EuroDairy Network

Dairy-related Operational Groups developing practice-based innovation







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A EUROPEAN THEMATIC NETWORK IN SUPPORT OF A SUSTAINABLE FUTURE FOR EU DAIRY FARMERS

Dairy-related EIP Operational Groups developing practice-based innovation

Submission date:

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Dissemination level Public

Project deliverable D2.2 Forty two Operational Groups developing practice based innovation

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.

Dairy-related Operational Groups developing practice-based innovation

1. Introduction

The main objective of the EuroDairy Thematic Network is to spread innovation and best practice cross border. A secondary objective is to demonstrate and test the effectiveness of an interactive approach to the development and dissemination of innovative practice. A key measure under the European Innovation Partnership concept, is the establishment of multi-actor Operational Groups, funded by regional Rural Development Programmes. EuroDairy was charged with delivering 42 Operational Groups affiliated to the project, thereby connecting measures under the EIP (Thematic Networks) with those under Rural Development (Operational Groups).

2. Approach

The EuroDairy project proposal was constructed with the impending rollout of the Operational Group model in mind. These Groups would act as sources of innovative ideas, and as far as possible, contain leading farmers with good communication skills as champions for the project, and to inspire other farmers through their own experiences.

The original intention was for partners to link to Operational Groups, or to bid theselves for funding to establish such Groups, as the measure opened up under Rural Development Programme. Unfortunately, the speed and extent of implementation of the EIP measure to establish Operational Groups varied between member states. In some countries, calls for Operational Groups were delayed considerably and/or funding limited. An additional constraining factor was the proportion of new Operational Groups which had a focus on dairy, when the overall number was lowere than anticipated. Due to the political situation, Northern Ireland had not implemented the EIP by the time EuroDairy had finished. In addition, the original aim was to select the cohort of 120 Pilot Farmers associated with the EuroDairy project, largely from members of newly formed Operational Groups.

For EuroDairy, these constraints necessitated a change in strategy. Such was the belief in the approach, some partners funded Operational Groups themselves or continued to support existing groups that were acting in a way very much consistent with the multi-actor Operational Group model. Therefore, the project has two types of affiliated Operational Group – those funded by Rural Development Programmes as part of a competitive process ('official' Operational Groups), and those supported outside of the Rural Development Programme ('unofficial' Groups).

In terms of Pilot Farmers, EuroDairy partners had to recruit participating farmers indepentently of Operational Groups, at least initially. However, as time progressed, some Pilot Farmers participated in successful Operational Group applications.

3. Results

Despite the mismatch in timing between the establishment of the Thrmatic Network and implementation of the EIP across Member States, 43 Operational Groups have been identified and linked to the EuroDairy project. These are located in 11 different countries.

These reflect a range of farming systems socio-economic conditions - from high-input indoor systems, to low-input pasture based production. Regional differences in approaches to forage production, including variations in crop rotation, types of forages grown, fertilizer policy and harvesting methods provide a range of experience and measured performance levels which can be shared more widely. The groups and the farmers involved will provide practical context for further development, demonstration and dissemination of improved husbandry techniques.

Of the 43 Operational Groups, 28 benefit from RDP funding and 15 derive support from other funding sources. This deliverable consists of:

- The list and names of the Operational Groups identified (Annex A);
- An inventory of descriptive leaflets collating information from each Group (Annex B).

In terms of focus, subjects of interest to the Operational Groups are spread across each of the four EuroDairy themes (Resource Efficiency, Animal Care, Socio-economic Resilience, Biodiversity). The majority of groups are interested in more than one topic.

4. Exploitation

Within the project, Operational Group participants have been an integral part of knowledge exchange.

- Operational groups have been involved in exchange visits, as discrete groups or in combination with other Groups or EuroDairy Pilot farmers
- Individual members have delivered webinars, or provided content for dissemination material, such as video case studies
- Operational Groups have been the basis of content for some of the technical leaflets prepared by the project
- Individual members, participating as Pilot Farmers, have facilitated the collection of financial and resiource efficiency data onb their farms
- Operational Group Coordinators were invited to a Workshop in Leuven on 29th November 2018, to discuss how Thematic Networks and Operational Groups could work better together to mutual benefit.

Reports, results, digital content and dissemination materials drawn from each of the above activities can be viewed on the EuroDairy website <u>www.eurodairy.eu</u>

5. Acknowledgements

The collaboration of Operational Group members and coordinators across the range of EuroDairy activities is gratefully acknowledged. EuroDairy is funded by the EU Horizon 2020 research and innovation programme under Grant agreement No 696364.

N#	Country/region Name of OG EIP Agri funded Y/N		ED topic				
			-	WP3	WP4	WP5	WP6
1	BELGIUM	GP MortellaroManagement	Y			х	
2	BELGIUM	Haalbaarheid van het opstellen van een bedrijfsstikstofbalans op een melkveebedrijf met het oog op het reduceren van ammoniakemissies	Y	x			
3	BELGIUM	Milk Trading Company (MTC)	Y				х
4	BELGIUM	Pocketboer	Y	х			
5	BELGIUM	Smart Weeding, Organic Feeding'	Y	х			
6	BELGIUM	VEGCAT	Y				х
7	FINLAND	EuroMaito [EuroMilk] project	Y	х	х	х	
8	FINLAND	Operational Group: BioRaEE	Y	х			
9	FINLAND	Kuvaa Nautaa – Lämpökuvaus nautojen hoidon tukena [Thermal Imaging of Cattle] project	Y			х	
10	FINLAND	SMARTFEED - Smart measurements in cattle feeding and health [ÄLYREHU]	Y	х		х	х
11	FRANCE	Hauts de France	N		х	х	х
12	FRANCE	Résilience Lait Normandie	Y				х
13	FRANCE	EuroDairy – Rhône-Alpes	Y	х			х
14	SPAIN, GALICIA	Eurel: Producion dun leite competitivo repectuoso co medio, mediante a utilizacion de ferramientas de apoio e técnicas para un uso eficiente dos recursos da explotación leiteira	Y	x			
15	SPAIN, GALICIA	Granxas de leite galegas en harmonía coa natureza e a biodiversidade agraria	Y		х		
16	SPAIN, BASQUE COUNTRY	Optimising use of farm organic amendments in agriculture	Y	х			
17	GERMANY	Smart grazing	Y	х	х	Х	
18	GERMANY	Development of an innovative, technology-based analysis tool to facilitate animal-friendly milking	Y			Х	
19	GERMANY	Grassland Nutrient Management	Y	х	х		
20	GERMANY	Sustainable Innovations in Agricultural Construction	Y			х	х
21	GERMANY	Sustainable N efficient GMO-free feeding on dairy farms in Schleswig-Holstein	Y	х		х	х
22	SWEDEN	Organic, 100-400 cows	N	Х		Х	
23	SWEDEN	Organic and non organic, 40-140 cows, milking robots	N	Х		х	Х
24	SWEDEN	Big dairy farms, about 400 cows	N	х		х	Х
25	THE NETHERLANDS	Starting entrepeneurs (Animal Care 1)	N			Х	

Annex A. Inventory of Operational Groups identified, contacts, main topics, funding source

-			1	1			
26	THE NETHERLANDS	Young farmers studing group (Animal Care 2	N			Х	
27	THE NETHERLANDS	Free walk farming	N			х	
28	THE NETHERLANDS	Circular dairy	N	х			
29	THE NETHERLANDS	Robot milking	Ν				х
30	UK	Farmer Action Groups - reducing reliance on antimicrobials	Ν			х	
31	UK	Lean Management	Y				x
32	UK, NORTHERN IRELAND	Benchmarking and reducing the use of antibiotics on farms	Ν			х	
34	PORTUGAL	Livestock effluents: strategic approach towards agronomic and energetic valorization of flows in the farming activity	Y	x			x
33	ITALY	Compost barn for dairy cows in the Parmigiano-Reggiano district: an innovative and sustainable housing system and an alternative to cubicles	Y	Х		х	
35	ITALY	Dairy cow farming in Parmigiano Reggiano cheese area: innovation and tradition for a sustainable farming and for high quality product	Y	Х		х	
36	ITALY	Happy milk, a decision support system to improve the efficiency of dairy farms in the Parmigiano- Reggiano district	Y	Х		Х	Х
37	ITALY	Improvement of forage systems in support of the production of pdo Parmigiano Reggiano Cheese "Product of the Mountain" in the valleys of the Apennine area of Tassobbio river»	Y	Х	x		Х
38	ITALY	Economic and environmental metabolic model as a tool for future sustainable dairy farms for Parmigiano Riggiano cheese	Y	Х		Х	Х
39	ITALY	Development of a livestock model of the agro-silvo-pastoral biodiversity	Y	х	Х		
40	SLOVENIA	FreeWalk housing systems for dairy cows	N	х		х	х
41	SLOVENIA	Young Stock Management (with emphasis on the Newborn Calf & Colostrum Management)	N	х		х	х
42	SLOVENIA	Implementation of Genomic Selection in small dairy cattle populations	N		х		х
43	SLOVENIA	Entrepreneurship with vision - methods and tools for supporting farmers in making strategic choices	N	х			х

