Farm Herefordshire

This guide was produced as part of the Farm Herefordshire collaborative approach. Our purpose is to improve the health of the Wye catchment through sustainable farming systems.

To achieve this we:

- Provide support to Herefordshire farms in multiple forms; 1:1 advice, events & discussion groups.
- Drive forwards relevant research and actively seek to ground truth findings.
- Capture and communicate the achievements of Herefordshire farmers.

Contact Us:

01432 268 428

farmherefordshire@herefordshireruralhub.co.uk

www.farmherefordshire.co.uk

Front Cover Image Credit: D. Darling, Caradoc, Herefordshire

FARMING IN THE WYE

LAND MANAGER RESPONSIBILITIES FOR SOIL, NUTRIENTS & WATER

Quick guide for farmers and advisers about the requirements and benefits of Nutrient Managment Planning

This Guide

This guide has been produced by Herefordshire Rural Hub and the Environment Agency to help farmers, land managers and advisers understand the rules that apply to them and how to comply with them.

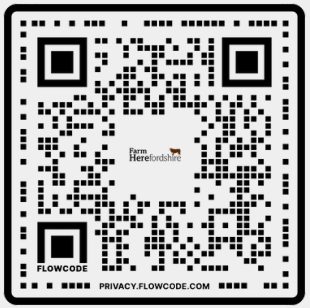
Environment Agency

Rural Hub Herefordshire

Advice & Guidance

If you would like advice and support about regulations and compliance on your farm, it is readily available from local advisers. Scan the QR code with a smart phone or contact Herefordshire Rural Hub to find out who can help:

SCAN ME



NUTRIENT LOSSES IN THE WYE

- More phosphate is imported to the catchment, as animal feed and fertiliser than is utilised by production. Over decades the excess has built nutrient levels in our soils beyond crop need.
- The sandy and silty soils found in the Wye are less capable of holding nutrients than other soils.
- Excess nutrient combined with leaky soils means we lose increased quantities to surface water, this has a cumulative impact on water quality downstream.

Nutrients can be lost in three main ways;

  - Direct losses; runoff from yards, muck heaps, livestock access to watercourses, inaccurate application etc.
  - Soil erosion; with nutrients attached to soil particles.
  - In solution in land drainage; especially from higher risk sandy and silty soil types.

- Complying with regulatory requirements and utilising support to improve infrastructure and build soil resilience will reduce losses of soil and nutrients in the Wye.

WHAT IS NUTRIENT MANAGEMENT PLANNING?

- Nutrient management planning matches nutrient inputs (fertilisers and organic manures) to crop demand.
- As well as being a regulatory requirement, some farm assurance and agri-environment scheme options may also require nutrient management planning.

BENEFITS OF ACCURATE NUTRIENT APPLICATIONS

- Can increase crop yield and quality
- Optimises profitability
- Minimises the amount of artificial and organic fertilisers you use
- Reduce ammonia emissions and improve air quality and human health
- Reduce damage to sensitive habitats caused by excess nutrients carried in the air or water
- Reduce greenhouse gas emissions and help reduce the effects of climate change

FURTHER GUIDANCE

Detailed guidance and planning tools are available online, you can scan the QR codes below to find out where:

Tried & Tested : Nutrient Management Planning

Printable worksheets for making a nutrient management plan

PLANET (planet4farmers.co.uk) + MANNER-NPK

Downloadable tools for record keeping and calculating nutrients in manure.

Nutrient Management Guide (RB209) | AHDB

A series of manuals containing management guidance for nutrient management of crops & grass

Defra's Magic Maps

Free online mapping with measuring tools to assess proximity to watercourses & statutory designations

Soilscapes Maps

Free online mapping of soil types in the UK, useful for checking for which NVZ closed periods apply to your soil

The 4 **R**'s of nutrient planning:

Right source
Right rate
Right place
Right time

HOW TO PLAN NUTRIENT APPLICATIONS

The best time to prepare a nutrient management plan is before the start of the cropping year and should be tailored according to the crops being grown e.g. before autumn or spring cropping.

It is recommended that you:

- Complete a new plan every year
- Update the plan if you change your cropping

How to plan the right amount of nutrients for the soil:

- Calculate the nutrient and pH requirements of the crop
- Sample and analyse the soil in each field every 3 to 5 years for nitrogen, phosphorus, potassium, and magnesium
- Test the soil pH to ensure it is optimal for crop growth
- Calculate the nutrient levels that will be supplied from organic sources like manure, slurry or digestate
- Calculate the amount of fertiliser you'll need to apply

Advisers should be qualified under the Fertiliser Advisers Certification and Training Scheme (FACTS).

BASIS maintain a register of qualified advisers, search for local advisers by scanning the QR code:

WHICH RULES APPLY?

Nutrient planning is a legal requirement but different regulations apply depending on the activity being undertaken:

	Farming Rules for Water	Nitrate Vulnerable Zones
Nutrient Applications		
Spreading limit for fertiliser within 2m of surface waters	✓	✓
Spreading limit for organic manure within 10m of surface waters	✓	✓
Spreading limit for organic manures within 6m of surface water when using precision equipment	✓	✓
Spreading limit for organic manure within 50m of spring, well or borehole	✓	✓
Closed periods for spreading fertiliser and manures	×	✓
Planning and Record Keeping		
Soil test & analysis of land at least every 5 years for N, P, K, Mg & pH	✓	×
Plan Nutrient Applications	✓	✓
Keep field records of any applications of nutrients made	×	✓
Record yields of arable crops which have received nitrogen fertiliser	×	✓
Produce an organic manure spreading risk map for your land	×	✓
Calculate livestock manure load for your holding	×	✓
Maintain records of manure imports and exports including quantities, type, supplier or recipient details	×	✓

Why do we need two sets of regulations?

In most cases FRfW and NVZ Regulations require similar actions.

FRfW were introduced to ensure minimum operating standards in England, many of these standards were already required in Herefordshire where NVZs have been in place for sometime.

For those not already in an NVZ these requirements are a significant change.

Guidance on complying with regulatory requirements:

Scan for full guidance on complying with FRfW:

Scan for full guidance on complying with NVZs:

COMMON QUESTIONS

Q: Are dirty water and lightly fouled water classed as slurry and can these be spread in autumn / winter?

“Dirty water” is a term still commonly used by farmers when referring to dilute forms of slurry.

Under the **FRfW**, any application of organic manure, including “dirty water”, must be planned so that it does not exceed the needs of the soil and crop or give rise to a significant risk of agricultural diffuse pollution.

Land managers should not apply more nutrient than the soil and crop need. All applications of fertiliser, manure, slurry and dirty water to land should be accounted for in this calculation.

Statutory Guidance relating to FRfW :

Statutory Guidance sets out criteria the Environment Agency should consider when they assess if enforcement action should be taken.

Statutory Guidance notes can be subject change.

Q: We farm at a low intensity and don’t regularly apply fertilisers or manures, do I still need to produce a nutrient management plan?

Under **FRfW** you must ensure that, for each application of organic manure or manufactured fertiliser, the application is planned so that it does not exceed the needs of the soil and crop.

Plans can be proportionate to the individual circumstances and not necessarily formal written documents, however you must be able to demonstrate that you had planned the nutrient applications.

Under FRfW nutrient planning and soil testing must be undertaken on “**cultivated**” land which includes any fields cultivated **physically** e.g. ploughing, planting, harvesting in previous year **or chemically** e.g. manure or fertiliser applied in previous 3 years.

Under **NVZ** rules if you have a “low intensity” farm you do not have to keep a record of actual applications made.
Low intensity farms are considered to be:

- At least 80% grassland
- Applying less than 100kg N / ha / year of organic manure, including manure deposited by grazing livestock
- Applying less than 90kg N / ha / year of artificial fertiliser
- No manures are imported on to the holding

COMMON QUESTIONS

Q: What is the difference between a Nutrient Management Plan and a Nutrient Balance?

A Nutrient Balance is a simple calculation which compares imports and nutrients on to a holding to identify potential excess or deficiency in your system.

A nutrient balance is not a regulatory requirement, however, the process is being recommended for farmers in the Wye as the results provide insights in to the major contributions of nutrients in your farming system to enable more informed decisions to be made about livestock feed, fertiliser and manure use on farm.

PLANET's Farmgate tool can be used to:

1. Record data of any imports :
   a. Fertiliser or manures
   b. Livestock bought on to holding
   c. Feed or bedding
2. Record data of any exports:
   a. Manures
   b. Livestock sold off the holding
   c. Crops and product
3. Create a balance of Total Nutrient Load for the holding and Load per hectare for the holding.

Q: Why is farm nutrient load important in Herefordshire?

The Rivers Wye & Lugg currently experience eutrophic conditions due to elevated nutrient levels, exacerbated by warm temperatures and low flows that often result in algal blooms.

Agriculture is the largest land use in the River Wye and therefore a large source of nutrients in the catchment. However, nutrient surpluses of any magnitude indicate inefficiencies that as an industry we should seek to improve, which will have both environmental and business benefits.

A Farmgate Nutrient Balance programme was launched by Herefordshire Rural Hub in 2024 to help raise awareness of nutrient load on farms that may be contributing to water quality challenges downstream.

Findings from the initial 14,000 hectares included:

- Imported compound livestock feed was the greatest source of N & P for livestock farms.
- Nitrogen excess was more common than Phosphate excess.
- Fixed N from legumes & herbal leys was not commonly being accounted for in nutrient planning.

Want to be part of this farmer led approach to create a locally-owned dataset for Herefordshire? Contact us at the Hub today!