

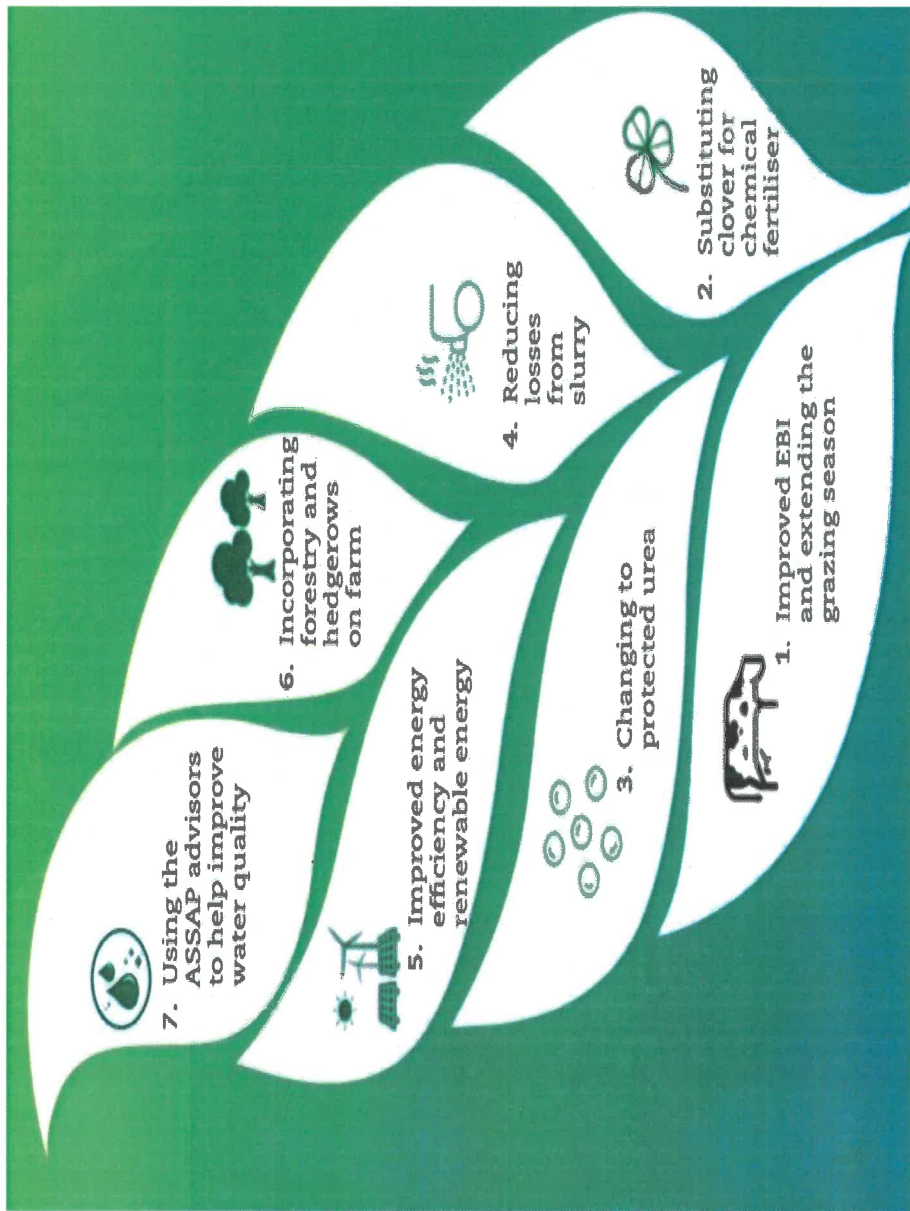


Future Farm Walk

Cathal Moran,
Skeoughvasteen,
Co. Kilkenny



7 Steps to Improving Farm Sustainability





Farm Details



Land Farmed (ha)	237
Milking Platform (MP-ha)	118
Cow Numbers (LU)	380
Replacements (LU)	100
Overall Stocking Rate (LU/ha)	2.2
MP Stocking Rate (LU/ha)	3.2
Labour	Cathal and family, 2.5 hired
Facilities	30 unit parlour, 400 cubicles, slurry storage for 20 weeks.
Plan	500kgMS/cow, clover, reduced nitrogen use.