Annex B. List of descriptive leaflets available on the EuroDairy

interactive map of Operational Groups

No.	Country/region	Name of OG
1	BELGIUM	GP Mortellaro Management
2	BELGIUM	Haalbaarheid van het opstellen van een bedrijfsstikstofbalans op een
_		melkveebedrijf met het oog op het reduceren van ammoniakemissies
3	BELGIUM	Milk Trading Company (MTC)
4	BELGIUM	Pocketboer
5	BELGIUM	Smart Weeding, Organic Feeding
6	BELGIUM	VEGCAT
7	FINLAND	EuroMaito [EuroMilk] project
8	FINLAND	Operational Group: BioRaEE
9	FINLAND	Kuvaa Nautaa – Lämpökuvaus nautojen hoidon tukena [Thermal Imaging
5		of Cattle] project
10	FINLAND	SMARTFEED - Smart measurements in cattle feeding and health
		[ÄLYREHU]
11	FRANCE,	Euro Dairy : un réseau thématique pour la durabilité de l'élevage laitier
	HAUTS DE FRANCE	de notre région
12	FRANCE, NORMANDIE	Résilience Lait en Normandie
13	FRANCE,	EuroDairy – un réseau thématique pour la durabilité de l'élevage laitier
	RHONE-ALPES	de la région Rhône-Alpes
14	SPAIN, GALICIA	Eurel: Producion dun leite competitivo repectuoso co medio, mediante a
		utilizacion de ferramientas de apoio e técnicas para un uso eficiente dos
		recursos da explotación leiteira
15	SPAIN, GALICIA	Granxas de leite galegas en harmonía coa natureza e a biodiversidade
		agraria
16	SPAIN, BASQUE	Optimising use of farm organic amendments in agriculture
	COUNTRY	
17	GERMANY	Smart grazing
18	GERMANY	Development of an innovative, technology-based analysis tool to
- 10	0555444594	facilitate animal-friendly milking
19	GERMANY	Grassland Nutrient Management
20	GERMANY	Sustainable Innovations in Agricultural Construction
21	GERMANY	Sustainable N efficient GMO-free feeding on dairy farms in Schleswig-
22		Holstein
22	SWEDEN	Organic, 100-400 cows
23	SWEDEN	Organic and non organic, 40-140 cows, milking robots
24	SWEDEN	Big dairy farms, about 400 cows
25	THE NETHERLANDS	Starting Entrepreneurs - Animal Care 1
26	THE NETHERLANDS	Young farmers study Group - Animal Care 2
27	THE NETHERLANDS	Free walk barns 2.0
28	THE NETHERLANDS	Circular Dairy – Achterhoek/Liemers
29	THE NETHERLANDS	Robot milking
30	UK	Farmer Action Groups - reducing reliance on antimicrobials
31	UK	Lean Management
32	UK, NORTH IRELAND	Benchmarking and reducing the use of antibiotics on farms
33	PORTUGAL	Livestock effluents: strategic approach towards agronomic and energetic valorization of flows in the farming activity

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43	SLOVENIA	Entrepreneurship with vision - methods and tools for supporting farmers in making strategic choices

Operational Group (OG): GP MortellaroManagement

Start and finish date: 1/9/17 - 31/8/19





EuroDairy Topics:



Objective:

• Mortellaro is a hoof disease that can cause many losses on dairy farms. In this OG they are looking for a best pratice solution to reduce this disease

The objectives of the project are:

- To gather and combine the available knowledge on the treatment and prevention of Mortellaro into a practical and affordable protocol for the prevention of this condition.
- To explore the possibilities for innovative, alternative, ecologically and economically sound prevention methods for Mortellaro.
- To examine the influence of the mineral supply and possible prevention methods in the context of biosafety in young stock in order to draw up a protocol for young cattle



- To collect methods for curing this condition and to collect and disseminate information about this.
- Knowledge exchange and discussions leading to a general consensus on both the prevention and the cure of this condition with respect for the environment.
- Carrying out a cost-benefit analysis of existing and alternative possibilities to tackle Mortellaro.

Website: http://leden.inagro.be/Wie-is-Inagro/Projecten/project/15134

Coordinator name and contact: Inagro, Canniere Evi, evi.canniere@inagro.be

Partners:

- Inagro
- •Universiteit Gent

Funding Organisations:



Vetrenary
Dierengez

- •Dierengezondheidszorg Vlaanderen
- •5 Dairy Farmers

Europees Landbouwfonds voor Plattelandsontwikkeling:





Operational Group: Haalbaarheid van het opstellen van een bedrijfsstikstofbalans op een melkveebedrijf met het oog op het reduceren van ammoniakemissies – Company Nitrogen Balance

Start and finish date: 1/09/2016 - 31/08/2018

Location : Belgium, Flanders



EuroDairy Topics



Objective:

The project 'Bedrijfsstikstofbalans' or 'company nitrogen balance' is an European Innovation Partnership (EIP) project. In an EIP the operational groups (OG) are crucial. The members of the OG are farmers, researchers and if needed some extra stakeholders. They work together to find a solution for a problem reported by the farmers themselves. In this project we look at the feasibility of the development of a nitrogen balance on a dairy farm and the possibility to use it as an official measurement to reduce ammonia emissions.



Website: www.innovatiesteunpunt.be

Coordinator name and contact: <u>hanne.leirs@innovatiesteunpunt.be</u>

Partners:

- Inagro
- ILVO
- Hooibeekhoeve
- Boerenbond
- Peeters lv
- Oostvogels Cis
- LV Den Hamer
- AVEVE

Funding Organisations:

Europees Landbouwfonds voor Plattelandsontwikkeling:





Operational Group: Milk Trading Company (MTC)

Start and finish date: 15/7/17 - 31/12/18



Objective:

• The establishment of the Milk Trading Company (MTC), DLV seeks to develop a partnership with dairy farmers. The goal is to generate higher and more stable financial margins, using market information on the sale price for milk and the cost of feed inputs;

Hoog tijd om aan risicomanagement te doen!

• The MTC will use different tools, such as the futures market, contracts with customers, price guarantee certificates and margin insurance.

Website: https://www.youtube.com/watch?v=pjyydq- rmo

Coordinator name and contact: Milk Trading Company - info@dlv.be

Partners:

- Milk Trading Company
- Universiteit Wageningen
- DLV (United Experts)
- Vital Nutrition

Funding Organisations:



Europees Landbouwfonds voor Plattelandsontwikkeling:





Operational Group: Pocketboer

Start and finish date: 1/7/17 - 30/6/19

Location : Belgium, Flanders



EuroDairy Topics



Objective:

The aim is to significantly increase the share of installations that run well in Flanders. An operator can lose 22,000 euros per year if his installation does not run smoothly. It is therefore of great importance for the profitability of the installation that the energy from the manure on these farms is used as optimally as possible. The ecological aspect also benefits from this. Pocket fermentation could be an interesting measure to also address greenhouse gas emissions in the storage of manure. Farmers and knowledge partners join forces to give a new boost to pocket fermentation at existing plants.



