



Dairy Report 2017

For a better understanding of the dairy world



IFCNThe Dairy Research Network

Dear friends,

This IFCN Dairy Report 2017 compiles in a most comprehensive overview, the status of the dairy world and gives insights into the IFCN Research.





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 2017

Overall: The IFCN launched a new website and substantial steps have been achieved in better understanding the dairy development.

Farm economics: Special attention was given to the following areas: typical farm representativeness, milk standardisation, land productivity, milk supply response of farms, and the impact of VAT systems on dairy competitiveness and interest rates.

The dairy sector work: Focused mainly on analysing dairy farm structure and forecasting this for the first time. A second focus was related to monitoring the regional milk production development within countries.

Outlook: As dairy business is changing very rapidly, IFCN has developed scenarios for the long-term outlook of the dairy world for over 200 countries till 2026.

HIGHLIGHTS - IFCN EVENTS IN 2017

IFCN Dairy Conference 2017

The focus of this conference was 'Dairy development: Past, present and future'. GDP, DMK and Elanco hosted this event in Kiel, Germany, in June.







IFCN Supporter Conference 2017

This event was held in September in Lucerne, Switzerland. The topic covered the success factors in dairy regions. Emmi, Nestlé and Hochdorf were the main hosts.







IFCN Dairy Economic Workshop 2017

The workshop took place for the 3rd time to help people improve their skills in dairy economic analysis.

IFCN Regional Workshop 2017

The workshop takes place for the fourth time in India, focussing on sustainability of family dairy farms. The event will take place in Chennai. CavinKare and Elanco will act as sponsors.







Status of the IFCN Research Network in 2017

The dairy sector analysis covered over 200 countries. In the farm comparison,159 typical dairy farms from 62 dairy regions and 52 countries were analysed. In 2017 the research network grew substantially via new countries in farm and dairy sector analysis.

IFCN Dairy Report 2017

Chapter 1: Cost comparison summarises results on costs, returns, profitability and productivity of dairy farms worldwide. Real time cost estimates for 2017 have also been included for some countries.

Chapter 2: Global monitoring provides a broad overview on specific dairy issues such as milk prices, feed prices and milk: feed price ratio and monthly milk price transmission. New in this edition are the real time farm economics and the results of IFCN Long-term Outlook 2017, covering the years 2017 – 2026.

Chapter 3: Milk production fact sheets, prepared for 110 countries, representing 98% of world milk production with comparable information on:

- · Milk density and milk movements within countries
- · Dairy farm numbers and farm size trends
- · Dairy farm structure analysis and trends
- · Price analysis for milk, beef, feed and land

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

Chapter 4: IFCN Methods: IFCN Methods: This chapter is dedicated to explain the methods used for the IFCN Analyses. Moreover it highlights the following topics: a) farm supply reaction, b) status of the model TIPI-CAL, c) milk standardisation, d) land productivity method, and e) development of elevator stories to understand what a typical farm represents in a country more clearly.

Finally it includes an overview of IFCN Products and Data Services. Modules and a selection of typical farms are described.

Acknowledgement

We would like to thank all IFCN Research Partners, Supporter Partners, Institutional Partners and the colleagues working in the IFCN Dairy Research Centre during the last year. It was a pleasure to work with you and strengthen the network in 2017. We are looking forward to our activities in 2018.

Anders Fagerberg Chairman of the IFCN Board Torsten Hemme Managing Director

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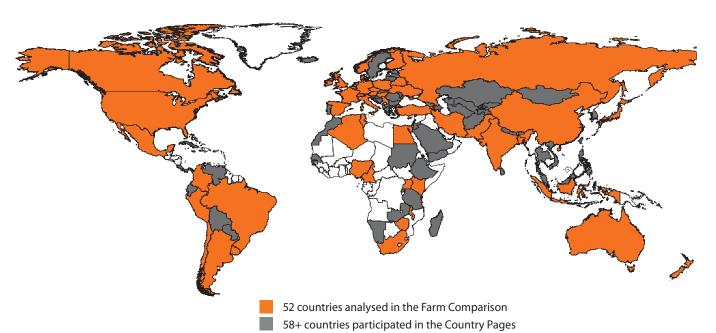
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IFCN Dairy Report – Developments 2000 – 2017

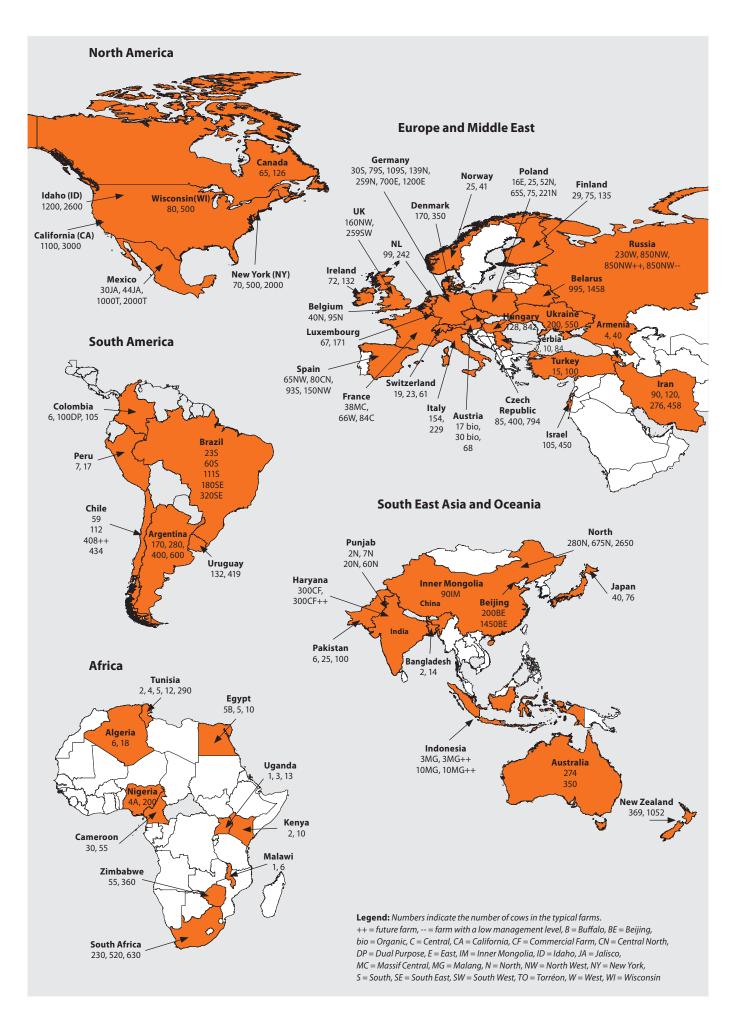
Which countries are participating in the IFCN Dairy Report activities in 2017?



Vaar	Countries included in		No. of farm	Towis of Country Domost		
Year	farm comparison	country profile analysis	types analysed	Topic of Country Report	IFCN Dairy Conferences	
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	
2017	52	110	159	Milk production fact sheet: 1996–2016	Jun-17	



Regional maps and the typical farms



About IFCN

The dairy world today

Today the dairy world serves 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 a 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 stretch one's imagination. Its core competence lies 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 basic analytics. Step by step the knowledge bases are being deepened and widened every year.

Knowledge is created via a network of dairy researchers from over 90 countries. The data and knowledge are managed and analysed by the IFCN Dairy Research Centre 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 solve challenges in the dairy world better.

IFCN has innovative ways to share this knowledge with its partners 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 organisation of worldwide data regarding 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. Up to date 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. IFCN helps to serve your dairy stakeholders better and to develop your professional career in the dairy world while 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 holistic 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 Centre: You are invited to build a life time career in the IFCN Centre 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



IFCN Dairy Research Center and the IFCN Board

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 21 people (full/part time) employees, coordinating the network process and running dairy research activities.

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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

18th IFCN Dairy Conference, June 10 – 14, 2017 in Kiel, Germany

Dairy development: Past, present and future



The 18th IFCN Dairy Conference 2017 in Kiel, Germany, was attended by 99 participants representing 43 countries. The conference was proudly hosted by the Global Dairy Platform (GDP). The event was also sponsored by DMK and Elanco.







Monday, June12

DAIRY WORLD STATUS

IFCN Strategy and board report

The Dairy world today

- The dairy world after the crisis: key trends 1996 2016
- Monthly dairy developments: What are the drivers of milk production in 2017?
- Panel discussion: What are the drivers of milk production in your country?

Dairy farm economics and risk analysis

Competitiveness of dairy farming worldwide

Farm structure analysis

 IFCN Farm Structure: trends and implications

Network evening

Tuesday, June13

DAIRY DEVELOPMENT

Dairy development

- Dairy for development a joint effort (E. Reyes, IFCN)
- Global perspectives on dairy development (FAO, GDP, IFCN)
- Case studies from Africa (Send a Cow)

Workshop session 1

Broadening the scope of dairy development

Workshop session 2

Leadership and success in dairy development programmes

Farewell evening

Wednesday, June14

DAIRY OUTLOOK

Dairy outlook

- The dairy world in 10 years:
 GDP perspective (D. Moore)
- IFCN Long-term Dairy Outlook 2016 the dairy world in the next 10 years
- Panel discussion: Dairy world in 10 years (GDP, FAO, Elanco)
- IFCN Short-term Dairy Outlook 2017/18
- IFCN Strategy forward The IFCN Dairy Research Network in 2017/18

Summing up and closing







What is the future of dairy farming systems?



The 14th IFCN Supporter Conference was held in Wageningen, The Netherlands. More than 80 participants from 70 dairy related companies attended the conference which was hosted by FrieslandCampina and Trouw Nutrition.





Wednesday, September 14

THE DAIRY WORLD IN 2016

Pre Conference:

Understanding industry needs towards IFCN

- IFCN- The company and their products
- IFCN Monthly Real Time Farm Economics

Official start of the conference

 Welcome to the 14th IFCN Supporter Conference

The dairy world today

- The dairy world in 2016
- IFCN Monthly Real Time Data –
 What are the latest developments?
- IFCN Farm Economics –
 How are farms affected?

Network evening

Thursday, September 15

FUTURE DAIRY FARMING SYSTEMS

Future dairy farms

- Farmers perspective How to be a future farmer?
- Farm structure What are the trends & criteria that define future farms?

Workshop: Which strategies can the dairy industry develop to meet future constraints on the farm?

Visit to FrieslandCampina research and development centre.

Dairy farm visit

Networking evening

Friday, September 16 DAIRY OUTLOOK

Global perspectives of milk production

- Researchers perspective What can the dairy industry learn from other industries?
- Agribusiness perspective –
 Collaborate to innovate the future of our global industry
- IFCN Long-term Dairy Outlook 2025 How will the dairy world look like in 10 years?
- IFCN Short-term Dairy Outlook 2016/2017 How will the dairy world look like in 15 months?

Reporting session

Summing up and closing







5th IFCN Regional Workshop – November 28 – 29, 2016 in Anand, India

Global dairy crisis: Lessons to be learned for dairy development in India



This IFCN Regional Workshop took place in Anand, Gujarat; more than 50 participants representing various aspects of the dairy value chain became part of the discussions and group working session.



The workshop focused on the topic: Global dairy crisis: Lessons to be learned for dairy development in India. These questions were intensively discussed among the participants - key people who represented various stakeholders in the dairy chain including farmers and government representatives.



The workshop provided a suitable frame and platform for participants to exchange experiences and discuss various different approaches for dairy development in India. Presentations by IFCN researchers and agribusiness-related companies introduced the topic. A panel of representatives of different aspects of dairy value chains was also very well received.



The workshop was proudly sponsored by Amul, Danone and Elanco.

Monday, November 28

INDIAN DAIRY EXPERIENCE

Field trip

- · Visit to local dairy farm and chilling centre
- · Interaction with the dairy farmer
- · Visit to Amul milk processing plant.

Official start of the conference

- Welcome to the 5th IFCN Regional Workshop
- What has worked for dairy development in India in the past.

Networking event

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Tuesday, November 29

INTERACTIVE SESSION

Global dairy crisis

- The dairy crisis 2015/16 T. Hemme, IFCN
- Panel: How has India perceived the global dairy crisis?

Outlook 2025

- How can the dairy world look like in 2025? T. Hemme, IFCN
- Dairy India in 2025: Processors perspective R.S. Sodhi, Amul
- Dairy in India 2025: Farm input perspective S. Jha, Elanco

Dairy development in India

- · Dairy farm competitiveness A. Saha, IFCN
- · Working group: Dairy development in India present and future

Presentations of the results and conclusions (sum up) of the workshop









3rd IFCN Dairy Economic Workshop–February 23 – 24, 2017 in Kiel, Germany

Dairy economics is more than just the price of milk



This third IFCN Dairy Economic Workshop took place in Kiel, Germany. It was attended by 10 participants from different dairy related companies, institutions and institutes.

