



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

Domaine de Merval Pilot Farm description Brémontier-Merval - 2021

France



Innovations

Socio-economic
Resilience /
Environment



1988

Creation of the pedagogical farm

2015

Start of organic conversion of the rest of the farm

2019

Land development to extend the grazing area

Farming milestones

2013

Organic conversion of orchards

2017

Global rethinking of the farm.
Search for synergies between productions and circular economy

2021

Milking parlour extension + implementation of agroforestry on 17 ha

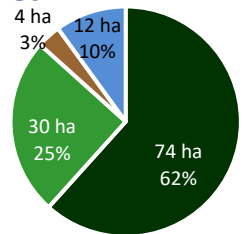
The herd

- 150 Livestock Units (LU)
- 116 dairy cows
- Breeds : Normande (100%)
- 20 % of replacement rate
- Calving period : all year round
- Age at first calving : 28 months
- Using bull for reproduction (100%)

Agricultural Area

120 ha AA

- 74 ha perm. grassland
- 30 ha temp. grassland
- 4 ha triticale-pea mix crop (grain)
- 104 ha main fodder area
- 100 % of grassland / forage area
- 12 ha of orchards



Workforces

- **11 labour units of the farm**
- **2,5 FTE** allocated to dairy production = **39 dairy cows & 158 000 l /FTE**
- **4,5 FTE** allocated to cheese processing
- **Aims** : all hours worked are paid or recovered, 5 weeks of vacation per year, 10% of profits shared with employees

Areas of interest

- Grazing
- Low-cost system
- Circular economy
- Added value
- Agroforestry
- Self-sufficiency (local and territorial)



Main buildings and equipments

- Sleeping area on wood chips litter
- > 60 paddocks of 1-2 ha each
- 3,5 km of stabilized paths for grazing
- 2 x 8 milking parlour
- Cheesery and ripening cellar (180 – 220 000 Neufchâtel produced/year)
- Cider and Calvados factory (18 000 bottles of cider/an)



Production / Technical results

- 470 000 liters of milk produced (75% processed)
- 42,5 % fat & 34,6 % protein content
- Stocking rate: 1.3 LU / ha forage area
- 4 000 l/cow/year & 3 660 l/ha forage area
- 270 d/year of 100% grazing
- 1,7 t DM of stored fodder / LU
- 85 kg of concentrate/cow/year
- Operating costs = 12% of Revenues



Strengths

- High economic efficiency
- Good technical skills (grazing, health status)
- Polyvalent labour
- Polyvalent labour
- Strong complementarity of the productions



Weaknesses

- Not 100% self-sufficient in fodder



Opportunities

- Strong involvement in networks and partnerships
- To disseminate innovation via the high school
- To distribute products in important cities (Rouen, Caen, Paris)



Threats

- Climatic hazards may require to reduce stocking rate

Farmer's strategy for a "resilient" system

To build a resilient system, the farmers have adopted a strategy of autonomy and low-cost in order to be less dependent on the input prices (feed, fuel, etc.). By transforming the milk on the farm, they can fix sales prices to cover the production costs and to ensure a good remuneration of the workforce. The complementarity of the productions allows a better valorization of the by-products (wood chips, whey, etc.) and thus to accentuate this resilience.

Aspirations / Needs for the future

The farmers now wish to communicate widely on the transition approach achieved on the farm, highlighting the very good economic results. By addressing in particular the students at the high school, the farmers want to strengthen the attractiveness of the farmer's profession.

Improvement project - objectives

- Create local and remunerative employment



ECONOMY & LABOUR

- Increase the added value per working hour

- Enhance multi-species grassland valorisation
- Improve protein autonomy
- Search for fodder tree essence



RESSOURCE Efficiency

PROJECT

- Enhance animal welfare
- Develop the biodiversity
- Reduction of energy use

ENVIRONMENT ANIMAL Wellbeing



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/>