Dairy Report 2023

Helping people in the dairy world to make better decisions

IFCN
The Dairy Research Network
Introduction

The IFCN Mission and Vision
IFCN Mission: We help people in the dairy world to make better decisions.

IFCN Content updates
New margin: Up to 70% of the total dairy farm input costs are related to feed. However, in times of inflation it is crucial to consider other costs as well. Therefore, IFCN has developed a new methodology to improve its measurement of the farm economic situation by estimating a dairy farm margin including compound feed, fertilizer and energy costs (pages 60–61).

Projects: IFCN conducts numerous research projects worldwide. Many of these projects are carried out with the cooperation of our research partners. This guarantees the quality of our projects, since we have the knowledge and insights of dairy experts (page 17).

Highlights – IFCN Events

IFCN Dairy Conference 2023
This year’s IFCN Dairy Conference focused on the energy crisis and the challenges and opportunities for dairy. It took place in Riga from June 10th to 13th, 2023 as a hybrid event bringing together more than 210 dairy experts from over 60 countries (Pages 10–11).

IFCN Supporter Conference 2022
Supporter and research partners joined the 20th Supporter Conference to discuss the topic: “Technology for a successful dairy future” (Pages 12–13).

IFCN Dairy Forum 2022
The third IFCN Dairy Forum also took place online in November 2022 with the topic of “The future of dairy farming in Emerging Countries” (Page 14).

IFCN Data Analysis Workshop 2023
Over 170 dairy experts from more than 75 dairy-related companies registered for the fifth IFCN Data Analysis Workshop to discuss the topic “Making decisions during times of increasing uncertainty” (Page 15).

IFCN & Eucolait joint Outlook Workshop 2023
IFCN and Eucolait organised the second joint workshop on the outlook for dairy markets in Brussels in March 2023. The purpose was to show and discuss with 72 participants from 51 different companies and institutions, what might happen in the future and what are the challenges and opportunities for the dairy industry (Page 16).

Acknowledgement
A warm and special thank you message is directed to IFCN Research Partners and the colleagues working in the IFCN Dairy Research Center. Working with you is a pleasure and we are grateful for your contribution to strengthen the network in 2023. We are looking forward to our activities in 2024.

Torsten Hemme
Chairman of the IFCN Board and founder of IFCN

Łukasz Wyrzykowski
Managing Director
Preface
Regional maps and the typical farms 6
About IFCN 7
IFCN Dairy Research Center and IFCN Board 8
24th IFCN Dairy Conference 2023 10
Results from the IFCN Dairy Conference 2023 11
20th F CN Supporter Conference 2022 12
Results from the IFCN Supporter Conference 2022 13
3rd IFCN Dairy Forum 2023 14
5th IFCN Data Workshop 2023 15
2nd IFCN Outlook Workshop 16
IFCN Projects and Research Activities 17
IFCN Supporter Partnership and Data Products 19

Comparison of the typical farms 2022
1.1 Summary – Farm comparison 2022 23
1.2 Milk supply curves 2022 24
1.3 Cost of milk production on average and larger sized farms 25
1.4 Farm level time series analysis 2000 – 2022 – Cost of milk production only 26
1.5 Description of the dairy farms analysed 28
1.6 Summary on economic results of the typical farm analysis 30
1.7 Cost of milk production only 32
1.8 Total costs and returns of the dairy enterprise 33
1.9 Returns: Milk price, non-milk returns and decoupled subsidies 34
1.10 Dairy enterprise: Profits, return to labour and asset structure 35
1.11 Description of direct subsidies and policies 36
1.12 Summary on cost components of the dairy enterprise 38
1.13 Cost components of the dairy enterprise 40
1.14 Cost component: Feed 41
1.15 Cost component: Labour 42
1.16 Cost component: Land 43
1.17 Cost component: Animal health and herd replacement 44
1.18 Overview of all typical farms analysed – costs and returns 45
1.19 Results of new typical farms – development of the IFCN Farm Comparison Research Network 47
1.20 Sustainability and resilience of typical farms 48
1.21 Resilience of selected farms 50
1.22 Resilience in competitive dairy regions 51

Global monitoring of dairy economic indicators 2008 – 2022
2.1 Summary: Monitoring dairy economic indicators 53
2.2 The world milk price – different phases and current developments 54
2.3 Global trends in oil, milk and feed prices 1981 – 2022 55
2.4 National milk and feed prices in 2022 57
2.5 Monitoring milk prices 1996 – 2022 58
2.6 Monthly milk price transmission and farm economics 60
2.7 IFCN Long-term Dairy Outlook 2023 62

Status and development of milk production
3.1 Summary – Dairy sector developments 66
3.2 Status and centres of milk production 2022 68
3.3 Development of milk production 2012 – 2022 69
3.4 Milk surplus and deficit in 2022 70
3.5 Cow culling and land prices in selected countries 72
3.6 Farm Structure 73
3.7 Method explanation of the Country Page 2022 76

