



For a better understanding of the dairy world



IFCN The Dairy Research Network

Introduction

Dear friends,

In this IFCN Dairy Report 2015 you will find a summary of the research highlights and network activities in 2015.

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 2015

Real time economic analysis: In times of rapid changes of milk and feed prices annual farm economic analyses are outdated too fast. Therefore IFCN was focussing in two areas to have a more real time understanding of the economic on typical farms in the current year 2015. Moreover a concept of monthly real time farm economics has been developed.

Dairy farm structure: Dynamics in farm structure are a key to predict dairy developments. IFCN has collected and standardised farm structure data. Additionally drivers, perspectives and potential future dairy farm types have been discussed.

Milk production by region: This year a key focus was to better understand milk production by region within countries. These are more dynamic than average national statistics show.

Outlook: As each year IFCN was focussing on the perspectives of the dairy world in the short term (1-2 years) and the long run (next 10 years).

Highlights - IFCN events in 2015

IFCN Dairy Conference 2015

The focus of this conference was dairy farm structure changes, their drivers and perspectives for the future. GEA hosted this event that took place in Kiel, Germany, in June.

IFCN Supporter Conference 2015

The conference was held in September, in Minneapolis, USA. Focus was on the learnings from the US dairy industry and the global dairy developments. Cargill and Elanco hosted this conference.



lanco

GEA



During this workshop in India, the participants discussed the question: How to sustainably increase milk production in India at a price consumers can afford? YesBank, Cargill, Elanco and Royal Friesland Campina hosted this event.





Status of the research network in 2015

In the dairy sector analysis, 100 countries which represent 98% of the world's milk production, have been included.

In the farm comparison **170 typical farms** from **64 dairy regions** in **55 countries** were analysed.

IFCN Dairy Report 2015

Chapter 1: Cost comparison: This chapter summarises results on costs, returns, profitability and productivity of dairy farms worldwide.

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

Chapter 3: Dairy sector and chain profile: This profile,

prepared for 100 countries, presents a comparable overview related to:

- Regional average annual milk production growth
- Farm structure data on farm and herd sizes
- Prices of cull cows and purchase of land
- Milk and feed price
- Monthly farm gate milk price

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

Chapter 4: IFCN Methods & definitions: : IFCN Methods: This chapter is dedicated to explain the methods used for the IFCN analyses.

Acknowledgement

We would like to thank all our scientific partners, agribusiness partners, institutional partners and the people working in the IFCN Dairy Research Center during the last year. It was a pleasure to work with you and strengthen the network in 2015. We are looking forward to our activities in 2016.

or Hella la

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3.

Preface

| IFCN Dairy Report – Developments 2000 – 2015 | 6 |
|--|----|
| Regional maps and the typical farms | 7 |
| About IFCN | 8 |
| IFCN Dairy Research Center and IFCN Board | 9 |
| 16 th IFCN Dairy Conference 2015 | 10 |
| 12th IFCN Supporter Conference 2014 | 11 |
| 3 rd IFCN Regional Workshop 2014 | 12 |

1. Comparison of the typical farms 2014

| 1.1 | Summary – Farm comparison 2014 | 17 |
|------|---|----|
| 1.2 | Regional overview on costs and returns | |
| | of the dairy enterprise | 18 |
| 1.3 | Milk supply curves 2014 | 20 |
| 1.4 | Cost of milk production on | |
| | average sized farms 2014 | 22 |
| 1.5 | Cost of milk production in larger farms 2014 | 23 |
| 1.6 | Description of the dairy farms analysed | 24 |
| 1.7 | Cost of milk production only | 26 |
| 1.8 | Total costs and returns of the dairy enterprise | 28 |
| 1.9 | Returns: Milk price, non-milk returns | |
| | and decoupled subsidies | 30 |
| 1.10 | Description of direct subsidies and policies | 32 |
| 1.11 | Dairy enterprise: Profits and return to labour | 34 |
| 1.12 | Asset structure and return on investment | 36 |
| 1.13 | Overview of all typical farms analysed – | |
| | costs and returns | 38 |
| 1.14 | Farm level analysis | 40 |
| | | |

2. Global monitoring dairy economic indicators

| 2.1 | Summary: Monitoring dairy economic indicators | 43 |
|-----|--|----|
| 2.2 | Global trends in oil, milk and feed prices 1981-2015 | 44 |
| 2.3 | National milk prices in 2014 in US-\$ | 46 |
| 2.4 | Monitoring milk prices 1996–2014 | 48 |
| 2.5 | Monthly milk price transmission and key facts | 50 |
| 2.6 | Monitoring feed prices 1996–2014 | 52 |
| 2.7 | Monitoring milk : feed price ratio 1996–2014 | 54 |
| | | |

Country reports – Milk production fact sheets

| 3.1 | Summary – status and development of milk production | 62 |
|-----|---|----|
| 3.2 | Status and development of milk production | 64 |
| 3.3 | Centres of milk production 2014 | 65 |
| 3.4 | Percentage change in milk production 2009–2014 | 66 |
| 3.5 | Volume change in milk production 2009–2014 | 67 |
| 3.6 | Milk surplus and deficit in 2014 | 68 |
| 3.7 | Land and quota prices in selected countries | 70 |
| 3.8 | Farm structure – Dairy farm numbers and IFCN Standard classes | 72 |
| 3.9 | Method explanation of the Country Page 2015 | 74 |

Milk production fact sheets

| | - | | | | |
|------|----------------------|-----|------|--------------------|-----|
| 3.10 | Afghanistan | 75 | 3.39 | Ethiopia | 105 |
| 3.11 | Albania | 76 | 3.40 | Finland | 106 |
| 3.12 | Algeria | 77 | 3.41 | France | 107 |
| 3.13 | Argentina | 78 | 3.42 | Germany | 108 |
| 3.14 | Armenia | 79 | 3.43 | Greece | 110 |
| 3.15 | Australia | 80 | 3.44 | Hungary | 111 |
| 3.16 | Austria | 81 | 3.45 | Iceland | 112 |
| 3.17 | Azerbaijan | 82 | 3.46 | India | 113 |
| 3.18 | Bangladesh | 83 | 3.47 | Indonesia | 114 |
| 3.19 | Belarus | 84 | 3.48 | Iran | 115 |
| 3.20 | Belgium | 85 | 3.49 | Ireland | 116 |
| 3.21 | Bolivia | 86 | 3.50 | Israel | 117 |
| 3.22 | Bosnia - Herzegovina | 87 | 3.51 | Italy | 118 |
| 3.23 | Brazil | 88 | 3.52 | Jamaica | 119 |
| 3.24 | Bulgaria | 89 | 3.53 | Japan | 120 |
| 3.25 | Cameroon | 90 | 3.54 | Jordan | 121 |
| 3.26 | Canada | 91 | 3.55 | Kazakhstan | 122 |
| 3.27 | Chile | 92 | 3.56 | Kenya | 123 |
| 3.28 | China | 93 | 3.57 | Korea, Republic of | 124 |
| 3.29 | Colombia | 94 | 3.58 | Kyrgyzstan | 125 |
| 3.30 | Costa Rica | 95 | 3.59 | Latvia | 126 |
| 3.31 | Croatia | 96 | 3.60 | Lithuania | 127 |
| 3.32 | Cuba | 97 | 3.61 | Luxembourg | 128 |
| 3.33 | Cyprus | 98 | 3.62 | Macedonia | 129 |
| 3.34 | Czech Republic | 99 | 3.63 | Malawi | 130 |
| 3.35 | Denmark | 100 | 3.64 | Malaysia | 131 |
| 3.36 | Ecuador | 101 | 3.65 | Mexico | 132 |
| 3.37 | Egypt | 102 | 3.66 | Mongolia | 134 |
| 3.38 | Estonia | 104 | 3.67 | Morocco | 136 |
| | | | | | |



| 3.68 | Nepal | 137 | 3.89 | Sri Lanka | 159 |
|------|--------------|-----|-------|----------------|-----|
| 3.69 | Netherlands | 138 | 3.90 | Sudan | 160 |
| 3.70 | New Zealand | 140 | 3.91 | Sweden | 162 |
| 3.71 | Nigeria | 141 | 3.92 | Switzerland | 163 |
| 3.72 | Norway | 142 | 3.93 | Taiwan | 164 |
| 3.73 | Pakistan | 143 | 3.94 | Tajikistan | 165 |
| 3.74 | Panama | 144 | 3.95 | Tanzania | 166 |
| 3.75 | Paraguay | 145 | 3.96 | Thailand | 167 |
| 3.76 | Peru | 146 | 3.97 | Tunisia | 168 |
| 3.77 | Philippines | 147 | 3.98 | Turkey | 169 |
| 3.78 | Poland | 148 | 3.99 | Turkmenistan | 170 |
| 3.79 | Portugal | 149 | 3.100 | Uganda | 171 |
| 3.80 | Romania | 150 | 3.101 | Ukraine | 172 |
| 3.81 | Russia | 151 | 3.102 | United Kingdom | 173 |
| 3.82 | Saudi Arabia | 152 | 3.103 | Uruguay | 174 |
| 3.83 | Senegal | 153 | 3.104 | USA | 175 |
| 3.84 | Serbia | 154 | 3.105 | Uzbekistan | 176 |
| 3.85 | Slovakia | 155 | 3.106 | Venezuela | 177 |
| 3.86 | Slovenia | 156 | 3.107 | Vietnam | 178 |
| 3.87 | South Africa | 157 | 3.108 | Yemen | 179 |
| 3.88 | Spain | 158 | 3.109 | Zimbabwe | 180 |
| | | | | | |

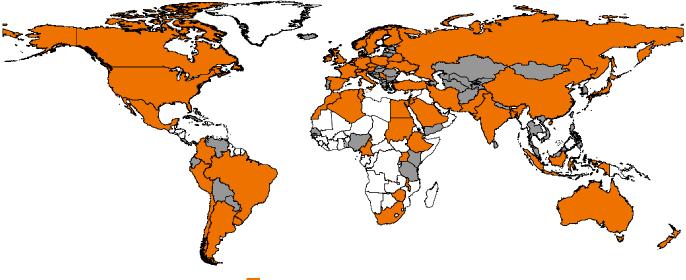
4. Methods applied in IFCN analyses

| 4.1 | Standardisation used by IFCN | 184 |
|-----|--------------------------------------|-----|
| 4.2 | Typical farm approach | 185 |
| 4.3 | Definition of different enterprises | 186 |
| 4.4 | Whole farm calculations | 186 |
| 4.5 | Details on farm economic analysis | 187 |
| 4.6 | Method development: A brief update | |
| | of farm data in TIPICAL model | 190 |
| 4.7 | Method development: Real Time Farm | |
| | Economics in national and farm level | 191 |
| 4.8 | Glossary | 192 |
| 4.9 | Specifications of world regions | 195 |
| | | |
| | _ | |

Annex

| A.1 | IFCN dairy publications | 198 |
|-----|---|-----|
| A.2 | Typical farm approach and data quality assessment | 199 |
| A.3 | Description of the typical dairy farms analysed | 200 |
| A.4 | Exchange rates 1996–2014 | 206 |
| A.5 | Abbreviations | 207 |
| A.6 | Who is who | 208 |



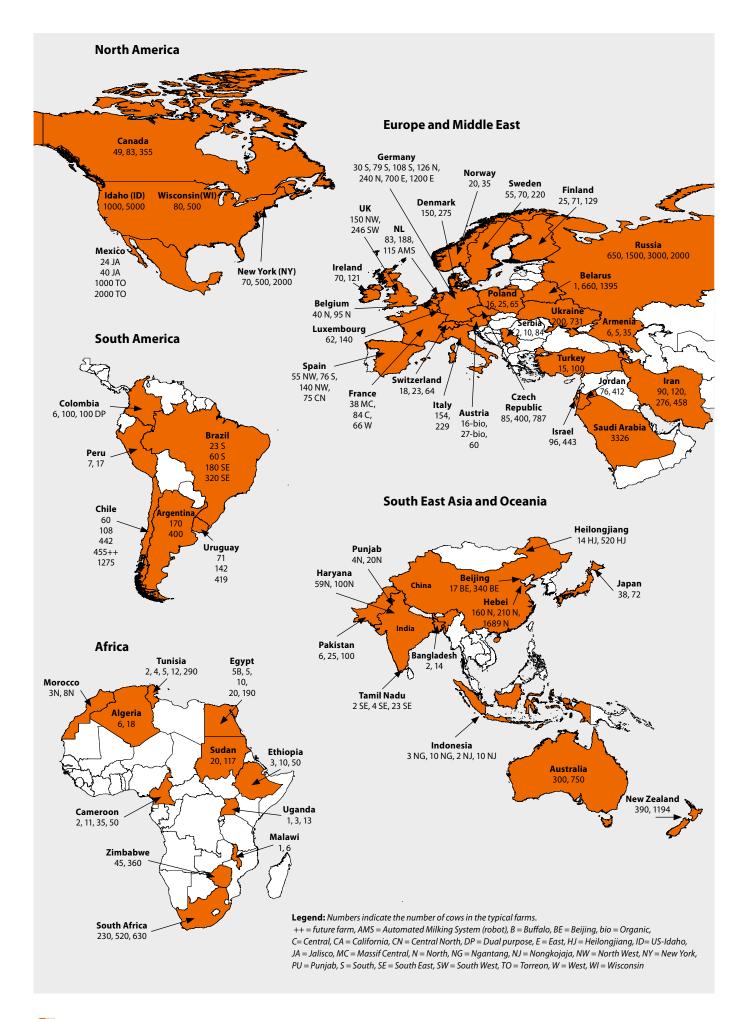


Which countries are participating in the IFCN Dairy Report activities in 2015?

55 countries analysed in the Farm Comparison +45 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 | 102 Milk production fact sheet 1996-2003 | |
| 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 |





About IFCN

The dairy world today

Today the dairy world is serving over 7 billion consumers and providing 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 know-ledge and inspiration to widen your imagination.



How does IFCN operate?

IFCN creates a better understanding of the global dairy world. The IFCN – International Farm Comparison Network - started in 2000 with the basics - the cow and the dairy farmer. Step by step we deepen and widen the knowledge base every year.

The knowledge is created via a network of dairy researchers from over 90 countries contributing to our annual processes and managed by our 15 dairy researchers at the IFCN Dairy Research Center.

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 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 members 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 price trends and helpful IFCN publications are published 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 - to become a leading dairy economist in your country.
- 3. Companies: IFCN provides dairy related companies such as milk processors and farm input companies a holistic and continuously updated picture of the dairy world. We help you to develop your business.
- 4. Global and national organisations involved in policy-making for agriculture, environment and food supply: IFCN provides our holistic dairy knowledge to be used for your policy decisions and conferences.
- **5. Consumers:** IFCN illustrates milk-production, its fascinating culture and how this creates value in rural areas.
- 6. People 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

IFCN Dairy Research Center and the IFCN Board

Organisational setup

The IFCN has a Dairy Research Center (DRC) with 18 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).





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Anders Fagerberg Chairman

Morelon

Reyes

Ernesto



Uwe Latacz-Lohmann



Olaf Rosenbaum

Saha



Chapter 1 – Comparison of the typical farms 2014

Authors: Dorothee Boelling, Maria Schmeer, Amit Saha with the contribution from researchers mentioned on page 2-3 of this report

| 1.1 | Summary – Farm comparison 2014 | 17 |
|------|--|----|
| 1.2 | Regional overview of costs and returns of the dairy enterprise | 18 |
| 1.3 | Milk supply curves 2014 | 20 |
| 1.4 | Cost of milk production on average sized farms 2014 | 22 |
| 1.5 | Cost of milk production on large typical farms 2014 | 23 |
| 1.6 | Description of the dairy farms analysed | 24 |
| 1.7 | Cost of milk production only | 26 |
| 1.8 | Total costs and returns of the dairy enterprise | 28 |
| 1.9 | Returns: Milk price, non-milk returns and decoupled subsidies | 30 |
| 1.10 | Description of direct subsidies and policies | 32 |
| 1.11 | Dairy enterprise: Profits and return to labour | 34 |
| 1.12 | Asset structure and return on investment | 36 |
| 1.13 | Overview of all typical farms analysed – costs and returns | 38 |
| 1.14 | Farm level time series analysis 2000-2014 – Cost of milk production only | 40 |

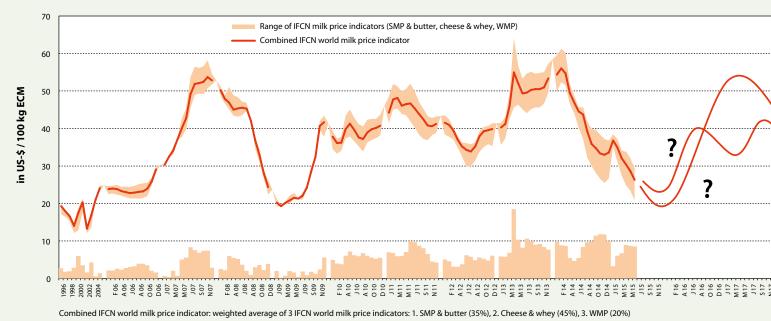


Chapter 2 – Global monitoring dairy economic indicators 1996 – 2014

Authors: Clara Secher, Łukasz Wyrzykowski, Hassan Aijini, Barbara Siwirska, William Allen with the contribution from researchers mentioned on page 2 – 3 of this report

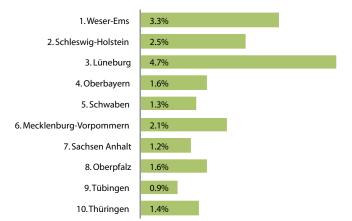
| 2.1 | Summary: Monitoring dairy economic indicators | 45 |
|-----|--|----|
| 2.2 | Global trends in oil, milk and feed prices 1981–2015 | 46 |
| 2.3 | National milk prices in 2014 in US-\$c | 48 |
| 2.4 | Monitoring milk prices 1996–2014 | 50 |
| 2.5 | Monthly milk price transmission and key facts | 52 |
| 2.6 | Monitoring feed prices 1996–2014 | 54 |
| 2.7 | Monitoring milk : feed price ratio 1996 – 2014 and margin over compound feed costs | 56 |

Combined IFCN world milk price indicator



Top 10 regions - Ø annual milk production growth

2009 - 2014 - regions represent 59% of national milk production in 2014





Lukasz Wyrzykowski



Status and key developments

Status 2014

- No. 5 in the world milk production: 33.0 mill t ECM
- No. of dairy farms: 76,469
- Milk price: +16% to world market
- Feed price: +19% to world market

Key developments over the past five years

- Milk production growth: +1.9% per year
- Farm numbers: -4.4% per year
- Milk price was on average +12% to world market
- Feed price was on average +4% to world market

Key variables

| | | | | | | | | | | | Annual grov | wth rates |
|---------------------------------|--------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------------|-----------|
| | 1996 | 1998 | 2000 | 2002 | 2004 | 2006 | 2008 | 2010 | 2012 | 2014 | '04-'09 | '09-'14 |
| Milk production (cows') | | | | | | | | | | | | |
| Production (mill t ECM) | 30.00 | 29.49 | 29.36 | 28.80 | 29.28 | 28.76 | 29.42 | 30.49 | 31.45 | 32.98 | 0.5% | 1.9% |
| 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 | -0.6% | 0.6% |
| Milk yield (t / cow / year) | 5.8 | 6.1 | 6.4 | 6.6 | 6.8 | 7.1 | 7.0 | 7.3 | 7.5 | 7.7 | 1.0% | 1.3% |
| Farm structure | | | | | | | | | | | | |
| No. of dairy farms (in 1,000's) | 186 | 164 | 139 | 125 | 114 | 102 | 99 | 92 | 83 | 76 | -3.3% | -4.4% |
| Average farm size (cows / farm) | 28 | 30 | 33 | 35 | 38 | 40 | 43 | 46 | 51 | 56 | 2.9% | 5.2% |
| Prices in national currency | | | | | | | | | | | | |
| Milk : feed price ratio | 1.8 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 1.4 | 1.9 | 1.4 | 1.5 | -7.6% | 1.8% |
| Cull cow (EUR / kg live weight) | 1.1 | 1.2 | 1.2 | 0.9 | 1.1 | 1.3 | 1.4 | 1.4 | 2.0 | 2.1 | 5.8% | 8.3% |
| Land - buy (EUR / ha) | 10,394 | 9,500 | 9,081 | 9,465 | 9,233 | 8,909 | 9,955 | 11,854 | 14,424 | 18,254 | 3.4% | 10.8% |
| Quota (EUR / kg milk) | 0.82 | 0.85 | 0.57 | 0.72 | 0.43 | 0.48 | 0.34 | 0.09 | 0.10 | 0.10 | -16.1% | -11.6% |

Farm structure

50

45

40

35

30

25

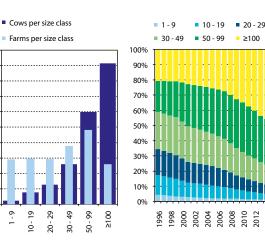
20

15

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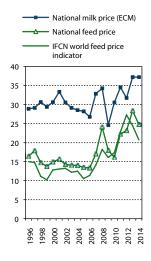
5 0 % of dairy farms and cows in size classes (2014)

Farm structure % of cows per herd size



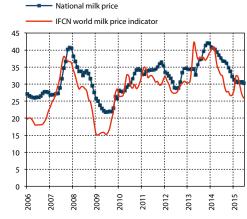
Milk and feed price

EUR / 100 kg



Monthly farm gate milk price

EUR / 100 kg ECM



Explanations

Sources: National statistics, FAO, IMF, Eurostat, AMI. 2014 data preliminary and partly estimated.

Regional chart: Ranking according to year 2014 distribution. Milk production in natural fat and protein content.

Estimates done for: Land price 2014 following the trend. Cull cow price 2011-2013 based on growth rate for price of cows, 2014 following that trend. Regional data remarks: 2014 data estimated.

2012 2014





Chapter 4 – Methods applied in IFCN analyses

Authors: IFCN

| 4.1 | Standardisation used by IFCN | 184 |
|-----|---|-----|
| 4.2 | Typical farm approach | 185 |
| 4.3 | Definitions of different enterprises | 186 |
| 4.4 | Whole farm calculations | 186 |
| 4.5 | Details on farm economic analysis | 187 |
| 4.6 | Method development: A brief update of farm data in the TIPICAL model | 190 |
| 4.7 | Method development: Real Time Farm Economics at national and farm level | 191 |
| 4.8 | Glossary | 192 |
| 4.9 | Specifications of world regions | 195 |



IFCN team members in action

Annex

| A.1 | IFCN Dairy publications | 198 |
|-----|---|-----|
| A.2 | Typical farm approach and data quality assessment | 199 |
| A.3 | Description of the typical dairy farms analysed | 200 |
| A.4 | Exchange rates 1996 – 2014 | 206 |
| A.5 | Abbreviations | 207 |
| A.6 | Who is who | 208 |

Partners of the IFCN