Grass Performance



Soil Fertility

- % Optimum pH 94
- % Optimum P 62
- % Optimum K 86
- % Overall fertility - 47

Current Performance

- AFC kg DM/ha 993
- PGY kg DM/ha 2400
- Rotation Days: 40
- Growth 54
- Demand 42

Grass Growth

- 13.5 tonsDM /ha 2020
- 15 tonsDM/ha
- Clover

Stocking Rate

- 2.38 LU/ha – 2019
- 2.5 LU/ha

7



Cow Genetics and Performance



EBI	
• EBI	€188
• Fert sub index	-€108
• Milk sub index	-€41
• 10 bulls in team	-€331

Fertility Performance	
• Calving Interval days	- 375
• 6-Week calving rate %	- 86
• Empty Rate %	- 6.8% cows 3.4% heifers
• Calving Season weeks	- 13

Current Performance	
• Milk Yield l/cow	16
• Fat %	4.92
• Protein %	3.93
• Milk Solids (kg)	1.46
• Meal (kg)	2.0
• Silage (kg)	

Milk Solids Yield kg/cow/year	
• 2016 -	434
• 2017 -	445
• 2018 -	448
• 2019 -	455
• 2020	455

Disease Screening Summary & Follow-up Action Report

Cathal Moran
 Curraghlane
 Skeoughvosteen
 Borris
 Co Kilkenny

Sample ID
 Herd Number
 GI Farm Dev Advisor
 GI Commercial Rep
 Vet

Vaccination Status			
IBR	BVD	Lepto	Salmonella
Yes	No	Yes	Yes

Disease	29/07/2021		28/05/2021		17/03/2021		13/11/2020		Comments
	Date	Grade	Date	Grade	Date	Grade	Date	Grade	
IBR gB (Non Vaccinating Herd)	0.759	NEG	0.723	NEG	0.554	POS			Vaccination controlling the risk of IBR introduction in to the herd
IBR gE (Vaccinating Herd)	0.432	POS	0.742	POS	0.495	POS			Vaccination is controlling Lepto
Leptospirosis									
BVD Antibody			0.107	NEG					
Neospora	0.194	NEG	0.109	NEG	0.096	NEG	0.048	NEG	Continue to monitor
Salmonella	208.26	POS	206.45	POS	258.96	POS			Vaccination is controlling Salmonella
Ostertagia (Stomach Worms)	0.734	POS	0.642	LPOS	0.709	POS			Moderate level of Ostertagia exposure in the herd
Fasciolosis (Liver Fluke)	0.1087	NEG	1.257	NEG	2.042	NEG	5.163	NEG	Liver Fluke is not a problem currently - continue to monitor

Follow up actions required for Herd Disease Control (based on the vaccination data that you have given us)

Continue to vaccinate for IBR to prevent new infections

Continue to control Lepto in the herd by vaccination

Continue to vaccinate cows/heifers for Salmonella during mid pregnancy

Younger milking animals should be treated for Ostertagia if not treated recently - Eprinomectin

No treatment is required for Liver Fluke at present

Advisory Note

LIVER FLUKE - Albendazole can be used to treat milking cows for liver fluke, however there is a 60 HOURS MILK WITHDRAWAL! This will eliminate adult liver fluke as well as adult stomach worms, it will not tackle immature stages of these parasites.

COMMENT: Where cows are vaccinated for BVD, IBR, Lepto, Salmonella; results for these tests may be affected by vaccination.

Results are representative of milking cows whose milk is in the bulk tank at the time of sampling and relate only to the portion of the sample tested.

Antibody levels indicate previous exposure to disease and/or vaccine. All results should be discussed with your Veterinary Practitioner.

What is the ASSAP?