Country Pages – Dairy sector and chain profiles
3.8 European Union 77
3.9 Afghanistan 78
3.10 Albania 79
3.11 Algeria 80
3.12 Argentina 81
3.13 Armenia 82
3.14 Australia 83
3.15 Austria 84
3.16 Azerbaijan 85
3.17 Bangladesh 86
3.18 Belarus 87
3.19 Belgium 88
3.20 Bhutan 89
3.21 Bolivia 90
3.22 Bosnia and Herzegovina 91
3.23 Brazil 92
3.24 Bulgaria 93
3.25 Cameroon 94
3.26 Canada 95
3.27 Chile 96
3.28 China 97
3.29 Honduras 119
3.30 Hungary 120
3.31 Iceland 121
3.32 India 122
3.33 Indonesia 123
3.34 Iran 124
3.35 Ireland 125
3.36 Israel 126
3.37 Italy 127
3.38 Jamaica 128
3.39 Japan 129
3.40 Jordan 130
3.41 Kazakhstan 131
3.42 Kenya 132
3.43 Korea, Republic of 133
3.44 Kosovo 134
3.45 Kyrgyzstan 135
3.46 Latvia 136
3.47 Lebanon 137
3.48 Lithuania 138
3.49 Luxembourg 139
3.50 Madagascar 140
3.51 Malawi 141
3.52 Malaysia 142
3.53 Mali 143
3.54 Malta 144
3.55 Mexico 145
3.56 Moldova 146
3.57 Mongolia 147
3.58 Montenegro 148
3.59 Morocco 149
3.60 Mozambique 150
3.61 Myanmar 151
3.62 Namibia 152
3.63 Nepal 153
3.64 The Netherlands 154
3.65 New Zealand 155
3.66 Nicaragua 156
3.67 Niger 157
3.68 Nigeria 158
3.69 North Macedonia 159
3.70 Norway 160
3.71 Oman 161
3.72 Pakistan 162

Methods applied in IFCN Analyses
4.1 The TIPICAL model and its capabilities 204
4.2 Standardisation used by IFCN 205
4.3 Typical farm approach 206
4.4 Details on farm economic analysis 207
4.5 Greenhouse gas emissions on dairy farms worldwide 210

Annex
A.1 IFCN Publications 213
A.2 Glossary 214
A.3 Typical farm approach and data quality assessment 215
A.4 Elevator stories of typical farms 216
A.5 Description of the typical dairy farms analysed 217
A.6 Abbreviations 222
A.7 Exchange rates 223
A.8 Who is who 224

© IFCN Dairy Report 2023
© IFCN Dairy Report 2023

Resilience of selected farms
Sustainability and resilience of typical farms
Development of milk production 2012 – 2022
Monitoring milk prices 1996 – 2022
Monthly milk price transmission and farm economics
IFCN Long-term Dairy Outlook 2023
Farm Structure
Description of the typical dairy farms analysed
Summary on economic results of the typical farm analysis
Cost of milk production only
Total costs and returns of the dairy enterprise
Returns: Milk price, non-milk returns and decoupled subsidies
Dairy enterprise: Profits, return to labour and asset structure
Description of direct subsidies and policies
Summary on cost components of the dairy enterprise
Cost components of the dairy enterprise
Cost component: Feed
Cost component: Labour
Cost component: Land
Cost component: Animal health and herd replacement
Overview of all typical farms analysed – costs and returns
Results of new typical farms – development of the IFCN Farm Comparison Research Network
Sustainability and resilience of typical farms
Resilience of selected farms
Resilience in competitive dairy regions
Summary – Farm comparison 2022
Milk supply curves 2022
Cost of milk production on average and larger sized farms
Farm level time series analysis 2000 – 2022 – Cost of milk production only
Description of the dairy farms analysed
Summary on economic results of the typical farm analysis
Cost of milk production only
Total costs and returns of the dairy enterprise
Returns: Milk price, non-milk returns and decoupled subsidies
Dairy enterprise: Profits, return to labour and asset structure
Description of direct subsidies and policies
Summary on cost components of the dairy enterprise
Cost components of the dairy enterprise
Cost component: Feed
Cost component: Labour
Cost component: Land
Cost component: Animal health and herd replacement
Overview of all typical farms analysed – costs and returns
Results of new typical farms – development of the IFCN Farm Comparison Research Network
Sustainability and resilience of typical farms
Resilience of selected farms
Resilience in competitive dairy regions
Summary on economic results of the typical farm analysis
Cost of milk production only
Total costs and returns of the dairy enterprise
Returns: Milk price, non-milk returns and decoupled subsidies
Dairy enterprise: Profits, return to labour and asset structure
Description of direct subsidies and policies
Summary on cost components of the dairy enterprise
Cost components of the dairy enterprise
Cost component: Feed
Cost component: Labour
Cost component: Land
Cost component: Animal health and herd replacement
Overview of all typical farms analysed – costs and returns
Results of new typical farms – development of the IFCN Farm Comparison Research Network
Sustainability and resilience of typical farms
Resilience of selected farms
Resilience in competitive dairy regions
Which countries are participating in the IFCN Dairy Report activities in 2023?

