Resilience for Dairy (R4D) has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 101000770

Thirifay Daniel
Pilot Farm description
Landscheid - 2023

Luxembourg

Innovations


Farming milestones

2012: Start 8 year crop rotation

2019: Start genomic testing of heifers (program KuhVision)

2020: Takeover of the farm by Daniel; Re-start self-marketing of beef

The herd

- 90 GVE
- 48 dairy cows
  Breeds : Holstein Friesian (black & red), some Jerseys
- 50 dairy heifers + 20 beef heifers
- Calving period : all year
- Age at first calving : 24-26 months

Agricultural Area (2023)

105 ha AA

- 45 ha perm. grassland
- 55 ha cropland
- **Main crops:** grassseeds/grass-clover mix, maize, wheat, rye, barley, peas, rapeseed etc. in an 8 year rotation

Workforces

- 1 labour unit (Full Time Equivalent) and many voluntaries
- **Aims:** Improving the work-life balance

Areas of interest

- Reduction of concentrate use
- Increase of protein self-sufficiency

Housing system

- Free-ranging indoor system
- Milking parlour
- Early-summer pasturing
- Young cattle mostly on low-input grassland

Production / Technical results

- 480.000 liters of milk produced (90 % sold)
- 4,34 % fat & 3,51 % protein content
- Stocking rate: 1,3 GVE/ha forage area
- 9900 L of milk /cow /year & 6800 L/ha forage area
- 40000 L milk performance of departure cows; 17kg lifetime performance

Strengths

- Land availability
- Mixed farm (arable, milk & beef cattle)
- Self-mechanisation
- Basic fodder production
- Calf rearing

Weaknesses

- "Mapower unit per hour" availability
- Workload
- Obsolescence rate of the buildings
- High costs due to mechanisation and area requirements

Opportunities

- flexible allocation of land when fodder shortage
- Availability of temporary staff
- Optimisation of premiums

Threats

- climate change – drought
- Imminent invest
- Responsibility and work weighs on one person

Farmer's strategy for a "resilient" system

- Resist the **climat change** with its capricious weather conditions (crop rotations, legumes …)
- Improve the degree of **self-sufficieny** of espescially crude-protein (CONVIS)
- Improve the **longevity** of the cows (less heifers – more Beef-on Dairy)
- Increase the **efficiency** of the whole system (CONVIS); Breed a more **efficient cow**!
- Reduce **losses** on all sectors (Feeding, Fertilisation, Cattle-Stock)

Main innovations used to be a resilient farm

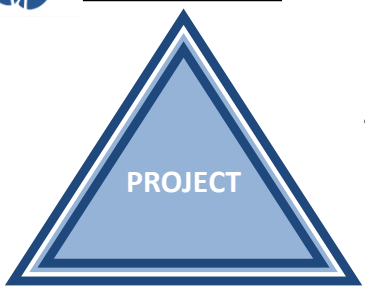
- **High quality silage** preparation (layers, silage additives etc.)
- **Beef-on Dairy** with partly self-processing (BBB, Limousin, INRA, Angus)
- Zero-loss goal on calf-rearing to reach a **high health status**
- **Extended Crop-Rotation** to minimize the risk of capricious weather conditions
- **Heath-Detection** System MEDRIA (France)
- **Genomic-Testing** of young cattle

Improvement project - objectives

- possibly higher feed-efficiency through **block-calving** in autumn

ECONOMY & LABOUR

- **Higher added value** of the milk through processing and high-quality products



- Adaptation of **breeding programms** to changing conditions

RESSOURCE Efficiency

ENVIRONMENT ANIMAL Wellbeing

Project

"Resilience 4 Dairy" is a European project involving 15 European countries and 18 partners. R4D is a thematic network on innovations and aims to support EU dairy farming in these regions where dairy farming is a main economic activity.

Lycée Technique Agricole

R4D pilot farmers are involved in a National Dairy Akis group where needs, solutions and knowledge are exchanged with other farmers, advisors and scientists on their way to build a resilient system. More information https://resilience4dairy.eu/