



2015/16 ANNUAL REPORT

INTERNATIONAL DAIRY FEDERATION

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MESSAGE FROM THE PRESIDENT



It is my pleasure to introduce the 2016 Annual Report of the International Dairy Federation.

Now well into its second century of operation, IDF remains as important as ever and, after four years as President, I am confident that IDF has a vital role to play on behalf of the global dairy sector.

Using the best available scientific and evidence-based information, IDF provides mechanisms for the dairy sector to reach global consensus on scientific and technical issues relating to all aspects of the dairy chain from farm to fridge.

Our goal is to make sure that our members have effective tools to develop best practice, guidelines, policies and standards, both at national and regional level. These positions also allow IDF to provide robust expert advice of the highest quality to international intergovernmental organizations in the development of global policy and standards.

Through IDF, the global dairy sector can speak in a clear and united voice on key dairy issues.

IDF has helped define the environment in which the dairy supply chain operates by being at the forefront of the development and sharing of scientific and technical knowledge, best practices and guidelines.

This year is no exception with IDF hosting several high-profile scientific events in the areas of cheese science and technology, spray drying technology, mastitis and of course, the IDF World Dairy Summit, our premier event where dairy experts from across the globe can network and hear about the latest scientific developments.

We also published key texts such as the IDF Bulletin on the evaluation of nitrogen conversion factors for dairy and soy and our flagship publication the World Dairy Situation.

Many in the dairy sector are experiencing extremely tough times. At times like these, we must double our efforts to ensure that the role of dairy in nutrition and health is properly recognized and to defend the outstanding credentials of milk and dairy products.

That is why we are working hard to defend the protein content in Codex standards relating to milk products for children aged 1-3.

IDF has and continues to provide expertise and advice on behalf of the global dairy sector to support the development of food standards, methods of analysis and sampling, nutrition and health policies, animal health and welfare standards as well as sustainable practices and life cycle analysis.

When it comes to this type of decision-making, "if you are not at the table, you are in danger of being on the menu."

That is why IDF has worked relentlessly to not only secure a place 'at the table' but strengthen its position as a respected advisor to Codex Alimentarius, the Committee for World Food Security, FAO and OIE.

Our tri-partite work on joint standard development with ISO and AOAC in methods of analysis and sampling relating to infant formula is also a highlight and will contribute to significant efficiency gains.

I remain confident in the medium to long term prospects for dairy and even more so following the commitments made late last year in the 2030 Agenda for Sustainable Development with its sustainable development goals. These goals provide a common global context to discuss the relevance and impact of the dairy sector and a high level framework for the sector to measure and drive progress.

The global dairy sector is changing rapidly and IDF needs to change with it.

For an organization such as ours, change is not always easy as we juggle with numerous cultures, languages, perspectives and interests, and a membership that covers both the globe and the whole dairy chain.

I am therefore delighted with the progress we have made under the new IDF strategy and our focus areas of sustainability, nutrition, safety and quality, and standards.

There is always more to do and we cannot be complacent. With decades of successes and expertise in store, I have every confidence that IDF will remain critical to the success of the dairy sector and that the dairy sector will be critical to the success of the Sustainable Development Goals.

Dr. Jeremy Hill
President

MESSAGE FROM THE DIRECTOR GENERAL

The new IDF Annual Report highlights major IDF achievements since our 2015 General Assembly Meeting in Vilnius.



This report shows our results according to the work program set in conjunction with the Board and the Science Programme and Coordination Committee (SPCC). Focusing on our four priority areas, we identified key accomplishments in the areas of standards, nutrition, food safety and quality as well as sustainability, all underpinned by the essential work of our seventeen Standing Committees.

Over the last twelve months, IDF has strengthened its relationships with key global partners such as Codex Alimentarius, the Food and Agriculture Organization of the United Nations (FAO), the International Organization for Standardization (ISO), the World Health Organization (WHO) and many more. You will

find out more about these collaborations further in the report and how IDF has worked tirelessly to give the global dairy sector a strong and united voice.

The next twelve months will bring their share of new projects, including a complete overhaul of the IDF websites with a faster and more efficient system.

I would like to thank all IDF members and experts involved in our work for their support, the IDF Board and SPCC for their guidance, and the IDF staff for their commitment and dedication.

Nico van Belzen, PhD
Director General



IDF vision

Helping to nourish the world with safe and sustainable dairy.

WHAT WE DO

IDF provides science-based expertise and consensus for the global sector and is the global voice of dairy to key intergovernmental organizations.

OUR PRIORITIES

Nutrition

Sustainability

Standards

Dairy Safety & Quality



MESSAGE FROM THE SPCC CHAIR



As I look back over the past 12 months, I reflected on our organization and on the significant achievements of the last year.

As our President said, our strong network of scientists and professionals from all over the world is an unrivalled resource which supports the global dairy sector with knowledge and passion. The Science Programme Coordination Committee (SPCC) is proudly contributing to making it even stronger.

Since our last World Dairy Summit in Vilnius, the SPCC has been actively working with the IDF technical team and all Standing Committees on how to best support the IDF vision and the priorities redefined through the IDF Strategy.

This work was divided in two main streams.

The first one was looking at improving our Annual Cycle of Work for a better alignment with our priorities. By confirming early in the year the reviewed list of New Work Items to be approved by our National Committees, we are now able to ensure that proper resources, people and budget, are allocated to this work and become an integral part of the operational plan.

The second one focused on the content of the work, contributing to

the operational plan for 2016. Six priorities were defined for the year using the following criteria:

- **Potential impact for the dairy sector;**
- **Alignment with our strategic priorities;**
- **Potential for delivering and communicating IDF's values;**
- **Resources requirement.**

Finally, I would like to highlight the important role that people play behind this work. We are very fortunate to be able to mobilize and count on a strong network of scientists and professionals dedicating time to IDF. Their expertise and contributions are well recognized by international organizations and frequently used as reference. The majority of them are volunteering their time beyond their regular employment to share their knowledge and experience.

I would like to thank my colleagues on the SPCC and our network for their work and dedication to make our federation and our dairy sector better and stronger.

Jean-Marc Delort
SPCC Chair



IDF WORKING AREAS



STANDARDS



DAIRY SAFETY & QUALITY



NUTRITION



SUSTAINABILITY



**ANIMAL HEALTH
& WELFARE**



**DAIRY SCIENCE
& TECHNOLOGY**



**ECONOMICS,
MARKETING
& POLICIES**



ENVIRONMENT



**FARM
MANAGEMENT**



**FOOD
STANDARDS**



**HYGIENE
& SAFETY**



**METHODS OF
ANALYSIS &
SAMPLING**



**NUTRITION
& HEALTH**



FOCUS ON: NUTRITION

IDF Strategy

Nutrition is a key priority for IDF and the dairy industry. IDF proactively supports science-based nutrition policies that ensure dairy is an integral part of the diet for all age groups and contributes to closing the nutritional gap.

DAIRY MATRIX SUPPORTING OPTIMAL HEALTH

The dairy matrix refers not only to the individual nutrients and components in milk that convey health benefits, but also to the synergistic effects of those components as a whole. Proactively promoting the nutritional attributes of dairy is essential to ensure they remain a key component of dietary patterns. Thanks to a robust evidence base, the dairy sector can explain and promote the role of dairy products for optimal health and nutrition, while disseminating information to those who will determine whether these products are viewed as nutritious or not in the years to come.

ENGAGE IN, EXPLAIN AND PROMOTE THE INTERFACE BETWEEN NUTRITION AND SUSTAINABILITY

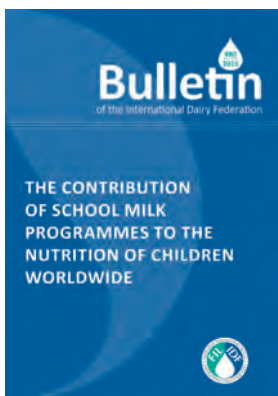
Although any type of food production comes at a cost, it is important to balance this impact against the nutritional and socioeconomic benefits of each food group. Many calls to shift food consumption

patterns towards more plant-based diets are made by referencing weak and limited evidence on the perceived environmental benefits. The dairy sector proactively promotes the nutritional benefits of milk and dairy products to ensure they remain an integral, sustainable and safe part of dietary patterns at every age.

PROMOTE NUTRIENT-DENSE FOODS AGAINST UNDERNUTRITION AND MICRONUTRIENT DEFICIENCY

Milk and dairy products are an important source of dietary energy, protein, fat, and micronutrients. Studies show that increases in both milk and meat intake by undernourished children in developing countries can lead to improved growth indicators, micronutrient status and cognitive performance. The dairy sector plays an essential role in reducing undernutrition and micronutrient deficiency thanks to naturally nutrient-dense foods while providing evidence of the economic and environmental performance of dairy.

CONTRIBUTION OF SCHOOL MILK PROGRAMMES TO THE NUTRITION OF CHILDREN WORLDWIDE



BULLETIN OF IDF N° 480/2015

IDF published results from a survey on school milk programmes across the world, to provide the most up-to-date information on school milk programmes and how these have developed since the last survey carried out by FAO in 1998.

Conducted jointly by the Food and Agriculture Organization and the International Dairy Federation,

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. Nutrition plays an essential role in long term growth, development and overall health.

The Action Team gathered a large amount of information on consumption, programme structure, nutrition, promotion, packaging, market value, administration and distribution for 60 school milk programmes.

Given the diversity of programmes across the globe, a review of existing schemes was a much-needed exercise to gain valuable insights into how successful programmes were run and to share and learn from other countries' experience and results.

HIGHLIGHTS

- 140 million children benefit from school milk.
- 57% receive school milk at least five days per week.
- 58% of the programs provide free milk. 27% of the programs provide subsidised milk.
- The most common serving size for school milk is between 101 and 200ml.

"Our results show that milk and dairy foods are still as popular as ever and are widely perceived as essential to healthy eating. This review will be useful to all parties involved in school milk schemes from schools to suppliers, with new insights on consumption, promotion and logistics."

Dr Judith Bryans (UK), Action Team Chair

On our agenda in 2015/2016

PROTEIN CONTENT IN FOLLOW-UP FORMULA

IDF submitted comprehensive evidence to Codex for the review of the existing standard for Follow-up Formula. IDF continues to support a maximum protein level of 3.5 g /100 kcal in **follow-up formula for infants aged 6 to 12 months**. Global Codex Standards must cover a broad range of nutritional requirements, where protein intakes (both quantity and quality) vary by setting, and under and over nutrition may co-exist. Protein levels in a standard should enable sufficient protein intake of older infants living in both developed and developing countries. The maximum proposed protein limit of 3.5 g protein/100 kcal is safe and suitable for consumption by older infants and has a long history of apparent safe use.

For **follow-up formulas for children aged 12 to 36 months**, IDF called for adequate minimum protein levels. As follow-up formula for this age group may replace milk in the diet, the substitution of milk with a product without adequate protein quantity and quality could negatively impact the ability to meet RDIs for protein, and may therefore impact growth and development. A protein minimum also defines a minimum milk content of the product and thus avoids excess addition of refined carbohydrate ingredients. Although a maximum protein level is not deemed necessary, IDF indicated it would support a 5.5g/100kcal maximum should upper limits be established, as it reflects levels found in whole milk.

NUTRITION INITIATIVE

The Nutrition Initiative is part of IDF's engagement with FAO, an opportunity to show the global dairy sector's proactivity in promoting nutrition education with programs focusing on improving healthy lifestyles.

IDF wants to raise awareness about the importance of nutrition education programs in schools which promote a balanced diet approach and encourage healthy eating habits from a young age. This innovative project will compile existing programs worldwide to showcase best practice in terms of nutrition education.

FRONT-OF-PACK LABELLING

IDF has joined a Codex Working Group to take stock of current front-of-pack (FoP) nutrition labelling schemes around the world, and consider the need to develop general principles to underpin FoP nutrition labelling.

This work was initiated as a result of concerns that the appearance of different forms of FoP labelling across the world could create problems for exporting countries; it has been generally agreed that harmonization of these approaches should be sought. The Working Group aims to review the current provisions in the Guidelines on Nutrition Labelling to determine whether they provide adequate guidance on FoP nutrition labelling.

REVIEW ON METABOLISM AND HEALTH EFFECTS OF LACTOSE AND GALACTOSE

The Standing Committee on Nutrition & Health is exploring the feasibility of the development of clear evidence-based positions on the health effects of lactose. With its unique expertise, IDF is well positioned to clarify misperceptions and provide scientifically based arguments to show that lactose consumed as part of the whole food should not be a target when focusing on reducing sugars in the diet.

The review would also clarify the distinction between lactose in milk and other sugar sources (composition, digestion, absorption, metabolism).



FOCUS ON: STANDARDS

IDF Strategy

Standards are essential for consumer protection and trade. IDF aims at shaping global regulatory frameworks through the development of policies, laws, regulations, protocols/codes of practice, specifications, guidelines and fact sheets. These address methods of analysis and sampling (MAS), food standards, animal health and welfare, environment, food safety and quality and nutrition.

It is critical for the dairy sector to be proactively involved in the setting of international standards given the impact on safeguarding consumer health and safety, protecting the environment, facilitating the global trade of milk and milk products and supporting sustainable economic growth.

INTERACT PROACTIVELY AND REACTIVELY WITH CODEX

IDF represents the dairy sector at relevant Codex meetings, focusing on regional and international Codex standards for dairy products. The Federation also contributes to Codex 'horizontal' (i.e. covering all commodities) work applicable to dairy products. IDF ensures the introduction of relevant new standards and the timely amendment of existing ISO/IDF standards.

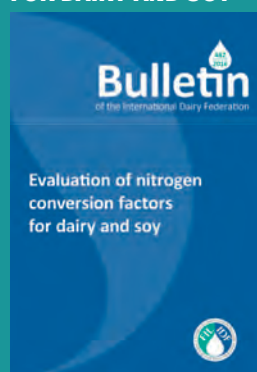
ENGAGE WITH STANDARD SETTING BODIES

IDF engages with intergovernmental organizations (IGOs) and other key stakeholders to identify gaps in standards relevant for the dairy sector. IDF constantly reviews and improves the way of working with other standard development organizations and with other organisations important for the sector.

INCREASE RESOURCES

To support the development of standards in MAS and animal health and welfare, IDF will aim to increase its pool of experts providing statistical and epidemiological expertise.

EVOLUTION OF NITROGEN CONVERSION FACTORS FOR DAIRY AND SOY



Bulletin of IDF n°482/2016

Following several discussions in various committees of the Codex Alimentarius Commission (CAC), IDF published an evaluation of nitrogen conversion factors (NCFs) for dairy and soy in 2016. IDF supports efforts that aim to maintain an accurate determination of protein levels using science-based NCFs for all proteins in foods where appropriate.

High quality protein is an essential component of balanced nutrition for all age groups. Scientifically robust methods must be used to determine both the amount and quality of the protein. This is essential for optimization of diets and resources such as land, water and energy used to produce this protein.

This Bulletin aims to make an important contribution to discussions by the CAC through an updated review of the scientific literature relating to dairy and soy and by presenting some new data. The Bulletin presents substantial scientific evidence that supports the use of a specific NCF of 6.38 for milk protein and of 5.71 for soy protein rather than a single, inaccurate, factor of 6.25.

HIGHLIGHTS

- The overwhelming consensus of scientific studies is that specific NCFs for specific foodstuffs should be used.
- For both dairy and soy protein, scientific publications based on experimental and/or theoretical analysis of NCFs consistently demonstrate that use of an NCF of 6.25 is incorrect and scientifically flawed.
- For milk-based infant formulas, the calculated NCFs range from 6.30 to 6.50 (mean 6.39). This mean is very

close to the value of 6.38 stated in the Codex Standard for Infant Formula as applicable for milk-based infant formula.

“The current and future challenges relating to nourishing a growing world population mean that protein will remain in the spotlight. The measurement of protein and the use of scientifically appropriate NCFs for different foodstuffs is important for nutrition, sustainability and regulatory purposes.”

Dr Jaap Evers, IDF Leader – Global Standards

On our agenda in 2015/2016

METHODS OF ANALYSIS: INFANT FORMULA AND ADULT NUTRITIONALS

Since 2012, IDF and ISO have collaborated with AOAC INTERNATIONAL on a specific programme of work focused on developing about 20 analytical methods for micro-nutrients in infant formula and adult nutritionals.

In July 2016, the CAC adopted the first set of five methods (measuring vitamin A, total nucleotides, pantothenic acid, iodine, and the trace elements chromium, molybdenum and selenium) as proposed by the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) and endorsed by the Codex Committee on Methods of Analysis and Sampling (CCMAS).

The programme is on target to deliver the remaining methods by 2019 including the determination of fatty acids, inositol, B vitamins and Vitamin E.

MEMORANDUM OF UNDERSTANDING WITH U.S. PHARMACOPEIAL CONVENTION

As demand for safe and sustainable dairy products grows worldwide, the regulatory framework will need to evolve accordingly. Global harmonization of standards will be key to supporting this evolution. As a result, IDF signed a Memorandum of Understanding (MOU) with the U.S. Pharmacopeial Convention (USP) to collaborate on the development, identification, elaboration and dissemination of science-based standards at an international level with the aim to promote the safety, quality and integrity of dairy ingredients.

USP and IDF will jointly develop new standards and guidelines for dairy ingredients, and review selected existing standards with the help of experts from both organizations. The two organizations will also cooperate in submitting relevant harmonized standards to Codex and other international organizations. The first project was initiated in June 2016 and aims to develop a method for detecting adulteration of skimmed milk powder using a simple method for the determination of the non-protein nitrogen content.

JOINT IDF/ISO STANDARDS

IDF has a longstanding cooperation with the International Organization for Standardization (ISO), dating back to 1963, and since 2001, IDF/ISO have published over 180 joint MAS

of which more than 60 have been endorsed by the CAC. All methods are regularly reviewed by IDF experts thus ensuring ongoing applicability and relevance.

Adoption by CAC of the revised ISO 8968-1|IDF 20-1

Milk and milk products – Determination of nitrogen content – Part 1: Kjeldahl principle and crude protein calculation

Publication of ISO 8968-4|IDF 020-4:2016

Milk and milk products – Determination of nitrogen content – Part 4: Determination of protein and non-protein nitrogen content and true protein content calculation

Publication of ISO 27105|IDF 216:2016

Milk and Cheese – Determination of hen's egg white lysozyme content by high performance liquid chromatography

Publication of ISO 16958| IDF 231: 2015

Milk, milk products, infant formula and adult nutritionals – Determination of fatty acids composition – Capillary gas chromatographic method

Publication of ISO 19344| IDF 232: 2015

Milk, milk products – Starter cultures, probiotics and fermented products – Quantification of lactic acid bacteria by flow cytometry

ARTICLES

Berger, T. & Luginbühl, W. 2016.

Probabilistic comparison and assessment of proficiency testing schemes and laboratories in the somatic cell count of raw milk.

Accred. Qual. Assur. 21(3), pp175–183.

In order to better safeguard global equivalence in somatic cell counting, IDF joined forces with the International Committee for Animal Recording (ICAR) to develop an alternative reference system approach. This approach takes into account both the reference method and routine method results. As this relies on the competence of laboratories, this article explains the new statistical approach to illustrate the competence of the contributing labs. The joint IDF/ICAR Action Team is now consulting relevant stakeholders on the implementation of a global reference system for somatic cell counting in different geographies.



FOCUS ON: SUSTAINABILITY



IDF Strategy

IDF supports the dairy sector's commitment to continuously improve its ability to provide safe and nutritious milk and dairy products from healthy animals to consumers whilst preserving the planet's natural resources and ensuring decent livelihoods worldwide. This must be done by developing and promoting sustainable practices across the dairy supply chain.

HOLISTIC APPROACH TO SUSTAINABILITY

Sustainability is an umbrella concept incorporating economic, social and environmental aspects all deeply intertwined. Sustainability is about using natural resources responsibly, while guaranteeing the economic well-being of the dairy sector and supporting local communities. Therefore, all actions must take into account trade-offs and their impact on other areas. IDF's work on sustainability is aligned with the criteria and strategic intents of the Dairy Sustainability Framework (DSF) and includes farming and other levels of the value chain.

SOCIOECONOMIC SUSTAINABILITY

IDF promotes the development of transparent, innovative, effective and viable markets. The dairy sector needs to increase the quantity of milk and dairy products produced in socially beneficial and efficient systems, and to be innovative in the way it produces and processes milk. The IDF strategy is focused on improving the efficiency of current production systems as this will have both socioeconomic and environmental benefits. Data such as those in the World Dairy Situation Report can help support effective, transparent and viable markets.

ENVIRONMENTAL SUSTAINABILITY

IDF develops and promotes common methodologies to measure the industry's environmental performance as well as innovative practices to reduce the sector's environmental impact. This includes biodiversity, soil, water use and energy use across the supply chain, all underpinning efficiency and productivity in dairy farming and processing.

IDF GUIDE TO WATER FOOTPRINT METHODOLOGY FOR THE DAIRY SECTOR

Building on the success of the carbon footprint methodology published in 2010, and revised in 2015, IDF decided to tackle the crucial issue of the dairy sector's water footprint. All food production comes with an environmental cost but the global dairy sector has taken huge strides in mitigating its environmental impact and looking after the planet's resources, including water.

Yet preliminary work showed that the wide range of figures resulting from differing methodologies for water footprint analysis could lead to inconsistent results and interpretation, uncertainty in

decision-making, and communication challenges. The resulting confusion could create a false impression that the industry is failing to engage actively with the issues of water consumption and water quality degradation. The IDF Guide will help harmonize current methodologies and set a reference model for the sector.

The guide will be a useful tool for dairy producers, processors and manufacturers, as well as for policy-makers overseeing policy decisions relating to water use within livestock production. Ultimately, the IDF work on sector-specific water assessment will be a major contribution to the FAO-led multi-stakeholder partnership on the environmental benchmarking of livestock supply chains (LEAP).

HIGHLIGHTS

- **Raise awareness of water footprint assessments.**
- **Provide transparency about a product's water profile within its life cycle to enable monitoring, quantification and evaluation of the potential environmental impacts related to water use, both in terms of quantity and quality.**
- **Identify hotspots for consumption reduction.**
- **Enable the establishment of an indicator that can be used to measure progress on the actions taken to improve efficiency.**

"Water is a finite and vulnerable vital resource. Agriculture and water are intertwined – without water there is no farming. Managing water resources must be at the top of the agenda if we want to tackle the challenge of food security."

Marcin Preidl (DE), Action Team Leader

On our agenda in 2015/2016

IDF GUIDE ON BIODIVERSITY

With a growing global population and an increase in demand for dairy products worldwide, the dairy industry has a duty to mitigate its impact on biodiversity. Dairy farming influences biodiversity through habitat modification or maintenance, through fertilization and nutrient excretion and through production of greenhouse gas emissions. Dairy processing can have an impact on biodiversity through habitat modification at the processing site, effluent discharge from the water treatment plant to adjacent rivers, and through the emission of greenhouse gases.

Thanks to the expertise of its members, IDF is producing guidelines for the assessment of the impact of dairy production on biodiversity and to help dairy stakeholders improve their management of biodiversity. The guide will also focus on how to identify appropriate indicators which can be used to measure progress on the actions taken.

The Guide on Biodiversity will be presented at the 2016 IDF World Dairy Summit in Rotterdam, The Netherlands.

INNOVATIVE PRACTICES FOR ECO-FRIENDLY DAIRY PROCESSING

As part of its dairy sustainability leadership role, IDF is finalising a white paper on environmental best practice in the global dairy processing sector. The project aims to compile initiatives implemented by IDF members to manage natural resources in a sustainable way and increase overall efficiency. Building on previous IDF work, the project focuses on energy use, solid waste management, water use, water waste management and total cost of ownership (TCO).

The Action Team is looking at technical solutions to improve energy savings such as energy efficient equipment and heat recovery systems, solutions to improve carbon and water footprint including

water reuse and eco-friendly plant cleaning, as well as good practice in the monitoring of water and energy consumption.

GUIDE ON MINIMUM AND OPTIMUM CLUSTER REMOVAL SETTINGS

In 2015, IDF started working on a guideline for milking equipment suppliers and dairy farm advisers, with advice on minimum and optimum cluster removal settings, to help prevent over-milking and the risk of mastitis as well as improve milking efficiency.

Although the subject of take-off settings has been addressed at a national level in many countries, standardized take-off settings have yet to be proposed at global level. Consequently, IDF undertook the development of international guidelines as many countries still have take-off settings below 400 gr./min., contributing to over-milking and increasing the risk of mastitis, while lowering efficiency due to significantly longer milking times.

HLPE REPORT ON SUSTAINABLE AGRICULTURE

IDF actively took part in a thorough consultation led by the High Level Panel of Experts on Food Security and Nutrition (HLPE), part of the UN Committee on World Food Security. The consultation focused on the role of livestock in Sustainable Agricultural Development for Food Security and Nutrition with comments invited on strategies, research and promotion, and sustainability as a whole. Through a cross-committee submission, IDF highlighted the essential role of livestock in supplying nutritious foods and called for a greater emphasis on the contribution that animal products bring to optimal nutrition.

Ahead of the publication of the draft report, IDF co-organized an international forum with the Global Dairy Platform, with the presence of high level representatives of UN Member States and global Members.



FOCUS ON: DAIRY SAFETY & QUALITY

IDF Strategy

Safeguarding the integrity and transparency of the dairy supply chain is paramount to ensure the dairy industry can deliver safe milk and dairy products of the highest quality.

PROMOTE BEST PRACTICES OF ANIMAL HEALTH AND WELFARE MANAGEMENT

IDF promotes best practices of animal health and welfare management, including the prudent and effective use of animal treatments, and contributes to the work of the World Animal Health Organization (OIE). IDF aims to guarantee optimal health and wellbeing for both animals and consumers, carefully balancing the potential impact of industry practices on consumer health.

RANK AND PRIORITIZE CHEMICAL, PHYSICAL AND BIOLOGICAL HAZARDS AND INDICATORS

IDF encourages the global harmonization of and the use of best practice in risk assessment and management tools in the dairy sector promoting a science-based approach to safety and quality issues.

The increasing sensitivity of analytical and diagnostic equipment allows the detection of very low levels of undesired substances in foods. Potentially hazardous substances can be detected at concentrations well below agreed safe levels, hence posing no risk to consumers. However, superficial and inaccurate media reporting can create major concerns for consumers resulting in expensive product recalls. To avoid unnecessary issues, it is important to advocate regulatory approaches based on a strict risk analysis rather than perceived hazards.

Organisms that are both pathogenic and may develop resistance against standard treatments such as antimicrobial agents are also high on the agenda.



5TH IDF PARATUBERCULOSIS FORUM

The 5th IDF Paratuberculosis Forum was hosted by Christine Fourichon, Co-convenor of the 13th International Colloquium on Paratuberculosis in Nantes, France. The ParaTB Forum is an ongoing IDF initiative and provides an opportunity for people involved in the coordination and management of national and regional Johne's Disease programs to engage in a frank and open discussion about methods used, progress towards program objectives, and lessons learnt.

Johne's Disease has a major impact on industry profitability but can be managed in a cost effective manner.

The major costs come from increased susceptibility to other conditions and increased forced culling and the retention of cows that should otherwise be culled. Clinical Johne's cases are just the tip of the iceberg.

A number of recent international studies have also demonstrated the impact of Johne's Disease on cow performance in terms of reduced yield, increased lameness, increased mastitis and increased susceptibility to other diseases.

Proceedings from the Forum will be published as an IDF Bulletin, including 12 papers from 11 different countries.

HIGHLIGHTS

- The forum received reports on control programmes undertaken in Spain, France, Italy, the Netherlands, Germany, Canada, Denmark, Norway, Australia, United States and the United Kingdom.
- Efforts to tackle ParaTB have been growing in intensity for several decades and progress ultimately depends on the level of farmer engagement.
- This is driven by resources allocated to the scheme, legal or commercial imperatives for farmer participation, continuity and duration of operation, economic benefits accruing to farmers and changes in industry expectations.

"Given the diversity of national dairy industries throughout the world, a one-size-fits-all policy may not be the best solution. Each national industry has to tailor its own unique pathway to success."

Robin Condron (AU), Convenor

On our agenda in 2015/2016

COMMUNICATION ON ANTIMICROBIAL RESISTANCE FROM THE DAIRY SECTOR

Antimicrobial resistance (AMR) is a major concern for many Governments, key intergovernmental organizations including FAO, WHO and OIE, and receives increasing attention in the media.