Coordinator name and contact: <u>bart.ryckaert@inagro.be</u>

Partners:

- Inagro
- Boerenbod
- Innovatiesteunpnt
- Hooibeekhoeve
- Innolab
- 31 pocketboeren

Funding Organisations:



Europees Landbouwfonds voor Plattelandsontwikkeling: Europa investeert

in zijn platteland





Operational Group: Smart Weeding, Organic Feeding

Start and finish date: 1/7/17 - 30/6/19

Location : Belgium, Flanders



EuroDairy Topics

Resource Efficiency Socio-economic Resilience

Objective:

The growers in the operational group must decide on the effectiveness of their weed control for the future. Individually, the investment in modern weeding technology is not feasible and only a basic mechanism is possible. Through mutual cooperation they may be able to gain access to a modern machine park for mechanical weed control with more impact and higher performance as a result. This is the goal of this operational group. In parallel, the relevant machines are mapped out and potential forms of cooperation are tested. Through a demonstration day, the experiences are shared with the general public.



Website: http://www.ccbt.be/?q=node/3287

Coordinator name and contact: Lieven Delanote, <u>Lieven.delanote@inagro.be</u> Johan Devreese, <u>johan.devreese123@gmail.com</u>

Partners:

- •3 dairy farmers
- •1 organic dairy farmer
- •2 horticulturist
- •1 consultant
- •1 constructor of weeding machines
- •3 suppliers of weeding machines

Funding Organisations:

Europees Landbouwfonds voor Plattelandsontwikkeling:





Operational Group: VEGCAT

Start and finish date: 1/9/17 - 30/8/19

Location : Belgium, Flanders



EuroDairy Topics



Objective:

The goal of the project is to enhance the collaboration between dairy farmers and horticulture and so improve economic sustainability.

Website: <u>www.ilvo.be</u>

Coordinator name and contact: ILVO, Sam Decampeneere

Partners:

- Inagro
- Ingro
- Universiteit Gent
- 2 groentetelers
- 1 melkveehouder
- 1 rundveehouder
- Boerenbond
- 2 constructeurs van oOperational Groupstmachines
- 1 constructeur fermentatie-installatie

Funding Organisations:



Europees Landbouwfonds voor Plattelandsontwikkeling:





Operational Group: EuroMaito [EuroMilk] project

Start and finish date: 1.1.2017 - 31.12.2018

Location : Finland



EuroDairy Topics







Resource Efficiency

Biodiversity Animal Care

Objective:

- Develop competitive strength and profitability of dairy farms in Finland •
- Knowledge transfer between farmers, researchers, advisors and education
- To observe and test good practices in milk production at practical level •
- Measure resource efficiency of pilot farms in different levels and ways •
 - Forage yields -
 - Production costs of silage _
 - Overall economy of farm
 - Gate balances
- Assess animal welfare of pilot farms using welfare quality protocol
- Assess biodiversity levels of pilot farms

Website: http://euromaito.savonia.fi/

Coordinator name and contact:

Natural Resources Institute Finland (Luke), sari.kajava@luke.fi

Partners:

Savonia University of Applied Sciences and ProAgria Rural Advisory Services

Number of farms:

12 pilot farms

Funding Organisations:



The European Agricultural Fund for Rural Development: Europe investing in rural areas













Operational Group: BioRaEE

Start and finish date: 1-3-2017 to 31-11-2019



EuroDairy Topics



Objective:

- What kind of expectations farmers have on recycled fertilizers? The farmer perceptions will be compared to perceptions of fertilizer producers. What are the bottlenecks limiting the use of recycled fertilizers?
- What are the environmental impacts and profitability of processed digestates compared to mineral fertilizers, slurry and un-processed digestates? These alternative fertilizers will be compared in field tests on greenhouse cucumbers, cereal and grass.
- The aim is to encourage collaboration across farmers, researchers and biogas producers.



Website: http://www.syke.fi/fi-FI/BioRaEE/Hankkeen esittely

Coordinator name and contact: Tanja Myllyviita, Finnish environment institute, tanja.myllyviita@ymparisto.fi

Partners: Natural Resources Institute Finland (Luke), Biokymppi Oy, Karelia University of Applied Sciences

Number of farms: Several farms provide manure for biogas production.

Funding Organisations:



The European Agricultural Fund for Rural Development: Europe investing in rural areas



Operational Group: Kuvaa Nautaa – Lämpökuvaus nautojen hoidon tukena [Thermal Imaging of Cattle] project

Start and finish date: 8.1.2018 - 31.12.2020

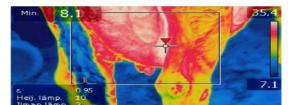


EuroDairy Topics



Background:

Thermal imaging cameras can be used to detect various common health issues of cattle. Thermal imaging can reveal infection in its early stages even before more visible symptoms are developed. Early detection makes early treatment possible, which means healthier cows and less money spent. However, the use of this technology is limited by the lack of practiceoriented information.



Objectives:

The objective of Kuvaa Nautaa project is to develop a comprehensive information package on the use of infrared thermography in cattle health care. These practical instructions are designed for farmers as well as for veterinarians, hoof trimmers, agricultural experts and other stakeholders.

Method:

- Kuvaa Nautaa project is carried out in close cooperation with farmers and other stakeholders
- Thermal cameras are first tested in experimental farms and then farmers test thermal imaging in their everyday work
- Instructions are based on the practical needs and feedback received from farmers and they include:
 - Recommended equipment
 - Information about how and when thermal imaging can be used
 - Interpretation of thermal images
- Farmers test and improve the instructions
- Our recommendations and findings are published in our website

Website: kuna.savonia.fi

Coordinator name and contact:

Savonia University of Applied Sciences, Salla Ruuska salla.ruuska@savonia.fi

Partners: Natural Resources Institute Finland (Luke)

Number of farms: six cattle farms



The European Agricultural Fund for Rural Development: Europe investing in rural areas

Funding Organisations: European Innovation Partnership (EIP) funding



Operational Group: SMARTFEED - Smart measurements in cattle feeding and health [ÄLYREHU]

Start and finish date: 1.1.2018 - 31.8.2020

Location : Finland, Kainuu



EuroDairy Topics





Resource Efficiency Animal Care Socio-economic Resilience

Objective:

- Develop methods, tools, analytics and data transfer to create a system for monitoring silage quality, and energy and protein nutrition balance of dairy cows on-site at farms
 - Test handheld devices for monitoring nutritional value of growing grass and to support determination of optimal harvesting time for fodder
 - Develop a tool for easy silage sample collection



- Develop a quick on-farm method for determination of dry matter in silage and fodder
- Develop two electrochemical biosensor assays for analysis of nutritional markers in milk to facilitate monitoring of nutritional balance in individual cows
- Develop data transfer for measurement results to a central database
- Increase efficiency, productivity and competitiveness of the farms by reducing feeding costs and improving cow health
- Decrease the working time needed to silage sample collection and handling, and to • analysis and archiving of measurement results

Website: http://www.oulu.fi/kajaaniuniversityconsortium/smartfeed

Coordinator name and contact:

University of Oulu, Kajaani University Consortium, Unit of Measurement Technology (MITY) tuija.kallio@oulu.fi

Partners:

ProAgria Kainuu Rural Advisory Services, MTech Digital Solutions Ltd, Semes Ltd, local veterinarian

Number of farms:

8 pilot farms

Funding Organization:



The European Agricultural Fund for Rural Development: Europe investing in rural areas





Operational Group: Hauts de France

Start and finish date: December 2016 – December 2018

Location: France



EuroDairy Topics





Objective: (using keywords)

- To identify factors and systems favourable to resilience of dairy farming (social, economical and environmental factors)
- Create / adapt a tool for farmers to help manage resilience (tool to evaluate the farm's resilience)
- Identify factors for attractiveness of dairy farming to find ways to evaluate and achieve.
- Stimulate exchanges of knowledge and experience within the operational group and outside the group to disseminate EuroDairy work.



Website: http://www.hautsdefrance.chambres-agriculture.fr/techniquesproductions/elevage/eurodairy-hauts-de-france/

Coordinator name and contact:

Chambre d'agriculture Hauts-de-France

Castellan Elisabeth elisabeth.castellan@agriculture-npdc.fr

Partners:

19 participants in the OG

= farmers, dairy firms elected farmers, research (IDELE), advisers (Chambres d'agriculture, ACE, BTPL), agricultural school



Number of farms : 12 farms in total - 8 pilot farms

Funding Organisations : Conseil régional des Hauts de France





Operational Group: Résilience Lait Normandie

Start and finish date: 30/03/2016 to 31/12/2019



EuiroDairy Topics



Objective:

- Identify economic and social resilience in different systems
- Characterise measurement criterias and develop adequate measurement tools
- Communication about different actions to improve resilience



Website: https://normandie.chambres-agriculture.fr/eurodairy/

Coordinator name and contact:

Chambre régionale d'agriculture de Normandie

Catherine BAUSSON: catherine.bausson@normandie.chambagri.fr



Partners:

21 participants in the OG

= farmers, dairy firms elected farmers, research (IDELE), advisers (Chambres d'agriculture, Littoral Normand, BTPL), agricultural school









Number of farms : 6 farms in total

Funding Organisations :

Conseil régional de Normandie





Operational Group "EuroDairy – Rhône-Alpes" September 2016 to August 2018



EuroDairy Topics

Resource Efficiency Socio-economic Resilience

Context: As everywhere in the European Union, the end of the administrative management of milk volume and the volatility of the market increased the competition amongst dairy industries, dairy farms and dairy areas. The common challenge lies in the competitiveness of dairy cattle and related sectors. Rhône-Alpes region is involved in these issues.

Dairy managers and representatives are really concerned about the future of dairy farmers in the region: which system, what size, which markets for each territory... They have strongly expressed the need for foresight, comparison with other dairy regions and for solutions to adapt to the new challenges of dairy farming.

Partnership and governance (activity): As a steering committee, the "Progress and experiment council" coordinates this program and follows the tasks with its board of farmers. The technical partners lead the Operational Group and identify innovations and good practices in animal husbandry. All partners and breeders involved in this group bring their complementary points of view on them.

- Pôle d'Expérimentation et de Progrès Bovin Lait : <u>Coordinator</u>
- Rhone-Alp'Elevage (livestock association – Farmers board)
- Farmers
- FIDOCL (milk performance recording organization & technical advices)









• Centre d'Elevage de Poisy (*Training center*

• Lycée du Valentin and Cibeins (*High school*)

• Chambres d'Agriculture (technical and

Institut de l'Elevage (Idele) (advices &

strategic advices)

for farmers)

methodological supports)

FIDOCL CONSEIL ÉLEVAGE Domner du sens à la mesure

Objectives:

Through the networking of farmers, advisors and scientists, this EURODAIRY Rhône-Alpes project aims to:

- Work and exchange ideas with 20 partners from 14 EU countries and main dairy areas (meetings, methods, innovations & demonstration transfer),
- Look forward innovations and good practices from scientific and technical literature, meetings, video exchanges or identified directly on farms
- Try, practice and analyze innovative solutions to get some results, benchmarks and comparison data to develop the competitiveness of dairy farms in Rhône-Alpes region.

Number of Farms: 12 Pilot Farms

Funding Organisations: Centre d'élevage de Poisy – Poisy training center















Operational Group: "Eurel: Produción Dun Leite Competitivo Respectuoso Co Medio, Mediante A Utilización De Ferramentas De Apoio E Técnicas Para Un Uso Eficiente Dos Recursos Da Explotación Leiteira"

Start and finish date: 16/08/2017 -31/10/2019

Location: Lugo, A Coruña y Pontevedra.



EuroDairy Topics



Objective:

Sustainability, through the use efficient farm resources, which combine economic competitiveness and practices that minimize or impact resources on the quality of natural resources (soil, water and air).



- Balance the nutrients (especially N and P)
- Measure the carbon footprint
- Identify and apply the techniques used to balance the nutrients and the carbon footprint.
- Decrease emissions to the environment.
- Make good management. Reduce the purchase of mineral fertilizers and make efficient use of the organic fertilizers
- Exchange of knowledge (innovations).

Websites:

- <u>http://agaca.coop/</u>
- http://www.ciam.gal/
- <u>http://www.capcoruna.com/</u>

Coordinator name and contact:

María Rey Campos, +34 982 201 514, mrey@agaca.coop

Partners:

- Unión de Cooperativas, Asociación Galega de Cooperativas Agrarias
- Centro de Investigacións Agrarias de Mabegondo
- Cooperativa Agraria Provincial de A Coruña, S.C.G.

Number of farms: 10

Funding Organisations:

- European Union
- Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente
- Xunta de Galicia. Consellería de Medio Rural





FEADER: Europa inviste no rural



UNIÓN EUROPEA



Operational Group: Granxas de leite galegas en harmonía coa natureza e a biodiversidade agraria.

Start and finish date: June 2017- October 31, 2017

Location: Xanceda, Mesía, A Coruña. Spain



EuroDairy Topics



Objectives:

- Exchange experiences and knowledge between farms and naturalists, researchers, NGOs, engineers.
- Achieve a natural phytodepuration system in phases.
- . Define habitats and species that depend on the activity of dairy farms.
- Identify the most favorable practices for biodiversity.
- . Define indicators of good management of agricultural habits for biodiversity.
- Evaluate and compare the soil health of an organic farm with that of a conventional farm.
- Present and disseminate the results in the scientific and technical field, as well as in the fields of the agricultural sector and the European Innovation Association.

Website:

- http://agaca.coop/
- http://www.casagrandexanceda.com/

Coordinator name and contact: María Rey Campos, +34 982 201 514, mrey@agaca.coop

Partners:



SAT Casa Grande de Xanceda Estrada AC-524, Km. 41, Xanceda, Mesía 981 687 007 - www.casagrandexanceda.com

Grupo Naturalista Hábitat r/ Camariñas, nº 8, A Coruña



a: calfensa

981 13 50 14 - http://gnhabitat.org **Calfensa Proyectos**

Estrada Lugo - Sarria LU-546, Km. 2 - Santa Comba 982 305 902 - www.calfensa.com



Centro de Investigacións Agrarias de Mabegondo Estrada AC-542 de Betanzos a Mesón do Vento, km. 7,5 881 881 871 - www.ciam.gal



Unión de Cooperativas Asociación Galega de Cooperativas Agrarias

Santiago de Compostela 981 584 783 www.agaca.coop

Rúa Tomiño, nº 22, soto 1 Rúa Poeta Noriega Varela, nº 30, Rúa Bedoia, nº 7, 2º OF1 entreplanta A - Lugo 982 201 514

Ourense 988 242 481



Funding Organisations:

European Union, Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, Xunta de Galicia.

Consellería de Medio Rural





XUNTA DE GALICIA CONSELLERÍA DO MEDIO RURAL





Operational Group: Optimising use of farm organic amendments in agriculture

January 2018 to December 2019



EuroDairy Topics



Keywords : nutrient recycling, organic residues, crops.

Objectives :

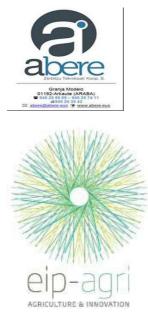
Setting- up collective manure management in which the exceeeidng slurry from 7 dairy farms is stored in a big slurry pit with floating cover

This storage will guarentee organis fertiliser availability to crop fields when required. Fertilisation will take place under fertilising programmes, thus, decreasing environmental impact. Also the system effect on GHG emissions will be evaluated using farm gate modelling approach.

Coordinator : Lurdes Nafarrate

Partners : 7 Farmers, 8 Agricultural farmers, ABERE, NEIKER

Funding Organisations:





CUMA ALBINA S, COOP C.I.F: F-01268028 B' Olaeta ARAMAIO -ARABA



Unión Europeo Agrícola Fondo Europeo Agrícola de Desarrollo Rural Europe invierte en las zonas rurales





Optimized pasture management – Smart grazing

Start date 1st of June 2015 Finish date: 31st of May 2018



EuroDairy Topics







Resource efficiency Biodiversity Animal Care

Objective:

The overall objective of the OG is to gather the performance potential of pasture in terms of yield and quality in the main landscape-types of Schleswig Holstein.

From this measured data, a model "smart grazing" (a forecasting tool) should be developed that is able to operate in conjunction with the predictions of the German

Meteorological Service to provide real – time data on current growth rates and feed guality parameters on a high technical

level (mobile app) and, together with pilot-farms, identify landscape type-specific problems of grazing and provide solutions for these.

