



Life Beef Carbon Irish Testimony

Ricky Milligan
Climate smart farming



Farm Background

- Farming in County Kildare
- Ricky farms with his father Henry
- The farm is mixed
 - Spring calving suckler to beef system,
 - Dairy calf to beef system
 - Tillage enterprise
- Member of Bord Bia's Origin Green Sustainability and is Quality Assured
- Won Hereford Prime Farmer of the Year 2020.



Farm Background

- The farm is 63.9Ha
- 49.2Ha is in grassland
- 20.2Ha of which is tillage
- The farm is fragmented



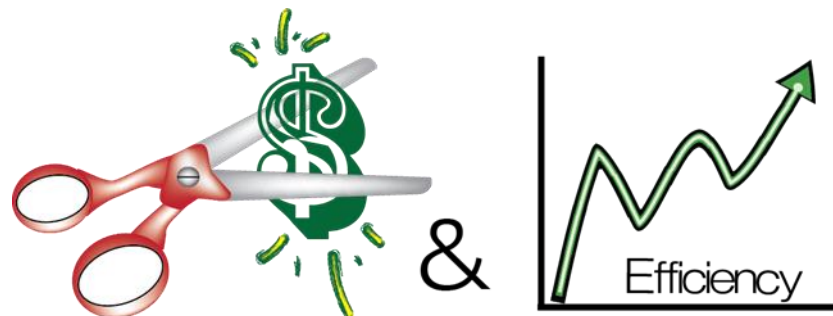
Farm Background

- 40 spring calving suckler cows
- The genetic base is Hereford crossed with Simmental and Limousin
- Buy in 40 calves and bring to slaughter



Innovate Farm Programme 2017-2019

- Joined the programme in 2017.
- Objectives –
 - » Cut Costs,
 - » Improve efficiencies,
 - » Increase profitability
 - » Reduce GHG emissions
- Worked very closely with a programme advisor.
- Got 12 visits per year and very intensive technical advice plus recording of information



Farm Performance

KPIs	2016	2019
Calving rate – calves/cow	383	366
Heifers calving \leq 24 months	33%	100%
Calves per Cow per Year	0.86	1.03
Stocking rate, LU/ha	1.91	2.13
Concentrate feeding, kg/LU	234 Kg	191 Kg
Weaning Performance, Average Daily Weight Gain	1.03 Kg	1.23 Kg
Beef Output/ha	765 Kg	957 Kg
Gross margin, €/ha	632	696

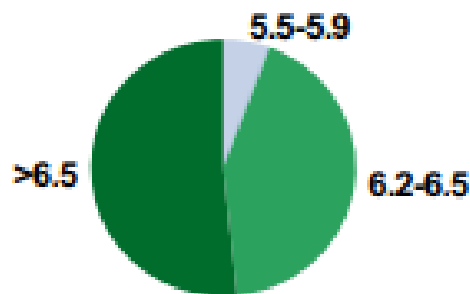


Focus 1 - Soil Fertility

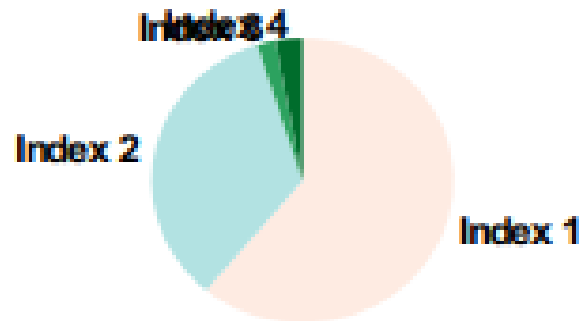
- Increase the overall soil fertility of the farm
- Aimed to have soil indexes 3 for both P and K
- Farm was soil sampled in 2016 and 2019
- The farm was tested for pH, P and K
- All soil samples had a pH of 6.2 or higher

Lime

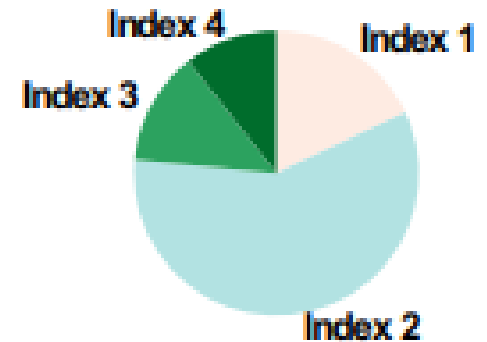
Soil pH > 6.2



P Index



K Index



Focus 2 - Grassland Management

- Increased the number of paddocks to 72
- Measured grass weekly
- Removed surplus grass for silage
- Cattle always going into good leafy grass
- Extended the grazing season out earlier, housed later
- Catch crops used to extend grazing



Low Emission Slurry Spreading (LESS)

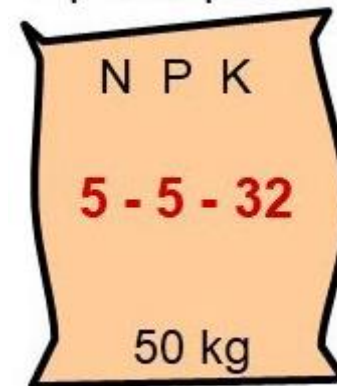
- LESS used as part of the Green Low-Carbon Agri-Environmental Scheme (GLAS)
- Slurry was spread using a trailing shoe
- This increased the nitrogen (N) availability of the cattle slurry
- Up to 60% reduction in ammonia emissions using LESS
- Replaced the need for expensive chemical fertilisers

Trailing Shoe



€ 25 / 1000 gals

Splash-plate



€ 23 / 1000 gals



Reduced Age at Slaughter

- Hereford is predominant breed on the farm.
- Plus majority of the dairy calves were coming from Hereford sires.
- Herefords are early maturing breed, can be finished earlier off grass before the second winter
- Reduced GHG emissions per kg beef
- Reduced Costs



Conclusion

- Through the Innovate Farm Programme technical efficiency, beef output and profitability were all increased.
- Ammonia emissions were decreased by 60% using LESS
- Reduced chemical fertiliser applications
- Increased grass grown through improved overall soil fertility and grass measuring
- All heifers calving down at ≤ 24 months meaning more calves over her lifetime.
- Greatest challenge was the harsh weather spring and summer drought in 2018



Future Plans

- Planning to convert the farm into organics.
- Reduced chemical fertiliser and sprays
- Bigger emphasis on using LESS
- Sowing clover to capture Nitrogen from air
- Greater interest in the protection of biodiversity and reduce GHG emissions



Thank You!



Ricky Milligan's Beef Carbon Footprint