Agricultural Sustainability Support and Advisory Programme

Focus is on water quality in 190 Priority Areas for Action (PAA)

Provides free farm advice, confidential and acceptance is voluntary

30 Advisors - 20 Teagasc, 10 from Dairy Co-ops

Work in collaboration with LAWPRO (Local Authority Waters Programme)

Under the Water Framework Directive Ireland is required to have all waters at least at 'Good Status' by **2027** 

LAWPRO provide the catchment science, identify pressures and locations

ASSAP advisor contact farmers offering service

Kilkenny Prioritised Areas for Action 2018 -2021

PAA	Water body	Status 2015		Change?	Ortho P High EQS 0.025 Good EQS 0.035	Nitrate >3.5 threshold for action inland waters	Ammonia High EQS 0.040 Good EQS 0.065
		2015	2018				
Dinlin	Dinlin (South)_020	Moderate	Good	Improved	0.023	0.727	0.032
	Dinlin (Main channel)_020	Moderate	Moderate	None	0.031	1.351	0.038
	Muckalee_010	Good	Good	None	0.037	1.423	0.023
	Nuenna_010	Poor	Moderate	Improved	0.014	6.603	0.012
Nuenna	Nuenna_020	Poor	Moderate	Improved	0.024		
					0.042		
Duiske & Powerstown	Lisdowney_010	Moderate	Good	Improved	0.033	4.414	
	Powerstown_010	Moderate	Poor	Deteriorated	0.029	3.00	0.048
Bregaigh	Duiske_020	Moderate	Moderate	No change	0.013	3.733	0.013
	Bregaigh_010	Moderate	Poor	Deteriorated			
	Bregaigh_020	Unassigned	Unassigned		0.074	2.822	0.063
	Bregaigh_030	Poor	Poor	No change	0.072	4.165	0.046



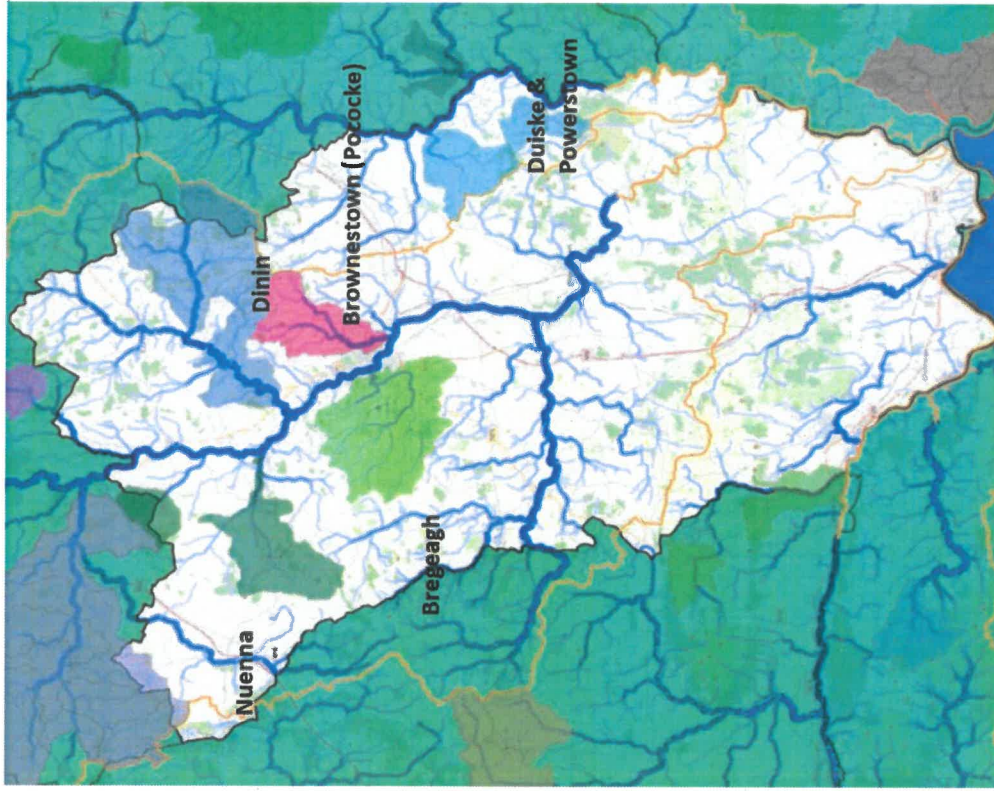
ASSAP – Agricultural Sustainability Support and Advice Programme
working with farmers in a free and confidential advisory service to help
improve water quality.



