



Dairy Report 2016

For a better
understanding of
the dairy world



IFCN
The Dairy Research Network

Dear friends,

In this IFCN Dairy Report 2016 you will find a summary of the research highlights and network activities in 2016.

The IFCN Mission and Vision

IFCN Mission: We create a better understanding of the dairy world by providing comparable data, knowledge and inspiration.



IFCN Content work 2016

Farm economics data: Different cost components of dairy enterprises provide us with valuable information on farm economics. Hence, detailed analyses of the production factor costs i.e. feed, labour, land, animal health, herd replacement and their drivers are presented. Methods of analysis and data quality are being improved through:

- Classification of typical farms
- Risk profiling of farm types
- Quality assurance system

Trade data: To understand the dairy world better, it is important to observe the global dairy trade. By monitoring the monthly trade of 25 HS 6-digit dairy commodities IFCN is able to draw better conclusions on milk surplus and deficit worldwide.

Outlook: Due to the speed with which dairy business is changing, IFCN has developed scenarios for a long-term outlook of the dairy world for over 200 countries.

HIGHLIGHTS – IFCN EVENTS IN 2016

IFCN Dairy Conference 2016

The focus of this conference was 'Milk pricing systems, farmer – processor cooperation and the global dairy crisis'. Milcobel hosted this event in Ghent, Belgium, in June.



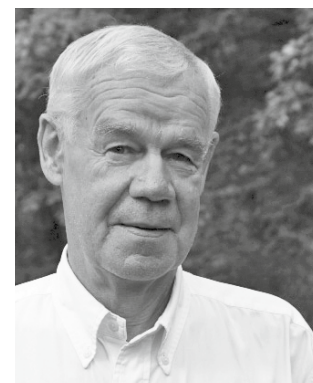
IFCN Supporter Conference 2016

The conference was held in September in Wageningen, The Netherlands. The topic covered the future of dairy farming systems and key pre-competitive areas where dairy industry can cooperate to better withstand future volatility. Trouw Nutrition and FrieslandCampina were the main hosts for this conference.



IFCN Regional Workshop 2016

Organized for the second time in India, this workshop offered insights on the global dairy crisis and its lessons for the dairy development in India. This workshop took place in the heart of the dairy development area in India in the city of Anand. The Workshop was sponsored by Amul, Danone and Elanco as co-sponsors.



Status of the IFCN Research Network in 2016

The dairy sector analysis covered **198 countries** representing 98% of the world milk production.

In the farm comparison, 146 typical dairy farms from 60 dairy regions and 52 countries were analysed. For the first time Hungary, Kenya and Russia-NW have been included.

IFCN Dairy Report 2016

Chapter 1: Cost comparison summarises results on costs, returns, profitability and productivity of dairy farms worldwide. New in this section is the detailed presentation of cost components and their drivers.

Chapter 2: Global monitoring provides a broad overview on specific dairy issues such as milk prices, feed prices, milk: feed price ratio and the monthly milk price transmission.

Chapter 3: Dairy sector and chain profile, prepared for 105 countries, presents a comparable overview related to:

- A list of up to 10 major milk processors per country
- Milk supply and demand developments
- Milk processing profile per dairy product
- Monthly farm gate and world milk price
- Consumer prices and margins in the chain

Moreover, the key results are summarised at the beginning of the chapter via world maps.

Chapter 4: IFCN Methods & Definitions: This chapter explains the methods used for the IFCN Analyses and quality assurance.

Acknowledgement

We would like to thank all IFCN Research Partners, Agribusiness Partners, Institutional Partners and the colleagues working in the IFCN Dairy Research Center during the last year. It was a pleasure to work with you and strengthen the network in 2016. We are looking forward to our activities in 2017.

Torsten Hemme
Managing Director

Anders Fagerberg
Chairman of the IFCN Board

Participating dairy economists / co-editors of the IFCN Dairy Report



Dairy Expert

Djellali Abderrazak | Horizons Agro-alimentaires Boufarik, Gouraya, Algeria



Hugo Quattrochi | Unión Productores de Leche Cuenca Mar y Sierras, Tandil, Argentina



Anna Yeritsyan, Vardan Urutyan | International Center for Agribusiness Research and Education (ICARE), Yerevan, Armenia



Jon Hauser | Xcheque Pty Ltd, Glen Alvie, Victoria, Australia



Josef Hambrusch, Leopold Kirner | Federal Institute of Agricultural Economics, Vienna, Austria



Mohammad Uddin | Bangladesh Agricultural University, Mymensingh, Bangladesh



Anatoli Takun, Sviatlana Takun | Institute of System Research in Agro-industrial Complex, Minsk, Belarus



Erwin Wauters | Institute for Agricultural and Fisheries Research, Social Sciences Unit, Marelbeke, Belgium