Thursday, February 23

INTRODUCTION TO DAIRY ECONOMICS

- Dairy farm analysis Farm economics across the globe
- Dairy sector analysis How does the global dairy world look like?
- Workshop session: Principles of the dairy market

Networking event

Friday, April 15

CURRENT SITUATION AND ANALYSIS

- Farm structure What's behind the segments?
- Dairy farm economics Current situation and how to predict the dairy future
- Company case studies Learn how to address strategic development questions

Presentation of the results and conclusions (sum up) of the workshop

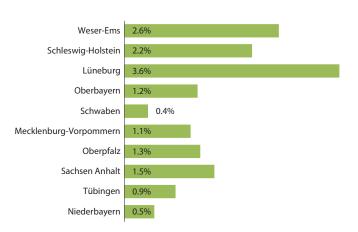
Optional IFCN Product Training



3.45 **Germany**

Top 10 regions - avg. annual milk production growth

2011 - 2016 - regions represent 60% of national milk production in 2016





Łukasz Wyrzykowski



Status and key developments

Status 2016

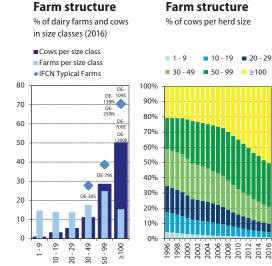
- No. 5 in world milk production: 33.5 mill t ECM
- · No. of dairy farms: 69,174
- Milk price: +8% to world market
- Feed price: +1% to world market

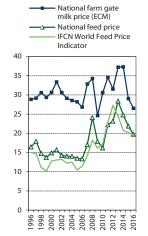
Key developments over the past five years

- Milk production growth: +1.5% per year
- Farm number: -4.5% per year
- Top herd size growth: ≥100 cows/farm: CAGR 5.8%
- Devaluation of EUR vs USD: avg. -4.0% per year

Key variables

key variables												A	al change
	1996	2000	2002	2004	2006	2008	2010	2012	2014	2015	2016	'06-'11	'11-'16
Milk production (cows')													
Production (mill t ECM)	30.00	29.36	28.80	29.28	28.76	29.42	30.49	31.45	32.98	33.35	33.48	1.6%	1.5%
Cows (in 1,000's)	5,195	4,564	4,373	4,287	4,054	4,229	4,182	4,190	4,296	4,285	4,218	0.7%	0.1%
Milk yield (t / cow / year)	5.8	6.4	6.6	6.8	7.1	7.0	7.3	7.5	7.7	7.8	7.9	0.9%	1.3%
Farm structure													
No. of dairy farms (in 1,000's)	186	138.5	125.1	113.5	102.2	99.4	91.6	82.9	76.5	73.3	69.2	-3.1%	-4.5%
Average farm size (cows / farm)	27.9	33.0	35.0	37.8	39.7	42.5	45.7	50.6	56.2	58.5	61.0	3.9%	4.9%
Prices in national currency													
Milk : feed price ratio	1.8	2.1	2.1	2.0	2.0	1.4	1.9	1.4	1.5	1.3	1.3	-5.0%	-3.5%
Cull cow (EUR / kg live weight)	1.11	1.17	0.94	1.06	1.28	1.40	1.43	2.05	1.73	1.82	1.66	6.0%	-0.6%
Land - buy (EUR / ha)	10,394	9,081	9,465	9,233	8,909	9,955	11,854	14,424	18,099	19,614	21,256	8.7%	9.5%
Devaluation of EUR vs USD	-7%	-34%	-32%	-11%	-10%	5%	-5%	-8%	-5%	-20%	-20%	2.0%	-4.0%





Milk and feed price

EUR / 100 kg





Explanations

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- 09

Sources: National statistics, FAO, IMF, Oanda, Eurostat, AMI. 2016 data preliminary and partly estimated. Estimates done for: Cull cow price 2011-2015 based on growth rate for price of cows, 2016 following that trend.

Devaluation: Changes based on 2011 Exchange rate: EUR/USD= 0.72.

Regional data: Ranking according to year 2016 distribution. Milk production in natural fat and protein content.

Partners of the IFCN

Dairy researchers representing 110 countries

Institutional partners

























Agribusiness partners

Milk processing













































































































Health and hygiene























Feed



































Farm machinery

























Genetics for animal & plants









Other branches of the dairy chain



























