin 445.

Pages 70 – This Bulletin is free of charge and can be downloaded [here](#).

Bulletin of the IDF No. 478/2015 - Interlaboratory collaborative study on a flow cytometry method for lactic acid bacteria quantification in starter cultures, probiotics and fermented milk products according to ISO 19344/IDF 232

This article presents the report and results of the international collaborative study conducted to validate the international standard ISO 19344 / IDF 232, Milk and milk products – Starter cultures, probiotics, and fermented products – Quantification of lactic acid bacteria by flow cytometry.

Pages 48 – Paper 60.00€ - Electronic 54.00€

FORTHCOMING IDF EVENTS

IDF Dairy Science and Technology Symposia 2016

Dublin, Ireland – 11-13 April 2016 - <http://www.idfingredientsandcheese2016.com/>

This brings together two events: The IDF International Symposium on Cheese Science and Technology and the IDF Symposium on Concentrated and Dried Milk Products. Both of these will take place in the same venue, within the same week.

Please [click here](#) for the IDF Cheese Science & Technology Symposium Preliminary Programme.

Please [click here](#) for the IDF Concentrated and Dried Milk Products Symposium Preliminary Programme.

6th IDF International Mastitis Conference

Nantes, France – 7-9 September 2016 - www.idfmastitis2016.com

The 6th IDF International Mastitis conference will report on innovative research and other advances in the understanding, treatment and prevention of mastitis worldwide. A number of themes will be addressed, including: Milking, Herd management, Immunity and nutrition, Treatments, Prevention, monitoring & decision tools and Epidemiology & Bacteriology.

Please [click here](#) for the preliminary programme.

IDF World Dairy Summit 2016

Rotterdam, The Netherlands – 16-19 October 2016 - <http://www.idfwds2016.com/>

The 2016 Summit has the theme "Dare to Dairy" and will examine the challenge of how dairy can contribute to nourishing a growing world population without damaging the planet.

The Summit is composed of a series of topical scientific-technical conferences, social events including a welcome reception, gala dinner and technical tours. Participants will get together to network and get familiar with the latest research findings and experiences relevant for the global dairy sector in the broadest sense.