Website: http://www.eip-agrar-sh.de/en/eip-innovationprojects/ Coordinator

name and contact:

Prof. Dr. Friedhelm Taube, University of Kiel, DE-24118 Kiel Tel.:

0049431-8802134, ftaube@gfo.uni-kiel.de

Funding Organisations:



Partners:

Lead Partner: University of Kiel, Institut für Pflanzenbau und Pflanzenzüchtung Hermann-Rodewald-Str. 9, DE-24118 Kiel (Research organisation)

Participating Farmers: Henrik, Butenschön Nico, Hellerich Hans Möller, Klaus Groenewold Bert, Riecken

Private company from the agricultural sector: Seed company: Norddeutsche Pflanzenzucht - Dr. **Bernhard Ingwersen**

Research and research transfer centers: Landwirtschaftskammer SH - Dr. Matthis Müller Kompetenzzentrum Milch - Nadine Schnipkoweit

Thünen Institut für ökologischen Landbau- Dr. Kerstin Barth Advisory centers:

Grundwasserschutzberatung Nord - Dr. Heidi Schröder VRS Steinburg e.V. - Alexandra Becker LLUR, Flintbek - Sabine Rosenbaum Non profit organisations: Deutscher Verband für Landschaftspflege - Dr. Helge Neumann





Operational Group: Development of an innovative, technology-based analysis tool to facilitate animal-friendly milking

Start date 1st of June 2015 Finish date: 31st of May 2018



EuroDairy Topics



Objective: The optimal adjustment and regular review of the function, setting and equipment of milking systems and knowledge about their effect on udder health and milk production have a direct impact on the welfare and health of animals.

The project is focused on developing and evaluating a sound analysis tool to support farmers in identifying the weaknesses of milking systems. The OG's (operational group) goal is to develop an innovative, technology-based analysis tool (electronic analysis tool, e.g. for smartphones or iPads) to highlight weaknesses in

milking systems through a bottom-up process, in conjunction with those involved in the OG. This can then be used by everyone to comprehensively assess milking systems, produce a weakness analysis and use this to derive practical measures for action that can be implemented directly. The analysis tool is to enable standardized, practical data acquisition and also to support the farmer in the interpretation and evaluation of the assessed milking system

Coordinator name and contact: Prof. Dr. Eberhard Hartung, University of Kiel, DE-24118 Kiel Tel.: 0049431-8802107, <u>ehartung@ilv.uni-kiel.de</u>

Lead Partner: Forschungs- und Entwicklungszentrum Fachhochschule Kiel GmbH Schwentinestr. 24, DE 24149 Kiel, Björn Lehmann-Matthaei Tel: 0049 431-2184444, <u>lehmann-matthaei@fh-kiel-gmbh.de</u>

Participating Farmers: Christian Pahl Mathias Melfsen Frederik Robert Lutze Gut Dummerstorf

Research and research transfer centers: University of Kiel, Institut Landwirtschaftliche Verfahrenstechnik - Prof. Dr. Eberhard Hartung, University of applied Science Kiel, FB Agrarwirtschaft - Prof. Dr. Urban Hellmuth, Thünen Institut für ökologischen Landbau- Dr. Hans Marten Paulsen

Advisory centers: Landwirtschaftskammer Niedersachsen - Dr. Michael Hubal Landwirtschaftskammer NRW - Andreas Pelzer

Non profit organisations: Landeskontrollverband Schleswig-Holstein e.V. (LKVS.-H.), Kiel- Hergen Rowehl

Funding Organisations:





Grassland Nutrient Management Start date 1st of June 2015 Finish date: 31st of May 2018



EuroDairy Topics



Resource Efficiency Biodiversity

Objective: Due to competition for land and because of legal conditions which serve environment protection, innovations in grassland farming are needed. Nutrient management plays a major role in this. ThereforE the aim of this project is to develop innovative, locally adapted management strategies for an optimized nutrient management in grassland of Northern Germany (Schleswig-Holstein). For this purpose data is collected on the project's pilot farms under practical conditions. The pilot farms are located in typical grassland areas of the country. The collected data includes information about soil nutrient values, grass



growth patterns and sward condition. Exact scientific tests will accompany these surveys.

At the end of the project period the Operational Group will perform a weak spot analysis in order to develop a tool for decision support for grassland farms. Website: http://www.eip-agrar-sh.de/en/eip-innovationprojects/

Coordinator name and contact: Prof. Dr. Conrad Wiermann, University of applied science Kiel, DE-24783 Osterrönfeld, Tel.: 00 49 4331-845130, conrad.wiermann@fh-kiel.de

Lead Partner:

Landwirtschaftskammer SH - Dr. Mathis Müller Grüner Kamp 15-17 DE-24768 Rendsburg 0049 4331-9453300, mmueller@lksh.de

Participating Farmers: Heiko Reiher Hans Eggert Rohwer Olaf Oldach Christof Kirst Henning Gnutzmann Kirsten Wosnitza Ose Jensen Ferdinand Feddersen Lorenz Carstensen Florian Sachau

Research institution and research transfer centers: University of Kiel, Institut für Pflanzenbau und Pflanzenzüchtung Prof. Dr. F. Taube Hermann-Rodewald-Str. 9, DE-24118 Kiel University of applied science Kiel, Prof. Dr. Conrad Wiermann Am Kamp 11, DE-24783 Osterrönfeld

Advisory centers: Agrarberatung Mitte - Erika Selck Landberatung Mitte - Ute Hebbeln Agrarberatung Nord e.V. Jan Hinnerk Alberti Funding Organisations:



Landesprogramm ländlicher Raum: Gefördert durch die Europäische Union - Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums (ELER) und das Land Schleswig-Holstein Hier investiert Europa in die ländlichen Gebiete





Sustainable Innovations in Agricultural Construction

Start date 1st of June 2015 Finish date: 31st of May 2018



EuroDairy Topics

Animal Care Socio-economic Resilience



Objective: The process of intensive planning is based on assessment criteria and sub-criteria for sustainable animal housing systems, which were only applied in an elective module in the department agricultural studies at the University of Applied Science Kiel. Novel ideas for animal housing systems should be assessed in practice to ecological, economic and social sustainability already during the planning phase.

The aim of the OG ' InnoBau ' is to support sustainable innovation in agricultural construction with a new, systematic decision-making process. For this, the group develop and test with participating companies from Schleswig-Holstein, Germany, a tool for a systematic planning management, which is suitable in practice.

Coordinator name and contact: Prof. Dr. Urban Hellmuth, University of applied science Kiel, DE-24783 Osterrönfeld

Tel.: 00 49 4331-845140, urban.hellmuth@fh-kiel.de

Lead Partner: Forschungs- und Entwicklungszentrum Fachhochschule Kiel GmbH Schwentinestr. 24, DE 24149 Kiel, Björn Lehmann-Matthaei Tel: 0049 431-2184444, <u>lehmann-matthaei@fh-kiel-gmbh.de</u>

Participating Farmers: Ernst Metzger-Petersen, Harald und Yannick Rzehak Dirk Kock-Rohwer, Thomas Scharmer und Frank Scholz Jens Olufs, Jörg Riecken

Research and research transfer centers:

University of Kiel, Institut Landwirtschaftliche Verfahrenstechnik - Prof. Dr. Eberhard Hartung University of applied Science Kiel, FB Agrarwirtschaft - Prof. Dr. Urban Hellmuth Prof. Dr. Yves Reckleben Prof. Dr. Stefan Krüger

Non profit organisations:

Arbeitsgemeinschaft Landtechnik und Bauwesen SH e.V. Prof. Dr. Urban Hellmuth

Funding Organisations :







Sustainable N efficient GMO-free feeding on dairy farms in Schleswig-Holstein

Start date 1st of June 2015 Finish date: 31st of May 2018



EuroDairy Topics





Resource efficiency Animal Care Socio-economic Resillience

Objective: The feeding of Schleswig-Holstein dairy cows is constantly calculated and optimized by specialized advisors and experts of feed suppliers. A question that arises when implementing diets with reduced protein content but not yet answered and analyzed is: How much protein requires the dairy cow really or how can we make the feeding more Nefficient?



The OG Milk - feed & feeding aims with the innovation project to

contribute to the efficient use of protein feed for dairy cows. The reduction of protein content in the total ration leads to decreased nitrogen excretion via the liquid manure and therefore to a reduction of nitrate loads from animal excrement into the environment. Of this project should also increasingly come from native production to guarantee a GMO-free feeding for the consumers.

Website: http://www.eip-agrar-sh.de/en/eip-innovationprojects/

Coordinator name and contact: Prof. Dr. Georg Thaller, University of Kiel, DE-24118 Kiel Tel.: 0049431-8807329, gthaller@tierzucht.uni-kiel.de

Lead Partner: University of Kiel, Institut für Tierzucht und Tierhaltung Hermann-Rodewald-Str. 6, DE-

24118 Kiel (Research organisation)

Participating Farmers: Dirk Richelsen Joachim Schoof

Private company from the agricultural sector: ATR Landhandel - Helmut Pförtner

DLG Danmark - Marie Løvendahl Raun HaGe Kiel - Stefan Neumann und Stefan Plähn

Research and research transfer centers: Landwirtschaftskammer SH - Dr. Johannes Thaysen Kompetenzzentrum Milch - Nadine Schnipkoweit

Advisory centers: Agrarberatung Nord - Uwe Bäumer Agrarberatung Mitte - Thomas Bahr

Non profit organisations: Bundesverband Deutscher Milchviehhalter – Kirsten Wosnitza

Funding Organisations :





Operational Group: Organic, 100-400 cows

Start and finish date: 171201-181231

Location : Sweden



EuroDairy Topics

Efficiency Animal Ca



Resource Efficiency Animal Care Socio-economic Resilience

Objective:

 EDF ; expansion possibilities ; times aving operations ; organic production

Coordinator name and contact: Pernilla Salevid

Number of farms: 7 farms

Funding Organisations: Jordbruksverket, LRF, LRF Konsult, Växa











Operational Group: Organic and non organic, 40-140 cows, milking robots

Start and finish date: 171201-181231



EuroDairy Topics



Resource Efficiency Animal Care Socio-economic Resilience

Objective:

EDF ; expansion possibilities ; timesaving operations (lean)

Coordinator name and contact: Pernilla Salevid

Number of farms: 6 farms

Funding Organisations: Jordbruksverket, LRF, LRF Konsult, Växa





Operational Group: Big dairy farms, about 400 cows

Start and finish date: 171201-181231

Location : Sweden



EuroDairy Topics



Objective :

EDF ; expansion possibilities ; timesaving operations ; enviroment issus that make differens for cow comfort and production volume

Coordinator name and contact: Pernilla Salevid

Number of farms: 8 farms

Funding Organisations: Jordbruksverket, LRF, LRF Konsult, Växa

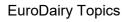




Operational Group: Starting entrepreneurs

Start and Finish date: January 2017 – April 2019

Location : 12 dairy farmers across Brabant







Objective: This group gets better insight in their dairy management via OPTIcow, a dashboard that ZLTO developed. This dashboard is combining economic and technical figures. Beside that the most important topics of this group are new animal care aspects, low



antibiotic use and technologies around animal care to detect diseases in an early stage.

Website:	-
Coordinator:	Janine Roemen, ZLTO
Contact:	yvonne.daandels@zlto.nl
Partners:	11 dairy farmers that are members from ZLTO
Funding Organisations:	LIB, ZLTO and participating farmers



Operational Group: Young farmers study group

Start and Finish date: January 2017 – April 2019

Location : 12 dairy farmers across Brabant



EuroDairy Topics



Objective:This group gets better insight in their dairy
management via OPTIcow, a dashboard that ZLTO
developed. This dashboard is combining economic
and technical figures. Beside that the most important
topics of this group are new animal care aspects, low
antibiotic use and technologies around animal care
to detect diseases in an early stage.Website:-Coordinator:Janine Roemen, ZLTOContact:yvonne.daandels@zlto.nlPartners:12 dairy farmers that are members from ZLTO

Funding Organisations: LIB, ZLTO and participating farmers



Operational Group: Free walk barns 2.0

Start and finish date: 2012 – April 2018 EuroDairy

Location: 15 dairy farmers across the Netherlands

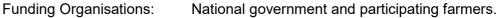
EuroDairy Topics







Objective:	A so called free walk barn for dairy cows is characterized by no cubicles, an alternative floor instead of concrete and more square meters per cow for lying and moving. Participating dairy farmers in this group want to further improve this innovative system especially regarding the organic bedding materials and management. Animal health, especially claws, udder health and fertility are monitored as the main objective is to increase longevity (how long a cow stays in the herd).
Website:	www.vrijloopstallen.nl
Coordinator:	Bram den Hollander, IDV-advisory.
Contact:	In Dutch <u>bram@idv-advies.nl</u> or in English:
	koops@zuivelnl.org
Partners:	15 dairy farmers in cooperation with a supplier of roof material and research.
	Executed by IDV-advisory.







Operational Group: **Circular Dairy** – Achterhoek/Liemers Start and finish date: January 2014 – December 2019 EuroDairy Topics: Resource Efficiency Location: 250 dairy farms in the eastern part of the Netherlands Number of EuroDairy pilot farms: 2





Photo: Vruchtbare Kringloop Achterhoek/Liemers

Objective: A regional positioning of a sustainable Agricultural area by:

- Improving nutrient use efficiency at farm and regional level
- Improving soil fertility and water use efficiency
- Knowledge exchange
- Multi-actor approach

Website: http://vruchtbarekringloopachterhoek.nl

Coordinator name and contact:Carel de Vries – <u>devriesprojectregie@planet.nl</u>Coordinator for EuroDairy:Johan Temmink – <u>johan.temmink@forfarmers.eu</u>

Partners: LTO Noord, ForFarmers, FrieslandCampina, Rabobank, Waterschap Rijn en IJssel, Vitens.

Funding Organisations:





Operational Group: Robot milking

Start and Finish date: January 2017 – April 2019 EuroDairy

Topics: Socio-economic Resilience

Location: 14 dairy farmers across Brabant





Objective:

This group is working on better insight in technical and economic performance, and monitoring individual cow management to improve this. Beside that this group is looking for high tech welfare tools, robotics (SensOor) and technologies around farming and work efficiency.

Website: Coordinator: Contact: Partners:

Tim van Houtum, ZLTO yvonne.daandels@zlto.nl 14 dairy farmers that are members from ZLTO Funding Organisations: LIB, ZLTO and participating farmers



Operational Group: Farmer Action Groups - reducing reliance on antimicrobials

Start and finish date: 8th February 2016 – 28th February 2019

Location : Dolberry Building, Bristol Vet School, Faculty of Health Sciences, University of Bristol, BS40 5DU



EuroDairy Topics :



Objective:

- To establish and follow the progress of 5 Farmer Action Groups across the South West of England as they co-create a series of Action Plans to reduce their need and usage of antimicrobials on farm.
- To understand the barriers and drivers for this sort of participatory project, and how applicable it could be for policy making in this area.
- Approximately 35 further meetings to be held to follow up on the farmer-led Action Plans, and to measure and assess how effective they have been in creating real on-farm change (Has there been a reduction in antibiotic use? Has the herd health improved?).
- Plans are in process to hold a farmer away-day at Bristol Veterinary School to discuss results from the project, and inform policy makers on tacking antimicrobial use.

Website & Newsletters:

http://www.agricology.co.uk/farmer-led-policy-leading-way-reducing-antibiotic-use-farm

https://www.fginsight.com/vip/vip/can-we-learn-to-farm-without-antibiotics-16178

http://www.bristol.ac.uk/vetscience/people/lisa-c-morgans/index.html

Coordinator name and contact: The project coordinator, Lisa Morgans BVSc MRCVS, is studying for a PhD supervised by Professor D.C.J. Main and Dr K.Reyher at the University of Bristol.

Partners: 5 farmer action groups & University of Bristol

Number of farms: 33 Farmers

Funding Organisations (names and logo): AHDB Dairy and The Langford Trust







Operational Group: Dairy lean management

Start and finish date: 1/4/2018 - 31/12/2020

Location : Reaseheath College, Nantwich, Cheshire, CW5 6DF Babridge Poole Vorteston Vorteston Crewe Grewe G

Objective:

To develop and trial ategrated data management system and test its ability to effectively support the implementation of LEAN management on pilot farms. The aim is for the software to store, in one place, all the data required to manage production from planning to sales, and provide reports on progress against targets in real time, resulting in improved economic performance. Through the inclusion of environmental KPI's in the system, the project will demonstrate to the wider dairy industry how production and sustainability can be planned for and delivered simultaneously.

Website: www.reaseheath.ac.uk

Coordinator name and contact: Annette McDonald AnnetteM@reaseheath.ac.uk

Partners: Nine Dairy Farmers, Reaseheath College, IT Software Consultants, Independent Dairy Lean Expert, Agriculture and Horticulture Development Board (AHDB)

Project supporters: National Farmers Union (NFU), Natural Resources Wales (NRW), Natural England, DEFRA, Keele University.

