

EuroDairy

Cross border farmer exchange visits



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EuroDairy Cross-border Exchange Visits

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D2.1 Twelve cross-border exchange visits involving innovating farmers, documented and reported

About EuroDairy

EuroDairy spans 14 countries, from Ireland to Poland, and from Sweden to Italy, encompassing 40% of dairy farmers, 45% of cows and 60% of European milk output. EuroDairy is an international network to increase the economic, social and environmental sustainability of dairy farming in Europe. EuroDairy fosters the development and dissemination of practice-based innovation in dairy farming, targeting key sustainability issues: socio economic resilience, resource efficiency, animal care, and the integration of milk production with biodiversity objectives. EuroDairy is funded by the EU Horizon 2020 research and innovation programme under Grant Agreement No 696364.

Contents

Contents.....	1
1.0 Introduction	2
2.0 List of completed farmer exchanges.....	3
2.1 Ireland to Belgium.....	3
2.2 UK to Netherlands.....	4
2.3 UK to Netherlands (2)	10
2.4 France to UK.....	11
2.5 Netherlands to UK (Northern Ireland)	13
2.6 Finland to Netherlands and Belgium	16
2.7 Germany to Ireland	22
2.8 France (Hauts de France) to United Kingdom (2)	25
2.9 Spain (Galicia) to Denmark	28
2.10 United Kingdom to France	31
2.11 France to Germany and Denmark.....	34
2.12 Netherlands to France	35
2.13 Slovenia to Netherlands.....	40
2.14 Finland to Sweden.....	43

1.0 Introduction

The aim of the EuroDairy farmer exchanges was to connect farmers to share knowledge and experience.

A total of 14 exchanges took place, with over 350 people participating. These mainly involved farmers, however where appropriate advisors, scientists and students also attended. While the focus of the exchanges was predominately on farm visits, a number of other organisations were visited including several research institutes, agricultural colleges, industry organisations, processors and legislatures. In total, 56 farms and 16 other organisations were visited.

A very wide range of topics were covered by the farmer exchanges across the four themes of resource efficiency, socio-economic resilience, animal care and biodiversity.

A presentation on the farmer exchanges can be viewed on the EuroDairy website (<https://eurodairy.eu/about/news/farmer-exchange-report/>).

Individual exchange reports can also be accessed via the EuroDairy website.

2.0 List of completed farmer exchanges

2.1 Ireland to Belgium

Date:	27 th September 2016 – 29 th September 2016
Theme:	Socio-economic resilience
No. farmers attending	19
No. others attending	1
No. Farms Visited	4
No other places visited:	1 (European Parliament)





Exchange 1 – Ireland to Belgium

- 19 farmers + 1 advisor
- Main theme socio-economic resilience
 - Profitability of systems
 - Sustainability of systems in relation to labour input, hours worked, quality of life and sustaining proper family life.
- Included visit to European Parliament & European Commission
 - Met with Agricultural Commissioner Phil Hogan
- Visited 2 farms in Wallonia and 2 farms in Flanders



Advantages of host region

- Favourable climate and land
- Close to market
- Value added dairy industry
- Well trained farmers
- Good husbandry and technical skills
- Good advisory support
- Low bank interest rates



Disadvantages of host region

- Variable rainfall
- Shortage of land available to rent / purchase
- Cows kept indoors – high cost
- Small grazing platforms and fragmented farms
- Not suitable for grass based farming
- Nitrates regulations
- Labour intensive systems



Take Home Messages

- Very high standards of animal welfare with a lot of straw bedding used to prevent foot damage / lameness
- Straw lie back areas with high step to prevent FYM being “pulled” by animals onto scraped passages
- Building design for lame cows
- Vending machine for selling fresh milk ex-farm
- Farm house / holiday home accommodation

2.2 UK to Netherlands

Date:	25 th October 2016 – 27 th October 2016
Theme:	Animal Care: Benchmarking and reducing use of antibiotics
No. farmers attending	10
No. others attending	3
No. farms Visited	3
No other places visited:	3