- **North America**
  - Canada
  - Mexico
  - New York

- **Europe and Middle East**
  - Algeria
  - Belgium
  - Belarus
  - Bulgaria
  - Czech Republic
  - Denmark
  - Germany
  - Hungary
  - Italy
  - Israel
  - Jordan
  - Latvia
  - Lebanon
  - Lithuania
  - Luxembourg
  - Netherlands
  - Russia
  - Spain
  - Sweden
  - Switzerland
  - Turkey
  - Ukraine
  - United Kingdom

- **South America**
  - Argentina
  - Brazil
  - Chile
  - Colombia
  - El Salvador
  - Peru
  - Peru
  - Uruguay

- **South East Asia and Oceania**
  - Australia
  - Bangladesh
  - China Center
  - China South
  - China West
  - Indonesia
  - Japan
  - Korea
  - Malaysia
  - Indonesia
  - New Zealand
  - Pakistan
  - Philippines
  - Singapore
  - Sri Lanka
  - Thailand

- **Africa**
  - Algeria
  - Benin
  - Cameroon
  - Egypt
  - Ethiopia
  - Gabon
  - Kenya
  - Nigeria
  - South Africa

- **Other Regions**
  - Colombia
  - Peru
  - Argentina
  - Chile
  - Brazil
  - Uruguay

Legend: Numbers indicate the number of cows in the typical farms. ++ = future farm, B = Buffalo, BE = Beijing, bio = Organic, C = Central, CF = Commercial Farm, CN = Central North, DP = Dual Purpose, E = East, JA = Japic, MC = Massif Central, MG = Malang, N = North, NW = North West, S = South, SE = South East, SW = South West, TO = Torreon, W = West

Number of countries included in farm comparison: 54
Number of farm types analysed: 200
Number of countries included in country profile analysis: 68
Number of countries in county profile and farm comparison analysis: 125

Extract from the full report | Get your own copy of the report on www.dairyreport.online
The dairy world today
Today the dairy world serves over 7 billion consumers and provides livelihoods for approximately 1 billion people connected to dairy products. As complexity and speed of change are rising, dairy stakeholders are working and living in an increasingly complicated environment.

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

What does IFCN do?
IFCN helps people in the dairy world make better decisions. IFCN provides globally comparable data, outstanding knowledge and inspiration. With our core competencies in the fields of milk production, milk prices and related economic topics, we bring market intelligence, data, knowledge and inspiration to all members in the network.

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 deepened and widened every year. The knowledge is created via a network of dairy researchers from over 90 countries. The data and knowledge are managed by the IFCN Dairy Research Centre staff.

The IFCN Economic Models and standards ensure comparability between countries and provide a global picture. More than 130 dairy related companies and organisations support the IFCN Dairy Research Network and use the knowledge to solve challenges in the dairy world more efficiently.

IFCN has innovative ways to share the knowledge with their partners and with the dairy world. 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 help people in the dairy world with dairy data, knowledge and inspiration to make better decisions.

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. Updated 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 provides support to serve your dairy stakeholders better and to develop your professional career in the dairy world, as well as strengthening the 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 organizations involved in policymaking 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 lifetime career in the IFCN centre, to operate globally and enjoy a stable local life. You are also welcome to use IFCN as the ideal steppingstone for further developments in the dairy world.

For further information please contact: info@ifcndairy.org

Extract from the full report | Get your own copy of the report on www.dairyreport.online
About IFCN

Organisational setup
IFCN is a company running the International Farm Comparison Network which is a global research network. IFCN has a Dairy Research Center (DRC) with 22 employees, coordinating the network process and running the dairy research activities.

Managing Director
Vanessa Huberar

Finance & Office Management
Iordanidou Sofia

Sales & Marketing
Goetz Philipp

Dairy Data, Quality & Research
Fagerberg Anders

IT Development & Processes
Hemmke Hans Jör

Students
Karanxha Karin

The IFCN Advisory Board has the mandate to support the IFCN management in the strategic development and is a tool to support the management of the two networks in IFCN.

The IFCN Board (status June 2023) is composed of the following members: Torsten Hemme (Chairman), Anders Fagerberg, Hans Joh (nominated by the supporters), Ernesto Reyes (nominated by the researchers), Uwe Latacz-Lohmann (Kiel University) and Erik Elgersma.
The Dairy Conference provided a platform by bringing together speakers and panelists from all around the world to talk about the dynamics between the energy and dairy markets and discuss how to convert challenges into opportunities.

There won’t be a “one-fits-all” solution for the dairy world. During the conference, different perspectives were presented and discussed addressing various regions in the world. In more developed countries, the challenges mostly came from the political side (such as animal welfare or environmental regulations), as well as the lack of labour, successors, and land. On the other hand, the less developed regions mainly faced uncertain economic and political conditions and were additionally short of an adequate infrastructure such as roads, energy and water which should be provided by the respective governments. However, all participants agreed that adaptation and resilient production systems were needed, together with farm income diversification, the increase of home-grown feed, and more technology in order to tackle these issues.

What does this mean for the future of dairy?
The Member of Parliament in Latvia, Jānis Grasbergs, referred to the fact that Latvia had the lowest milk price in Europe (a quarter below the average in Europe). He also explained that the dairy industry was progressing while considering changes in the lifestyle of farmers, promoting advanced farming, as well as new forms of businesses and services.

The income of 1 billion people around the world is directly or indirectly linked to the dairy sector. Therefore, any global event that negatively impacts the dairy industry will affect the livelihood of many households around the world.

The invasion to Ukraine brought supply chain disruptions and many countries were forced to find other energy suppliers. The ensuing increased energy prices, and lower availability of fertiliser, in turn pushed the fertiliser prices up. In addition, and despite having reached a record high level at the beginning of the year, the world milk price started showing a downward trend that put pressure on dairy farmers’ profitability. Consequently, a very low increase in milk production was realised in 2022. This raises the question: How can the dairy sector be developed in different regions to ensure a sustainable future milk pool?

We see many changes and new challenges coming at regional and national level. However, there are also many opportunities to develop the dairy sector. As Ieva Leimane from AREI said: “The dairy sector has an incredible superpower: the ability to convert the solar energy accumulated in grassland into nutrient-rich food products.” In addition, the participants highlighted the importance of sustainability, efficiency and affordability as essential aspects to consider when developing the dairy industry.

Data, networking and the correct strategies are needed to overcome upcoming challenges. It was concluded that, in order to overcome challenges easily, the sector needed to remain open to changes, and to be flexible and adaptive. Dairy farmers will also have to prioritize and deal with issues one by one while thinking globally but acting locally, as different regions require different solutions. To achieve this, dairy relies on people, data and information while working together as demonstrated successfully by the IFCN Network.

IFCN would like to thank all participants, speakers, panelists, hosts and the sponsor for their contributions which will help the dairy sector as it moves into the future.
Results – Technological Progress needs trust based collaboration

For the 20th time, the International Farm Comparison Network (IFCN) brought together the key players in the global dairy value chain to discuss the challenges and opportunities of forward-looking technologies. The participants of this year’s conference confirmed that sector integration, and a focus on farmers and their animals, will be key to making the dairy sector technologically fit for the future. The hybrid event took place with more than 300 participants (live and online) from 4th – 6th September in Netanya, Israel.

On the economic side, the dairy industry today is driven by high input prices, low availability of raw materials and a steady demand due to the growing world population. Combined with megatrends such as farm consolidation, new policy regulations and lower profit margins, farmers’ profitability is under threat. In addition, social and sustainability aspects, as well as the cows themselves and their welfare, are increasingly coming into focus. Farmers around the world need to adapt to the new conditions – technology can help close gaps and increase farm profitability.

However, it is important for the industry to bear in mind that technology means many things, but essential to any progress is data, which can serve as a powerful tool. Data helps analyse, measure and monitor, and trust becomes one of the most important aspects in decision-making. This, of course, requires a cooperative approach between all stakeholders, and there is a need to adapt farmer education and training so that the potential offered by new technologies can be truly exploited.

Looking to the future, the introduction of new technologies could have a positive side effect with regard to the challenge of farm succession. As the next generation of farmers has grown up with technology more than the generations before them, they are more likely to keep up with the pace of change and appreciate the benefits to their professional and personal lives. Nevertheless, and all panellists agree on this, there is a need to adapt farmer education and training so that the potential offered by new technologies can be truly exploited.

What is the best way forward?

Behind the smaller steps must be a broader understanding that sharing information and data is a form of collaboration that is beneficial and valuable to all stakeholders. Partnerships and trust between stakeholders are key. On Inbar from Miletius is certain: “If we find a way to bring information together, we will overcome the silo mentality”.

And there is an urgent need for action: the speed of change is much (higher) faster today in all sectors. So if the dairy industry (wants) wishes to defend its place in the future, it should speed up. In this sense, IFCN will continue to bring together people from the different networks and promote an intensive exchange about the changes.

The event was supported by the companies Allflex / MSD, Nedap, Phibro Animal Health, Miletius, Intellync, Lely and Chr. Hansen.

What potential do technologies offer farms?

Technology means many things, but essential to any progress is data, which can serve as a powerful tool. Data helps analyse, measure and monitor. Efficiency increases when we enable farmers to see things that are sometimes invisible to them. It helps to manage tasks instead of having to manage crises on a farm.” explained Shlomi Dagan from MSD.

However, it is important for the industry to bear in mind that technology must always be designed from the customer’s point of view. Only when farmers can see the relevance of the innovation, see its benefits for the animals and their own needs, and receive well-organised support, will they consider a change in strategy. Gali Saban from Allflex says: “It’s about the customer experience, i.e. the journey you take with them, and understanding the environment in which a company’s technology is used”. Innovation is key. Gail Saban from Allflex says: “It’s about the customer experience, i.e. the journey you take with them, and understanding the environment in which a company’s technology is used".

Farm businesses are very diverse. When asked about the applicability of new technologies on smaller farms or farms in developing regions, the panelists agreed that farm size does not matter when it comes to whether the use of technologies is beneficial. Evine van Riemstjik from Nedap summarises, “You don’t need automation, but everyone can use information”, which means that there must be easy methods for farmers to receive information. Shlomi Dagan from MSD adds: “If you have a small farm, you need good data. This flexibility helps small farms to participate in the technology game”. This, of course, requires a cooperative approach between all stakeholders, and trust becomes one of the most important aspects in decision-making. In addition, business solutions need to be adapted to farmers’ individual needs and financial possibilities.

For the 21st time, the International Farm Comparison Network (IFCN) brought together the key players in the global dairy value chain to discuss issues regarding the changing world. A clear mandate to operate in the dairy industry is needed to fulfil expectations and requirements of future generations. The sustainability plans for your business will be the key to achieve it.
Many emerging economies see increasing demand for dairy products, while many exporting countries experience stalling milk production, so how will milk be produced in the future, and by whom? Participants from more than 80 countries attended IFCN’s third annual public Dairy Forum to learn more about the drivers behind dairy development from different stakeholders. While the different initiatives have varying focuses, they all aim for an inclusive and sustainable approach.

Farming systems in emerging countries are often characterised by subsistence farming and have few standardised farm management processes. The challenges these countries face are therefore manifold. These include economic factors such as the increased cost of milk production, low productivity and the usage of technology. There are also social factors such as lack of education, an ageing generation of farmers and the limited attractiveness of the sector for young people. In addition, there are environmental aspects such as lack of education, an ageing generation of farmers and the limited attractiveness of the sector for young people.

In his presentation, Kevin Muxlow, Chief Operating Officer, mentioned four building blocks on how farms can improve both their business economics and become more sustainable: (animal) genetics, people, management, and data & technology.

In his presentation, Kevin Muxlow, mentioned four building blocks on how farms can improve both their business economics and become more sustainable: (animal) genetics, people, management, and data & technology.

The future of dairy farming in emerging markets

Donald Moore

Global Dairy Platform
Pathways to Dairy Net Zero Initiative

“Farm income is the number one indicator of sustainability in emerging markets and if you don’t have an economic proposition, you don’t have a farm. In working on improving farm income, yield, productivity, reducing loss along the value chain, etc., we can also affect all these other indicators such as reducing GHG at the same time.”

The panel discussion proposed more ways of implementing solutions.

- Creating the right environment.
- Farming systems and their management.
- Synergy effects.

Young farmers need a perspective. The demand for milk is and will be there. How they can benefit from this will depend on how they set up their farms and what solutions they take up.

The IFCN Forum is a great opportunity to discuss with our dairy experts and learn about IFCN methods and how to create knowledge from data. Learn how to do business!

Dairy Farm Economics

The aim of the workshop was to get an insight of successful practices from the dairy sector analysis with special focus on data-driven decision-making.

BENEFITS of joining the Data Analysis Workshop

- Learn about IFCN methods and how to create knowledge from data.
- Live the opportunity to ask questions before, during and after the Workshop.
- Integrate the information from the workshop and apply it to your day-to-day business.

ICFN experts were given an analysis tool to approach exemplary questions:

1. How did recent events impact the regional dairy sector and what to expect?
2. Why are farm economics gaining importance in uncertain times?
3. How will mega trends impact the dairy world – opportunities and challenges?
4. Will farm consolidation speed up, given the increasing uncertainty?

Company workshops and consultancy

IFCN conducts numerous consultancy and workshop events, giving the opportunity to strengthen the capacity building in dairy knowledge and support the strategic planning. These workshops set the foundation for many board meetings, sales, and marketing strategies, as well as scenario building in different companies across the dairy value chain.

The 5th IFCN Data Analysis Workshop was held online, as a webinar. Over 170 dairy experts from more than 75 dairy-related companies registered to discuss the topic of “Making decisions during times of increasing uncertainty.”
Global Shortage of Dairy – The gap between supply and demand is increasing.

IFCN and Eucafot organised a joint workshop on the outlook for dairy markets, in order to show and discuss with 72 participants from 51 different companies and institutions, what might happen in the future and what are the challenges and opportunities for the dairy industry.

