



FARMING FOR WATER: RIVER SLANEY PROJECT



Working together for a better future

Farming for Water: River Slaney Project

Irish agriculture is undergoing a significant period of change. We recognise that the stand-out policy issue for Ireland's farming sector and for our suppliers is the protection of our water quality and the future of the Nitrates Derogation.

The Derogation is crucial to the viability and success of the sustainable grass-based dairy farming model.

We have a short window within which Ireland can show a change in water quality results in critical areas to help make the best case for retention of the Derogation post 2026.

Our **'Farming for Water: River Slaney Project'** brings together expertise from Teagasc, the Local Authorities Water Programme (LAWPRO) and accounting and advisory specialists *ifac* to help enhance water quality in this river that flows through the heart of the Tirlán catchment area.

As part of this project, we have developed a Farm Support Service to focus on impactful actions to address water quality challenges.

Working together with our suppliers, we believe that we can make a difference.

Good water quality is crucial for our farm businesses, family members, for the environment and for our wider communities, as well as economic success.

John Murphy *Jim Bergin*



John Murphy
Chairperson



Jim Bergin
CEO



WORKING TOGETHER

In Tirlán our commitment to supporting water quality improvement is embedded in our Living Proof sustainability strategy.

Good water quality is crucial for our farm businesses, family members, for the environment and our wider communities.

Water quality challenges have resulted in the organic nitrogen upper limit being reduced to 220Kg N/ha for farms in nitrates derogation in designated catchment areas. We are already working together to address this.

Each day, our Agricultural Sustainability Support and Advisory Programme (ASSAP) team collaborate with farm family suppliers to address water quality challenges, particularly in Priority Areas for Action (PAAs).

These PAAs have been selected because of water quality challenges. The ASSAP advisors provide guidance on nutrient, land and farmyard management to help put the right measures in the right place.

Working together, we want to support the retention of the derogation. The derogation will be reviewed in 2025 with a decision to be made on whether it will be renewed from 2026 onwards.

We want to step up the invaluable work that is being done to protect our waterbodies for everyone and for generations to come.

We have seen farm families' strong willingness to collaborate and engage in positive on-farm actions, through support for initiatives such as the Sustainability Action Payment programme and Operation Biodiversity.

We are now asking for your continued support for this important initiative.



WATER MATTERS TO US ALL

As part of the Farm Support Service, with on-farm engagement outlined in the graphic below, guidance will be provided on:

- efficient nutrient use
- improving milk solids
- addressing farmyard and infrastructure issues
- information on funding available from the Department of Agriculture, Food and the Marine, Water European Innovation Partnership (EIP) and also financing and loan application advice from *ifac*.

OUR FARM SUPPORT SERVICE

Tirlán will continue general ASSAP farm visits and also develop tailored Farm Support Service for suppliers in the most challenged water quality regions in the Slaney Catchment.

This work will then expand to other key catchments in the South-East.



THE SLANEY – TAKING ACTION TOGETHER FOR A BETTER FUTURE

The River Slaney flows through the heart of the Tirlán catchment area, spanning three counties; Wexford, Carlow and Wicklow. Rising in the Lugnaquilla Mountain in Co. Wicklow, the River Slaney flows 117km south through Baltinglass, Rathvilly, Tullow, Bunclody, Enniscorthy and Wexford and into the Irish Sea. The wider Slaney Catchment which flows into the River Slaney is 1762km².

‘A CATCHMENT OF CONCERN’

The Environmental Protection Agency (EPA) has carried out an analysis to identify catchments of concern. Risk assessment maps of ‘critical source areas’* have been developed by EPA to help target nitrogen measures in these catchments.

- 43% of the lands in the catchment are classified as ‘critical source areas’ for nitrogen losses. These are the highest risk areas in the landscape where nitrogen from free draining soil types leaches to waters. Measures to reduce leaching can be targeted in the critical source areas, to deliver maximum environmental benefits.
- Pressures in the catchment include forestry, discharges from waste water, hydromorphology, industry, agriculture and urban run-off.

**These are areas that deliver a disproportionately high amount of nutrients compared to other areas of a water body or subcatchment, and represent the areas with the highest risk of impacting a water body.*



AGRICULTURAL WATER PRESSURES

EPA data identifies grassland and arable farming types combined as the most significant sources of nitrogen and phosphorous losses. Therefore, a remediation plan requires engagement by all farming enterprises.

Working as part of a collaborative approach with our partners, we will seek to enhance water quality through impactful on-farm actions to reduce nutrient losses and deliver meaningful actions to benefit all our communities.

Living in a catchment that has healthy waters is vital for an improved quality of life and a thriving community. In addition, addressing water quality challenges will be important to support the retention of Ireland’s derogation, which is in place until 2026.

Tirlán is collaborating with partners in local authorities, Teagasc and the Local Authority Waters Programme (LAWPRO). We are working together to support enhanced water quality in the Slaney Catchment. We believe that working together, we can make a difference and support economic and social activity for the population of Ireland’s Ancient East® and employment in key sectors in the region, including agriculture, tourism, industry, human health and retail.

We know actions are being taken every day by our farm family suppliers to protect and enhance water quality and biodiversity.

Tirlán is committed to working with you, in these pilot areas to address water quality and sustainability challenges, as part of a Farm Support Service.



3 STEP FARM SUPPORT SERVICE

1. NITROGEN USE EFFICIENCY

Support the better targeting and possible reduction in inputs use, through better nitrogen use efficiency. Right product, Right rate, Right time, Right place.

In addition, suppliers in these pilot areas will be supported to identify funding through the Farming for Water European Innovation Partnership (EIP) and the Department of Agriculture’s TAMS funding to address challenges identified.

2. SLURRY STORAGE

Help identify any potential slurry storage capacity requirements and support the development of financial plans to address requirements.

3. ON-FARM PROFITABILITY

Help our suppliers improve farm level profitability by developing an enhanced milk solids strategy.

1. NITROGEN USE EFFICIENCY (NUE) – RIGHT PRODUCT, RIGHT RATE, RIGHT TIME, RIGHT PLACE



Nitrogen Use Efficiency (NUE) is the farming term used to describe the focus on better nutrient use. It quantifies the nutrients recovered by a crop, relative to the nutrients supplied from soil, applied fertilisers, manures and ultimately how much is recovered in the end product (for e.g. milk and meat).

Planning helps to optimise the use of farm nutrients, maintain and improve soil health, reduce excessive nutrient build up and lessen environmental losses.¹ Application rate and application date of fertiliser nitrogen (N) are important factors in determining grass production response and N recovery. Applying nitrogen fertiliser at the right rate and the right place during the growing season, and when soil temperatures are above 6 degrees gives most efficient response in terms of grass growth and economic return.

Steps to help improve nitrogen use efficiency and reduce risks to the environment include:

- ❶ Soil testing.
- ❷ Developing a nutrient management plan with your advisor.
- ❸ Monitoring soil temperature (6 degrees Celsius or above and climbing).
- ❹ Ensuring heavy or prolonged rain is not forecast when spreading fertiliser/slurry and not spreading if machine is tracking ground.
- ❺ Adhering to buffer zones.
- ❻ Using LESS.
- ❼ Using grass-clover systems.
- ❽ Calibrating your fertiliser spreader.

¹* Teagasc (2021) Nitrogen Use Efficiency = Cleaner Water.

<https://www.teagasc.ie/news--events/daily/environment/nitrogen-use-efficiency--cleaner-water.php> Accessed on line 3rd January 2024.

2. SLURRY STORAGE – CLOSING THE GAP

Slurry is an invaluable, available resource. It is important that we store and apply it correctly to promote grass growth and protect our waterbodies. Grass is the cheapest feed for cows and every kilogramme of grass you can produce from slurry reduces the chemical fertiliser that you have to buy to grow the grass.

Slurry should be treated as the number one source of nutrients on farm. It is important to remember to match the application of slurry or chemical fertiliser to growth rates. Care should be taken at all times to ensure nutrients are applied during the correct conditions. Teagasc recommends that all farmers plan for a minimum buffer of 20%, or an additional two to four weeks storage over and above the minimum nitrates regulation requirements of 16-weeks of storage.



Why have more storage?

- ✔ More flexibility to match rates and timing of slurry application with grass growth.
- ✔ Better use of nutrients when grass is growing.
- ✔ Better management of increased rainfall events at the shoulders of the year.
- ✔ Cover for miscellaneous issues where water enters tanks and reduces capacity.
- ✔ Use slurry, where possible, to replace chemical fertiliser.
- ✔ Applying slurry at the correct time maximises the fertiliser replacement value (N, P and K).
- ✔ TAMS grants for additional slurry storage of 40–60%, accelerated capital allowances are available for investments in storage facilities and VAT is reclaimable*.
- ✔ Soiled water stored together with slurry is considered slurry and is subject to the same storage and management requirements.

*Accelerated Capital Allowances for construction of Slurry Storage Facilities allow for 50% of the eligible expenditure to be claimed over two years (rather than the normal 7 year claim period).

For milk producers, all holdings producing soiled water must have minimum 31 days storage from 1st December 2024, with exception of winter/liquid milk producers, where storage must be in place by 1st December 2025. As part of the Farm Support Service, a Slurry Storage Assessment will be completed using the Teagasc Assessment Tool. This will help determine specific on-farm slurry storage capacity and any recommended actions.

3. ON-FARM PROFITABILITY



Tirlán has secured the services of accountancy and advisory specialists, *ifac*, to support farm family suppliers who need financial advice and guidance in the preparation of a funding application to support investment in farm facilities and infrastructure.

As part of Farm Support Service, farm family suppliers will receive an initial consultation with *ifac* (stage 1), after which both parties may agree future engagement terms (stages 2-4).

During stages 2 to 4, *ifac* will complete an initial financial assessment and create awareness of external funding sources available, including from the Department of Agriculture, Food and the Marine.

They will also provide guidance regarding accessing bank funding that may be required.



MILK SOLIDS

Milkade is Tirlán’s unique tool which provides the most up to date data from your farm such as milk solids, output per cow, milk butterfat percentages, milk protein percentage, butterfat to protein ratios, milk urea etc.

This data can be used as a key decision making tool in regard to identifying areas of improvement such as grassland management, herd nutrition and genetics.

Understanding and improving total milk solids produced per cow annually will lead to improved on-farm economic and environmental performance.

To improve milk solids performance, Tirlán has a dedicated GAIN Momentum programme to support you to sustainably optimise output per cow.

Increasing milk solids per cow will depend on fine-tuning grassland and herd management practices. With the support of a range of tools such as Milkade, we aim to increase milk solids production per cow through farm-specific, data-driven insights.

As part of the Farm Support Service, a review will take place of your current milk solids production and Tirlán will work with you to optimise your herd’s performance and output.



CARBON FOOTPRINT – MORE THAN JUST A NUMBER

Tirlán, as part of our Living Proof sustainability strategy, has already begun a journey to support our farm family suppliers to reduce their carbon footprint number by 30%. One key action that farmers continue to take is to participate in the Sustainability Action Payment programme. Farmers receive 0.5c per litre payment (including VAT), where specific on-farm actions are declared on tirlanfarmlife.com.

The AgNav sustainability tool, developed by Teagasc, Irish Cattle Breeding Federation (ICBF) and Bord Bia, is also a useful tool to support suppliers identify on-farm actions to further reduce overall farm emissions.

As part of the Farm Support Service, you will be provided with:

- the opportunity to review your most recent Bord Bia Farmer Feedback Report. Guidance will be provided regarding the actions that can be taken to reduce your carbon footprint while enhancing on-farm economic and environmental sustainability;
- support to maximise your participation in Tirlán’s c.€16m annual Sustainability Action Payment programme, AgNav, the Signpost Advisory Programme and the Tirlán and Teagasc Future Farms Programme;
- key actions and guidance to reduce your carbon footprint.

It is important that maximum farm engagement takes place if we are to achieve the best results.



MY FARM CHECKLIST

Nutrient Management					
The N fertiliser spread this year has been spread as protected UREA	Yes		No		%
Soil samples at optimum pH levels (>6.2 for mineral soils, peat soils 5.5 - 5.8)	Yes		No		%
Soil samples at optimum P & K levels	Yes		No		%
Clover / MSS incorporated in swards	Yes		No		%
I follow a Fertiliser Plan / Nutrient Management Plan for all my fertiliser decisions	Yes		No		%
I have reduced my fertiliser N application rates in the last three years	Yes		No		%
How many kg/ha of chemical N applied last year?					
I include sulphur with my fertiliser applications	Yes		No		%
Water Quality					
I have all watercourses permanently fenced off	Yes		No		%
I use catch crops post-harvest	Yes		No		%
I have an ASSAP water quality remediation plan for my farm	Yes		No		
Are you aware there is a water quality challenge in the Slaney?	Yes		No		
Are you familiar with the different pressures on water quality?	Yes		No		
Do you have an understanding of how nutrients are lost to water?	Yes		No		
Slurry / Soiled Water Management					
I have enough slurry and soiled water storage, including a buffer	Yes		No		
Slurry is applied using LESS equipment	Yes		No		%
I reduce my fertiliser N application rates following slurry application	Yes		No		%
Slurry is recycled to silage ground / out farm	Yes		No		%
Herd Management					
My herd EBI is increasing by €10 per year	Yes		No		
I milk record throughout the year	Yes		No		
I used sexed semen in my herd in this year's breeding season	Yes		No		
I have a herd health plan and use bulk milk screening to monitor my herd	Yes		No		
My herd average SCC is less than 100,000 cell/ml	Yes		No		
Grazing platform / whole farm stocking rate					
I use <15% Crude Protein feed from April to September	Yes		No		
General					
I know the carbon footprint for my farm	Yes		No		
I know the NUE for my farm	Yes		No		
I know the percentage biodiversity (Space for Nature) of my farm, as provided by Dept. of Agriculture	Yes		No		
Grassland Management					
The entire milking platform is well serviced with roadways and water	Yes		No		
I use the rotation planners to maximise length of the grazing season	Yes		No		
I record grass covers weekly on PastureBase or equivalent (>25 covers per year)	Yes		No		
I make grassland management decisions based on PastureBase reports	Yes		No		
My pre-grazing cover during the main grazing season is 1,400 - 1,500kg DM/Ha	Yes		No		
Programme Participation					
I receive Tirlán's 0.5cpl Sustainability Action Payment	Yes		No		



The new €60 million Water European Innovation Partnership (EIP) “Farming for Water” project aims to deliver targeted measures to improve water quality at local, catchment and national levels. It’s the largest ever EIP in Ireland.

The project is a collaborative approach between the Department of Agriculture, Food and the Marine and the Department of Housing, Local Government and

Heritage, working in partnership with the agri-food industry to improve water quality.

Government will support the project through funding for participating farmers, co-financed by the National Exchequer and the EU, with the objective of involving 15,000 farmers in priority areas nationally. The EIP will apply an eligibility ranking to farms located in high Priority Areas for Action (PAAs), such as the Slaney catchment.

An operational group has been established by the Local Authority Waters Programme (LAWPRO), in partnership with Teagasc, Dairy Industry Ireland (DII) and Bord Bia. With the support of other stakeholders, they will work in partnership with farmers in the implementation of a number of targeted actions at farm level to improve water quality.

Measures available

- Catch/cover crops
- Nutrient Management plan
- Nitrogen Use Efficiency plan
- Farmyard sediment collection tank
- Spatially targeted riparian buffer zones
- Hedgerow establishment
- Additional fencing for bovine exclusion from water bodies
- Riparian buffer zones
- Tree planting
- Earthen bund
- Sediment traps for farm roadway run-off
- Watercourse crossing/bridges
- Gateway relocation
- Pesticide mitigation measures
- Multi Species Swards
- Spatially targeted riparian buffer zones

For updates, scan the QR code below:

