



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

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## Innovations

Socio-economic  
Resilience /  
Animal welfare



**1992**  
New cubicle barn for 170 dairy cows

**2015**  
Intensification of grazing shift to autumn block calving

**2021**  
First multispecies swards with plantain and chicory

**Farming milestones**

**2013**  
Building extension to house 160 dairy cows plus replacement

**2019**  
Strong focus on biodiversity and white clover + alfalfa

**2023**  
new milking parlour + selection + waiting area

### The herd

- 218 Livestock Units (LU)
- 164 dairy cows
- Breeds: Angeln cattle
- 30 % – replacement rate
- 99 dairy heifers
- Calving period : whole year
- Age at first calving : 26 months

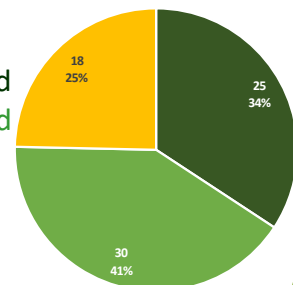


### Agricultural Area

**73 ha AA**

- 25 ha perm. grassland
- 30 ha perm. grassland
- 18 ha Silage maize

73 ha main fodder area  
100 % forage area



### Workforces

- 2.0 labour units (Full Time Equivalent)
- 82 dairy cows & 715 600 kg /FTE
- **Aims:** Seasonal calving allows to concentrate working processes + healthy calvess and grazing, all saves time

### Areas of interest

- Healthy cows, animal welfare,
- Breeding Angler cows a old local robust breed with high milk solids
- Exchange of experiences with other farmers in several networks

### Main buildings and equipments

- Historical slowly grown and mainly depreciated barn for 160 cows
- new milking parlour + selection + waiting area for effective milking by 1 person
- Good infrastructure for grazing fast rotational grazing 7 paddocks at short grazing height of 7 cm



### Production / Technical results

- 1 331 000 kg raw milk (= 1 430 000 kg ECM (94 % sold, rest needed for calf rearing))
- 4.57 % fat & 3.6 % protein content
- Stocking rate: 2.9 LU / ha forage area
- 8 729 kg EC Milk /cow /year
- 19 590 kg Milk /ha forage area
- Veterinary costs: 0.82 /kg milk
- 202 gr. Concentrates / kg milk



### Farmer's strategy for a "resilient" system

A very efficient grazing system based on autumn block calving - pasture is constantly stocked and a maximum growth height of 7 cm (= Kurzrasenweide) leads to very high concentrations of crude protein and net energy in the grazed grass. Alfalfa and white clover increase self sufficiency with protein. Deep rooting chicory, plantain and alfalfa stabilize forage yields in dry years. The block calving leads to healthy calves and allows efficient feeding in the first half of the lactation period, as a consequence 30% less concentrates are fed compared to neighbors. High animal welfare and a comparatively low carbon footprint of milk (PCF) production of 850gr. CO<sub>2</sub>eq/kg ECM are reached.

Grazing creates biodiversity (less cuts, cow dung as insect feed source) and increases CO<sub>2</sub>-storage

### Aspirations / Needs for the future

Intensive dialog between consumers/citizens, farmers and politicians to increase attention to advantages of pasture based milk as eco efficient future way of milk production

### Improvement project - objectives

- Reduce work load in the long run find a part time employee



**ECONOMY & LABOUR**

- Further increase of white clover content in grassland



**RESSOURCE Efficiency**

**PROJECT**

- Improve management and breeding with respect to longevity
- Try to extend agricultural area at reasonable prices
- Regenerative farming

**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/>