Under current dairy market conditions, the dairy farm profitability is under increasing pressure with milk and farm input prices at unprecedented levels. It became clear during the event that there are many uncertainties and market disruptors facing the dairy industry: there is a general shortage of food and difficulties in securing global food production. Participants even went so far as to speak of a “flight” for milk in the future. At the same time, price elasticity may not be as important as it has been in the past as consumers are willing to pay more for dairy products. However, it is not clear who will cover this supply in the future, as the major dairy producing regions are facing an increasing number of problems e.g. climate change, food shortages, etc.

The main conclusion was that there are many reasons to feel optimistic for the future and that everyone should take the current and upcoming challenges as an opportunity to show the society that the dairy industry is willing and able to act in time. The activation of entrepreneurial thinking within the dairy sector was, and is, innovative and has been able to overcome all previously faced challenges successfully, therefore there is a bright future ahead of us. In this sense, let us keep the milk moving.

Key conclusions from the outlook workshop:

- Global shortage of dairy is leading to higher price levels in the future.
- Energy prices will remain at a high level compared to previous years and will directly impact the commodity market due to higher milk processing costs.
- Dairy is in the middle of a “trilemma” - how to secure a needed raw milk pool to ensure the availability of dairy products at affordable levels and, in addition, producing it in a sustainable way.

Finally, the main conclusion was that there are many reasons to feel optimistic for the future and that everyone should take the current and upcoming challenges as an opportunity to show the society that the dairy industry is willing and able to act in time. The activation of entrepreneurial thinking within the dairy sector was, and is, innovative and has been able to overcome all previously faced challenges successfully, therefore there is a bright future ahead of us. In this sense, let us keep the milk moving.

IFCN conducts numerous research projects worldwide throughout the year. Many of these projects are carried out with the cooperation of our research partners who are located in 125 countries. This guarantees the quality of our projects, since we have the knowledge and insights of dairy experts also at a country level.

DIM – Vietnam pilot

To enable stakeholders to assess the social benefits that the dairy sector provides to society, the Food and Agriculture Organization (FAO) and the International Farm Comparison Network (IFCN) have collaborated with the Global Dairy Platform (GDP) and the International Fund for Agricultural Development (IFAD) to develop the “Dairy Impact Methodology” (DIM). A workshop was then held in Vietnam in order to measure the impact of the dairy sector and production systems on the social development in the country. Dairy sector and socio-economic data at national level was gathered and validated there by the IFCN Team and country experts.

Modelling dairy investments in Nigeria

The Bill & Melinda Gates Foundation seeks to identify dairy farming systems that will be economically sustainable in the future, in order to ensure both domestic food security and livelihoods of dairy farmers in Nigeria. In this sense, the IFCN team, together with country dairy experts, developed a comprehensive economic analysis of farms, as well as scenario analyses covering the most important aspects, while focusing on the most common farm types. This provided a better understanding of the dairy sector and farm systems in Nigeria.

Dairy Nourishes Africa (DNA): Tanzania

DNA’s ambition is to transform African dairy industries by creating vibrant ecosystems of farmer-allied and environmentally sustainable enterprises that improve nutrition, enhance livelihoods, and stimulate economic growth. To achieve this, DNA builds a public-private partnership leveraging the collective strength of GDP, as well as industry, community and government stakeholders. In this sense, the IFCN Team, in cooperation with dairy expert partners, provided a status quo analysis of the dairy farm economics in Tanzania, as well as an analysis on farm efficiency, management potential and future farm types.

Other research projects:

- Assess the impact of a medical treatment of dairy cattle on the farm economics and GHG emissions.
- Monitor dairy farmers’ wages, as the interest for enterprises in social responsibility as a company value has been increasing.
- Explore the future evolution of dairy sustainability and its impact on the availability of dairy commodities.
Also, key indicators for sustainability and resilience of dairy farms are regarded to farm economics, cost competitiveness or feeding indicators.

Typical farm economic results can be found in the report covering a unique tool for benchmarking dairy farms world-wide. Short, but thorough, farm descriptions help you to find the farms/farming systems you are most interested in and compare these specific farms with regard to farm economics, cost competitiveness or feeding indicators. Also, key indicators for sustainability and resilience of dairy farms are included.

Monthly Real Time Data
This real-time product provides data on milk production, milk & feed prices and describes the current situation and ongoing developments of dairy markets. Additionally, it contains farm economic data with easy-to-understand traffic light visualization. It makes it possible to optimise short-term operational business processes on global and country level. The key market insights permit the interpretation of the up-to-date data for decision making.

Key Variables
- Monthly milk & feed prices and milk supply for 65 countries
- Dairy farm margin
- EU-27 & US dairy stocks
- Fat & protein content of milk
- Market report & charts

Annual Farm Structure Data
Farm structure data is important for your sales planning and expansion strategies. This data product offers the possibility to analyse comparable herd sizes with regard to animals and farms as it contains a standardisation of the farm size classes on a global level. The timeline data and forecast up to 2030 provide a comprehensive overview of the historical and future farm developments.

Key Variables
- Farm numbers & average farm size for over 80 countries
- National farm structure data
- IFCN Standard Herd Size classes
- Farm structure forecasts > 100 herd size classes forecast

Monthly Dairy Trade Data
The dairy trade product contains standardised monthly trade data with the level of 6-digit HS codes of 27 dairy and 3 animal feed commodities. Updated quarterly, the product can provide you with crucial knowledge about the latest global developments in dairy trade. The export and import data are standardised to milk equivalents (ME, 4% fat, 3.3% protein) for better comparison.

Key Variables
- Traded dairy volume in ME (milk equivalents)
- Dairy imports and exports for over 90 countries
- 5 dairy commodity groups
- 27 dairy products + 3 feed items
- Monthly dairy trade balance

Dairy Sector Data & Long-term Outlook
This comprehensive data product supports long-term strategic business decisions with comparable data at country level. It contains, for all countries in the world, timeline data since 1996, regional data and the IFCN Long-term Dairy Outlook until 2050. Standardised and quality-checked country and regional data increase efficiency in business development by shortening the time for data mining.

Key Variables
- Outlook for 125 countries
- Milk supply & demand
- Dairy farm & cow numbers
- Total dairy trade & stocks
- Milk & feed prices
- Milk production by region

Farm Economic Data
This comprehensive dataset facilitates strategic decision making by presenting a unique tool for benchmarking dairy farms worldwide. Short, but thorough, farm descriptions help you to find the farms/farming systems you are most interested in and compare these specific farms with regard to farm economics, cost competitiveness or feeding indicators.

Key Variables
- Data for 172 farms/farming systems in 54 countries
- Typical farm economic results
- Cost of milk production
- Sustainability & resilience indicators
- Feed ratio composition, feed costs, intake and efficiency

IFCN Supporter Partnership and IFCN Data Products
- Dairy imports and exports
- Monthly dairy trade balance
- World milk production
- Milk delivery to dairies (cow & buffalo)
- Household consumption/on farm use (cow & buffalo)
- Informal market (cow & buffalo)
- World milk supply for 65 countries
- EU-27 & US dairy stocks
- Fat & protein content of milk
- Market report & charts

Typical farm economic results can be found in the report covering a unique tool for benchmarking dairy farms world-wide. Short, but thorough, farm descriptions help you to find the farms/farming systems you are most interested in and compare these specific farms with regard to farm economics, cost competitiveness or feeding indicators. Also, key indicators for sustainability and resilience of dairy farms are included.

Key Variables
- Data for 172 farms/farming systems in 54 countries
- Typical farm economic results
- Cost of milk production
- Sustainability & resilience indicators
- Feed ratio composition, feed costs, intake and efficiency

© IFCN Dairy Report 2023

*© IFCN Dairy Report 2023*
Today, the dairy world serves over 7 billion consumers and provides livelihood for about 1 billion people who live on dairy farms. The key challenges for dairy stakeholders lie in the complexity of the sector and the high rate of change in a globalized world. More than 130 dairy related companies are collaborating with IFCN, a global dairy research network that helps customers to improve decision-making. Globally comparable economic data for dairy products and forecasts have been used for over 20 years to better understand the dairy world.

### Partnership benefits
- Global holistic picture of the dairy world
- Networking with your peers & companies
- Learning and capacity building

### Data benefits
- World class dairy business intelligence
- Better decisions based on better analysis
- Better data: comparable, global & real time

### IFCN Partnership Packages

<table>
<thead>
<tr>
<th>IFCN Partnership Packages</th>
<th>Your benefit</th>
<th>Basic</th>
<th>Premium</th>
<th>Ultimate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFCN Dairy Report, hard copies and as pdf file</td>
<td>Coverage of 125 countries key dairy economic indicators in Excel database</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>IFCN Monthly Webinar &amp; Newsletter</td>
<td>The latest sector news at your finger tips including presentations and recordings</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Logo positioning &amp; IFCN Hotline</td>
<td>Be visible on the IFCN Publications and Website; Remarks for urgent questions</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>IFCN Supporter Conference</td>
<td>Be part of the annual conference and receive the content presentations</td>
<td>One invitation</td>
<td>Two invitations</td>
<td>Three invitations</td>
</tr>
<tr>
<td>IFCN Workshop &amp; other events</td>
<td>Be part of the Data Analysis Workshop and other insightful events**</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access to IFCN Data Services</td>
<td>Access to the Standard IFCN Data Delivery Package (.xlsx or .csv formats)</td>
<td>Data service purchase possible</td>
<td>Access to 1 or more selected data services</td>
<td>Access to all data services</td>
</tr>
</tbody>
</table>

* IFCN reserves the right to adjust the final partnership package and to define usage rights for the legal entities based on the IFCN terms and conditions.

** Besides the Data Analysis Workshop which is free of charge for all partners, some events are paid and Premium and Ultimate partners are getting a discount for those events.

Extract from the full report | Get your own copy of the report on www.dairyreport.online
### P IFCN Data Services and Product List 2024 (individual price)

<table>
<thead>
<tr>
<th>P IFCN Partnership Package</th>
<th>Basic</th>
<th>Premium</th>
<th>Ultimate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5 IFCN Supporter Partnership&lt;br&gt;Dairy Report, Supporter Conference, Newsletter, Hotline, Logo positioning and World Milk Price Update Webinar</td>
<td>7,000</td>
<td>10,000+</td>
<td>31,000</td>
</tr>
</tbody>
</table>

#### D IFCN Dairy Data

<table>
<thead>
<tr>
<th>D3 Dairy Sector</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D3.2 IFCN Annual Dairy Sector - with IFCN Long-term Dairy Outlook - ENHANCED</td>
<td>16,000</td>
<td>16,000</td>
<td>Free</td>
</tr>
<tr>
<td>D3.4.0 IFCN Monthly Real Time Data - on production, prices and milk feed price ratio - ENHANCED</td>
<td>8,000</td>
<td>8,000</td>
<td>Free</td>
</tr>
<tr>
<td>D3.4.1 IFCN Monthly Real Time Farm Economics - available extension to D3.4.0 - ENHANCED</td>
<td>2,000</td>
<td>2,000</td>
<td>Free</td>
</tr>
<tr>
<td>D3.4.2 IFCN Dairy World in 10 minutes - Latin American focus*****</td>
<td>on request</td>
<td>on request</td>
<td>on request</td>
</tr>
<tr>
<td>D3.5 IFCN Short-term Dairy Outlook*****</td>
<td>on request</td>
<td>on request</td>
<td>on request</td>
</tr>
<tr>
<td>D3.7 IFCN Annual Farm Structure Data - with time series and forecast*** - ENHANCED</td>
<td>12,000</td>
<td>12,000</td>
<td>Free</td>
</tr>
<tr>
<td>D3.8 IFCN Top Milk Processor Data</td>
<td>4,000</td>
<td>4,000</td>
<td>Free</td>
</tr>
<tr>
<td>D3.9 IFCN Monthly Dairy Trade Data</td>
<td>8,000</td>
<td>8,000</td>
<td>Free</td>
</tr>
</tbody>
</table>

#### D5 Farm Comparison

| D5.1 IFCN Farm Economic Data - with time series & Farm Feeding System Data | 10,000 | 10,000 | Free |

#### K IFCN Knowledge

<table>
<thead>
<tr>
<th>K1 Reports</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K1.2 IFCN Dairy Report - hard copy****</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>K1.3 IFCN Dairy Report - PDF version</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>K1.5 IFCN Dairy Processor Report - PDF version*****</td>
<td>4,400</td>
<td>4,400</td>
<td>4,400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>K4 IFCN Presentations and Workshops</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K4.1 IFCN Presentation</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
<tr>
<td>K4.2 IFCN Company Workshop**</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
<tr>
<td>K4.5 IFCN World Milk Price Update Webinar</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>K4.6 IFCN Dairy Outlook Workshop - NEW</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
</tbody>
</table>

#### I IFCN Inspiration

<table>
<thead>
<tr>
<th>I1 Networking and Conferences</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I1.6 IFCN Supporter Conference**</td>
<td>1 invitation</td>
<td>2 invitations</td>
<td>3 invitations</td>
</tr>
<tr>
<td>I1.8 IFCN Workshops**</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
<tr>
<td>I1.9 IFCN Market Intelligence Workshop******</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
<tr>
<td>I1.10 IFCN Emerging Dairy Regions Forum**</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>I1.11 IFCN Scenario Building Workshop</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I2 Hosting and Sponsorship of IFCN Events</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I2.5 IFCN Hosting and Sponsor Package for IFCN Events</td>
<td>3,000 - 40,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I3 Research and Consulting Projects</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I3.1 IFCN Research and Consulting - on specific topics</td>
<td>On request</td>
<td>On request</td>
<td>On request</td>
</tr>
</tbody>
</table>

#### Status: July 29, 2023

**You are purchasing annual using rights of IFCN Data Services and Products.**

All content is exclusively intended for confidential and internal use by IFCN partners. The using right of this data product is only valid during the calendar year of purchase. All prices are in Euro excluding VAT or other taxes (if applicable).

*IFCN reserves the right to adjust the final partnership package and to define usage rights for the legal entities based on the IFCN terms and conditions.

**We are considering to change the format of the conference from only live participation to hybrid event with selected hours of online streaming.

***Product can be bought as an extension to the IFCN Annual Dairy Sector Data D3.2 with a 75% discount (price in EUR - 3,000).

****The shipping of IFCN Dairy Reports incurs additional costs. Additional copies cost 200 EUR.

*****Additional IFCN services which are not included in any partnership package and requiring the indicated fee.