The dairy sector is using antimicrobial agents in a prudent and justified way and its contribution to the development of AMR, if any, is minimal. Unfortunately, antimicrobial agent use in livestock is often identified as one of the causes of AMR and the dairy sector should have appropriate tools to educate stakeholders and explain aspects that are not properly conveyed.

IDF has launched an ambitious inventory to collect information on the facts, the situation, the initiatives, the achievements and apparent misconceptions from the perspective of the dairy sector.

The second step will identify how IDF can further assist the dairy sector in addressing AMR-related issues.

It is crucial that policymakers should get a clear understanding of the rather unique and prudent way of antimicrobial agent use by the dairy sector compared to other livestock sectors. As antimicrobial agent use in other livestock sectors is higher than in the dairy sector, future regulations that would not be differentiated by sector would likely be to the disadvantage of dairy.

REVIEW OF AVAILABLE METHODOLOGIES FOR THE DETECTION AND ENUMERATION OF MAP

IDF launched a review of current methods to help the dairy sector evaluate the quality and possible impact of published results of *Mycobacterium avium* ss. *Paratuberculosis* (MAP) detection in the past and the near future.

The review will focus on pros & cons, sensitivity and specificity of existing methods. Once the review is completed, IDF will consider the development of a reference method.

UPDATE OF INVENTORY OF MICROORGANISMS WITH A DOCUMENTED HISTORY OF USE IN FOOD

Following the success of IDF's publication on the inventory of microorganisms in 2012, IDF has initiated a new update of the inventory of microorganisms with a documented history of use in food.

The first publication helped the inventory have a tremendous impact on the recognition of fermented food products (dairy and other food matrix) for international commercialization.

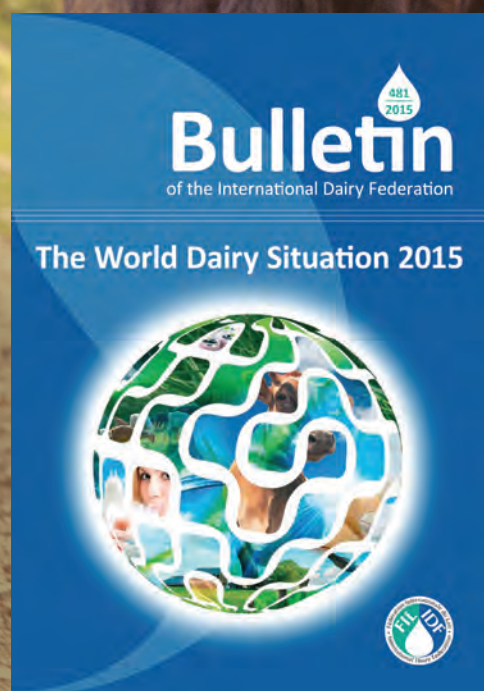
A few years on, the advancement of science and knowledge on the field of microbial interactions with food and the call for extension beyond dairy fermented foods called for a new update. This new project shall include new species of interest on various categories of fermented food products. It also highlights recent concerns on the intention of use of microorganisms in fermented food products.

Once completed, the update will be submitted for publication in peer review journals.

COLLECTION OF DATA ON INDUSTRY MILK QUALITY AND HYGIENE STATISTICS

Mastitis is a serious issue for dairy farmers and can have a significant economic impact when not controlled or addressed properly. In order to raise awareness of these risks, IDF undertook a global survey of hygiene statistics to provide accurate and convincing data to show how a proper control of mastitis can help improve on-farm profitability. The preliminary results of the survey were presented at the 2016 IDF Mastitis Conference.

PUBLICATIONS



The World Dairy Situation

The IDF's flagship publication offers a comprehensive analysis of market trends, dairy production, trade, country reports. The report is led by the Standing Committee on Dairy Policies and Economics.

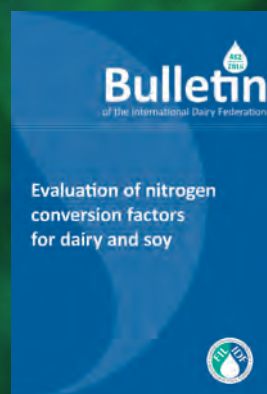
ALL PUBLICATIONS CAN BE PURCHASED OR DOWNLOADED FROM THE IDF WEBSITE AT WWW.FIL-IDF.ORG

Bulletins

Covering a wide range of dairy-related issues, IDF Bulletins are go-to-references for dairy professionals.



**BULLETIN OF THE
IDF NO. 480/2015**
The contribution of
school milk programmes
to the nutrition of
children worldwide.



**BULLETIN OF THE
IDF N°482/2016**
Evaluation of nitrogen
conversion factors for
dairy and soy.

Fact sheets

**SATURATED FATTY ACIDS AND
CARDIOVASCULAR DISEASE**

**FIELD GUIDELINES FOR THE
ASSESSMENT AND MANAGEMENT
OF AFLATOXINS IN DAIRY PRODUCTS
ACROSS THE SUPPLY CHAIN**

**WHY SEMICARBAZIDE IS
NOT A SUITABLE MARKER
FOR NITROFURAZONE IN
DAIRY PRODUCTS**

**IDF COUNTRY REPORTS
– APRIL 2016**



JOINT IDF/ISO STANDARDS

International standards for methods of analysis and sampling for milk and milk products used as references at a national and global level.

ISO 8968-4 | IDF 020-4:2016
Milk and milk products – Determination of nitrogen content – Part 4: Determination of protein and non-protein nitrogen content and true protein content calculation (Reference method).

ISO 27105 | IDF 216:2016
Milk and Cheese – Determination of hen's egg white lysozyme content by high performance liquid chromatography.

ISO 19344 | IDF 232: 2015
Milk and milk products – Starter cultures, probiotics and fermented products – Quantification of lactic acid bacteria by flow cytometry.

ISO 16958 | IDF 231: 2015
Milk, milk products, infant formula and adult nutritionals – Determination of fatty acids composition – Capillary gas chromatographic method.

ISO 20647 | IDF 234: 2015 – Infant formula and adult nutritionals
– Determination of total iodine – Inductively coupled plasma mass spectrometry (ICP-MS).

ISO 20649 | IDF 235: 2015 – Infant formula and adult nutritionals
– Determination of chromium, selenium and molybdenum – Inductively coupled plasma mass spectrometry (ICP-MS).



EVENTS

IDF World Dairy Summit

VILNIUS, LITHUANIA

1,200 delegates from 50 countries

HIGHLIGHTS

- 9 conferences | Dairy policies & economics, Nutrition & health, Animal health & welfare, Dairy farming, Dairy science & technology, Marketing, Analytical tools, Food safety, Environment
- IDF Forum
- IDF Leaders' Forum
- IDF Dairy Farmers' Forum
- 4 technical tours
- Dairy farmers, processors and manufacturers, scientists, government officials and representatives from international organizations

Closing the nutrition gap with sustainable dairy

"We need to move away from the reductionist view of nutrition as the sum of the individual food components and consider the complex way multiple food components act within complex diets and individual lifestyles."

Dr. Jeremy Hill, IDF President

IDF LEADERS' FORUM

Fiat lactis: Improving nutrition security with dairy

"Food security and nutrition for all through sustainable agriculture will only be achieved if all stakeholders jointly invest their resources and efforts to

enable food producers, including dairy farmers, to play their role."

H.E. Gerda Verburg, Chair, UN Committee on World Food Security

"Milk and milk products are very important, particularly to children and seniors, being the best source of calcium for their body and for cognitive development. To improve child nutrition, FAO supports school milk programmes around the world. FAO is committed to strengthening its partnership with IDF to meet our common goals."

Dr. Berhe Tekola, Director, Animal Production and Health Division, FAO

IDF/ISO Analytical Week

COPENHAGEN, DENMARK
170 delegates from 26 countries

HIGHLIGHTS

- 12 new projects, including new IDF/ISO standards for methods of analysis and standard revisions
- New topics for IDF bulletins and factsheets
- Projects in collaboration with the U.S. Pharmacopeial Convention (USP) and AOAC

DEFENDING THE AUTHENTICITY OF THE FOOD CHAIN THROUGH COLLABORATION

"The 2008 melamine scandal was a wake-up call for the global dairy sector. Those type of threats need to be tackled in a systematic way."

Claus Heggum,
Member of the IDF SPCC

HOLISTIC APPROACH TO THE TRACKING OF ADULTERANTS

"It is not enough to look for one single adulterant like melamine. We need to be able to track a number of components with one single measurement."

Aurélié Dubois-Lozier,
Technical Manager, IDF

IDF Parallel Symposia on Cheese Science & Technology and on Concentration & Drying Technologies of Dairy Products

DUBLIN, IRELAND
600 delegates from 32 countries
90 speakers, 160 posters and
17 trade exhibits

HIGHLIGHTS

- Novel developments for two-in-one use of sweet whey to improve the biomass production and spray drying viability of probiotics
- A new process for the production of permeate powders without spray-drier
- Innovation in infant milk formula processing
- Adaptation of cow's milk to bring it even closer in composition to human breast milk
- Use of simulated gastric digestion of cheese and the potential for even greater health benefits arising from its consumption
- Recent advances in cheese flavour engineering and characterization
- Use of molecular diagnostic tools to investigate microbial-related cheese quality defects

IDF Mastitis Conference

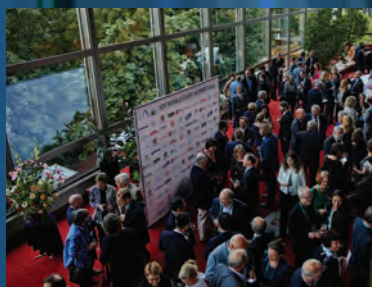
NANTES, FRANCE
350 delegates from 34 countries

HIGHLIGHTS

- 8 sessions covering milking processes, herd management, immunity and genetics, treatments, prevention, bacteriology and epidemiology, other dairy animals.
- Inventory of current knowledge and overview of new options
- Discussions on phages, biofilms and the potential impact of nutrition and genetics

"The global community is gearing up to fight antimicrobial resistance. As a dairy farmer, I believe that improving our knowledge of infectious animal diseases such as mastitis will help us preserve effective and necessary treatments while protecting both animal and human health. Given the variety of existing initiatives to deal with mastitis, it is particularly important to come together as an industry and learn from others' successes."

Marie-Thérèse Bonneau (FR),
FIL France President



FINANCIAL REPORT

Balance sheet

The balance total at end 2015 is €1,847,090. The equity amounts to €1,647,018; which is €172,374 more than at end 2014, due to the results further detailed below.

IDF BALANCE SHEET

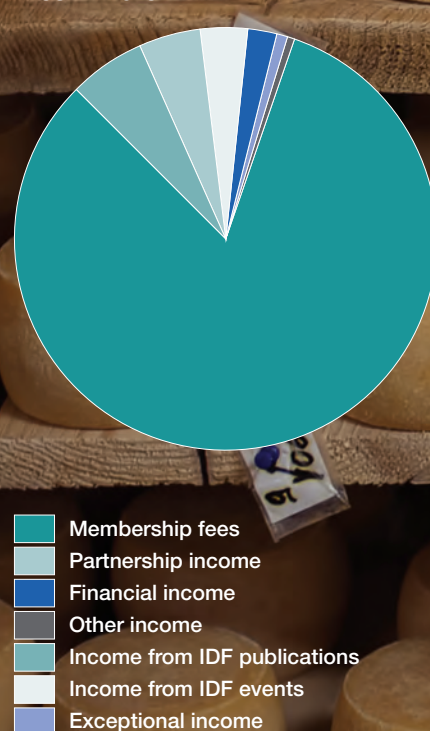
	31/12/2015	31/12/2014
TOTAL ASSETS	1,847,090	1,642,515
Fixed assets	23,593	24,683
Receivables <1 yr	75,636	22,342
Investments	402,833	476,616
Cash	1,334,779	1,088,874
Deferred charges	10,248	30,000

TOTAL LIABILITIES	1,847,090	1,642,515
Equity	1,647,018	1,474,644
Payable <1 yr	200,072	146,572
Deferred income	0	21,300

INCOME STATEMENT

The staff restructuring undertaken in 2014 has balanced costs with membership income. The financial result of 2015 (€172,374) is better than expected. However, this is mainly due to long term illness of staff, which delayed investment in website redesign until 2016. Thus salary costs and depreciation in 2015 were lower than budgeted.

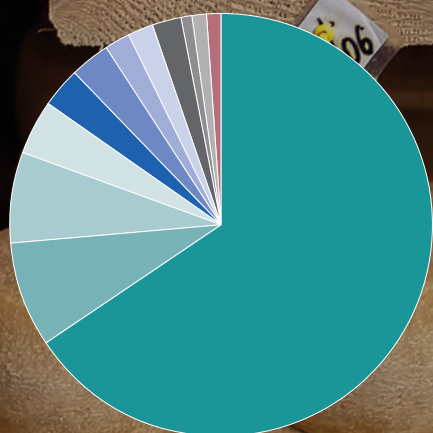
INCOME 2015



IDF INCOME STATEMENT (EURO)

Year	2015 <i>Drafts</i>	2014 <i>Actual</i>
REVENUES	1,368,913	1,367,963
Membership fees	1,218,600	1,192,809
Income from IDF publications	70,065	76,222
Income from IDF events	28,592	5,876
Partnership income	30,000	60,000
Financial income	16,158	19,573
Other income	5,498	13,483
COSTS	1,207,138	1,497,016
Staff salaries, social security, pensions	790,493	1,124,444
Office rent and charges	101,997	95,904
IT and phone	30,490	24,042
Insurances, maintenance, leasing	9,968	16,854
Taxes	26,852	25,073
Travel	52,035	50,382
Meeting costs	27,514	57,389
Editing, layout and printing	81,865	56,575
Variable office costs	17,066	19,726
Audit, consultants and outsourcing	20,344	15,791
Depreciations	7,287	10,066
Financial charges	-428	-7,664
Other charges	41,654	8,433
Result of ordinary activities	161,775	-129,053
Exceptional results	10,599	48,868
RESULT	172,374	-80,185

COSTS 2015



Staff salaries, social security, pensions
Editing, layout and printing
Other charges
Meeting costs
Audit, consultants and outsourcing
Insurance, maintenance, leasing
Office rent and charges
Travel
IT and phone
Taxes
Variable office costs
Depreciations

IDF BOARD



Dr. Jeremy Hill
New Zealand | Fonterra
IDF President and Chairman
of the Board

Jeremy Hill was elected President in 2012 after ten years on the IDF Board and twenty years of contributions to IDF. Currently Chief Science and Technology Officer with the Fonterra Cooperative Group, Jeremy has previously held a number of senior R&D leadership roles throughout the dairy supply chain and sits on the Board of several organisations, including the Global Dairy Platform.

Jean-Marc Delort
Switzerland | Nestlé
SPCC Chair

Jean-Marc Delort joined the IDF Board in 2015 after four years as member of the SPCC. Currently Vice President of R&D and Operations of the dairy business unit at Nestlé, Jean-Marc has over 30 years of experience in the dairy industry, both in R&D and Operations, with a strong international track record.

Marcel Denieul
France | Fédération Nationale
des Producteurs de Lait
Dairy Farming

Marcel Denieul joined the IDF Board in 2012. In addition to managing a 200 cow operation owned by a family partnership in Western France, Marcel is involved in many aspects of the French dairy sector including farm management, dairy technology and dairy policies and chairs SPACE, a global livestock exhibition.

Clay Hough
United States | International
Dairy Foods Association
Dairy Processing

Clay Hough joined the IDF Board in 2015. As Senior Group Vice-President and General Counsel at the International Dairy Foods Association, Clay oversees IDFA's regulatory, international and legal affairs, meetings and educational services, and membership. He is also active in U.S.-IDF.

Dr. Tova Avrech
Israel | Israel Dairy Board
Delegate – General Assembly

Tova Avrech joined the IDF Board in 2014. An expert in nutrition and health and risk management in the dairy sector, Tova's primary affiliation is with the Israel Dairy Board (IDB). She previously chaired a large dairy processing company in Israel.

Dr. Judith Bryans
United Kingdom | Dairy UK
Delegate – General Assembly

Judith Bryans joined the IDF Board in 2015. Judith has worked with IDF since 2005, including three years as SPCC member and three years as Chair of the nutrition and health committee. She was appointed Chief Executive of Dairy UK, the dairy supply chain trade association in the UK, in 2013.

Thierry Geslain
France | Centre National
Interprofessionnel
de l'Economie Laitière
Delegate – General Assembly

Thierry joined the IDF Board in 2015 as representative of National Committees. In addition to his role as National Secretary of Fil France, Thierry is Director of Scientific and Technical Affairs at the French national dairy interbranch association CNIEL.

Jørgen Hald Christensen
Denmark | Danish Dairy Board
Delegate – General Assembly

Jørgen Hald Christensen joined the IDF Board in 2014. He has contributed to IDF work since 1989 within various positions. Jørgen is CEO of the Danish Dairy Board, which safeguards a number of common interests in Denmark and abroad in relation to national and international dairy policies.

SCIENCE PROGRAMME COORDINATION COMMITTEE

**Jean-Marc Delort
(Switzerland)**
Chair

Olav Østerås (Norway)
Animal Health

Eric Grande (France)
Food Standards

**Harrie van den Bijgaart
(The Netherlands)**
Methods of Analysis
and Sampling

Ronald Maynard (Canada)
Farm Management

Dr Phil Kelly (Ireland)
Dairy Technology

Claus Heggum (Denmark)
Hygiene & Safety

Laurent Damiens (France)
Economics & Marketing

**Mary Anne Burkman
(United States)**
Nutrition

Erik Konings (Switzerland)
Dairy Processing

Piercristiano Brazzale (Italy)
Environment

Pierre Schuck (France)
Academia

**Chris James
(United Kingdom)**
Dairy Farming



17

STANDING COMMITTEES

1,200

EXPERTS



45

COUNTRIES

STAFF

Dr. Nico van Belzen
Director General

Aurélié Dubois-Lozier
Technical Manager

Laurence Rycken
Technical Manager

Dr. Delanie Kellon
Technical Manager

Dr. Jaap Evers
IDF Leader – Global Standards

Dr. María Sánchez Mainar
Interim Communication
& Technical Manager

Marylène Tucci
Communications Manager

Henriette Christiansen
Office Manager

Apolina Fos
Secretary to the
Director General

Stefania Pupo
Secretary

Nadine Kamunga
Administrative Support

STANDING COMMITTEES

Animal Health and Welfare SCAHW

Chair: Elizabeth Berry (UK)
Deputy Chair: Olav Østerås (NO)

Dairy Science and Technology SCDST

Chair: David Everett (NZ)
Deputy Chair: Geoffrey Smithers W. (AU)

Environment SCENV

Chair: Ying Wang (US)
Deputy Chair: Marcin Preidl (DE)

Farm Management SCFM

Chair: Jamie Jonker (US)
Deputy Chair: Position vacant

Nutrition & Health SCNH

Chair: Isabelle Neiderer (CA)
replaced Stefanie Oude
Elferink (NL) in May 2016
Deputy Chair: Mickey Rubin (US)

Dairy Policies and Economics SCDPE

Chair: Gilles Froment (CA)
Deputy Chair: Véronique Pilet (FR)

Marketing SCM

Chair: Ida Berg Hauge (NO)
replaced Winnie Pauli
(DK) in 2016
Deputy Chair: Mike Johnston (UK)

Food Additives SCFA

Chair: Allen R. Saylor (US)
Deputy Chair: Jennifer Huet (FR)

Standards of Identity and Labelling SCSIL

Chair: Karine Simbelie (FR)
Deputy Chair: John Allan (US)

Microbiological Hygiene SCMHI

Chair: Position vacant
Deputy Chair: Kieran Jordan (IE)

Residues and Chemical Contaminants SCRCC

Chair: Robert Salter (US)
Deputy Chair: Emily Meredith (US)

Analytical Methods for Additives & Contaminants SCAMAC

Chair: Karin Kraehenbuehl (CH)
Deputy Chair: Valérie Gaudin (FR)

Analytical Methods for Composition SCAMC

Chair: Philippe Trossat (FR)
Deputy Chair: Richard Johnson (NZ)

Analytical Methods for Dairy Microorganisms SCAMDM

Chair: Stéphane Chartier (FR)
Deputy Chair: Biljana Bogicevic (CH)
replaced Sandra Casani
(DK) in June 2016

Analytical Methods for Processing Aids and Indicators SCAMPAI

Chair: Jacqueline Page (US)
Deputy Chair: Charlotte Egger (CH)

Harmonization of Microbiological Methods SCHMM

Chair: Barbara Gerten (GE)
Deputy Chair: Patricia Rollier (FR)

Statistics and Automation SCSA

Chair: Bianca Müller (DE)
Deputy Chair: Rob Crawford (NZ)

Task Force on Nitrogen Conversion Factor

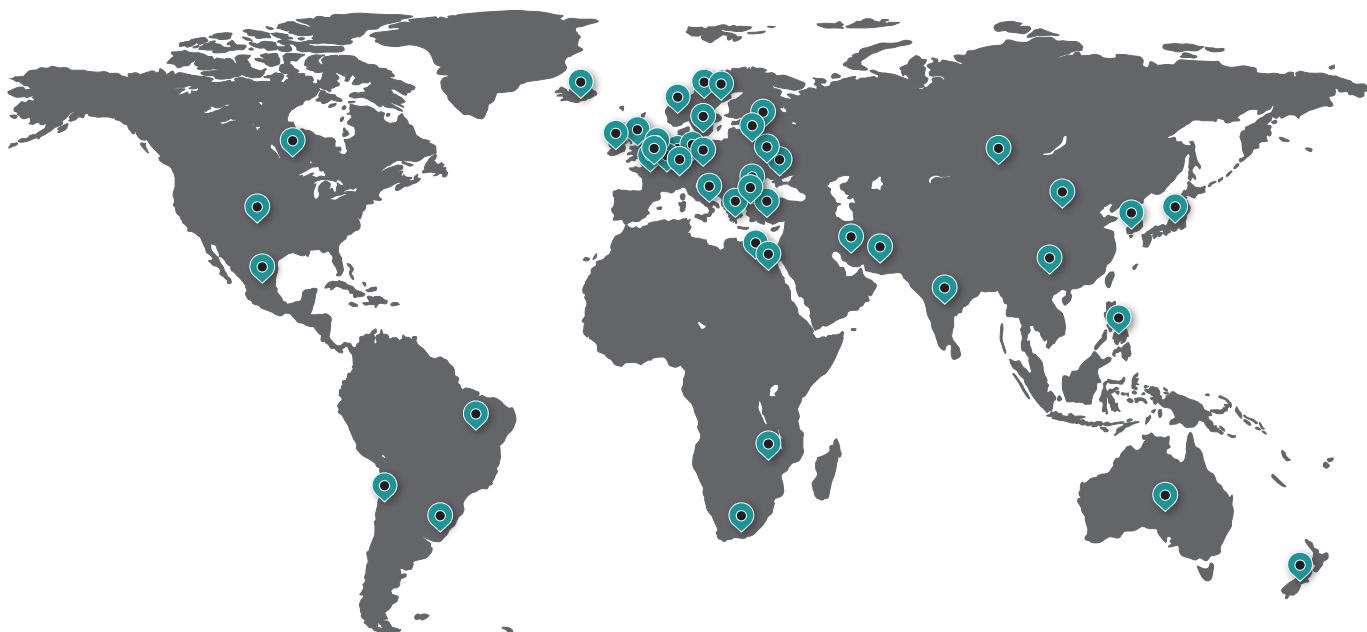
Team leader: Jaap Evers (IDF)

Task Force on Antimicrobial Resistance

Team leader: Carol Barnao (NZ)

NATIONAL COMMITTEES

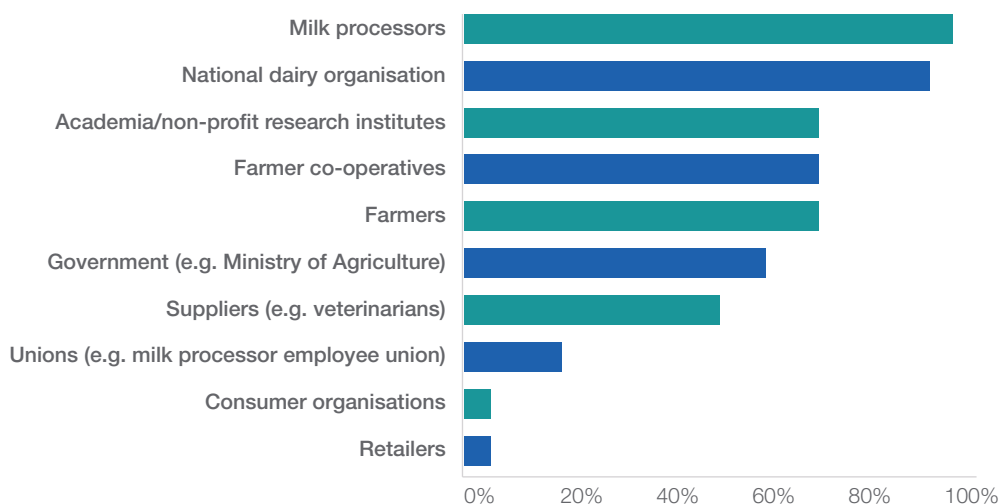
Consensus-based, globally representative, respected and long established federation



IDF Member Countries

Australia	Cyprus	Iceland	Kuwait	Norway	Ukraine
Belgium	Czech Republic	India	Latvia	Philippines	United Kingdom
Brazil	Denmark	Iran	Lithuania	Poland	United States of America
Bulgaria	Egypt	Ireland	Luxembourg	Russian Federation	Uruguay
Canada	Finland	Israel	Mexico	South Africa	Zimbabwe
Chile	France	Italy	Mongolia	Sweden	
China	Germany	Japan	Netherlands	Switzerland	
Croatia	Greece	Korea (Republic of)	New Zealand	Turkey	

IDF MEMBERSHIP REPRESENTS ALL KEY STAKEHOLDERS IN THE DAIRY CHAIN



IDF MEMBERSHIP COVERING

75%



OF GLOBAL MILK PRODUCTION

AWARDS

2015 IDF PRIZE OF EXCELLENCE

Outstanding contributions to IDF in accordance with the SWIFT vision (Speed, Worldwide visibility, Impact, Focus & Transparency).

Claus Heggum, Denmark

Michael Hickey, Ireland



2015 YVES BOUTONNAT INTERNATIONAL MILK PROMOTION TROPHY

Organised by the Standing Committee and Marketing. Outstanding campaign to promote the nutritional benefits of dairy as part of a healthy lifestyle.

Christine Leighton, Consumer Education Programme of Milk, South Africa.



Working with

FOOD AND AGRICULTURE
ORGANIZATION OF THE
UNITED NATIONS (FAO)

ORGANISATION
FOR ECONOMIC
& CO-OPERATION
DEVELOPMENT
(OECD)

WORLD
ORGANIZATION
FOR ANIMAL
HEALTH (OIE)

UN COMMITTEE
ON WORLD FOOD
SECURITY

INTERNATIONAL
STANDARDS
ORGANIZATION
(ISO)

CODEX
ALIMENTARIUS

EUROPEAN
COMMITTEE FOR
STANDARDIZATION
(CEN)



PARTNERS

AOAC INTERNATIONAL

EASTERN AND SOUTHERN
AFRICA DAIRY
ASSOCIATION

EUROPEAN DAIRY
ASSOCIATION

FEDERACIÓN
PANAMERICANA DE
LECHERÍA

GLOBAL DAIRY AGENDA
FOR ACTION

GLOBAL DAIRY PLATFORM
HEALTHFORANIMALS

INTERNATIONAL
COMMITTEE FOR ANIMAL
RECORDING

INTERNATIONAL FARM
COMPARISON NETWORK

INTERNATIONAL FOOD
ADDITIVES COUNCIL

SUSTAINABLE AGRICULTURE
INITIATIVE PLATFORM

U.S. PHARMACOPEIAL
CONVENTION

WORLD VETERINARY
ORGANIZATION





INTERNATIONAL DAIRY FEDERATION

70/B, Boulevard Auguste Reyers

1030 Brussels - Belgium

Tel: +32 2 325 67 40

Fax: +32 2 325 67 41



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@idf_nutrition



www.fil-idf.org

www.idfdairynutrition.org

www.dairysustainabilityframework.org

www.idfdairylaboratories.org