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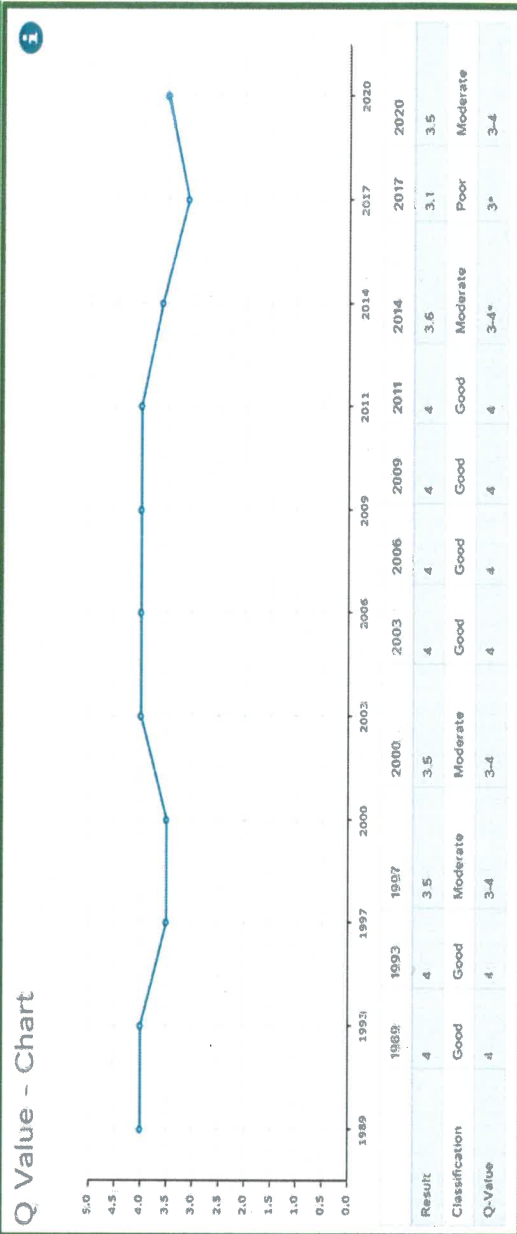
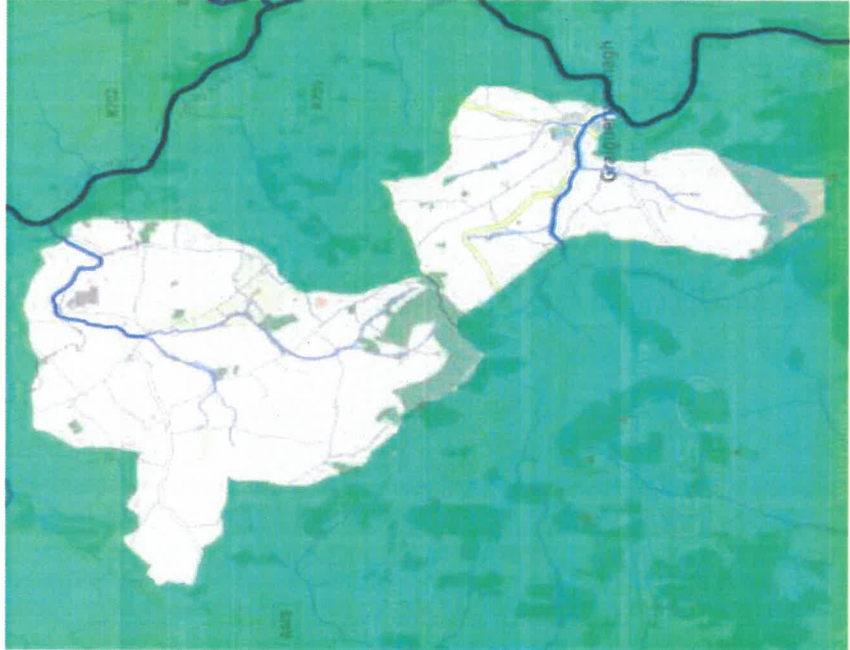
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Powerstown_010 PAA

