



Future Farm Walk

Friday,
15 October

Jack & Larry
Kearney,
Rathcormack,
Co. Cork

[Register Today!](#)

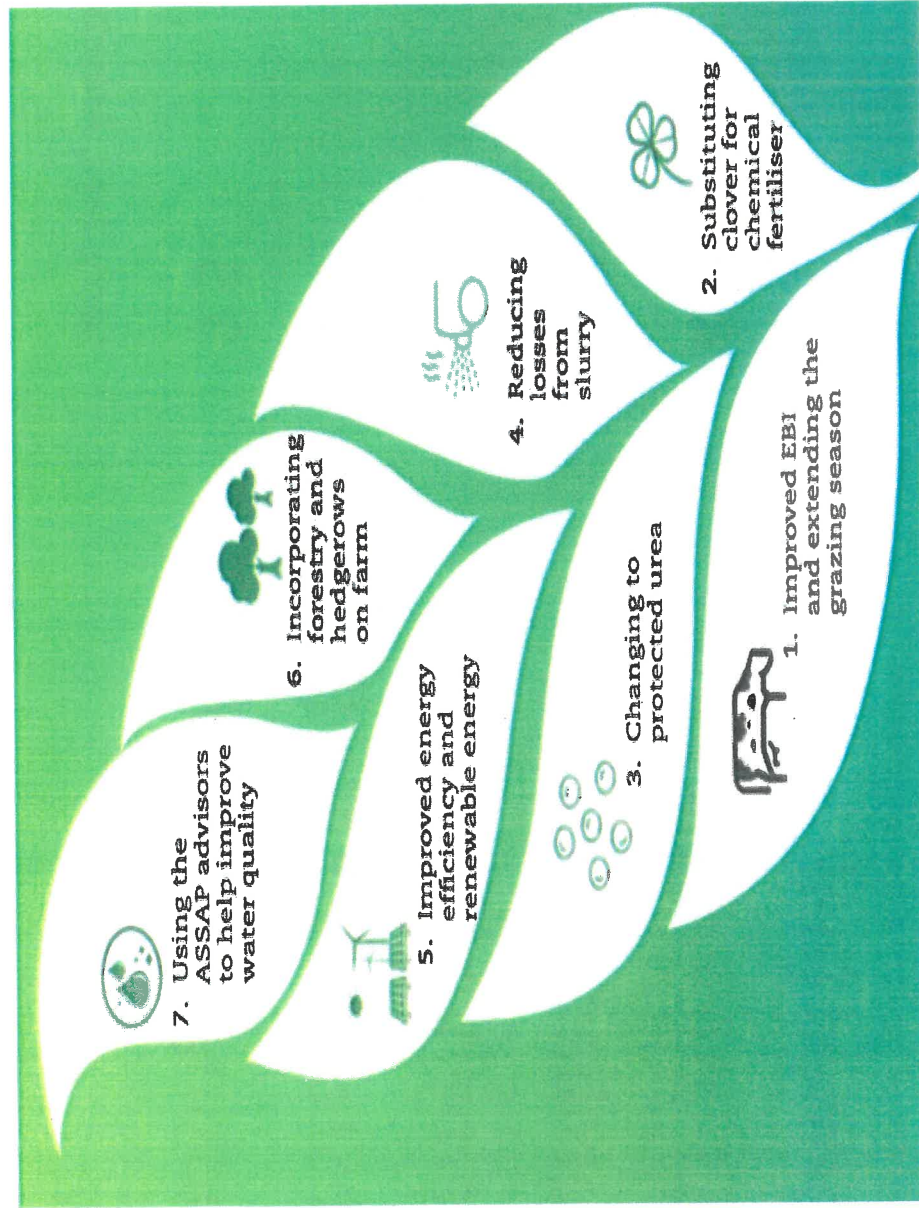




Programme Objectives

- Productivity & Efficiency
- Environment
- Welfare: animal & farmer
- Health

7 Steps to Improving Farm Sustainability



Farm Details



Land Farmed (ha) 90

Milking Platform (MP-ha) 46

Cow Numbers (LU) 161

Replacements (LU) 50

Overall Stocking Rate (LU/ha) 2.3

MP Stocking Rate (LU/ha) 3.5

Labour Larry, Jack, Annette , relief milker

Facilities 220 cubicles,16 unit parlour,calf shed, two silage slabs.

Plan Maximise own resources,simple,



Cow Genetics and Performance



Bull Team

- EBI - €184
- Fertility sub index- €81
- Milk sub index- €57
- 10 bulls in team

Fertility Performance

- Calving Interval days - 369
- 6-Week calving rate % - 84
- Empty Rate % - 17
- Calving Season weeks - 13

Current Performance

- Milk Yield l/cow
17.4 l
- Fat 4.87%
- Protein 4.11%
- Milk Solids (kg)
1.6kgMS
- Meal (kg) 4 kg

Milk Solids Yield kg/cow/year

- 2016 - 449
- 2017 - 504
- 2018- 523
- 2019- 507
- 2020- 496
- 2022 - **550**



Grass Performance



Soil Fertility

- 87% Optimum pH
- 49% Optimum P
- 56% Optimum K
- 34 % Overall fertility status

Current Performance

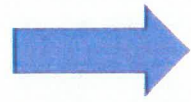
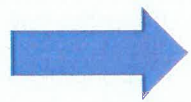
- AFC: 764 kg DM/ha
- PGY 2,300kg DM/ha
- Rotation Days: 35 days

Grass Growth

- 13.4 tonsDM /ha 2020
- 15 tonsDM/ha

Stocking Rate

- 2.38 LU/ha – 2019
- 2.5 LU/ha



Water Quality & ASSAP

- Ireland has been set a target by the E.U. Water Framework Directive (WFD) of achieving 'Good Status' for all waters
- Recent EPA water quality reports highlight deteriorating water quality due to increasing nutrient levels, including nitrate, in waters
- The Agricultural Sustainability Support and Advisory Programme (ASSAP) service is available in 190 Priority Areas for Action (PAA's) and provides advice and mitigation actions to farmers to help minimise nutrient losses to waters.

Introduction

In Ireland, all water policy and management is led by the Water Framework Directive. Under this Directive, Ireland has been set a target of achieving 'good status' for all waters in Ireland by 2027. However, despite a lot of good work over the last 20–30 years we are falling short in achieving this target and water quality has declined in recent years.

Nitrate

One of the areas of concern highlighted by the EPA is the elevated levels of nitrate in waters. Estuaries, coastal waters and groundwater drinking supplies, particularly in the south and east of the country, are at risk with agriculture providing 85% of the nitrate load in rural catchments. Estuarine waters are in the poorest condition with only 38% of these meeting the WFD water quality targets, and are especially sensitive to elevated nitrogen concentrations. There are a number of factors influencing the quantity of nitrate lost to waters. These include the type of land (free draining/poorly draining soil), the management of the land (intensive/extensive farming and enterprise type) and the weather (soil temperature, rainfall and drought). Typically, in Ireland the catchments where elevated levels of nitrate occur are in the freer draining and more intensively farmed catchments in the south and east of the country. It is in these catchments that the EPA have indicated that reductions in the overall tonnes of nitrogen lost to waters is required (Figure 1).

ASSAP — providing advice to minimise nitrate losses

The ASSAP programme is made up of a group of 30 advisors (20 Teagasc jointly funded by the Department of Housing, Local Government and Heritage, the Department of Agriculture, Food and the Marine, and 10 funded by the dairy processing co-ops). These advisors are available to provide a free and confidential advisory service that farmers in a PAA can avail of on a voluntary basis. Where nitrate is a pressure on water quality in a PAA the advisors will discuss options for mitigating the diffuse losses of nitrate with farmers. To minimise nitrate losses, farmers can focus on improvements in nitrogen use efficiencies, applying nitrogen fertilisers at the right times with particular attention given to weather conditions and soil temperatures, applying nitrogen at the right locations on the farm by avoiding critical source areas and focusing on fields that have recently been reseeded and have good soil fertility, and applying the right fertiliser type, as well as utilising low emissions slurry spreading equipment, protected urea, incorporating white clover and matching the rates of nitrogen applied to crop demand.

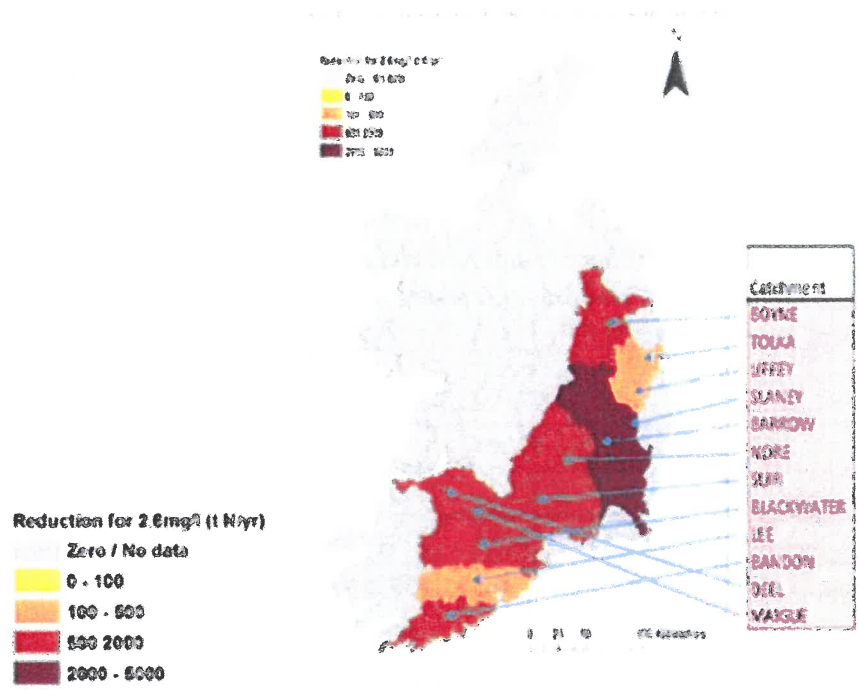


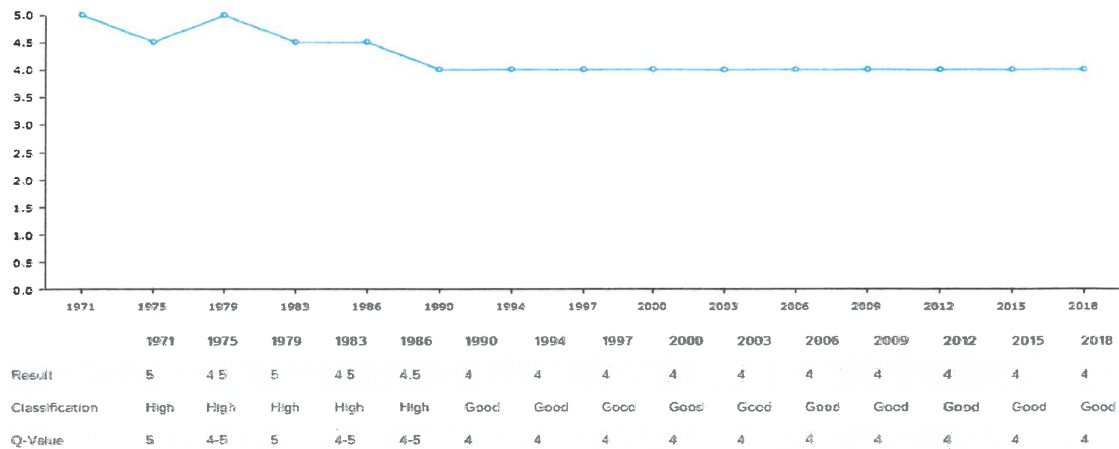
Figure 1. Map indicating catchments where a reduction in nitrogen losses is required. Source: EPA.

Water Quality in the Local Area



The Kearney farm is located to the West/NW of Rathcormac village in North Cork (see red cross on map above). The river flows in a south easterly direction through the farm and joins the main channel of the River Bride to the south of Rathcormac village. As per the EPA maps the farm appears to be on mainly well drained soil. There are pockets of heavier land along the river valley. The closest EPA monitoring station is the bridge south of Rathcormac on the main channel of the River Bride. The status of the waterbody is currently Good. The biology (Q Value) was last assessed here in 2018.

Q Value - Chart



To view EPA River Quality Surveys please click on [View EPA River Quality Surveys](#)

Water quality in Bride (Blackwater)_O20 has been consistently at Good Status since 1990 and previously was at High Status in 1986. However, chemistry data for the monitoring station would indicate that Ortho Phosphate and total Ammonia levels are of concern siting the UWWT plant in Rathcormac has having some non-compliances.

Conclusion

Ireland has been set a target of 'good status' by the EU Water Framework Directive for all waters by 2027. However, data from the EPA indicates that water quality is declining with elevated nitrate levels prevalent in catchments located in the south and east of the country. The ASSAP advisory service is free and confidential and is available to farmers in 190 PAAs with advice provided to farmers to minimise the impacts of agriculture on water quality.

Milk Recording Results 12/8/21



Herd Disease Screening 30/7/21

Vaccination Status

IBR	LEPTO	SALMONELLA
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Bulk Tank Analysis

IBR	-	became negative this year, vaccination is controlling
Lepto	+	vaccination is controlling
BVD	-	
Neospora	-	was positive in 2020; test individual animals
Salmonella	+	vaccination is controlling
Ostertagia (stomach worm)	++	High positive reading, cow performance likely affected, eprinomectin to correct
Fasciola (liver fluke)	-	No fluke treatment needed

Additional Screening

Lungworm: BAL (lung wash) + Dung sample

CellCheck Report

SCC	Dry Period New Infections	Dry Period Cure Rate
97	5%	10%
		88%

Dry Cow Strategy

SDCT in 2020:

- cows below Avg SCC 80,000 and never above 100,000
- Approximately 20% of the herd

SPACE FOR NATURE



Kearney Family Farm
Rathcormack, Co. Cork



Farmland Biodiversity

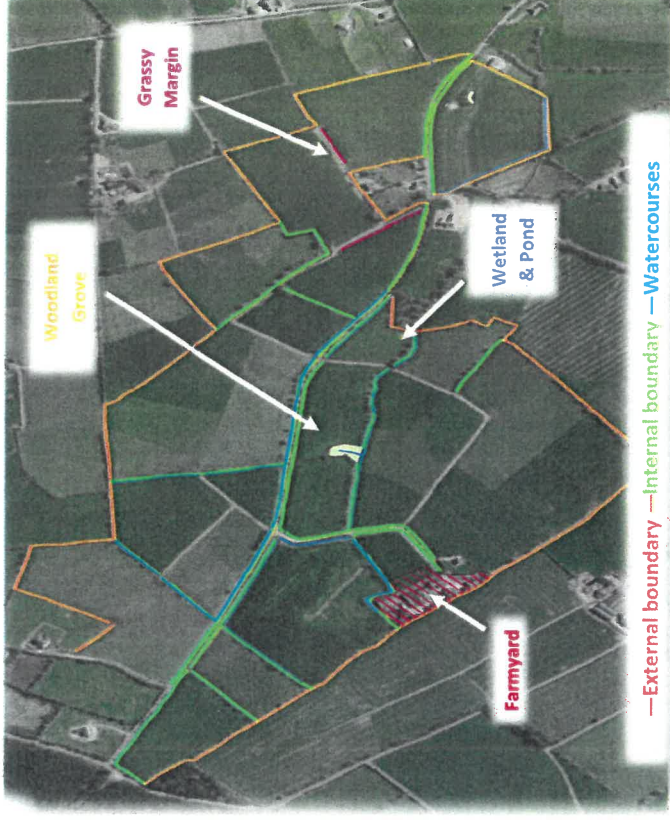
Biodiversity includes the range of native flora and fauna and the habitats that they live in, which are found on farms.

Irish dairy farmers play an important role in the protection, management and improvement of farmland biodiversity which also contribute to the sustainability of our dairy farms.

Kearney Family Farm Making Space for Nature

The Kearney farm is a diverse space with features and habitats that support native wildlife and the protection, management and improvement of farmland biodiversity is a key objective

A biodiversity baseline taken on this farm as part of a UCD and Teagasc Walsh Scholarship study found that 8% of the Kearney farming platform (owned land) is dedicated to biodiversity features including hedges, watercourses, grassy margins and wetland areas and farmyard.



Biodiversity on the Farming Platform:

8 %

Average Field Size:

4 Ha

Plan:

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

Hedges

There are almost 9Kkm of hedges and banks on the Kearney farm which account for 3.5% on the farming platform. These 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.

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



Escaped Hedge

Hedgerow Management

Tall escaped hedges are managed by trimming the sides and leaving the top to grow tall. Where hedges are topped routinely an effort is made to cut them to a triangular profile to develop a dense base, pointed top and height for hedge-nesting birds.

Trees, including whitethorns, are left uncut to grow and mature to provide food for the pollinators and the birds as these trees produce flowers and fruit throughout the year.

Watercourses

There are 2.5Kkm of watercourses on the Kearney farm which account for over 1% of the farming platform.

The watercourses that flow through the farm include a stream and drains. These provide further **connections and space** for biodiversity to thrive in along the banks and waterbed, and in the water. This 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 banks and bed, protecting the instream biodiversity



Fenced Watercourse

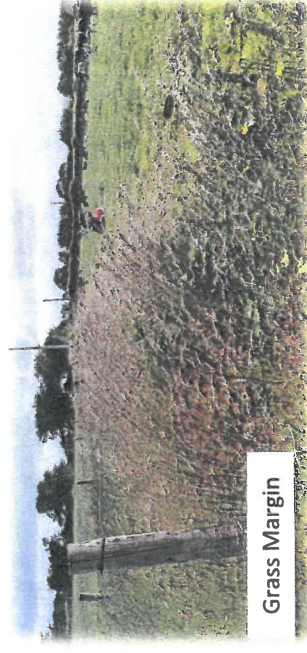
Farmyard

The farmyard also offers **space for plants and wildlife**. Naturally occurring plants and grasses are encouraged to grow along banks as no sprays are applied. A new hedge containing plants of Native Irish Provenance is planned for the passage into the farmyard

Grassy Margin

The grassy field margins act as important **connections and habitats**, providing space for natural flora and fauna.

These margins are fenced off and **do not receive any fertiliser, slurry or sprays**. These spaces are also **retained when cultivating**. Field margins are cut at least every 3 years in the Autumn time to prevent the development of scrub.



Grass Margin

Wetland Corner and Pond

An area which was prone to poaching and difficult to travel at certain times of the year has been **fenced off** and has become a designated habitat. A small pond has also been created within this space. Areas like these wetland corners are habitats that support a rich variety of wildlife.

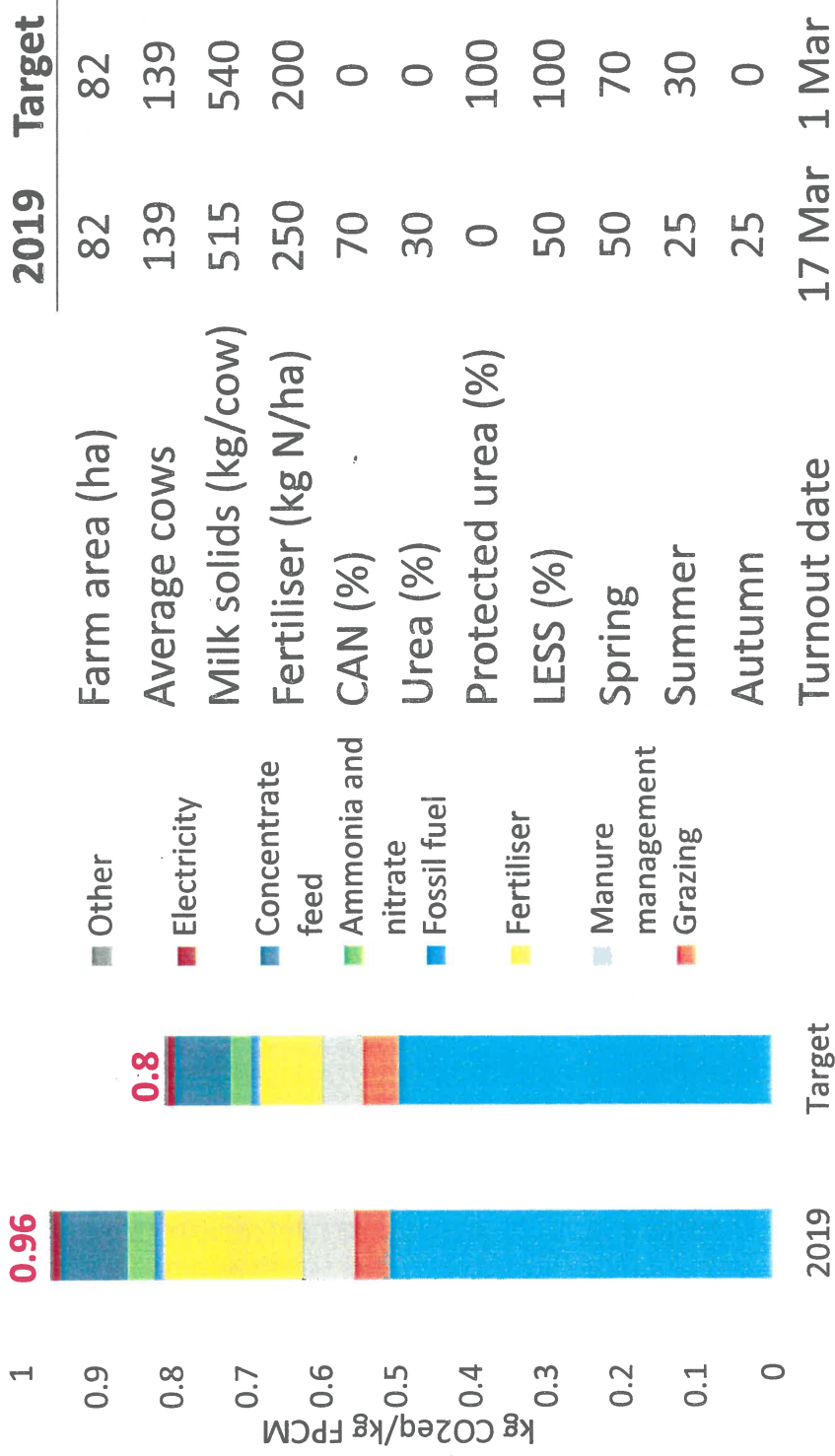
Small Pond



Woodland Grove

A small grove of woodland trees also contributes to the space for nature on the farm. This grove contains a variety of trees that surround a spring and stream.

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