



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

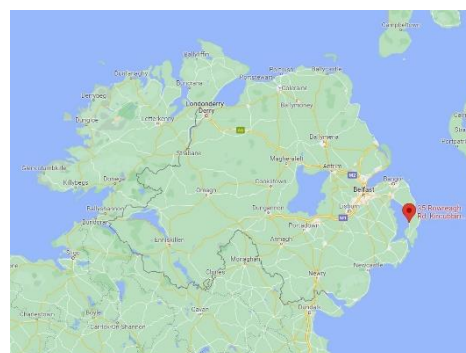
# Thomas Steele Pilot Farm description Kircubbin, Co.Down - 2022

N. Ireland

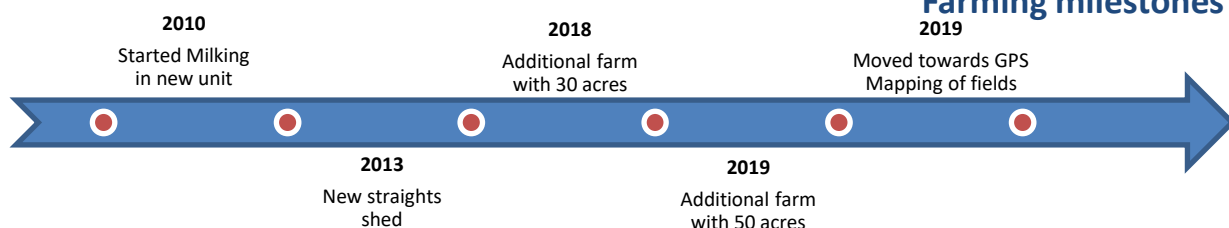


## Innovations

Socio-economic  
Resilience /  
Precision



## Farming milestones



### The herd

- 750 Livestock Units (LU)
- 520 dairy cows  
Breed: Holstein-Friesian
- 200 dairy heifers
- 200 calves
- Autumn to spring calving system
- Age at first calving : 23.5 months
- 3 times a day milking

### Agricultural Area

#### 303 ha Farm

- 140ha rented
- 200ha permanent grassland, 48ha forage maize, 10ha lucerne, 44ha wheat and barley
- Stocking rate: 2.14LU/ha forage area
- Fully housed dairy system on TMR
- Mix all straights for cow diets

### Workforces

- Farmers – Father and 2 brothers
- 5 full time
- 5 relief milkers
- **Aims: Using technology to reduce labour**

### Areas of interest

- Forage quality
- Sustainability
- Automation
- Animal genetic quality

### Main buildings and Equipment

- Low emission slurry spreading – trailing shoe
- Variable rate fertiliser spreading, GPS fertiliser application
- Straights store
- 60 point Fullwood rotary parlour
- Lely automated silage pusher
- Slurry bubbler system
- Strautmann 28 cubic metre diet feeder
- Solar panels

### Production / Technical results

- Yield – 10400 litres
- Feed – 2.8T
- Milk from forage: 3500 litres
- 3.99% butterfat, 3.24% protein
- Milk solids – 752kg
- Full indoors TMR system
- Milk sold to Lakeland Dairies
- £0.34/litre cost of production (Including family labour)
- AfiFarm Herd Management system



## Strengths

- Good land base, all land within 5 miles of farm
- Herd genetic quality
- Innovative - willing to try new things and take part in R&D



## Weaknesses

- Low rainfall area and light land
- Lacking skilled labour
- Farm infrastructure investment required



## Opportunities

- Home grown proteins
- Trying to reduce Carbon footprint
- Renewables – solar panels on farm
- Genetics – more tailored use of sexed and beef semen



## Threats

- Increasing Feed and Fertiliser costs
- Public misconception of farming practices

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

Focussing on longevity of the herd – breeding for fertility, good feet, and cell count  
 More dependency on home grown proteins. Making more use of measured data to improve performance. Making use of Precision GPS mapping to improve record keeping.

## Aspirations / Needs for the future

Need to breed the low maintenance cow. Investment in staff training to upskill staff to improve daily management. Investment in infrastructure required in the future to continue to build and improve the business. To make more use of automation

## Improvement project - objectives

- Reduce work load

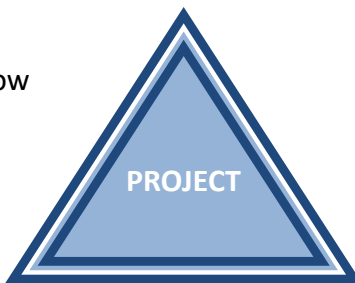


**ECONOMY & LABOUR**

- Reduce concentrate for cow
- Make more use of rainwater harvesting



**RESOURCE Efficiency**



- Optimize dairy gross margin
- Keep a good global profitability for a knowledge transfer centre
- Educating the public on farm practices and quality of welfare
- Keep a good mineral balance
- Improve forage self-sufficiency and protein self sufficiency

**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/>