Lorildo A. Stock | Embrapa Gado de Leite (Embrapa Dairy Cattle), Juiz de Fora, Minas Gerais, Brazil



Steve Couture | Dairy Farmers of Canada, Ottawa, Canada



Mario E. Olivares | Cooprinsem, Osorno, Chile



Dairy Consultant

Sam Shi | Dairy Consultant, Beijing, China



Dou Ming, Hal Chin | Beijing Orient Dairy Consultants Ltd, Beijing, China



Liu Changquan | Rural Development Institute of Chinese Academy of Social Sciences, Beijing, China



Enrique Ortega, René Perez | C.N.L.M (Consejo Nacional de la Calidad de la Leche y Prevención de la Mastitis), Bogotá, Colombia



Iveta Bošková | ÚZEI – Research Institute of Agricultural Economics and Information, Prague, Czech Republic



Susanne Clausen | SEGES, Aarhus, Denmark



Adel Khattab | Tanta University, Faculty of Agriculture, Animal production department, Tanta, Egypt



Sami Ovaska, Olli Niskanen | Natural Resources Institute Finland (LUKE), Helsinki, Finland



Rubin Benoît | Institut de l'Elevage, Service Economie de l'Exploitation, Derval, France



Dorothee Bölling | IFCN Dairy Research Center, Kiel, Germany



Dániel Mándi-Nagy | Research Institute of Agricultural Economics (AKI), Budapest, Hungary



Kuldeep Sharma | Suruchi Consultants, Noida, Uttar Pradesh, India



Inderpreet K. Kullar | College of Dairy Science & Technology, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, India



Farhad Mirzaei | Animal Science Research Institute of Iran, Karaj, Iran



Fiona Thorne | Rural Economy Research Centre, Teagasc, Dublin, Ireland



Liron Tamir | Israel Dairy Board, Rishon-Le'Zion, Israel



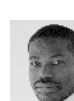
Alberto Menghi | CRPA – Centro Ricerche Produzioni Animali, Reggio Emilia, Italy



Hironobu Takeshita | J-milk (Japan Dairy Association); Japan Milk Academic Alliance; Nagoya University, Aichi, Tokyo, Japan



Othman Alqaisi | College of Agricultural & Marine Sciences, Sultan Qaboos University, Muscat, Oman, Jordan



Asaah Ndambi | International Livestock Research Institute (ILRI), Nairobi, Kenya



Simone Adam | Ministère de l'Agriculture, Service d'Economie Rurale, Luxembourg, Luxembourg



Mc Loyd Banda | DARS - Department of Agricultural Research Services, Bunda College, Lilongwe, Malawi



José Luis Dávalos Flores | UNAM FMVZ CEIEPAA, Tequisquiapan, Mexico



Rigoberto Becerra | Establo Gibraltar, Gomez Palacio, Durango, Mexico



Rajae Filali Mahfoud | Centrale Laitière, Casablanca, Morocco



Nicola Shadbolt | College of Sciences, Massey University, Palmerston North, New Zealand



Ola Flaten, Bjørn Gunnar Hansen | NIBIO – Norwegian Institute of Bioeconomy Research, Ås, Norway

Participating dairy economists / co-editors of the IFCN Dairy Report



Waseem Shaukat | Solve Agri Pak (Private) Limited, Lahore, Pakistan



Carlos A. Gomez | Universidad Nacional Agraria La Molina, Lima, Peru



Ewa Kołozyszcz | West Pomeranian University of Technology in Szczecin, Department of Management, Szczecin, Poland



Vladimir Surovtsev, Mikhail Ponomarev, Julia Nikulina | Northwest Research Institute of Economics and Organization of Agriculture, St. Petersburg, Russian Federation



Rade Popovic | University of Novi Sad, Faculty of Economics, Subotica, Serbia



Koos Coetzee | Milk Producers' Organisation, Pretoria, South Africa



National Network Team (J. Llorente, C. García, F. Merelo, A. García) | TRAGSATEC & Ministerio de Agricultura, Alimentación y Medio ambiente, Madrid, Spain



Christian Gazzarin | Agroscope Research Station, Farm Management Group, Tänikon, Switzerland



Michel de Haan | Animal Sciences Group, Wageningen-UR, Lelystad, The Netherlands



Dhiaeddine M'Hamed | Dairy Expert, Saliman, Tunisia



Muhittin Özder, Selçuk Akkaya | Turkish Milk Council, Ankara, Turkey



Steven Aikiriza | Dairy Development Authority, Kampala, Uganda



Olga Kozak | National Scientific Centre, Institute of Agrarian Economics, Kyiv, Ukraine



Mark Topliff | Agriculture & Horticulture Development Board, Market Intelligence, Kenilworth, Warwickshire, United Kingdom



Jorge Artagaveytia, Gabriel Bagnato | Instituto Nacional de la Leche, Montevideo, Uruguay



Mark Stephenson | University of Wisconsin - Center for Dairy Profitability (CDP), Wisconsin, USA



Bill Zweigbaum | Farm Credit East, Greenwich, New York, USA



Linda Nielsen | Zimbabwe Association of Dairy Farmers, Harare, Zimbabwe

Researchers participating only in the country profile analysis or in specific country information:

Shakir Ullah Akhtar | Dairy Expert, Afghanistan

Ilir Kapaj | Agricultural University Tirana, Albania

Vugar Bayramov | CESD – Center for Economic and Social Development Baku, Azerbaijan

Tashi Samdup | Department of Livestock, Ministry of Agriculture & Forests Thimphu, Bhutan

Felix Menzel | Dairy Expert, Mezza Sucre, Bolivia

Konstantin Stankov | Trakia University, Bulgaria

Henri Bayemi, Asaah Ndambi | Institute of Agricultural Research for Development (IRAD), International Livestock Research Institute (ILRI), Nairobi, Kenya, Yaoundé, Cameroon

Federico Pérez García | DMV U.N., CNLM, Colombia

Francisco José Arias Cordero | Dos Pinos, Costa Rica

Nataša Mikulec, Jasmina Havranek | Faculty of Agriculture, University of Zagreb, Croatia

Rafael Vizcarra | Centro de la Industria Láctea, Quito, Ecuador

Katri Kall | Estonian University of Life Sciences, Estonia

Mélanie Richard - Lenfant | Institut de L'élevage, Paris, France

Łukasz Wyrzykowski | IFCN Dairy Research Center, Kiel, Germany

Dr. A. K. Srivastava, Smita Sirohi | National Dairy Research Institute, Karnal, India

Emmanuel Kinuthia | International Livestock Research Institute Nairobi, Kenya

Azat Mukaliev | Kyrgyz State Agricultural University, Bishkek, Kyrgyzstan

Agnese Krievina | Institute of Agricultural Resources and Economics (AREI), Riga, Latvia

Deiva Mikelionyte | Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania

Blagica Sekovska | Veterinary Faculty, Institute for Food, Skopje, Macedonia

Zakaria Abd Rahman | Dairy Expert, Redagri Farm Sdn Bhd, Hulu Terengganu, Malaysia

Leonie Prinsloo | Namibia Dairies (PTY) Ltd, Windhoek, Namibia

Keshav Premy | Ministry of Agriculture Development, Department of Livestock Services, Lalitpur, Kathmandu, Nepal

Naomi K. Torreta, Maria Carmen A. Briones | National Dairy Authority, Quezon City, Philippines

António Moitinho Rodrigues | School of Agriculture – Polytechnic Institute of Castelo Branco, Portugal

Michael Mishchenko | The Center for the Study of Dairy Market „The DairyNews“, Russian Federation

Christian Corniaux | CIRAD / PPZS, Dakar Etoile, Senegal

Margita Stefanikova | Slovak Association of Milk Producers (SZPM), Nitra, Slovakia

Ben Moljk | Agricultural Institute of Slovenia, Ljubljana, Slovenia

Seung Yong Park | Yonam College, Cheonon, South Korea

Hemali Kothalawala | Department of Animal Production and Health, Peradeniya, Sri Lanka

Nazar Omer Hassan Salih | AI - Neelain University, Khartoum, Sudan

Agneta Hjelström | LRF Mjölkk/LRF Dairy Sweden, Stockholm, Sweden

Juliane Liu | Forefront Enterprise Co., Ltd., Taipei, Taiwan

Jonas Kizima | Livestock Research Institute (TALIRI), Tanga, Tanzania

Adul Vangtal | Thai Holstein Friesian Association (T.H.A.), Thailand

Muzaffar Yunusov | IFCN Dairy Research Center, Kiel, Germany, Uzbekistan

Vu Ngoc Quynh | Vietnam Dairy Association, Hanoi, Vietnam

Abdulkarim Abdulmageed Amad | Tamar University, Dhamar, Yemen

Rob Jansen-van Vuuren, Addmore Maniwa | Livestock Consultant, Department of Livestock & Veterinary Services, Zimbabwe