Significant Issues Phosphate, Nitrate, Sediment & Ammonia

- Pathway: Overland flow, pipes, groundwater
- Pathway subcategory (s): Groundwater nutrient transport, runoff from field drains / ditches
- Main crop type (s): Permanent pasture, spring barley



Parameter	Station	Indicative Quality	Trend	Statistically Significant
Ammonia-Total (as N)	Br 1/2 Barrow R confl	Good	Upwards	No
ortho-Phosphate (as P) - unspecified	Br 1/2 Barrow R confl	Good	Downwards	No
Total Oxidised Nitrogen (as N)	Br 1/2 Barrow R confl	Moderate	Upwards	No



Cathals Home Block



N – PIP Map



P- PIP Map



Powerstown River in Red

N- PIP map the darker the colour the greater susceptibility to N Leaching

P-PIP map- the darker the colour the greater the susceptibility to P and sediment loss through overland flow predominantly



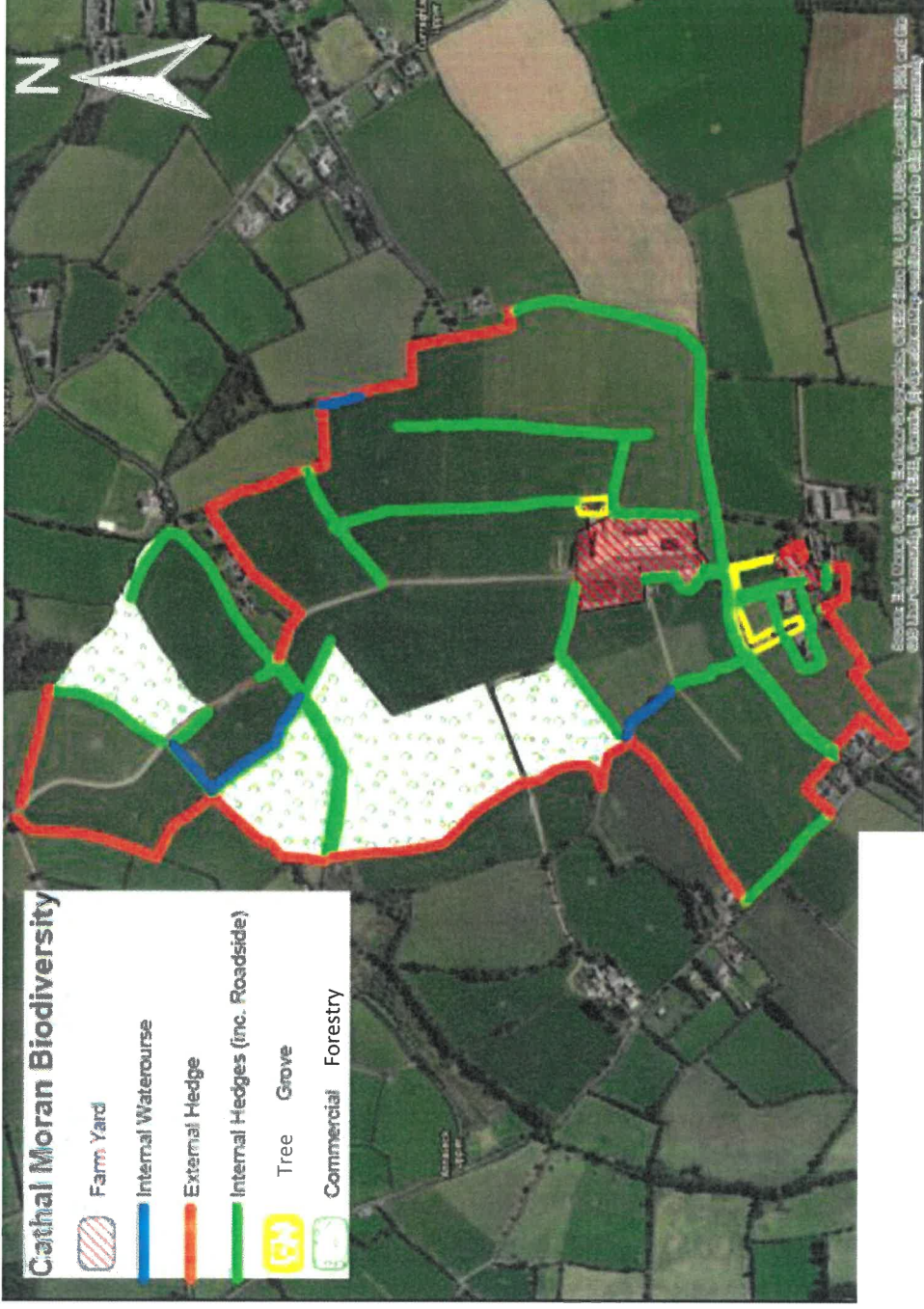
Biodiversity

• 10% Biodiversity on the Farming Platform

• Average Field Size: 7ha

PLAN

1. Retain
2. Maintain
3. Enhance
4. Create



Making Space for Nature

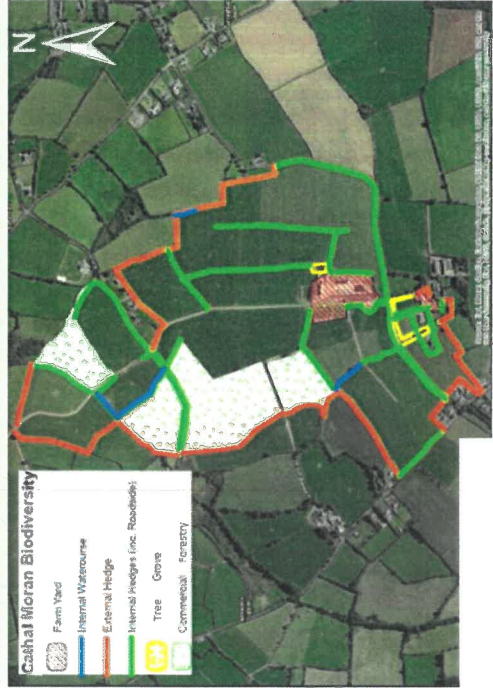
Cathal Moran, Skeoughvosteen, Co. Kilkenny

Farmland biodiversity includes the native flora and fauna of Ireland and the habitats they live in, which are found on farms

The Moran family farm is a diverse space with features and habitats that support native flora and fauna. On this farm the protection, management and improvement of farmland biodiversity is a key objective

10% of this farming platform (owned land) is dedicated to biodiversity features including hedges, watercourses, tree groves and farm yard.