Funding Organisation(s): Rural Development Programme for England (RDPE)





Operational Group: Benchmarking and reducing the use of antibiotics on farms

January 2018 to December 2019



EuroDairy Topics



Objective: The overall objective of the project is to by December 2020 develop, evaluate and implement on several farms a veterinary medicine recording and benchmarking system at farm and individual animal level integrated with quality assurance. Risk assessments related to two areas where antibiotic use is common will be developed, complete with step through decision support tools suitable for both farmer and veterinary practitioner with the impact of implementation quantified.

The outcome of the project will be a ready to implement system, with quantifiable financial and animal health benefits that would enable NI agriculture to respond to concerns over antibiotics use in food producing animals.

Impact of the system if then rolled out to NI

- Reduce incidence of animal ill health leading to less antibiotic use delivered through a better understanding of antibiotic use and development of strategies to more strategically use antibiotics in conjunction with health plans and risk.
- Increased marketability in local and international markets. Use of antibiotics in production of food for human consumption is of growing concern. Having a robust system in place, particularly considering potential Brexit impacts enables NI to monitor/review and provide assurance of responsible antibiotic use. A must have to remain competitive and deliver on UK and EU antibiotic use targets.

Enhance produce confidence. By conveying the fact that at an NI level we robustly monitor antibiotic use at farm and animal level, producer confidence can be built in the supply chain helping drive the consumption of locally produced food

Detailed Objectives:

- 1. Develop prototype system to capture and monitor antibiotic use at farm level for potential integration into livestock assurance schemes
- 2. Design, after reviewing international practices and stakeholder discussion, a practical veterinary medicine benchmarking system for dairy, beef and sheep farmers.
- 3. Deploy, test and refine benchmarking system with several commercial farms and veterinary practices.
- 4. Design and test potential smart systems to capture antibiotic and vaccine use at an animal level with minimal producer input
- 5. Develop, implement and review the impact of risk assessments and decision support tools related to dry cow therapy and calf rearing on pilot livestock farms. Quantify the impact in terms of antibiotic use, animal health and financial returns.
- 6. Develop a user-friendly decision support/risk assessment package to target the two specific case study areas that could be rolled out within the supply chain



Website: <u>http://www.agrisearch.org/dairy/ongoing-dairy/animal- health-and-welfare-dairy/433-stamp</u>

Coordinator name and contact: Jason Rankin jason@agrisarch.org

Partners: AgriSearch, Agri-Food & Biosciences Institute, Vet Farm Systems Ltd, Animal Health and Welfare Northern Ireland, Northern Ireland Beef and Lamb Farm Quality Assurance Scheme

Number of farms: multiple (exact numbers to be confirmed) Funding Organisations

Department of Agriculture Environment and Rural Affairs for Northern Ireland (via the Research Challenge Fund)

AgriSearch (The Northern Ireland Agricultural Research and Development Council)





Operational Group: Livestock effluents: strategic approach towards agronomic and energetic valorization of flows in the farming activity

Start and finish date: 02/01/2018 - 31/12/2020



Objective:

- Valorize livestock effluents as a resource, focusing on the production and integrated management of the different flows generated;
- Optimize effluents use as secondary raw materials, recovering energy and nutrients, improving farm nutrient balances and promoting sustainable management.

Website: Not available yet

Coordinator name and contact: Olga Moreira (email: olga.moreira@iniav.pt)

Partners:

- Instituto Nacional de Investigação Agrária e Veterinária
- Instituto Superior de Agronomia
- Universidade de Trás os Montes e Alto Douro
- Universidade de Évora
- Associação Portuguesa de Criadores da Raça Frísia
- Associação Portuguesa dos Industriais de Alimentos Compostos para Animais
- Federação Portuguesa das Associações de Suinicultores
- CAMPOAVES
- VALORGADO
- ALIRAÇÕES
- TTerra-Engenharia e Ambiente, Lda.
- Leal & Soares, SA
- Ingredient Odyssey

Number of farms: 2 farms

Funding Organisations :







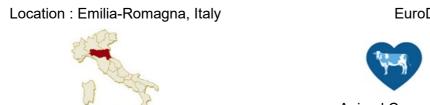
UNIÃO EUROPEIA

Fundo Europeu Agrícola de Desenvolvimento Rural A Europa Investe nas Zonas Rurais



Operational Group: Compost barn for dairy cows in the Parmigiano-Reggiano district: an innovative and sustainable housing system and an alternative to cubicles

Start and finish date: June 2016 - May 2019



EuroDairy Topics



Animal Care Resource Efficiency

Objective:

- Evidence positive and negative aspects of using a Compost barn as cow housing system in the reality of Parmigiano Reggiano cheese
- Provide possible typologies of compost barns which are compatible with the climate of the Po Valley and with the predominant housing systems in the Parmigiano-Reggiano district
- Improve animal welfare, working environment of employees and improve the economic performance of dairy cattle farms

Website: http://compostbarn.crpa.it/

Coordinator name and contact: Matteo Barbari - matteo.barbari@unifi.it

Partners: Fondazione CRPA Studi Ricerche, University of Florence – GESAAF,

Regional Association of Stockbreeders of Emilia-Romagna – ARAER, Azienda Agricola Ceinar Paolo, Biogold Azienda Agricola Biologica, Società Agricola Arca, Società Agricola La Valle di Bandini Paolo e Andrea, Società Agricola Ozzanello di Bricoli e Giarelli, Azienda Agricola Iris, Azienda Agricola Arcobaleno, Research Centre on Animal Production – CRPA spa.

Number of farms: 7

Funding Organisations : EU and Emilia-Romagna Region

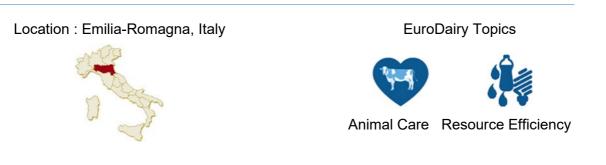






Operational Group: Dairy cow farming in Parmigiano Reggiano cheese area: innovation and tradition for a sustainable farming and for high quality product

Start and finish date: June 2016 - May 2019



Objective:

- Develop new dairy products linked to the values of the feed system and the animal welfare
- Re-orienting cow longevity working on a better equilibrated feed ration more based on forages
- reduce production peaks and the

antibiotic use Website:

http://www.lattemilia.com

Coordinator name and contact: Luisa Antonella Volpelli - luisaantonella.volpelli@unimore.it

Partners: Lattemilia, University of Bologna, University of Parma, Research Centre on Animal Production – C.R.P.A. spa, CREA, Fondazione CRPA Studi Ricerche, Montanari & Gruzza, Latteria Sociale San Giovanni della Fossa, Latteria Sociale Paverazzi, CILA, Stalla Sociale San Martino, Stalla Sociale Rinascita, Azienda Agricola F.Ili Rossi, Caseificio Pascoli Alti, Azienda Agricola Dall'Aglio

Number of farms: 9

Funding Organisations: EU and Emilia-Romagna Region





Operational Group: Happy milk, a decision support system to improve the efficiency of dairy farms in the Parmigiano-Reggiano district

Start and finish date: July 2016 - June 2018

Location : Emilia-Romagna, Italy



EuroDairy Topics





Animal Care Resource Efficiency Socio-economic Resilience

Objective:

- Improve the efficiency of the dairy farms in the Parmigiano-Reggiano district by developping a decision support system (DSS), based on the modernization of dairy farms, animal welfare, management and hygienic and sanitary parameters
- Design a diagnostic tool and warning system for the main indicators of farm efficiency





Coordinator name and contact: Paolo Rossi - p.rossi@crpa.it

Partners: Fondazione CRPA Studi Ricerche, Research Centre on Animal Production – CRPA spa, PROGEO Società Cooperativa Agricola, Società Cooperativa Agricola La Vittoria, Società Cooperativa Agricola Stalla Sociale Piazzola di Bibbiano, Società Cooperativa Agricola CAPA, Società Agricola Favali Gianbattista e Mercati Gabriella, Società Agricola Grasselli Giuseppe & Figli, Azienda Agricola Devid-Martyn, Società Agricola Le Boccede, Azienda Agricola Walter Giansoldati, Società Agricola Monte Argento, Azienda Agricola Toni Pellegrino.

