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

GAEC LE TROUENCON
Pilot Farm description
Val Couesnon – 2022

France

Innovations

Socio-economic Resilience / Environment

Farming milestones

1989
Third party installation by the parents Philippe and Claudie – 35ha – 180,000 l of milk

2005
Expansion
60ha and 260,000 l

2007
Standardization – 50 slot DC stables AP+AE, nursery, 2x6 milking parlour

2014
Milk return, transition to cubicles (70 cows) - 60ha AA and 380,000 l

2017
Expansion and renewal of the cattle building
87ha and 725,000 l

2018
Expansion of the DC stables (110 sleeping areas)

2019
Beginning of the Holstein x Viking Red x Normande dairy cross

2020
Arrival of Arnaud and departure of Claudie
92ha AA and 725,000 l

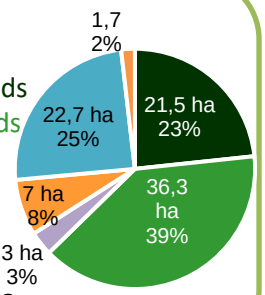
The herd

- **120 dairy LU**
- **98 dairy cows**
  Breed: Holstein x Viking Red x Normande
- Replacement rate: 28%
- Calving period: autumn–winter
- Calving age: 28 months
- 80% AI and 20% Limousin bull
- **15 LU for meat:** 10 crossbred bull calves kept each year for 30-36 months beefproduction

Agricultural Area

92ha AA

- 21.5ha permanent grasslands
- 36.3ha temporary grasslands
- 3ha lucerne, 7ha hybrid ryegrass & red clover
- 22.7ha corn silage
- 1.7ha beet



74% grass/main fodder area
Grassland planted under cover of mixed grain

Workforces

- **2 labour units**
- **2 labour units** assigned to milk activity
  => **49 cows** & **362,000 l**/labour unit
- **Objectives:** to simplify work, 1 milking/person in the morning or the evening, take time off if needed — 2 weeks of per year

Areas of interest

- Grazing management
- Mown grasslands
- **Three-way crossbreeding**
- Feeding self-sufficiency
- Added value on farm
- Blocked calving in autumn
- Valuation of livestock effluents

Main buildings and equipment

- Dairy cows stables with 80 cubicles and 30 straw-lined stalls – 110 headlocks
- Thirty paddocks of 1ha for dairy cows and paved paths
- 2x6 milking parlour
- Nursery in collective boxes
- Straw-bedded barn: 45 stalls for heifers, dry cows, feeder cows, steers

Production/Technical results

- 731,000 l of milk produced (98% sold)
- 43,8 g/l fat & 33,6 g/l protein content
- Stocking rate: 1.5 LU/ha main fodder area
- 7,500 l/cow/year & 7,950 l/ha fodder area
- Dynamic rotational grazing without silo closure
- 700kg of concentrates/cow/year
- Grazing of heifers and steers as early as the 1st year
- Gross margin = 73% of cattle product – 372 €/1000 l
- Herd feed cost = 90 €/1000 l

Strengths
- Grouped parcels with 84ha available for cows
- Solid economic efficiency
- Complementarity of dairy & meat activities
- All Farms' equipment is owned & managed within cooperatives

Weaknesses
- Low potential of lowlands or remote plots
- some of the land are not fit for manure/slurry spreading
- need to purchase nitrogen corrector to balance rations

Opportunities
- Feeder cows for calves sold at 15 days
- Use of chipped wood from hedges as litter for non dairy livestock units
- 25% corn silage hoed

Threats
- Philippe's retirement within 5-6 years
- Climate events impacting grass and corn fodder yields

Farmer's strategy for a "resilient" system

In order to build a resilient system, the farmers have set up a low-cost, autonomous system to reduce their dependence on the cost of inputs (feed, fertilizer, fuel, etc.). The milk is produced by balanced fodder without energy concentrate. Nitrogen-rich grazing and early mowings of lucerne as well as hybrid ryegrass and red clover grasslands reduce the use of nitrogen correctors. Technically, crossbreeding is meant to improve cows' longevity and health while maintaining a satisfactory productivity per cow. The cultivation of corn, the valuation of animal manure throughout the agriculture area, the rotations with grasslands as break crops, and antibiotic-free drying contribute to environmental resilience.

Aspirations / Needs for the future:

The farmers wish to continue and cement the latest actions implemented such as crossbreeding and block calving in autumn. They wish to maintain the economic efficiency of the farm, maintain a milk production per cow and gain in protein autonomy.

Projects – objectives

- Passing on within 5 years
- Improve comfort at work
- Keep a good economic efficiency

ECONOMY & LABOUR

- Planting meslin grain to reduce the purchase of nitrogen correctors
- Building stabilized paths to facilitate grazing

RESOURCE EFFICIENCY

PROJECTS

- Continue hedge planting
- All calves with feeder cows?
- Switching to organic farm?

ENVIRONMENT ANIMAL WELL-BEING

Partners

"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.

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/