Belgium

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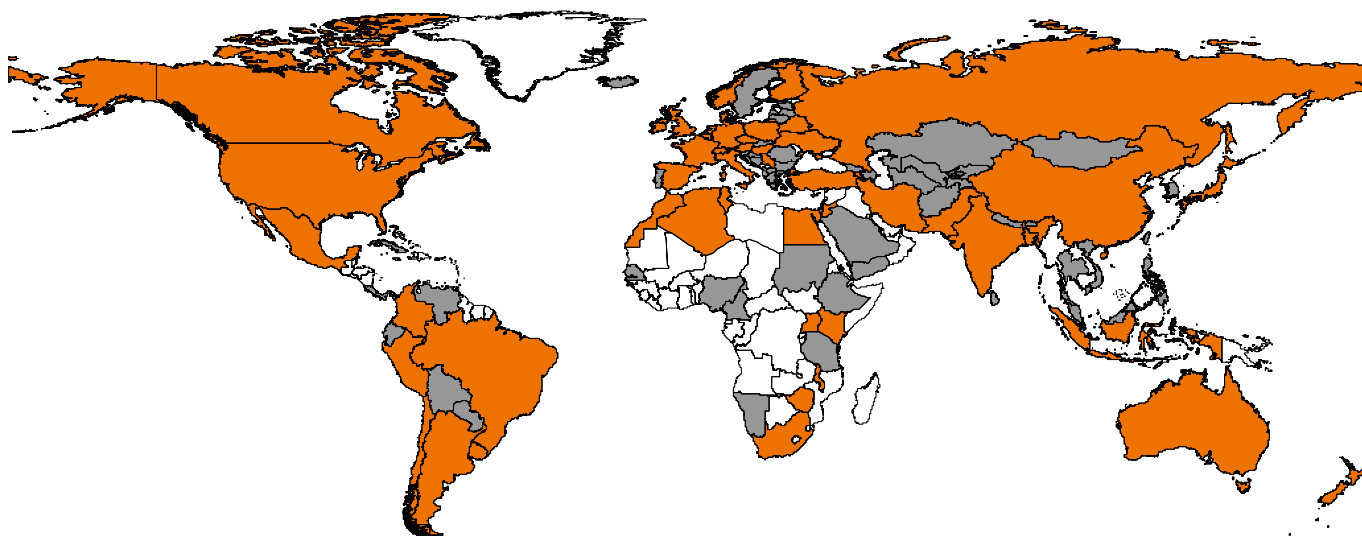
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Poland

Which countries are participating in the IFCN Dairy Report activities in 2016?



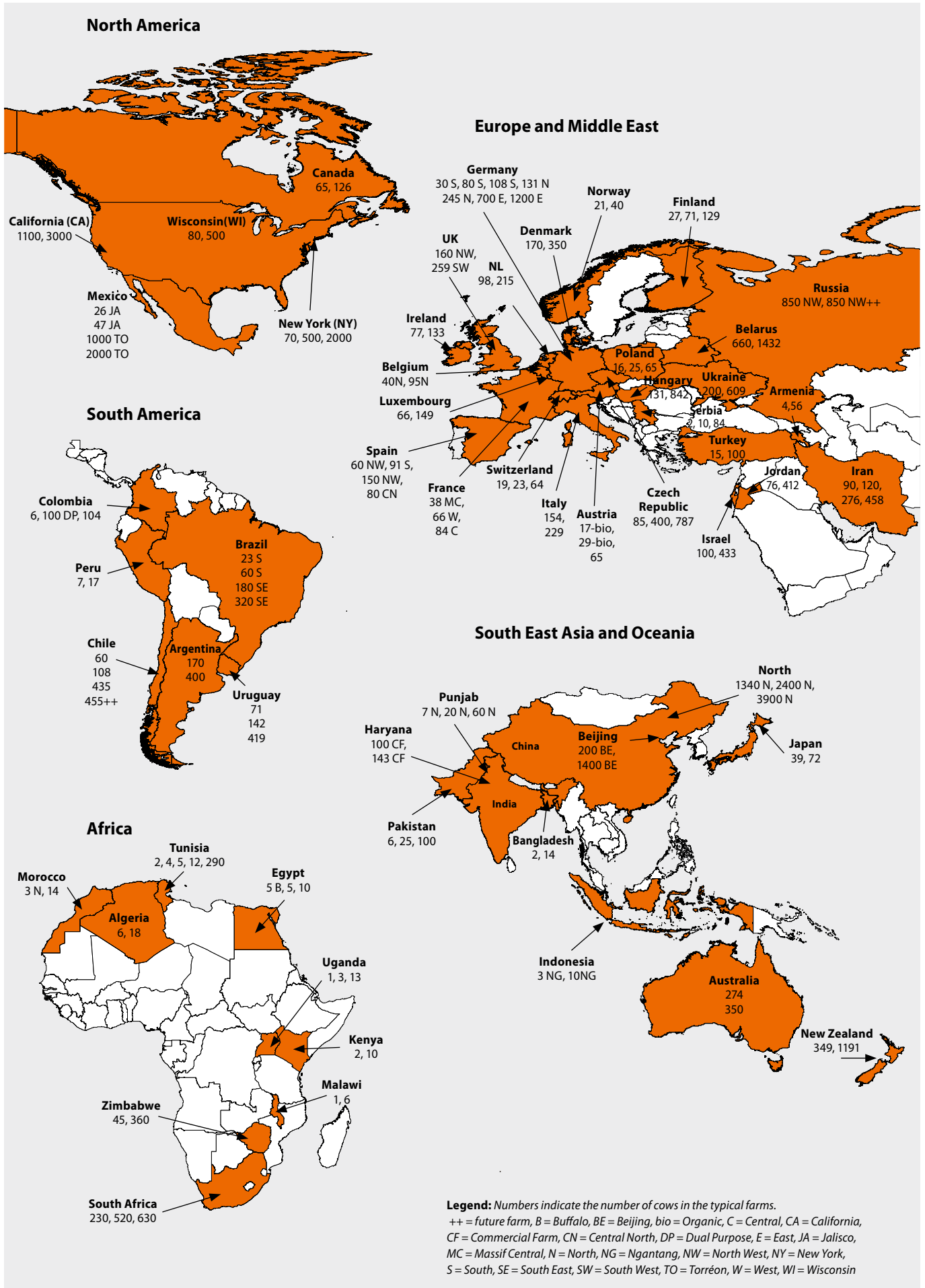
■ 52 countries analysed in the Farm Comparison
■ +53 countries participated in the Country Pages

Year	Countries included in		No. of farm types analysed	Topic of Country Report	IFCN Dairy Conferences
	farm comparison	country profile analysis			
2000	8	8	21	Ex-post analysis 1996–2000	Sep-00
2001	20	20	52	Country reports on milk production	Jun-01
2002	24	24	72	Dairy production systems survey	May-02
2003	27	24	76	Farm structure analysis 1990-2001	May-03
2004	31	31	92	Dairy sector profile 1981-2001	Jun-04
2005	33	41	102	Milk production fact sheet 1996-2003	May-05
2006	34	60	103	Dairy sector & chain profile 1990-2004	May-06
2007	38	73	120	Milk production fact sheet 1996-2005	Jun-07
2008	44	78	134	Dairy sector & chain profile 1996-2007	Jun-08
2009	46	80	147	Milk production fact sheet 1996-2008	Jun-09
2010	44	86	143	Dairy sector & chain profile 1996-2009	Jun-10
2011	49	90	157	Milk production fact sheet 1996-2010	Jun-11
2012	51	91	177	Dairy sector & chain profile 1996-2011	Jun-12
2013	51	95	178	Milk production fact sheet 1996-2012	Jun-13
2014	54	100	172	Dairy sector & chain profile 1996-2013	Jun-14
2015	55	100	170	Milk production fact sheet 1996-2014	Jun-15
2016	52	105	146	Dairy sector & chain profile 1996-2015	Jun-16



Russia

Regional maps and the typical farms



About IFCN

The dairy world today

Today the dairy world is serving over 7 billion consumers and provides livelihoods for approximately 1 billion people living on dairy farms. The key challenges for the dairy stakeholders lie in its complexity and the high rate of change in a globalised world.

About IFCN

IFCN is the global dairy research network. By addressing challenges in the dairy world, IFCN can contribute to a more resilient and more sustainable future for all of us.

What does IFCN do?

IFCN provides globally comparable dairy data, outstanding knowledge and inspiration to widen your imagination. Our core competence is in the field of milk production, milk prices and related economic topics.



How does IFCN operate?

IFCN creates a better understanding of the global dairy world. The IFCN – International Farm Comparison Network – started in 2000 with basics analytics. Step by step the knowledge bases are deepened and widen every year.

The knowledge is created via a network of dairy researchers from over 90 countries contributing to our annual processes, and managed by the IFCN Dairy Research Center staff.

The IFCN Economic Models and standards ensure comparability between countries and provide a global picture.

More than 100 dairy related companies and organisations support the IFCN and use the knowledge to better solve challenges in the dairy world.

IFCN has innovative ways to share the knowledge with their members and with the dairy world as a whole. The IFCN Events are a key element in developing the network spirit.

IFCN Values: Trust – Independence - Truth

Trust among the IFCN Partners is vital for open sharing, cooperation and a network that really works. The IFCN is **independent** from third parties and is committed to truth, science and reliability of results. **Truth** means that IFCN shows the dairy world as it is and as accurately as measurements allow. IFCN describes realities and reports without having any hidden agendas.

IFCN Vision

We are the leading, global knowledge organisation in milk production, milk prices and related dairy economic topics.

IFCN Mission

We create a better understanding of the dairy world by providing comparable data, knowledge and inspiration.



Dairy data: We provide globally comparable dairy economic data and forecasts.

Knowledge: We create knowledge out of our data, models and analysis. Our core competence is in the field of milk production, milk prices and related economic topics.

Inspiration: We inspire people in the dairy world to build a better future. We inspire passionate people to develop a successful career in the dairy world.

What does IFCN offer stakeholders in the dairy chain?

- 1. Farmers:** IFCN gives you a voice to reach other players in the dairy world. Actual global milk and feed price trends and helpful IFCN Publications are presented on the IFCN Website. Farm comparison work allows you to judge the competitive position of milk production in your region.
- 2. Researchers and advisors:** IFCN makes you part of the leading global dairy network. We support you to serve your dairy stakeholders better and to develop your professional career in the dairy world and strengthening your dairy economics profile in your country.
- 3. Companies:** IFCN provides dairy related companies such as milk processors and farm input companies a comprehensive and continuously updated picture of the dairy world. We help you develop your business.
- 4. Global and national organisations involved in policy-making for agriculture, environment and food supply:** IFCN provides comprehensive dairy knowledge to be used for your policy decisions and conferences.
- 5. Consumers:** IFCN illustrates milk-production, its fascinating diversity and value creation in rural areas.
- 6. Colleagues in the IFCN Center:** You are invited to build a life time career in the IFCN center to operate globally and enjoy a stable local life. You are also welcome to use IFCN as the ideal stepping stone for further developments in the dairy world.

For further information please contact: info@ifcndairy.org

Organisational setup

IFCN stands for International Farm Comparison Network and is a global dairy research network.

The IFCN has a **Dairy Research Center** (DRC) with 18 employees, coordinating the network process and running dairy research activities.

Managing Director



Torsten Hemme

Dairy Sector Analysis



Łukasz Wyrzykowski



Barbara Siwirska



Hassan Ajini



Katrin Reincke



Muzaffar Yunusov



Karin Wesseling



Sandra Bornhöft



Anna-Maria Wöhl

Office Management

Dairy Farm Analysis



Amit Saha



Dorothee Bölling



Maria Schmeer



Andreas Schier



Rebecca Kühl



Elgin Giffhorn



Anke Heyer



Christina Schreitling



Uliana Rusetska



Prashant Tripathi

Network Management



IFCN Dairy Research Center



IFCN Board

The **IFCN Board** has the mandate to support the IFCN management in the strategic development and guarantee transparency in the operation to the members of the network.

The **IFCN Board** is composed of the following members: Anders Fagerberg (chairman), Luc Morelon (nominated by the supporters), Ernesto Reyes (nominated by the researchers), Uwe Latacz-Lohmann (Kiel University), Olaf Rosenbaum (legal and fiscal expertise) and Torsten Hemme (Managing Director IFCN).



Anders Fagerberg
Chairman



Ernesto Reyes



Luc Morelon



Uwe Latacz-Lohmann



Olaf Rosenbaum



Torsten Hemme



CROPS & FEED
FOUR MILE CREEK DAIRY

- 1,700 ac (688 ha) of land cropped
 - 50% corn (maize) for silage
 - 17,000 tons annually (15,422 MT)
 - 50% alfalfa for haylage
 - 10,000 tons annually (9,071 MT)
- Purchased feed ingredients
 - Whole corn (maize) which, milled on-farm to desired coarseness
 - Bypass fat
 - Distillers grain
 - Cottonseed meal
 - Canola meal as protein supplement
 - Mineral premix
- Diets are completely mixed on-farm
 - 63% forages (silage, haylage and a bit of straw)
 - Corn (maize) silage is BMR mid rib
 - Haylage is 160 to 180 Relative Feed Value (RFV)

USA

Chapter 1 – Comparison of the typical farms 2015

Authors: Dorothee Boelling, Amit Saha, Maria Schmeer, Rebecca Kühl and Andreas Schier with contribution from researchers mentioned on page 2-3 of this report

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1. Recovery of world milk prices

can happen in 2016 – (careful on words can ≠ will; and recovery does not mean at this point 40 €/46\$/100 kg)

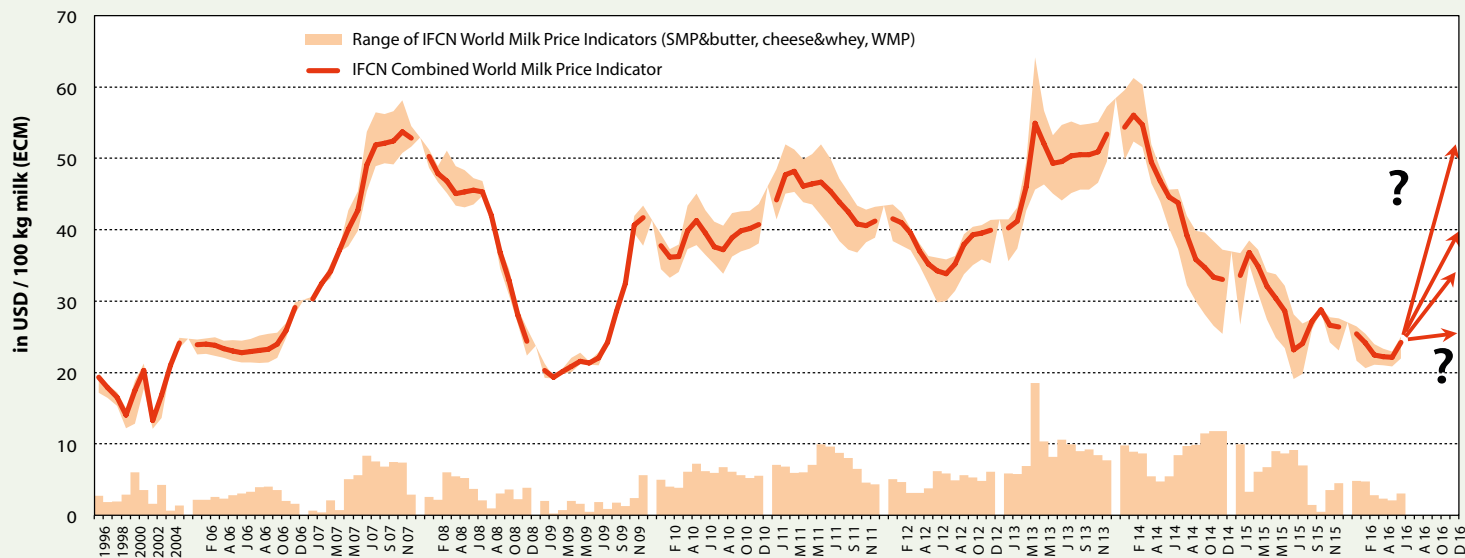


Chapter 2 – Global monitoring dairy economic indicators 1996 – 2015

Authors: Muzaffar Yunusov, Łukasz Wyrzykowski, Hassan Ajini, Barbara Siwirska and Katrin Reincke with the contribution from researchers mentioned on page 2 – 3 of this report

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IFCN Combined World Milk Price Indicator



IFCN Combined World Milk Price Indicator: weighted average of 3 IFCN World Milk Price Indicators: 1. SMP & butter (35%), 2. Cheese & whey (45%), 3. WMP (20%)



4th IFCN Regional Workshop, India, hosted by



Chapter 3 – Dairy sector and chain profile

Authors: Katrin Reincke, Łukasz Wyrzykowski, Hassan Ajini, Barbara Siwirska and Muzaffar Yunusov with the contribution from researchers mentioned on page 2-3 of this report

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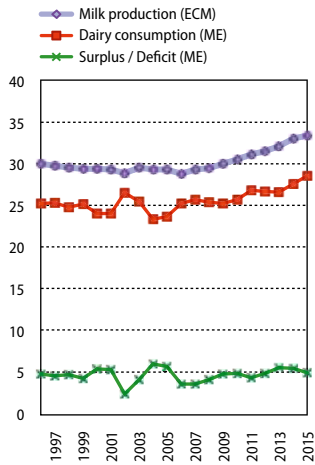


Łukasz Wyrzykowski



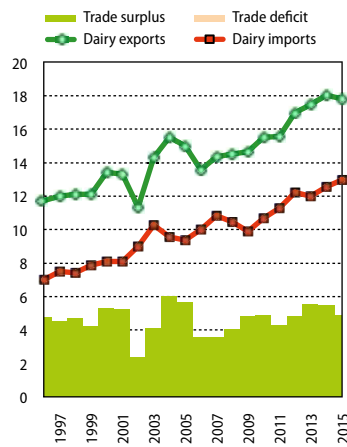
Milk balance

in mill t, from all dairy species



Dairy trade

in mill t ME, from all dairy species



Dairy sector and chain profile

Status 2015

- No. 5 in the world milk production
- 96% of the 33.4 mill t milk (ECM) are delivered
- 117% self-sufficiency in milk
- 4.9 mill t ME net exports

Key developments 2010-2015

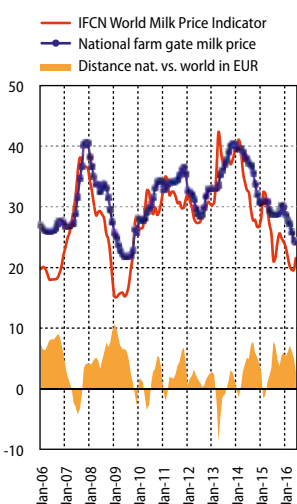
- Farmers' milk price on avg 6.7% above the world market price
- Farmers' share on consumer price decreased from 47.3% to 43.3%
- Supply increased on avg annually by 1.8%
- Demand increased on avg annually by 2.1%

Key variables of the dairy sector

	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014	2015	Annual change		
												'05-'10	'10-'15	
Milk production (cow's)														
Production (mill t ECM)	30.00	29.49	29.36	28.80	29.28	28.76	29.42	30.49	31.45	32.98	33.39	0.8%	1.8%	
Cows (in 1,000's)	5,195	4,833	4,564	4,373	4,287	4,054	4,229	4,182	4,190	4,296	4,285	0.1%	0.5%	
Milk yield (t/cow/year)	5.77	6.10	6.43	6.59	6.83	7.09	6.96	7.29	7.50	7.68	7.79	0.7%	1.3%	
Dairy consumption (from all dairy species)														
Country consumption (mill t ME)	25.26	24.81	24.06	26.49	23.32	25.22	25.39	25.66	26.68	27.54	28.54	1.6%	2.1%	
Population (mill people)	82.0	82.0	82.3	82.5	82.5	82.3	82.0	81.8	80.5	81.2	81.9	-0.2%	0.0%	
Consumption (kg ME/capita/year)	308	302	292	321	283	306	310	314	331	339	349	1.8%	2.1%	
The dairy chain														
Milk delivered (cow's) in %	94%	94%	95%	96%	96%	96%	96%	97%	97%	97%	96%	0.1%	-0.1%	
Exports/national production	39.1%	41.0%	45.7%	39.3%	53.0%	47.1%	49.3%	50.9%	54.0%	54.6%	53.4%	-0.1%	0.5%	
Imports/national consumption	27.7%	29.8%	33.6%	34.0%	40.9%	39.6%	41.2%	41.6%	45.7%	45.6%	45.4%	0.4%	0.8%	

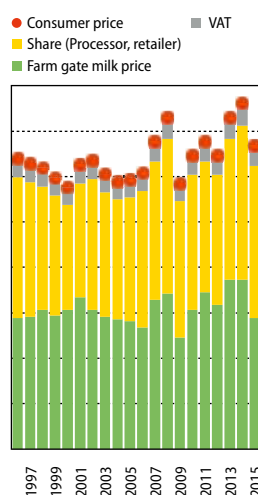
Farm gate milk prices

EUR/100 kg milk (ECM)



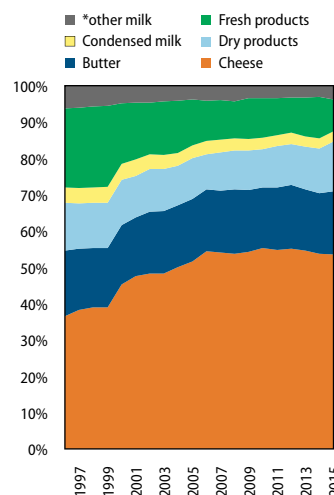
Consumer & farmers' prices

EUR/100 kg milk (ECM)



Processing profile

% of all milk produced

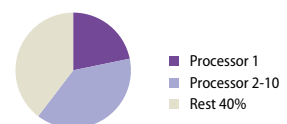


Milk processors list 2015

Milk intake in 1,000 tons (natural content)

1. DMK Deutsches Milchkontor 6700
2. Hochwald Foods GmbH 2279
3. Unternehmensgruppe Theo Müller S.e.c.s* 2000
4. Arla Foods GmbH 1741
5. Molkerei Ammerland eG 1599
6. frischli Milchwerke GmbH 865
7. Goldsteig Käseereien Bayerwald GmbH 860
8. Meierei Barmstedt 850
9. Rucker* 850
10. Bayerische Milchindustrie eG 838

Cooperatives: 45% of milk intake shown
Share on national milk delivery:



Explanations

Method: See Chapter 3.9 for details. Sources: National statistics supplemented by data from FAO, IMF, OANDA, GTT, Eurostat, AMI.

Data: 2015 data preliminary and partly estimated. Cooperatives share on milk intake shown in the list is an IFCN Estimate based on partner information.

Consumer price (raw data) for: Fresh milk, 1 litre packing with 3.5% fat, 3.17% protein.

Remarks: Milk processors: Milk intake data (processed milk) of Unternehmensgruppe Theo Müller and Rucker for 2013.

* other milk: Milk not delivered to dairies and milk from animals other than cow and buffalo. If applicable: Sheep, goat and camel.





Bangladesh

Chapter 4 – Methods applied in IFCN Analyses

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IFCN team members in action

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Partners of the IFCN

Dairy researchers representing 105 countries

Institutional partners



Agribusiness partners

Milk processing



Milking and barn equipment



Health and hygiene



Feed



Farm machinery



Genetics for animal & plants



Other branches of the dairy chain