Number of farms: 10





Operational Group: Improvement of forage systems in support of the production of pdo Parmigiano Reggiano Cheese "Product of the Mountain" in the valleys of the Apennine area of Tassobbio river

Start and finish date: September 2016 - July 2019

Location: Emilia-Romagna, Italy

EuroDairy Topics :









Biodiversity Spcio-economic Resilience Resource Efficiency

Objective:

- Improve the feed management of dairy cows for Parmigiano Reggiano farms
- Get the most nutritional value from the forages included in the ration
- Support the production of milk for farms that have already embarked on a path of exploitation of their Parmigiano-Reggiano cheese Mountain product, but need to strengthen agricultural and livestock production

Website: http://latteriasangiorgio.crpa.it



Partners: Latteria Sociale San Giorgio di Cortogno, Cooperativa Agricola Santa Lucia, Azienda Agricola Strada, Azienda Agricola II Ponte, Azienda Agricola NASI, Research Centre on Animal Production – CRPA spa, Fondazione CRPA Studi Ricerche

Number of farms: 10









Operational Group: Economic and environmental metabolic model as a tool for future sustainable dairy farms for Parmigiano Reggiano cheese

Start and finish date: July 2016 – June 2018

Location: Emilia-Romagna, Italy



EuroDairy Topics:





Animal Care Resource efficiency Socio-economic Resilience

Objective:

- Application of the metabolic model and analysis to a farm of Parmigiano Reggiano district conceived as a living being
- Assess the economic and environmental performance (carbon footprint, water foot print and energy consumption) and identifie the production phases with the highest cost and environmental impact
- Identify cost-effective practices to mitigate the environmental impact in terms of GHG emissions, energy consumption and water use

Website: http://modellometabolico.crpa.it

Coordinator name and contact: Carlo Bisaglia – carlo.bisaglia@crea.gov.it

Partners: Research Centre on Animal Production - CRPA spa, CRA - Unità di ricerca per l'ingegneria agraria - CREA- ING, Società Agricola Bastardi F.lli Enzo e Villiam, Società Cooperativa Agricola Stalla Sociale Piazzola di Bibbiano, Azienda Agricola Simonazzi Aurelio, Ernesto e Landini Mirte S.S

Number of farms: 3







Operational Group: Development of a livestock model of the agro-silvopastoral biodiversity

Start and finish date: Dicember 2017 – November 2010

Location : Emilia-Romagna, Italy



EuroDairy Topics





Biodiversity Resource efficiency

Objective:

- Identify a biodiversity measurement method suitable for different farming conditions
- Assessing the externalities of biodiversity related ecosystem services
- Create a computer support available on the web to allow to other farms the assessment of biodiversity in an autonomous, simple and rapid way (self assessment)

Coordinator name and contact: Aldo Dal Prà – a.dalpra@crpa.it



Partners: Research Centre on Animal production - C.R.P.A. spa, Azienda Agricola Del Gigante di Valcavi Daniele, Azienda Agricola Iris di Avanzini Umberto Davide Iris e Cecchi Carolina Società Agricola, Horta srl

Number of farms: 2





Operational Group: FreeWalk housing systems for dairy cows

Start and finish date: 01 June 2017 to 31 May 2020



EuroDairy Topics



5. :11

Resource Efficiency Animal Care Socio-economic Resilience

Objective:

- To research and further develop free walk cattle farming systems that improve animal welfare, longevity and manure quality,
- Increase capital efficiency, while adressing environmental impacts.
- This system is expected to improve the social and economic resilience of farming.

Innovations:

- Housing like in meadow animal welfare and health, society perception
- Composted material as bedding re-using and as soil improver
- Combination of housing and grazing
- Diversification / eco-farming utilization housing facility and bedding material in summer for plant growing or for pigs / poultry ...

Website: www.freewalk.eu

Coordinator name and contact:

 University of Ljubljana (UL), Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domžale Dr. Marija Klopčič - Marija.Klopcic@bf.uni-lj.si

Partners:

- UL Biotechnical Faculty, Dept. of Animal Science (coordinator)
- 10 farmers (2 case farms, 3 reference farms, 5 pilot farms)
- Chamber of Agriculture and Forestry of Slovenia Department for Performance Recording and Breeding (technical advices, milk recording data)

Funding Organisations:





REPUBLIKA SLOVENIJA MINISTRSTVO ZA KMETIJSTVO, GOZDARSTVO IN PREHRANO





Operational Group: Young Stock Management (with emphasis on the Newborn Calf & Colostrum Management)

Start and finish date: April 2018 to March 2021

Location : Slovenia



EuroDairy Topics





Resource Efficiency Animal Care Socio-economic Resilience

Objective:

- To improve young stock rearing, health status and growth rate of young dairy cattle from birth till first calving
- To produce strong, healthy, well grown calves that will continue to develop steadily after weaning
- To reduce loose of calves in first 6 months and in later stage with introducing and practice good young stock management
- To reduce costs of rearing young stock
- To develop simple guidelines of sucessful young stock management (protocols) for local circumstances

Website: www.holstein.si Coordinator name and contact:

 University of Ljubljana (UL), Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domžale

Dr. Marija Klopčič - Marija.Klopcic@bf.uni-lj.si

Partners:

- UL Biotechnical Faculty, Dept. of Animal Science (coordinator)
- 12 farmers with HF cows (6 pilot farms, 6 reference farms)
- Chamber of Agriculture and Forestry of Slovenia Extension Service
- Slovenian Holstein Association

Funding Organisations:





Slovenian Holstein Association



Operational Group: Implementation of Genomic Selection in small dairy cattle populations

Start and finish date: November 2016 to October 2019

Location : Slovenia



EuroDairy Topics



Biodiversity Socio-economic Resilience

Objective:

- To develop an action plan for the implementation of genomic selection in the herds of Holstein-Friesian breed the case of a small HF population in Slovenia
- Genotyping of HF male and female animals with the aim of discovery genetic defects (e.g. CVM, BLAD...), genetic features (RC, kappa caseins, lactoglobulins, ...), inbreeding estimates, parentage verification, ...
- To establish a reference population for the Holstein-Friesian population in Slovenia on the base of bulls and cows
- The possibility of cooperation with InterGenomics-Holstein for the international comparison of genomically tested bulls

Website: www.holstein.si Coordinator name and

contact:

 University of Ljubljana (UL), Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domžal Dr. Marija Klopčič - Marija.Klopcic@bf.uni-lj.si

Partners:

- UL Biotechnical Faculty, Dept. of Animal Science (coordinator)
- ≈125 farmers with HF cows (farmers with HF bull dams)
- Chamber of Agriculture and Forestry of Slovenia Department for Performance Recording and Breeding (technical support, milk recording data)
- Agricultural Institute of Slovenia (Herdbook data, MR data)
- Slovenian Holstein Association

Funding Organisations:



REPUBLIKA SLOVENIJA MINISTRSTVO ZA KMETIJSTVO, GOZDARSTVO IN PREHRANO

Ministry of Agriculture Forestry and Food



Slovenian Holstein Association



Slovenian Research Agency (ARRS)





Operational Group: Entrepreneurship with vision - methods and tools for supporting farmers in making strategic choices

Start and finish date: September 2011 to August 2020

Location : Slovenia



EuroDairy Topics





Resource Efficiency Socio-economic Resilience

Objective:

- To instruct dairy farmers and advisors how to prepare a farm strategy with vision
- To improve entrepreneurship competencies of dairy farmers, young farmers, advisors, and agricultural students;
- To assess the local agricultural framework conditions by a context analysis in order to adapt the ISM method and understand the outcomes of the training process;
- To make the ISM method more applicable to market oriented development paths and adding the marketing module;
- To add a business planning module for economic assessment of dairy farmer choices;
- To introduce the concept of networking to stimulate social entrepreneurship;
- To evaluate the effects of the trainings and use of ISM tools;

Website: http://ism.sggw.pl/ Coordinator name and contact:

 University of Ljubljana (UL), Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domžale, Dr. Marija Klopčič - Marija.Klopcic@bf.uni-lj.si

Partners:

- UL Biotechnical Faculty, Dept. of Animal Science (partner in ISM+ project)
- ≈ 100 dairy farmers from Slovenia
- Chamber of Agriculture and Forestry of Slovenia

Funding Organisations:







