Waters of LIFE



Pilot Agri-Environmental Programme

General Actions Specifications

www.watersoflife.ie

An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
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28/9/2026	V5	Min till on grassland removed	Waters of LIFE Team

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Introduction:

The Waters of LIFE pilot agri-environmental programme is designed to reward farmers for protecting and improving water quality. This document outlines the details and specifications of the general actions of the programme.

Not all water quality measures can be results-based. The programme offers payment for general actions aimed at reducing losses of nutrient and sediment to rivers.

Some of these actions are well established through other schemes. Others are being trialled by the project for the first time.

Waters of LIFE programme – General Actions summary			
Action	**Payment**	**Is it required or optional?**	**How often does it happen?**
Runoff risk assessment	€250	Required for all participants	Twice – Year 1 and Year 3 of programme
Nutrient management planning	€400	Required in Awbeg and Shournagh only	Once – At start of programme
Nutrient surplus recording using AgNav	€250/yr	Required in Awbeg and Shournagh.All Beef, Tillage & Dairy farms	Ongoing
Precision nutrient application (including grass measuring and record keeping	Up to €1,452.50/yr	Optional	Ongoing
Catch crop (winter cropping system)	€173/ha/yr	Optional	Ongoing
Catch crop (Spring cropping system)	€225/ha/yr	Optional	Ongoing
Minimum tillage	€40/ha/yr	Optional	Ongoing

How do these general measures help with water quality?

These measures are all designed to help manage the loss of too much nutrients or fine sediment to water.

Why are some measures required in the Awbeg (Kilbrin) and Shournagh?

These catchments were chosen because nutrients are a proven issue for water quality in both. The general measures required in the Awbeg and Shournagh areas are focused on nutrient management.

1. Runoff Risk Assessment

Objective

The Runoff Risk Assessment is a whole-farm assessment that identifies areas on the farm where water flows both:

- within the farmyard;
- on farm land

On farmland, the runoff risk is primarily intended to identify overland flow paths, which are typically associated with phosphorus and sediment loss to waters. The purpose of this assessment is to work with farmers to identify suitable locations for mitigation measures to manage such runoff.

Background

Water that flows across farmyards and farmland has the potential to gather and carry pollutants, such as:

- Sediment
- nutrients (e.g. phosphorus)
- pathogens (e.g. E. coli)
- agrichemicals (e.g. pesticides)

Therefore, it is important for farmers to consider how best to manage this water to minimise the risk of pollutant runoff to receiving streams and rivers.

Where will this action be taken?

This action will be a **required** general measure for all participants in the Waters of LIFE programme.

What are the requirements for this measure?

The Runoff Risk Assessment will be carried out by on behalf of the Project by Waters LIFE approved advisors.

A desk study is done before the site visit to identify potential runoff risks. The assessment covers both the farmyard and farmland.

Farmyard assessment:

- Identify if rainwater enters the yard from upslope areas and flows across the farmyard
- Identify locations for potential interception measures and to minimise soiled water generation
- Identify the outfall drains from the farmyard and provide advice on how to prevent contaminant losses entering the receiving drainage network
- Identify any other areas within the farmyard that may require attention

Farmland assessment:

The key areas on the farmland for advisors to assess in terms of potential runoff risk and suitability for mitigation measures can be broken down into two main categories:

- Mapped flow paths and flow delivery points

These are identified using EPA's Pollution Impact Potential (PIP) maps. PIP maps must be verified on the ground in consultation with the landowner.

- Unmapped (or periodic) critical source areas (CSAs)

CSA are areas or features such as farm roadways; drainage ditches; cattle access/stream crossing points; tramlines, bridges and culverts. They can also include heavily stocked fields.

Advisors and landowners use their experience and local knowledge to identify areas that may pose runoff risk, that are not on the EPA PIP maps.

Mitigation Measures:

- Advisors recommend measures from the Waters of LIFE list of supporting actions (known in other schemes as Non Productive Investments (NPI) or Landscape Actions)
- Bespoke measures can also be considered
- Advisors engage with participants on the proposed mitigation measures (in terms of location and type of measure)
- The results of the runoff risk assessment, along with the proposed supporting actions are submitted to Waters of LIFE via the project app and/or web portal

How much is the farmer paid?

Farmers are paid €250 for their time in participating and informing the runoff risk assessment. The advisor's work is paid for directly by Waters of LIFE. It is a required action.

Why is it a required action?

Walking the farm to look at the potential for pollutant runoff is critical to identify pressure points across farm and the type and location(s) of supporting actions to address them ('the right measure in the right place'). It is also an important to raise awareness about water quality and helps with knowledge transfer across the wider sub-catchment.

When does it take place?

The run off risk assessment will be carried out in years 1 and 3 of the programme. Payment will be made to the farmer on submission of a suitable runoff risk assessment being submitted to the Waters of LIFE by the farm advisor.

How do we confirm the action has been taken?

Results of the runoff risk assessment are submitted via the project app/web portal, including proposed supporting actions. The results are reviewed by Waters of LIFE.

Further information on Runoff Risk available at:

Guide to farmyard management for water quality - Teagasc	https://www.teagasc.ie/environment/water-quality/farming-for-water-quality-assap/improving-my-water-quality/farmyard-management/
Guide to pollution impact potential (PIP) maps – EPA	https://www.catchments.ie/water-quality-agriculture-pollution-impact-potential-maps-tool-guide-resources-areas-investigation/
Agricultural measures mapping tool - EPA	https://teagasc.ie/wp-content/uploads/2025/05/The-EPA-Targeting-Agricultural-Measures-Mapping-Tool.pdf

2. Nutrient Management Plan (NMP)

Objective

Nutrient management plans provide farmers with valuable information on the nutrient status of their farm/farming system. The aim is to inform farmers about when & where to apply nutrients. This can help achieve optimum slurry recycling and nutrient uptake by plants and prevent over-application of nutrients.

Background

Nutrient management planning is a process that aims to match nutrient inputs (fertilisers and organic manures) to crop demand relative to the farm enterprise. The EU's European Green Deal 2030 has a target of reducing nutrient losses by 50%, while ensuring no deterioration in soil fertility. The objective of the Green Deal is to reduce fertiliser use by at least 20%. An NMP follows the principle of the right amount of the right product in the right place at the right time.

Where will this action be taken?

Nutrient management planning is a **required action in the Awbeg and Shournagh sub-catchments**. Elsewhere, the action will be optional.

Requirements

- This measure is applicable to those participants **that do not require** a Nutrient Management Plan under current GAP regulations or other schemes.(i.e. Derogation farmers)
- A new nutrient management plan must be prepared by an approved agricultural advisor along with farm maps based on soil sampling results.
- The only plans acceptable to Waters of LIFE are:
    - Teagasc Online Nutrient Management Plan programme
    - Farm Eye Nutrient Management Plan
    - Grassland Agro Nutrient Management Plan programme
- Soil Samples must be from a DAFM approved laboratory (ISO/IEC 17025:2000 accredited).
- Soil samples must have been taken within 2 years of date of submission of NMP to Waters of LIFE.
- Soil samples must be taken in line with DAFM best practice i.e. 1 soil sample every 5 ha.
- Soil tests should include as a minimum pH, soil phosphorous (P) and soil potassium (K)
- Existing soil samples that meet the above requirements may be used.

- Critical source areas (areas at high risk of nutrient losses) must be identified through discussions with the applicant and appropriate nutrient advice given.
- Peat soils should be identified and appropriate recommendations made.
- The farmer is given the NMP, along with relevant colour coded maps, liming plan and fertiliser allowances.
- The farmer engages with their farm advisor or Waters of LIFE scientist in a one-to-one session, to ensure the plan is fully understood and opportunities to reduce nutrient surplus are identified.

How do we confirm the action has been taken?

The following are submitted:

- Copy of a **full** NMP from approved supplier.
- NMP Soil samples need to be no more than 2 years old
- NMP to include soil index maps.

How much is the farmer paid?

The farmer is paid €400 to produce a nutrient management plan. Only one plan is required. This payment is made to the farmer to compensate for the cost of the NMP service and soil testing.

How do we confirm the action has been taken?

A completed Nutrient Management Plan (including farm maps) is submitted along with a copy of relevant soil sample results.

Further information on Nutrient Management Planning

Guide to nutrient and fertiliser management for water quality - Teagasc	https://www.teagasc.ie/environment/water-quality/farming-for-water-quality-assap/improving-my-water-quality/nutrient-and-fertiliser-management/
Article on NMP as an essential tool for sustainability – Teagasc	https://www.teagasc.ie/news--events/daily/crops/nutrient-management-planning-an-essential-for-sustainable-farming.php

3. Nutrient Surplus Calculation using AgNav

Objective

Nutrient surplus is an indicator of potential risk of loss of nutrients to the environment including to our waterways. Careful record keeping allows nutrient surpluses to be calculated. This helps farmers and their advisors discuss how best to reduce excess nitrogen and phosphorus in the farming system. Options include taking on measures to reduce nutrient inputs and improved utilisation of existing nutrient inputs.

Background

AgNav is tool created in collaboration between Bord Bia, Teagasc and the Irish Cattle Breeders Federation (ICBF). It is a farmer-centric sustainability support framework. It uses the three agencies' collective knowledge, data, support tools and other resources, to enable delivery against Climate Action Plan and water quality targets for the Agricultural sector. It is a free online platform that is available nationwide across Ireland and is available to both farmers and their advisors to help guide sustainable practices on farm.

Nutrient surplus calculations follows a nutrient accounting approach. Farm gate inputs of nitrogen and phosphorus are calculated minus farm gate outputs of nitrogen and phosphorus. This gives a nitrogen and phosphorus balance per hectare and nitrogen and phosphorus surpluses for the participating farm.

Examples of outputs include sales of milk, livestock and manures. Examples of inputs include purchased fertiliser, feeds, livestock and imported organic manures.

Nutrient surplus reduction is a key tool to address nitrate loss, particularly in high pollution potential impact for Nitrogen areas (PIP- N ranks 1-4).

Currently the nitrogen surplus, calculated by AgNav, does not take account of nitrogen fixed by clover in grassland swards. AgNav. Is constantly developing and incorporating methodologies from Teagasc research scientists, so this is likely to change in the future.

In the meantime, Waters of LIFE will use figures for percentage clover in the sward (were available) to estimate the amount of clover fixed nitrogen in the system. This is because including clover fixed nitrogen in the calculation of

nitrogen surplus gives a more accurate reflection of risk of leaching to waters.

Where will this action be taken?

Nutrient surplus calculation using AgNav is a **required action in the Awbeg and Shournagh sub-catchments** for relevant enterprise types (Dairy, Beef and Tillage).

Requirements

- Use the AgNav Platform to calculate nitrogen and phosphorus surpluses for the farm. This depends on having completed at least one Bord Bia Audit.
- Prepare a farm plan on AgNav listing measures that will be taken to reduce the nutrient surplus over time.
- Nutrient surplus assessments are carried out on an annual basis to track progress over time. These include an update to Bord Bia assessment to ensure all figures used are correct along with associated statements for all fertiliser & feed purchased.
- Participants avail of a contribution towards the use of AgriTxt or similar service that provides support and guidance in preparation for Bord Bia Sustainability Audits.
- Records of all fertiliser applications are retained and available for inspection on request.
- Nutrient surplus assessment requires data from Bord Bia Sustainability Audit, ICBF, co-op milk sales, BISS application etc. Dockets are kept and used for data input.

How much is the farmer paid?

Participants receive €250 per year for their time in nutrient surplus assessment and preparing a farm plan.

Additionally, where a participant uses AgriTxt or equivalent in relation to the Bord Bia Audit Preparation Service, they will be reimbursed at 50% of the costs incurred (up to a maximum of €200).

How do we confirm the action has been taken?

The following are submitted:

- Copy of AgNav action plan (Appendix 1).
- Copy of AgNav forecaster targets reports produced by AgNav (Appendix 2).
- Copies of invoices/receipts from AgriTxt or similar service.

Further information on AgNav and PIP maps

Sign up for Teagasc Signpost Advisory Programme – Teagasc	https://www.teagasc.ie/environment/climate-change--air-quality/signpost-programme/signpost-advisory-programme/sign-up/
Guide to AgNav	https://www.agnav.ie
Guide to PIP maps - EPA	https://www.catchments.ie/next-generation-pollution-impact-potential-maps-launched/

4. Precision Nutrient Management

Objective

The aim of this measure is to ensure that use of fertilizers on farms is optimised by using available tools, such as PastureBase Ireland (PBI), the Teagasc MoSt grass growth prediction model and local (e.g. Sencrop) weather stations. Use of such tools will allow a farmer to manage and record soil fertility, match nutrient applications to crop requirements, weather conditions and grass growth predictions.

Background

For grassland farmers PastureBase Ireland and the MoSt Grass Growth prediction model combined with local weather data provide useful decision support tools.

Pasture Base Ireland is primarily a grass growth management tool. However, it can benefit water quality by helping farmers optimize the timing and quantity of fertilizer applications based on grass growth data. By applying the right amount of fertilizer at the right time, farmers can reduce the risk of nutrient runoff into nearby water bodies.

The MoSt model provides a text service that informs the farmer of when nutrient applications would be best suited for grass growth and weather conditions. This gives the farmer valuable information that may improve the nutrient use efficiency of the farm.

Where farmers have maintained accurate records in PBI for at least two years (including grass measuring with a minimum of 30 covers), they will be facilitated to join the MoSt network. This offers the farmer farm specific grass growth predictions and fertiliser recommendations.

Where will this action be taken?

- This measure is available to Dairy farmers in the Awbeg and Shournagh demonstration sub-catchments.
- Farmers with at least two years fertiliser and grass measurements (minimum of 30 covers) can immediately avail of the MoSt grass growth predictions.

Requirements

- If not already signed up, participants must register for a PastureBase Ireland Account.

- A current nutrient management plan and in-date soil samples must be available. Relevant data from these must be input to PBI.
- In order to use PBI or equivalent, farmers or their advisors must have all fields mapped so that grass measuring and fertiliser application data can be recorded.
- Farmer must commit to keeping accurate records of all relevant data, including fertilizer applications.
- Participants with a dairy enterprise must be willing to grass measure on all fields within the milking platform, if not already doing so.
- Clover percentages per paddock must be estimated (or measured)[1]
    - In some cases, clover percentages may need to be measured in-situ by Waters of LIFE.
    - The measurement procedure will be based on three quadrat placements per paddock and an estimate clover cover percentage per area of quadrat. The average result for the three measurements will represent the paddock clover cover.
- Records of fertilizer application must be for all fields within the farm and not limited to the grazing platform (no grass measuring required outside the grazing platform).
- Farmers will be offered a contribution towards the cost of grass measuring over and above the statutory minimum number of covers requirement.
- Where sufficient records exist (2 years minimum), a participant will be offered farm specific grass growth predictions using the MoSt Grass Growth Prediction Model.
- Farmers must submit their PBI score card and an estimate of the nitrogen surplus.

Payment rate

Part 1

The participant will be paid a contribution towards the cost of grass measuring. Participants not in derogation will receive a payment to record up to 35 grass covers.

Participants in derogation are already required to record a minimum 20 grass covers under the Good Agricultural Practice Regulations. These participants will receive a payment to record grass covers beyond the 20 required, up to a maximum of 35 covers i.e. 15 additional covers

[1] PBI allows clover content of paddocks to be recorded. These figures will be used by the project team to estimate the amount of clover fixed nitrogen and the nitrogen surplus adjusted accordingly.

The payment will be €27.50/cover up to 50 ha and €0.50/ha for every hectare over that. This equates to a maximum payment for a 50ha farm of €962.50.

This payment rate is approximately 50% of the cost of engaging a professional grass measuring service. However the participant is not obliged to engage a professional service and can carry out the measurements themselves. Payment is based on the number of grass covers.

This will be paid in arrears based on the number of covers recorded in PBI.

Part 2

This element of the payment is intended to compensate participants for the time required to input accurate records in PBI. However, this payment will be adjusted in accordance with the PBI scorecard result obtained (excluding questions 2 to 4). The maximum payment will be €490/annum. This equates to €70 for a score of 3 on each of the 7 relevant questions on the PBI score card (excluding questions 2, 3 and 4).

No payment will be received in respect of any question which receives a score of less than 3.

A copy of the PBI scorecard is included in Appendix 3.

How do we confirm the action has been taken?

Part 1:
The participant submits a copy of their PBI Cover Report or equivalent Appendix 4

Part 2:
The participant submits a copy of their PBI Scorecard (Appendix 3) & Nitrogen use efficiency (NUE) report (Appendix 5).

Further information on PBI and MoSt

Guide to PastureBase tools – Teagasc	https://www.teagasc.ie/crops/grassland/pasturebase-ireland/
Article on MoSt predicted grass growth - Teagasc	https://www.teagasc.ie/news--events/daily/grassland/most-predicted-grass-growth-in-pasturebase-ireland.php

Update on MoSt prediction model - Teagasc	https://teagasc.ie/news--events/news/teagasc-publishes-research-impact-highlights-in-2024/

5. Catch Crops (Winter and Spring cropping systems)

Objective

Catch crops are an action to reduce nutrient leaching and help prevent soil erosion in the autumn/winter period.

Background

Catch crops generate a large mass of herbage to help protect the soil from exposure to heavy rainfall during the winter period. This reduces the potential of soil erosion and surface run-off while also increasing water infiltration.

Catch crops utilise residual nutrients in the soil following the harvest of a cereal or oilseed crop, thus maintaining soil biology, preventing leaching of soluble nutrients and reducing the risk to water quality.

With their vigorous root systems, these crop species condition and break up the soil, making it more friable for ease of cultivation, while the residual herbage that remains greatly enhances the organic carbon content and structure of the soil.

In the Waters of LIFE programme, catch crops are being used primarily to reduce nitrogen losses. Therefore, non-leguminous (non-nitrogen fixing) species only will be funded through the project. See Table 1 for the list of species available.

Where will this action be taken?

This action is only available in the Shournagh and Awbeg catchments. Also, this action is only applicable on LPIS parcels declared as tillage crop in the current year's BISS application. If rotated in subsequent years, it must be claimed on tillage parcels.

Requirements

- Establish a catch crop using non-inversion techniques (ploughing is not allowed) where it will provide a water quality benefit.
- For Option **5A (Spring Cropping Systems)** the crop should be sown as early as possible, ideally by mid-August but no later than 1st September annually each year. This catch crop must remain in place until 1st January annually.

- For Option **5B (Winter Cropping Systems**) the catch crop must be set by the 1st August and remain in place until 30th September.
- The minimum area to be delivered is 0.5 hectares. The maximum area for payment is 50 hectares cumulative between measures 5A & 5B. Area for payment may be increased based on scientific justification. This will be decided on a case-by-case basis in conjunction with Waters of LIFE.
- When sowing the catch crop, the under sowing or sowing of a grass crop is not permitted.
- The main cereal crop cannot be under sown with catch crop species.
- After 1 January, light grazing or incorporation is permitted. Participants should ensure grazing only takes place where soil erosion is not considered to be an issue. Intensive strip grazing/zero grazing is not permitted. Grazing of a catch crop in situ requires a 4m buffer (grass/vegetated margin) from the surface water edge (GAP Regulations). Ensure to comply with all GAP regulations when setting catch/cover crops.
- Where a watercourse is present on or adjacent to the parcel, bovines are not permitted to access the watercourse. Where no natural barrier exists, the watercourse must be fenced at least 1.5m from the top of the bank when bovines are present (drinking points are not permitted).
- Riparian buffers measures must be fenced off if livestock graze the cover crop at any stage, otherwise fencing in not required. Temporary fencing is sufficient.
- An annual declaration will be made through the waters of LIFE web portal where the area will be defined and all required information supplied
- For catch crops, in any given year of the Waters of LIFE programme, a participant cannot have ACRES catch crop in or on same area, or catch crops being funded by any other agri scheme offering the same action. There must be a clear distinction between Waters of LIFE catch crop and any catch crops being funded by any other agri scheme.
- Waters of LIFE catch crops do not qualify for GAEC 7 (crop diversification rule) which is required for BISS payments.
- All Waters of LIFE dockets should be separate to ACRES.
- Seed mixture must contain at least two species from the list in Table 1. No Legumes permitted in seed mix.
- No Organic or Chemical fertilisers or slurry to be spread on the catch crop
- One species cannot make up more that 75% of the seed mixture. Full seed rates for each species are also included in the table. (Note: brassica catch crops should not be used in rotation with oil seed rape.

Table 1: Approved Catch Crop Species

Catch Crop Species	Monoculure seed rate (kg/ha)
Buckwheat	50
Forage/Fodder Rape	8
Mustard (Brown)	15
Mustard (White)	7
Oats	100
Black Oats	60
Phaceila	8
Sunflower	20
Rye	150
Tillage Raddish	10
Leafy Turnip	8
Linseed	30
Fodder Radish	10
Kale/Rape hybrid[2]	8

*** (No Legumes/clover seed permitted)**

How much is the farmer paid?

5A: Spring Cropping System: €229/ha/yr
5B: Winter Cropping System: €173/ha/yr.

The minimum area to be delivered is 0.5 hectares.

The maximum area for payment is 50 hectares cumulative between Measures 5A & 5B (subject to point 4 above)

[2] The kale/rape hybrid is classed as one species. Another species will be require to meet the minimum requirement of at least 2 species in the mix.

How do we confirm the action has been taken?

Option 5A - Spring Cropping System:

- Annual declaration submitted by 1st October of that year.
- Geotagged photos (using apps such as GPS Map Camera) taken annually. The photos will clearly show:
    - The measure that has been applied for
    - Proof of seed purchased - showing type of seed purchased plus kgs i.e. seed bag labels.

Option 5B: - Winter Cropping System

- An annual declaration submitted by 1st September of that year.
- Geotagged photo (using apps such as GPS Map Camera) taken annual. The photos will clearly show:
    - The measure that has been applied for
    - Proof of seed purchased - showing type of seed purchased plus kgs i.e. seed bag labels.

This measure will also be subject to a site inspection by Waters of LIFE.

Further information on Catch Crops

Article: The Soil is Alive and Willing to Help – Teagasc	https://teagasc.ie/news--events/daily/the-soil-is-alive-and-willing-to-help/
Article: Catch Crops Yield Multiple Benefits - Teagasc	https://teagasc.ie/news--events/daily/the-multiple-benefits-of-catch-crops/
Quick Facts: Cover Crops Teagasc	https://teagasc.ie/crops/crops/break-crops/cover-crops/

6. Minimum Tillage

Objective

Minimum tillage (Min Till) can protect water quality from nutrient and sediment run-off. It can also reduce carbon emissions and help to improve soil structure.

Background

Minimum tillage means sowing a crop without inverting the soil i.e. the soil cannot be ploughed.

Minimum tillage has many advantages for both the farmer and the land. It can save fuel and time for the farmer. It reduces damage done to the soil by rain, helps prevent the breakdown of soil structure and reduces the formation of a hard pan in the soil.

This measure also protects archaeological monuments within the topsoil and subsurface of the soil. The use of min-till techniques including direct drilling offer significant climate benefits by reducing the carbon emissions that are associated with conventional ploughing operations.

Where will this action be taken?

This action is only available in the Shournagh and Awbeg catchments. Also, this action is only applicable on LPIS parcels declared as tillage crop in the current year's BISS application.

If rotated in subsequent years, it must be claimed on tillage parcels. Not applicable to grassland conversion.

Requirements

- Establish a tillage crop using minimum tillage or direct drilling equipment i.e. the crop must be sown without inverting the soil (the soil cannot be ploughed).
- This action must be applied for through the Waters of LIFE web portal by the appointed advisor before the action is carried out. The area for the action must be identified through the web application, including the relevant LPIS parcel and the crop to which the action relates.
- The minimum area to be delivered is 0.5 hectares. The maximum area for payment is 50 hectares.
- This action must be delivered on the next crop establishment following approval into the programme and for all subsequent years of the contract.

- This measure can be rotated, if necessary, once the area(s) delivered is at least equal in size to the contract area(s) established in year one. The LPIS parcel and area for this action must be declared to the project each year of the contract before the annual establishment deadline.
- An Annual Declaration must be submitted via the Waters of LIFE web portal containing the following:
    - The advisor will declare the area sown subject to min till
- For min till, in any given year of the Waters of LIFE programme, a participant cannot have ACRES min till in or on the same area, or under any other agri scheme offering funding for the same action. There must be a clear distinction between Waters of LIFE min till and any bring claimed under any other agri scheme.

Payment Rate

The payment rate for minimum tillage is €40/ha/yr.

How do we confirm the action has been taken?

On the spot control: this measure will be verified with a site inspection by Waters of LIFE during crop establishment.

Further information on minimum tillage:

Top Ten Tip for Minimum Tillage – Farming for Nature	https://www.farmingfornature.ie/your-farm/resources/groundtips/min-till/
Guide to Conservation Tillage - Teagasc	https://www.teagasc.ie/crops/crops/grass-weeds/conservation-tillage/
Benefits of Minimum Tillage – Kelly Tillage	https://kellytillage.com/eu/what-are-the-benefits-of-minimum-tillage-system/

Appendix 1: AGNAV Action Plan

AGNAV

My Farm Plan

My Farm Plan			
Herd Number:	B1111120	**Last Updated:**	30/11/2025
Name:	Mary Bloggs - EXAM AUDIT	**Print Date:**	16/02/2026

Action List

Action Area	Action Details	Done?
Reduce Chemical Nitrogen Usage	**Due Date:** 31/12/2025 **Tasks** ☐ Reduce N use in early spring by spreading only when soil conditions are stable above 6 degrees for 3 consecutive days ☐ Manage pasture to increase clover composition ☐ Include clover in seed mix and focus on achieving high clover composition ☐ Make best use of N in organic manure through timing and LESS ☐ Apply N with extreme care when in drought or when soils are waterlogged ☐ Reduce N use late in the season ☐ Regular calibration of fertiliser spreader to ensure accurate application. ☐ Use GPS technology when applying fertiliser. ☐ Incorporate Multispecies and implement pasture management practices pasture to maintain. **Notes:** Oversow 2-3kgs of white clover per acre on the grazing platform.	☐
Spread slurry when most effective	**Due Date:** 31/12/2025 **Tasks** ☐ Apply over 75% of cattle slurry before 15th May to minimise Ammonia emissions from the farm. ☐ Maximise spring slurry application by applying when closing for the first cut silage. ☐ Spread slurry in dull, calm, and moist conditions. ☐ Check slurry storage capacity and ensure sufficient capacity to avoid spreading before early/mid-February.	☐

Appendix 2: AGNAV Forecaster

AGNAV

Current Emission And Breakdown For ********(2024)

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Greenhouse Gases*

	Total Emissions (TON CO2 equivalent)	Emissions Per Hectare (TON CO2 equivalent / hectare)	Footprint Dairy (KG CO2 equivalent / kg FPCM)	Footprint Beef (KG CO2 equivalent / kg LW Gain)
Current	1031	8	0.81	8.89
Target	1047 **(1.6%)**	8 **(1.6%)**	0.81	8.71 **(-2.1%)**

Ammonia*

	Total Emissions (kg NH3)	Emissions Per Hectare (kg NH3 / hectare)	Footprint Dairy (g NH3 / kg FPCM)	Footprint Beef (g NH3 / kg LW Gain)
Current	3669	28	2.22	43.47
Target	3732 **(1.7%)**	28	2.22	42.04 **(-3.3%)**

Production*

	Stocking Rate (Livestock Units / Hectare)	Milk Solids Produced per Cow (kg)	Beef Produced per LU (kg Liveweight / Livestock Unit)
Current	1.87	483	522
Target	1.87	483	560 **(7.3%)**

Nutrients Balance*

	Nutrient Balance N (kg Nitrogen / Hectare)	Nutrient Balance P (kg Phosphorus / Hectare)
Current	121	1
Target	122 **(1)**	0 **(-1.0)**

Nitrogen Fertilizer

	Amount % (Current)	Amount % (Target)
Total	100	100
Urea	0	0
Protected Urea	90	90
Other N fertiliser	10	10

Slurry Spreading

	Amount % (Current)	Amount % (Target)	Method (Current)	Method (Target)
Spring	50	50	Bandspreader / Dribble Bar	Bandspreader / Dribble Bar
Summer	40	40	Bandspreader / Dribble Bar	Bandspreader / Dribble Bar
Autumn	10	10	Bandspreader / Dribble Bar	Bandspreader / Dribble Bar
Winter	0	0	Splash Plate	Splash Plate

Grazing Season

	Turn Out (Current)	Turn Out (Target)	Housing Start (Current)	Housing Start (Target)
Dairy Cows	15-Feb	15-Feb	10-Nov	10-Nov
Suckler Cows	01-Apr	01-Apr	01-Nov	01-Nov
Weanling / Yearlings /Stores	01-Apr	01-Apr	10-Nov	10-Nov
Finishing Cattle (Steers & Bulls)	01-Apr	01-Apr	01-Oct	01-Oct
Finishing Cattle (Young Bulls)	01-Apr	01-Apr	10-Nov	10-Nov

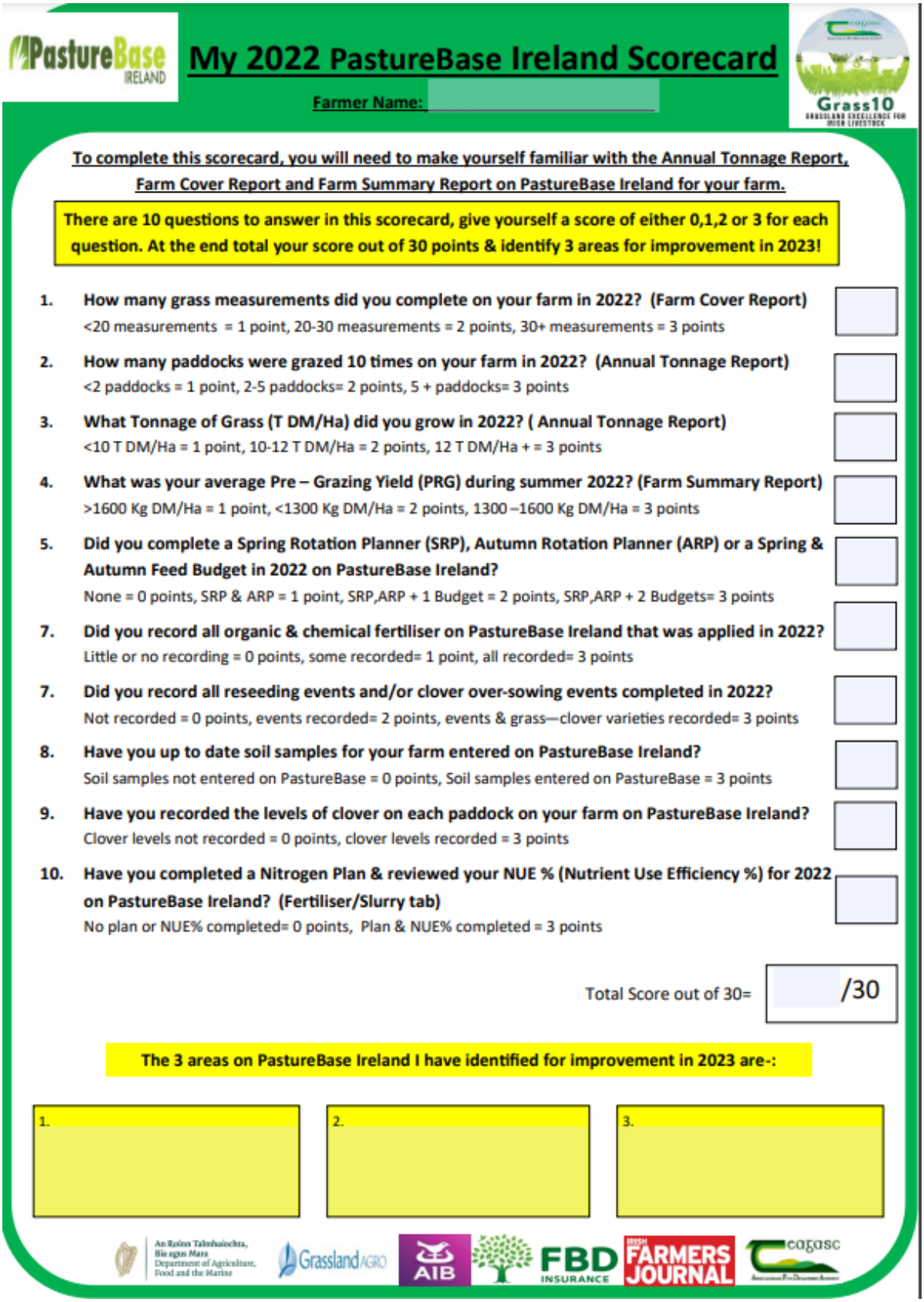
Finishing Age (Average Months)

	Steers	Heifers (30)	Young Bulls (18)
Current	N/A	20	14
Target	N/A	20	14

EBI (Economic Breeding Index)

Current	168
Target	168

Appendix 3: Example of PastureBase Ireland Scorecard



PastureBase IRELAND

My 2022 PastureBase Ireland Scorecard

Farmer Name:

Grass10 GRASSLAND EXCELLENCE FOR IRISH LIVESTOCK

To complete this scorecard, you will need to make yourself familiar with the Annual Tonnage Report, Farm Cover Report and Farm Summary Report on PastureBase Ireland for your farm.

There are 10 questions to answer in this scorecard, give yourself a score of either 0,1,2 or 3 for each question. At the end total your score out of 30 points & identify 3 areas for improvement in 2023!

1. **How many grass measurements did you complete on your farm in 2022? (Farm Cover Report)**
   <20 measurements = 1 point, 20-30 measurements = 2 points, 30+ measurements = 3 points
2. **How many paddocks were grazed 10 times on your farm in 2022? (Annual Tonnage Report)**
   <2 paddocks = 1 point, 2-5 paddocks= 2 points, 5 + paddocks= 3 points
3. **What Tonnage of Grass (T DM/Ha) did you grow in 2022? (Annual Tonnage Report)**
   <10 T DM/Ha = 1 point, 10-12 T DM/Ha = 2 points, 12 T DM/Ha + = 3 points
4. **What was your average Pre – Grazing Yield (PRG) during summer 2022? (Farm Summary Report)**
   >1600 Kg DM/Ha = 1 point, <1300 Kg DM/Ha = 2 points, 1300 –1600 Kg DM/Ha = 3 points
5. **Did you complete a Spring Rotation Planner (SRP), Autumn Rotation Planner (ARP) or a Spring & Autumn Feed Budget in 2022 on PastureBase Ireland?**
   None = 0 points, SRP & ARP = 1 point, SRP,ARP + 1 Budget = 2 points, SRP,ARP + 2 Budgets= 3 points
7. **Did you record all organic & chemical fertiliser on PastureBase Ireland that was applied in 2022?**
   Little or no recording = 0 points, some recorded= 1 point, all recorded= 3 points
7. **Did you record all reseeding events and/or clover over-sowing events completed in 2022?**
   Not recorded = 0 points, events recorded= 2 points, events & grass—clover varieties recorded= 3 points
8. **Have you up to date soil samples for your farm entered on PastureBase Ireland?**
   Soil samples not entered on PastureBase = 0 points, Soil samples entered on PastureBase = 3 points
9. **Have you recorded the levels of clover on each paddock on your farm on PastureBase Ireland?**
   Clover levels not recorded = 0 points, clover levels recorded = 3 points
10. **Have you completed a Nitrogen Plan & reviewed your NUE % (Nutrient Use Efficiency %) for 2022 on PastureBase Ireland? (Fertiliser/Slurry tab)**
    No plan or NUE% completed= 0 points, Plan & NUE% completed = 3 points

Total Score out of 30= /30

The 3 areas on PastureBase Ireland I have identified for improvement in 2023 are-:

1.

2.

3.

An Roinn Talmhaíochta, Bia agus Mara Department of Agriculture, Food and the Marine

Grassland AGRO

AIB

FBD INSURANCE

IRISH FARMERS JOURNAL

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Appendix 4: Farm Cover Report

Farm Cover - Year 2025 - Herd Code: Generated on: 24/Feb/2026

Month	Count	Cover Date(day)
January	0	
February	1	12
March	0	
April	2	11; 30
May	3	6; 15; 22
June	5	3; 9; 16; 23; 30
July	3	9; 16; 31
August	1	8
September	3	1; 12; 24
October	2	7; 23
November	0	
December	1	12
	21	

Disclaimer This application should be used in conjunction with good husbandry practice and should be used only as a guide to grassland management. The use of this application does not effect any statutory requirements. Teagasc shall not be held responsible for any losses incurred by the end user as a result of the use of this application.s

Appendix 5: PastureBase NUE Report

NUE 2026 for [redacted] Farm Area: 109.85 Exported on 24/02/2026

Report Inputs

Livestock

Livestock	Number
Spring Milkers	

Fertiliser

Nutrient Type	N %	P %	Opening Stock KG	Purchase KG	Closing Stock KG	Total N kg	Total P kg

Feed Purchase

Feed Type	Tonne Fresh

Forage Purchase

Forage Type	Tonne DM

Livestock Purchase

Stock Type	Number	Live Weight KG
Spring Milkers		

Slurry Purchase

Type	Tonne
Cattle Slurry	
Pig Slurry	

Report Outputs

Forage Sales

Forage Type	Tonne DM

Milk Sales

Total Litres Sold/Delivered	Annual Protein

Livestock Sales

Stock Type	Number	Live Weight KG
Spring Milkers		

Slurry Sales

Type	Tonne
Cattle Slurry	
Pig Slurry	