Main Theme: Reducing use of antimicrobials

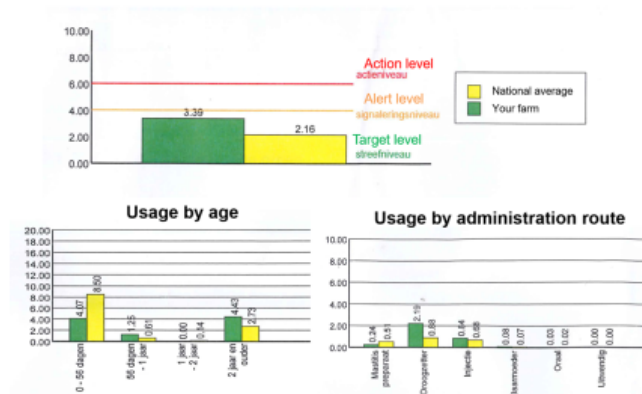
Objectives:

- To learn about Dutch antibiotic policy and how it was implemented at farm level. What is the role of the vet / farmer?
- What are the rules and regulations that Dutch dairy farmers work within? What are the costs compared to the UK and what facilities are they operating in?
- What can UK dairy farmers learn from the Dutch?
- What similarities are there between countries?
- With the knowledge of the Dutch system, how can the UK implement an antibiotic reduction strategy.



Workshop at ZLTO, 3 farm visits
and a visit to the Leeuwarden Dairy Campus

Main discussion
point:
Netherlands
Antimicrobial Use
Recording and
Benchmarking
System



Take Home messages

- Use of technology and data recording
- Reduced dry period – two farmers from Devon already implementing in discussion with their vets
- Farm treatment plan in collaboration with vets
- More discussion with vets and medicines on herd health
- Youngstock shed design
- Use of side tarps for improving shed ventilation

Farmer Feedback

"More trips like this"

"Good farms and communications with other farmers"

"Great insight into how the antibiotic system works."

"Trip has allowed me to 'think outside the box' on:

- Reduce antibiotic use*
- Cow welfare*
- Improving herd health"*

"Need to report back positive farmer support for Dutch antibiotic system"



2.3 UK to Netherlands (2)

Date:	4 th April 2017 to 6 th April 2017
Theme:	Animal Care: Housing and bedding innovations and best practices
No. farmers attending	9
No. others attending	5
No. farms Visited	5
No other places visited:	2





Exchange 3 – United Kingdom to Netherlands

- 9 dairy farmers, 2 AHDB staff, 3 research scientists
- Objectives – to learn about housing and bedding innovations and best practices.
- 6 Farms Visited + Dairy Campus in Leeuwarden



Innovations viewed

- Cow Garden
- Cow lounge – roof designed to let in maximum sunlight
- Cuddle box – allowing a cow access to a new-born calf.
- Use of green bedding
- Floor types and bedding systems

2.4 France to UK

Date:	16 th May 2017 to 18 th May 2017
Theme:	Socio-economic resilience – Adapting to price volatility
No. farmers attending	12
No. others attending	2
No. farms Visited	4
No other places visited:	1





Theme: Resilience of dairy farming in UK

- How do dairy farmers adapt their system to price volatility?
- How do they manage the risk?
- How do they see Brexit impacting them?
- How do they address social and environmental issues?



AHDB Workshop

- Introduction to EuroDairy
- Background to UK dairy industry
- Volatility forum & impact of Brexit.
- R&D in relation to animal health / welfare and social perception.
- Business resilience



Farm visit to Tom Rawson's

- Thinking as an investor / manager – system built for profitability.
- Discussion on business models
- Grazing management with a large herd (450 cows)
- Social perceptions with a large herd – importance of communication (open days, social networks)
- Resource efficiency – making most of grass – low concentrate use

2.5 Netherlands to UK (Northern Ireland)

Date: 5th March 2018 to 8th March 2018

Theme: Socio-economic resilience

No. farmers attending 27

No. others attending 6

No. farms Visited 2

No other places visited: 4





Main Themes

- Environmental constraints and best practices
- Labour efficiency
- Renewable energy
- Animal health
- Grassland based production
- Precision technologies
- Cost of production
- Milk price and farm income



Visit overview

2 Dairy Farms with contrasting systems

Visit to the Dairy Innovation Centre at CAFRE's Greenmount Campus

Visit to the head office of a large dairy co-operative (Dale Farm)

Visit to AFBI's research farm at Hillsborough

Networking dinner at Parliament Buildings, Stormont



Innovations that could be applied in Netherlands

- More attention for grass production and intake during grazing. GrassCheck and other tools being developed by AgriSearch and AFBI are interesting for Dutch Dairy Farmers
 - Potential role of Jersey cows
 - Putting the welfare of farmer and family first
-



Visit to Parliament Buildings

Highlight of the visit was a visit to Parliament Buildings (Stormont) where AgriSearch hosted a networking dinner for the Dutch farmers with the Next Generation Group of the Ulster Farmers Union.

Speakers included the former Agriculture Minister and the President of the Ulster Farmers Union



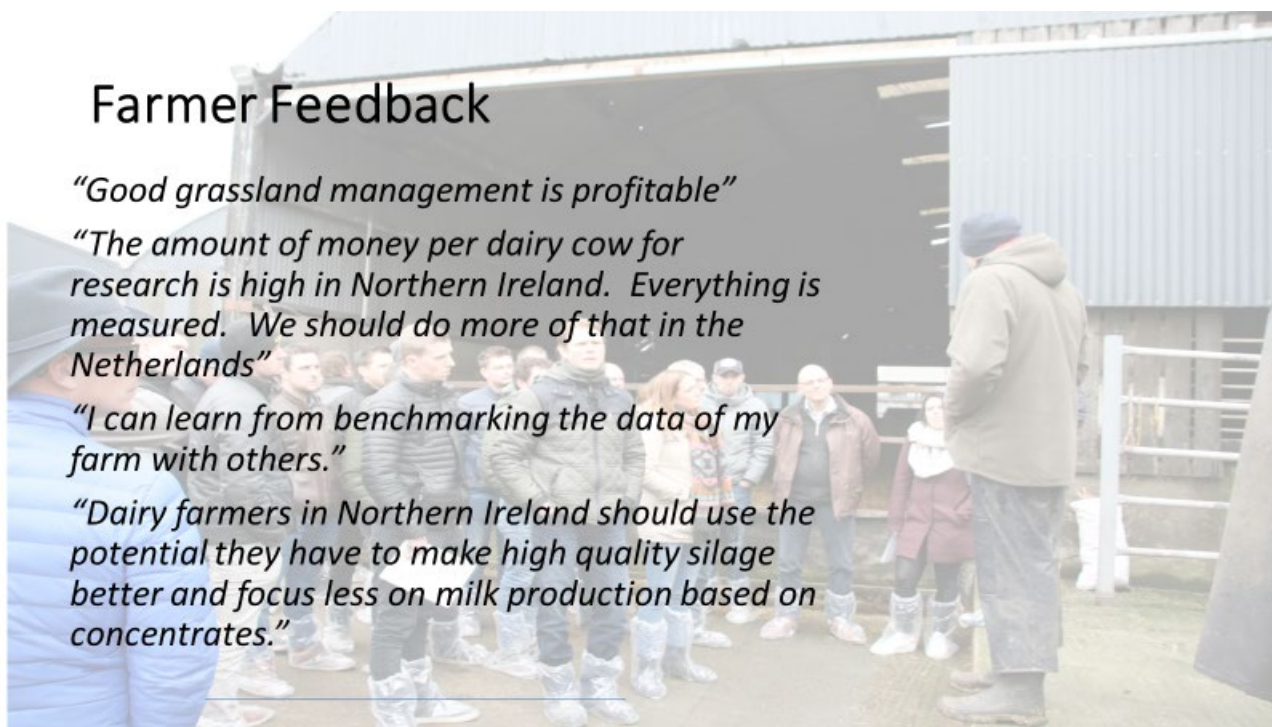
Farmer Feedback

"Good grassland management is profitable"

"The amount of money per dairy cow for research is high in Northern Ireland. Everything is measured. We should do more of that in the Netherlands"

"I can learn from benchmarking the data of my farm with others."

"Dairy farmers in Northern Ireland should use the potential they have to make high quality silage better and focus less on milk production based on concentrates."



2.6 Finland to Netherlands and Belgium

Date:	26 th March 2018 to 29 th March 2018
Theme:	Economic and environmental performance
No. farmers attending	20
No. others attending	8
No. farms Visited	7
No other places visited:	1





Main theme: Economic & environmental performance

Other topics:

- Management issues
- Deep bedding with sand / separated manure
- Calf care
- On-farm processing of milk



Take home messages

Deep bedding either with sand of the solid manure fraction of interest – further research is needed to see how it would work in Finnish conditions.

Some Dutch farmers use a contractor to do slurry separation. Is this a biosecurity risk?

Article on deep bedding based on exchange visit published in the Finnish agricultural periodical



Other interesting features

- Cows allowed to visit their calves after being milked in the robot
- Could Belgium & Netherlands farmers benefit by focusing more on grass rather than maize silage?
- Farms in Belgium & Netherlands tended to have just one full time person working on them whereas in Finland it is typically a couple who take care of the dairy farm.

2.7 Germany to Ireland

Date:	29 th May to 1 st June 2018
Theme:	Resilient low-cost pasture production
No. farmers attending	10
No. others attending	2
No. farms Visited	3
No other places visited:	3





Main Themes

- Resilient low-cost pasture production
- Optimised farm infrastructure
- Advantages and disadvantages of seasonal calving
- Crossbreeding of dairy cows
- Support tools for optimized grassland management: Pasturebase, Grasshopper



Technical & economic strengths of farms visited

- Seasonal calving as good strategy to utilize very cheap grass efficiently and minimize concentrate use.
- Crossbreeding with focus on fertility and longevity (Ireland has more lactations per cow)
- Good farm infrastructure for efficient grazing (milking platform)
- Integrating automated milking systems and grazing
- Very useful tools to support grassland management (GPS platometer and DST such as moregrass.ie and Pasturebase)
- Pre-mowing before the cows enter the paddock to optimize grass intake in the late season



Take Home Messages

- Seasonal calving can also be a good strategy for farms at Schleswig-Holstein (where it had been common also 100 years ago).
- More focus on breeding for fertility and longevity
- Central elements of farm infrastructure could be directly transferred
- Strong interest in adopting useful tools to support grassland management (GPS plate meter and decision support tools)

2.8 France (Hauts de France) to United Kingdom (2)

Date:	30 th May to 1 st June 2018
Theme:	Resource efficiency – Feed and grazing management Animal Care – Reduction of antibiotics
No. farmers attending	30
No. others attending	3
No. farms Visited	4
No other places visited:	0





Topics

- Resource efficiency:
 - Feed management
 - Grazing Management
- Risk management and practical dealing of risk on farm
- Animal care: reduction of antibiotics



Innovations seen

- Low labour input autumn block calving herd using self feed silage and kennel housing (one man + relief milkers managing 220 cows)
- Grazing infrastructure
- Integrating arable and dairy farming
- Use of cross breeding to improve health and fertility
- Use of rising plate meter to measure grass



Take Home Messages

- Grazing infrastructure: paddocks paths, drinking water "Everything is organized to optimize grass management"
 - Breeding program to improve herd fertility
 - The mantra "Yield is vanity & profitability is prosperity"
 - Software tools for grazing management
 - Reduce antibiotics before the dry period
 - Put clover in the pasture
-

2.9 Spain (Galicia) to Denmark

Date:	3 rd June to 9 th June 2018
Theme:	Resource efficiency – Systems and technical management
No. farmers attending	10
No. others attending	1
No. farms Visited	4
No other places visited:	1





Main Themes

- Resource efficiency: Systems and technical management
 - Feeding
 - Grass
 - Forage
 - Breeding
 - Welfare
 - Biodiversity
- Business models
- Labour management



Technical & economic strengths of farms visited

- Very strong value chain: Farmer owned companies (co-operatives)
- Strong farmer education
- High milk yield and feed efficiency
- Commitment to sustainability and the environment
- Good co-ordination between administrations (database in common)
- Well structured sector: Research – innovation – advisory service – farms – companies.



Take Home Messages

- Breeding Crosses to improve milk protein to produce cheese
- Use of sexed semen in dairy production
- Commercial vision and opportunities:
 - Organic milk
 - GMO-Free milk
 - Biodiversity on the farm
- Biogas plant in cooperation with other farmers, to improve slurry management and produce energy.

2.10 United Kingdom to France

Date:	11 th June to 13 th June 2018
Theme:	Resource efficiency – Use of home-grown forages, primarily Lucerne
No. farmers attending	12
No. others attending	0
No. farms Visited	2
No other places visited:	0





Objectives

- To investigate the successful use of home-grown forages, primarily Lucerne.
- Investigate if there is a place for UK farmers to reduce purchased feed inputs on farm through growing and utilizing more Lucerne.
- Explore if growing legume crops have further benefits as greening becomes more important in UK
- Explore if managing home-grown forage inputs can help reduce nutrient and gaseous air pollutants emissions from cows.



Areas covered

- Use of "Devautop" tool for estimating protein self-sufficiency on French dairy farms.
- Use of mixed species swards to improve productivity and robustness.
- Lucerne cropping techniques
- Crop rotations systems for cereals, maize silage and Lucerne
- Tips and techniques for harvesting Lucerne



Take Home Messages

- Under sowing organic protein wholecrop in the autumn rather than the spring
- One pass grass mix and protein wholecrop drilling
- Direct sowing of winter wheat into Lucerne will increase first cut yield
- Cut grass earlier to increase protein content
- Use of rye straw to control weeds in crops
- Carry out farm assessment to see how we can improve self-sufficiency
- Follow the seven points to a successful Lucerne crop

2.11 France to Germany and Denmark

Date:	27 th November to 30 th November 2018
Theme:	Grazing systems and lean management
No. farmers attending	29
No. others attending	12
No. farms Visited	5
No other places visited:	1





Topics

- Grazing systems / making the most of pasture
- Lean Management
- Batch calving
- Resilience



Innovations seen

- Implementation of an Irish grazing systems on an organic experimental platform in Germany
- Integrating grazing in a robotic system
- Using lean management on a large farm to improve organization of the work
- Split Calving
- Use of farm anaerobic digestion to heat local homes
- Grazing infrastructure



Take Home Messages

- Ways to manage pasture better
- Use of group (batch) calving
- Lean management "You do not push your team of employees but you pull them"
- Potential of the Jersey breed in grazing systems
- You can re-establish pasture in an intensive system.

2.12 Netherlands to France

Date:	8 th January 2019 to 10 th January 2019
Theme:	Socio-economic resilience and resource efficiency
No. farmers attending	15
No. others attending	2
No. farms Visited	4
No other places visited:	1





Take Home Messages

- Ways to manage pasture better
- Use of group (batch) calving
- Lean management "You do not push your team of employees but you pull them"
- Potential of the Jersey breed in grazing systems
- You can re-establish pasture in an intensive system.



Innovations seen

- Producing high-specification milk (e.g. use of regional breeds for PDO products)
- Grassland management
- Use of regional / traditional breeds
- Milk from forage
- Housing systems



Advantages of host region

- Farming in a society that values farmers
- Less regulation than the Netherlands
- High self-sufficiency in forage and feed
- Lower costs



Disadvantages of host region

- More isolation (remote areas)
- Not the same social life
- Less opportunities to grow
- Over mechanisation for the size of the farms

2.13 Slovenia to Netherlands

Date:	3 rd October to 7 th October 2018
Theme:	Animal Care – Innovative housing systems \ lowering ammonia emissions
No. farmers attending	74
No. others attending	10
No. farms Visited	4
No other places visited:	4





Topics

- Innovative Housing Systems
- Improving animal comfort
- Lower ammonia emissions



Innovations seen

- Compost-bedded pack barns
- Improving comfort and welfare of cows and reducing ammonia emissions through high welfare floors
- Adding value through on-farm processing of milk.
- Organising training and knowledge transfer on the farm
- Floating farm in Rotterdam



Take Home Messages

- Focus on comfort and health of dairy cows and young stock with emphasis on reducing the use of antibiotics
- Breeding programme focused on improving longevity of cows
- Use of precision technologies on farm
- Using innovation to add value and get a closer connection to the consumer.

2.14 Finland to Sweden

Date: 3rd December to 5th December 2018

Theme: Socio-economic resilience

No. farmers attending 12

No. others attending 6

No. farms Visited 2

No other places visited:





Topics

- Socio-economic resilience
- Benchmarking of EDF results
- Effective tools and techniques of economic management



Innovations seen

- Genome tests for all female calves
- Camera application to detect mastitis at a very early stage
- Calf jackets
- Cross-breeding
- Automatic feeding of cows
- Bedding systems
- Integrating biogas into milk production systems
- Lean management
- HR Management



Take Home Messages

- Three golden rules of dairy farming:
 - Make money
 - Have fun
 - Keep your time free
 - It's worth investing in calving boxes (try bedding with sand)
 - Invest in a large whiteboard (lean)
 - The entrepreneur must control and understand the economic figures
 - Keep to the plan!
-