The Average Field Size, which indicates the extent of linear biodiversity features, is 7ha on this farm and the aim is to reduce this over time by creating more corridors for nature.



Hedgerows



There are 9Km of hedges on the farm which account for 3% on the farming platform.

Hedges are networks for nature that provide nesting sites and song posts for birds, cover for small mammals and birds, and space for native plants to grow which in turn provide a varied food sources for pollinators and birds.

Hedges also provide other services that are important to the sustainability of this dairy farm, including carbon sequestration, water and soil quality, shelter and biosecurity.

Hedgerow Management

Hedges are maintained at a height of at least 1.5m tall to provide cover for hedge nesting birds.

Some trees, including whitethorns, are left uncut to grow and mature along the hedges. These provides food for the pollinators and the birds as these trees produce flowers and fruit throughout the year.

Tree Groves

Several small groves of trees also contribute to the space for nature on the farm.

Watercourses



There are 0.5Km of watercourses on the farming platform providing connections for biodiversity and space for flora and fauna to thrive along the banks and in the water.

The protection of watercourse biodiversity also contributes to the protection of water quality.

Watercourse Management

Watercourses are fenced off and animals are not permitted to drink directly from any watercourse. These practices allow vegetation to grow along the bank and avoids damage and pollution to the waterbed, protecting the instream biodiversity habitat.

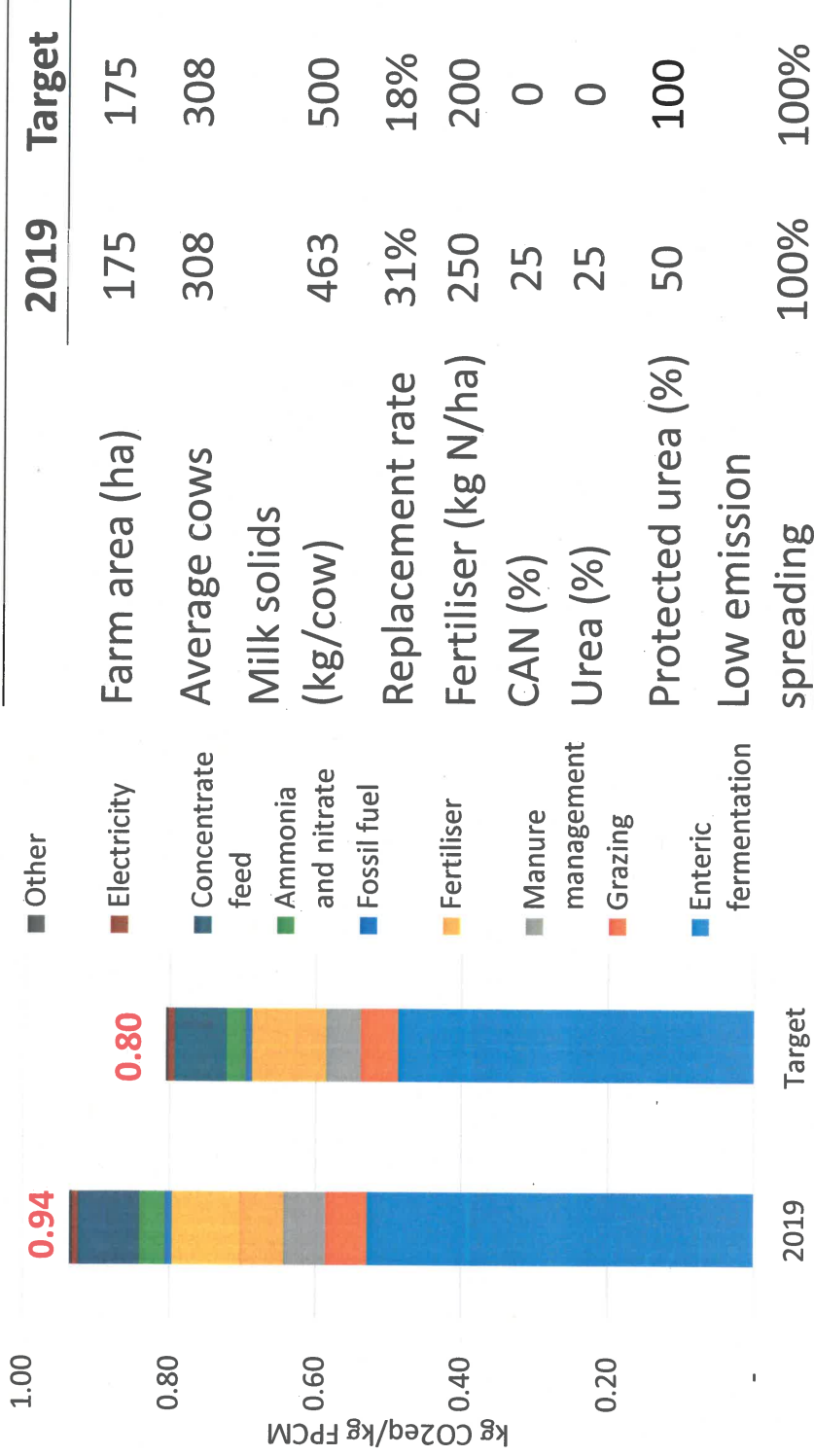
Farmyard & New Hedge

The large farmyard also contributes to biodiversity on the farm. A new native whitethorn hedgerow was recently planted in the in the farmyard enhancing it as a space for nature.

Habitat management decisions in order of priority:

1. Retain,
2. Maintain,
3. Enhance,
4. Create

Carbon footprint



Take home message

- Improve soil fertility and grass utilisation rate
- Substitute N fertiliser with white clover
- Replace CAN fertilisers with protected urea
- Improve herd EBI