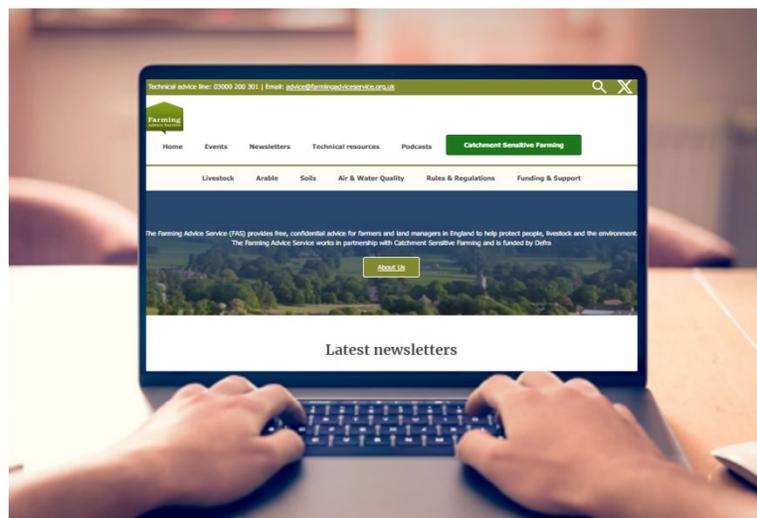


FAS Webinar: Tuesday 24th March 12 – 1pm

Nutrient Management Planning – what's new for 2026



Webinar agenda



This event will cover:

- a review of regulatory requirements to help you stay compliant with the rules
- efficient NMP to optimise fertiliser use and reduce costs,
- how to best use NMP for crop resilience in extreme weather conditions
- a look at the new tool and the range of NMP support available
- Catchment Sensitive Farming support for NMP



Nutrient Management & Organic Manures

Mel Holloway

March 2026

Key steps to maximise nutrient use efficiency

1. What does the crop need?
2. What's in the soil?
3. Account for manure nutrient supply - right quantity at the right time & minimise losses
4. Sensibly top up with the right fertiliser & the right quantity at the right time & minimise losses



1. What does the crop need?

AHDB's Nutrient Management Guide (RB209)



=



2. What's in the soil?

Nitrogen (N)

- Protein production (grain/grass protein)
- Component of chlorophyll, necessary for photosynthesis (conversion of sunlight to energy)
- Resistance to environmental stresses like drought, saline soil & temperature extremes



2. What's in the soil?

Nitrogen: Soil Nitrogen Supply

1. Field Assessment Method – RB209

- Soil type
- Previous crop
- Rainfall

2. Soil Mineral Nitrogen – soil sampling

- Soil nitrogen levels
- Nitrogen in crop
- Use where nitrogen residues are likely to be high or low

Both methods give you a Soil Nitrogen Supply (SNS) Index



2. What's in the soil?

Other Nutrients

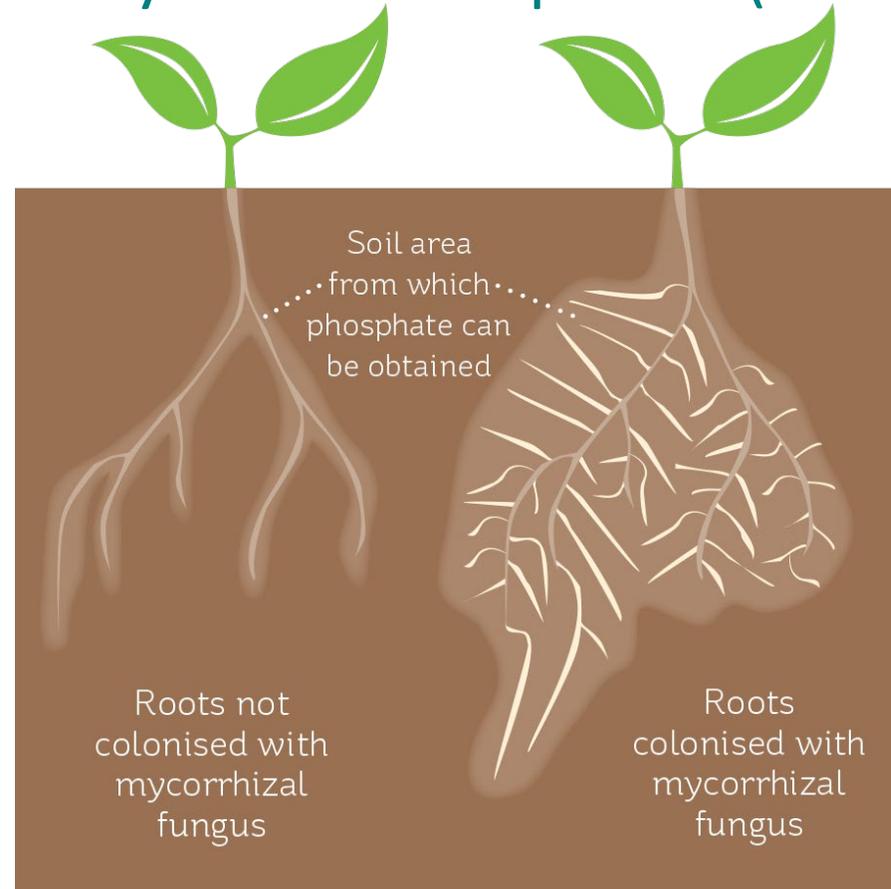
- **Phosphorus (P)**
- **Potassium (K)**
- **Magnesium (Mg)**



2. What's in the soil?

Phosphorus (P) Nutrient form is Phosphate

Early root development (early applications)

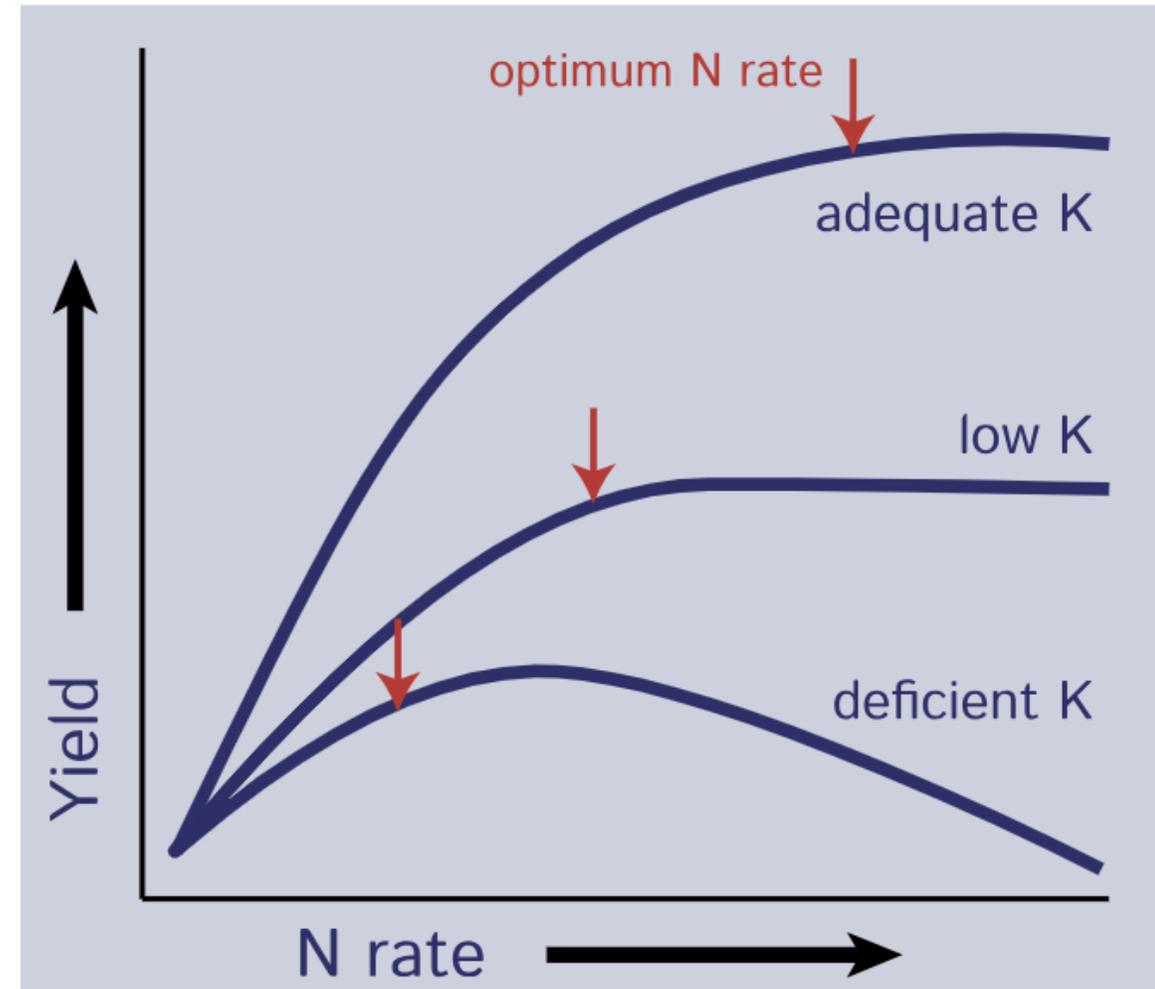
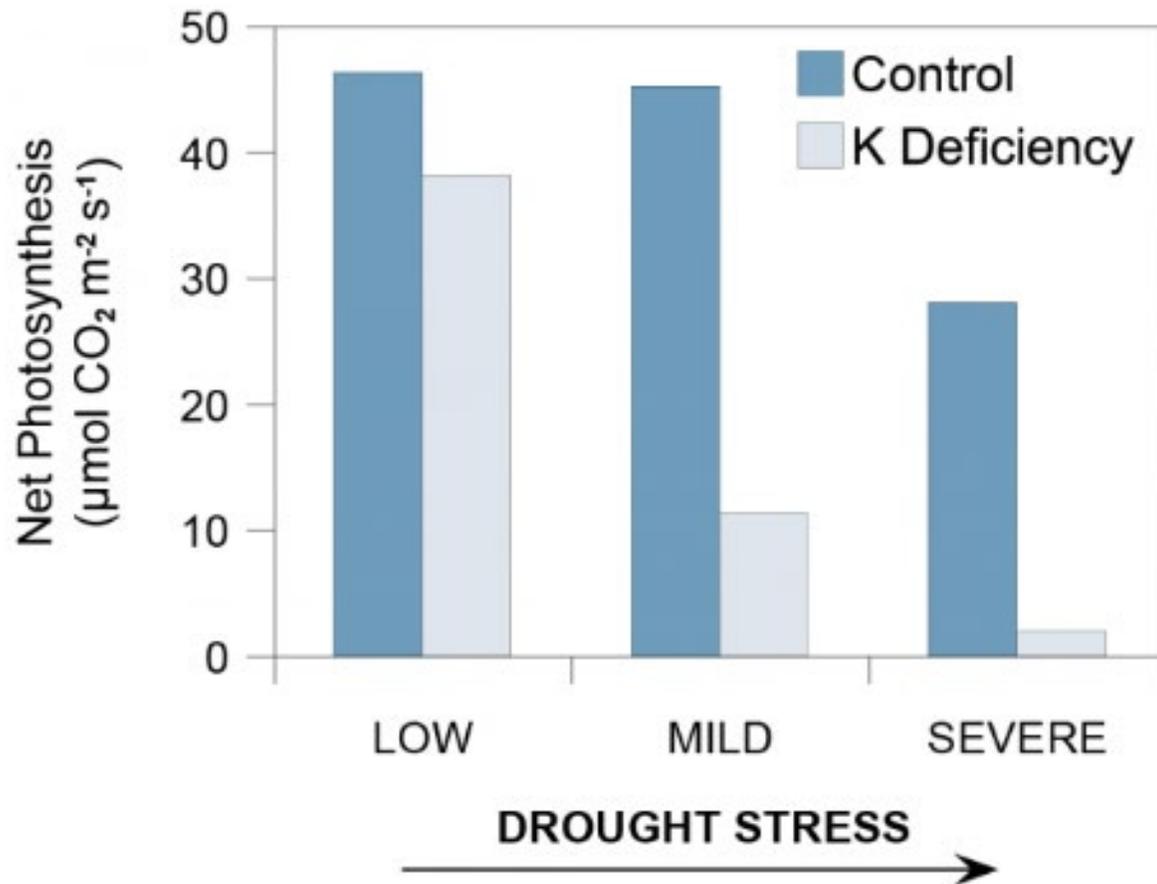


- Root proliferation & plasticity)
- Adventitious rooting) **water & nutrient foraging**
- Root hair growth)
- **Roots exude substances that mobilises / solubilises P**
- Mycorrhizal fungi can **increase** root surface area by up to **700%**

2. What's in the soil?

Potassium (K) - nutrient form is potash

- Photosynthesis (chlorophyll light interception)
- Nitrogen utilisation - protein



2. What's in the soil?

Potassium (K)

- Water movement in plant (draught susceptibility)
- Tissue turgidity (lodging/pests/disease)
- Deficiency will show too late to fix (leaf chlorosis)



Target Soil Indices – Phosphorus, Potassium & Magnesium

Arable, forage crops & grassland & Vegetables/maize

Phosphorus		Potassium		Magnesium	
mg/l	Index	mg/l	Index	mg/l	Index
0-9	0	0-60	0	0-25	0
10-15	1	61-120	1	26-50	1
16-25	2	121-180 181-240	2- 2+	51-100	2
26-45	3	241-400	3	101-175	3
46-70	4	401-600	4	176-250	4
71-100	5	601-900	5	251-350	5
101-140	6	901-1500	6	351-600	6
141-200	7	1501-2400	7	601-1000	7

Phosphate and Potash Balance

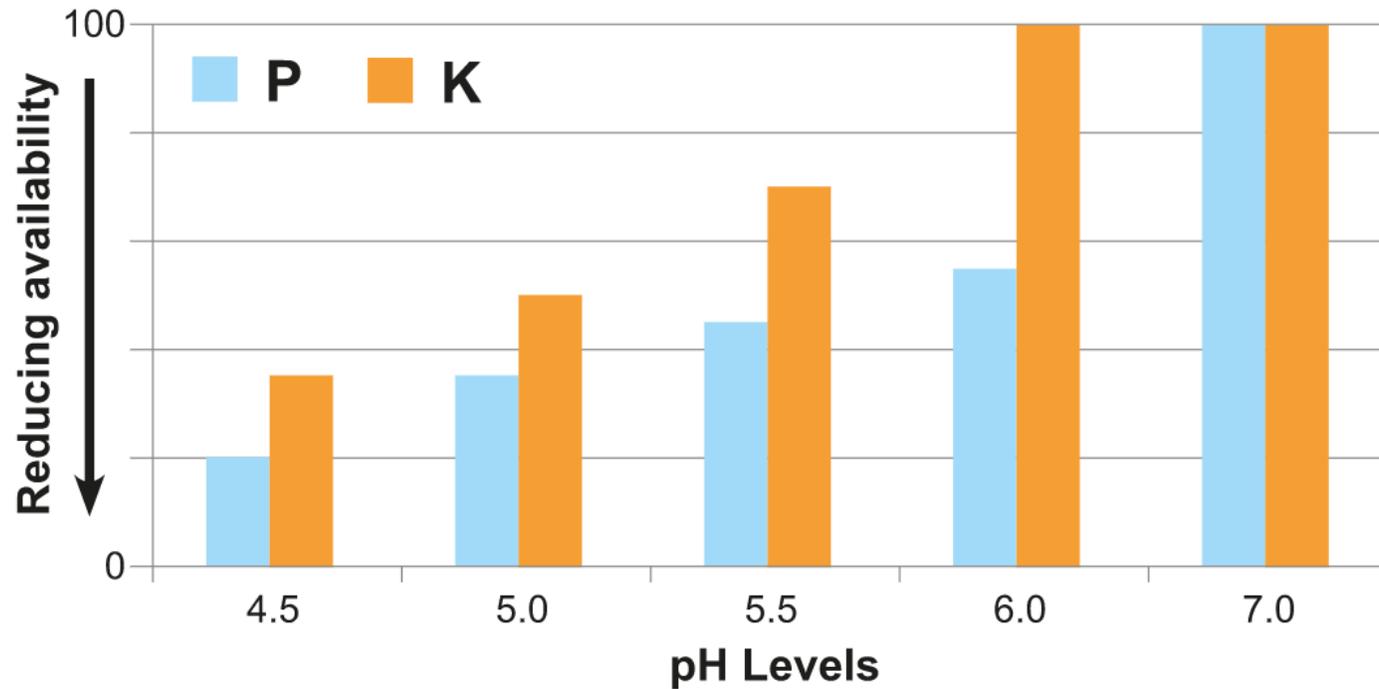
Soil sample to find your starting point, then every year:

- +** P & K additions from organic manures
- +** P & K additions from fertilisers
- P & K deductions from crop harvest
- =** The balance to use for the next year

Then after 3-5 years soil sample again.....



Optimum & Target Soil pH



Cropping	Optimum soil pH		Target soil pH	
	Mineral soils	Peaty soils	Mineral soils	Peaty soils
Continuous arable cropping	6.5	5.8	6.7	6.0
Continuous grass, grass / clover swards	6.0	5.3	6.2	5.5

3. Account for organic manure nutrient supply

- **Plant nutrients**
 - Nitrogen
 - Phosphate
 - Potash
 - Sulphur
 - Magnesium
- **Organic matter**



Measure Manure Nutrient Content

- Use 'Typical' figures (RB209)
- Or on farm slurry analysis
- Or laboratory analysis



Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		7.26			
Oven Dry Solids	%	0.770	7.70	1375	kg DM
Total Kjeldahl Nitrogen	% w/w	0.140	1.40	250	kg N
Ammonium Nitrogen	mg/kg	1060	1.06	189.28	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	53.9	0.12	22.04	kg P2O5
Total Potassium (K)	mg/kg	1377	1.65	295.07	kg K2O
Total Magnesium (Mg)	mg/kg	60.5	0.10	17.93	kg MgO
Total Sulphur (S)	mg/kg	118	0.29	52.68	kg SO3

Factors affecting organic manure nutrient content

- Livestock type
- Diet
- Bedding type & quantity
- Water use
- Manure / liquid storage



Manure Application Rates

As well as nutrient content we also need to know:

- Spreading area
- Capacity of spreader & number of loads spread (solid)



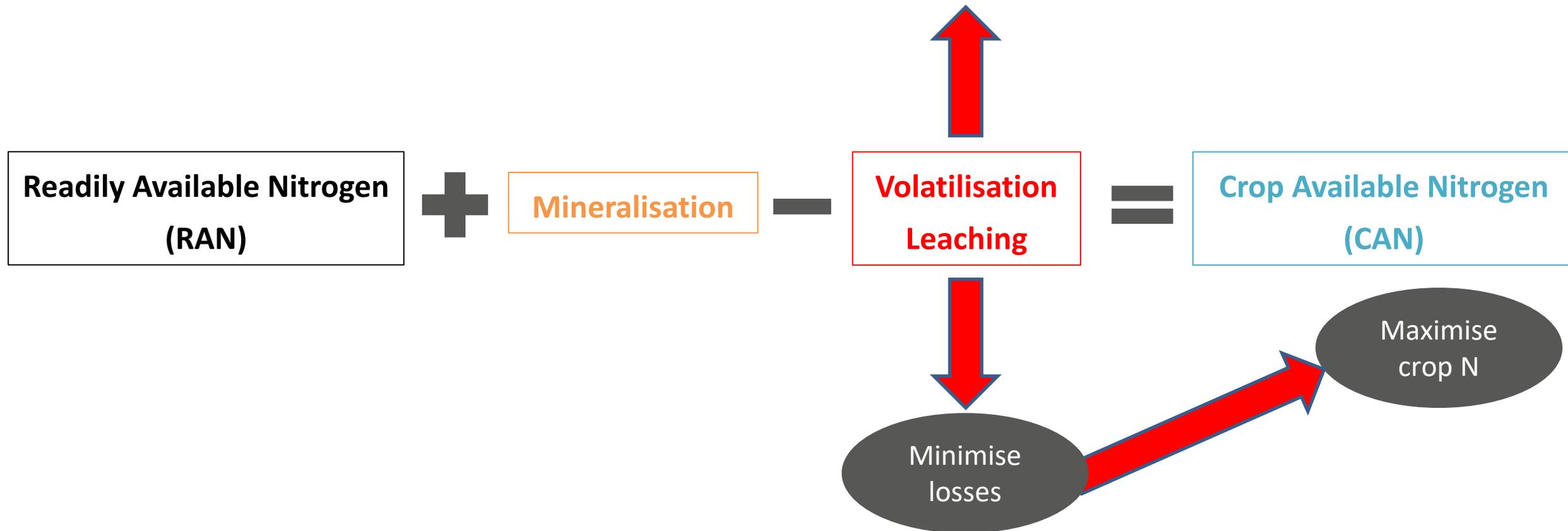
OR

- Tanker volume & number of loads spread OR
Pumping rate (liquids)



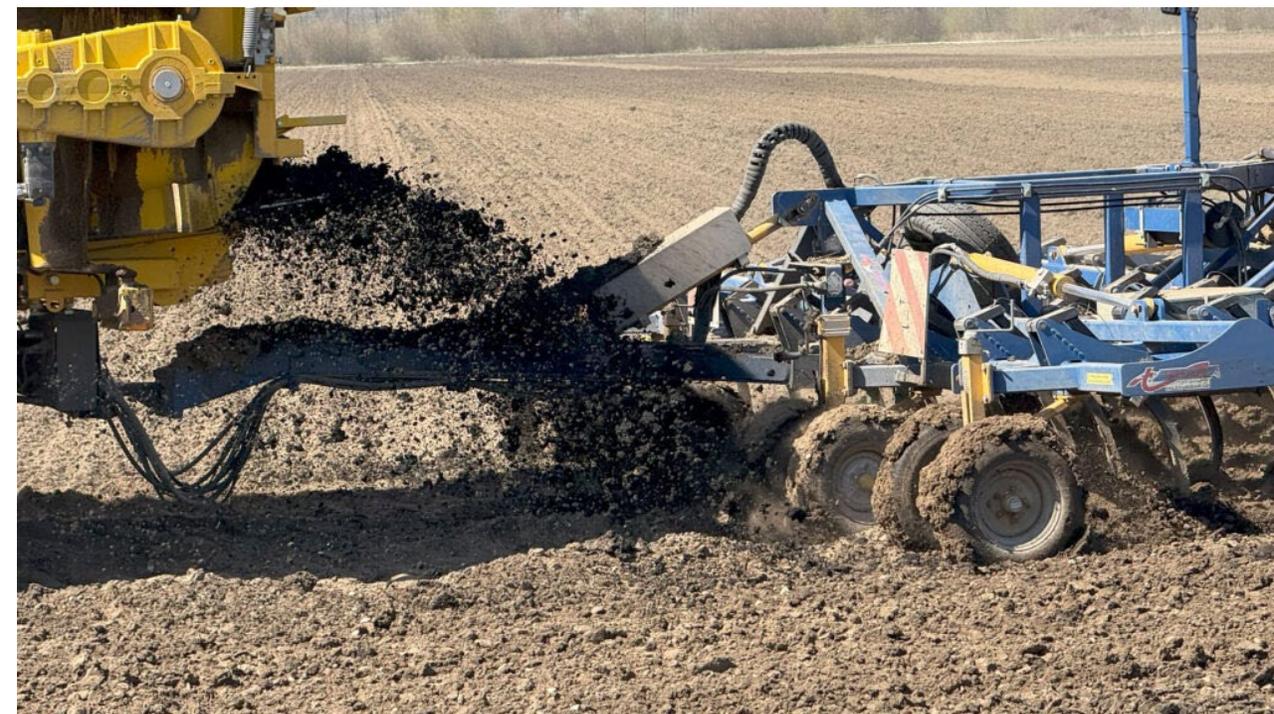
To accurately calculate nutrient supply

Manure nutrient supply - nitrogen



To Reduce Ammonia Volatilisation:

Incorporate organic manures as soon as possible



To reduce Nitrate Leaching :

Where possible apply:

- To growing crops
- When N uptake is highest
- High RAN organic manures carefully



4. Sensibly Top Up With Fertiliser

Are all nitrogen fertilisers the same?

Things to consider other than price:

- Nitrogen content
- Physical qualities
- Form – solid v liquid
- Evenness of spread
- **Potential losses**



Farming Rules for Water

Farming Rules for Water

(Diffuse Pollution from Agriculture Regulations)

8 rules came into force in April 2018 with the aim of:

- Good practice managing fertilisers, manure & soil
- Reasonable precautions to prevent diffuse pollution
- Similar to NVZ & Cross Compliance rules but **apply to all farmers**



Applying the Farming Rules for Water

Planning applications of organic manures & inorganic fertilisers

Land managers must **demonstrate** that they have planned applications - plans must:

1. Show an **assessment of crop nutrient requirements** for each field using:

– *Tools: NMPT-GB*

or

– *Nutrient Management Guide (RB209)*

or

– *Farm software (PLANET, MANNER-NPK etc.)*

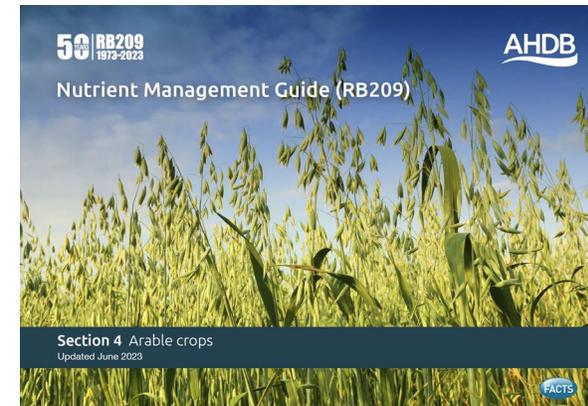
or

– *A qualified agronomist or FACTS advisor*

2. Take account of **soil sampling & analysis** results (no more than 5 years old)

3. Take account of the nutrient content of **organic manures**

4. Take account of the nutrient content of **fertilisers**



Applying the Farming Rules for Water

Planning applications of organic manures & inorganic fertilisers

- You must not plan to apply more **N** than the soil & crop need on that land
- Your plan should demonstrate that you are avoiding applying organic manures that **raise** the **Soil P Index** above target levels for the **soil & crop** on that land

The needs of the crop & soil & the risk of diffuse pollution will depend on **individual circumstances** & the EA should take these into account when assessing plans

Think about:

- RAN content of organic manure
- Soil type
- NVZ compliance
- If all reasonable precautions have been taken to help mitigate risk of diffuse pollution



Defra Nutrient Management Planning Tool

NMPT-GB



Free online tool for nutrient planning & record keeping

It can:

- **save you time & money**
- **improve productivity**
- **help protect the environment**

The plans will be based on:

- the crops you grow & their nutrient requirements from the latest version of RB209 (Nutrient Management Guide)
- the nutrients available, soil nitrogen supply & other soil analysis results
- the organic materials & inorganic fertilisers you use & how you apply them

Defra Nutrient Management Planning Tool

NMPT-GB



Before you start you will need:

- soil analysis results
- field information: size, cropped area & manure non-spreading area
- cropping for at least 2 years (last year & year you are planning)
- details of fertiliser or organic material applications
- livestock information (if applicable)
- manure imports & exports (if applicable)

Defra Nutrient Management Planning Tool

NMPT-GB

Farming
Advice Service

<https://plan-and-manage-nutrient-applications.service.gov.uk/>

 GOV.UK

Nutrient Management Planning

How do you want to sign in?



Sign in with GOV UK One Login

Use your email address and password. If you don't have a GOV.UK One Login, you can create one.



Sign in with Government Gateway

You'll have a user ID if you've registered for Self Assessment or filed a tax return online before.

Continue



Catchment Sensitive Farming

Working together for a healthy environment

Advice & Assistance on Nutrient Management

Charles Chantler
Senior Manager

BASIS Crop Protection, FACTS & Climate Change Qualified

Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.





What is Catchment Sensitive Farming?

- Defra-funded advisory service
- Available nationally in England
- In-person advice to improve water, air & soil quality
- Seek 'win-wins' for the farm business and the environment



Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.





free



we are government funded and free to use for all farmers

confidential



all our advice is impartial and confidential

trusted



89% of farmers* said their local CSF adviser was a person whose advice they could trust

personal



our advisers are locally based and understand the needs of your business

specialist



we bring in specialist advice and training when required

valuable



we seek 'win-wins' to benefit the environment and your business

Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.



CSF Advice Topics

- Nutrient, slurry and manure management
- Soil health
- Pesticide handling
- Natural flood management
- Reducing ammonia emissions
- Sustainable water use
- Guidance on farming schemes and regulations



How CSF Works

Confidential one to one advice

Events and training



Access to experts



Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.



CSF Customer Journey



Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.

csfengland.org



Nutrient Management: How CSF Can Help

- Effective nutrient management:
 - Make the most efficient use of resources
 - Minimise losses to the environment
 - Understanding your soils:
 - The starting point
 - Management practices:
 - Soil testing, soil health, manure storage & application, low emission/precision technology, record keeping (nutrient budgeting)
 - Regulations:
 - Farming Rules for Water, Nitrate Vulnerable Zones, SSAFO
- ✓ CSF can provide training and guidance on all the above



Soil & Nutrient Management

Improving Soil Management

Improve soil management by reviewing farm practices. **B4**

Soil & Nutrient Management Planning

Review soil and nutrient management practices to reduce their losses. **B4**

Soil Health

An assessment of soil health including analysis and examination. **B4**

Soil Sampling Analysis and Biological Activity / Health

Assessment of soil health and analysis of pH, P, K, Mg, Cu, Zn, B, soil texture, soil organic matter, and the biological activity within the soil to support the above.

Nutrient Management Planning

Advice on the production and use of a nutrient management plan. **B4**

Tackling Pollution from Slurry

Advice on slurry management to reduce nutrient loss and pollution. **B4**

Storage and Handling of Organic Manures and Silage

Advice on improving the management of organic manures and silage. **B4**

Reducing Faecal Contamination of Water Courses from Farms

Understanding a farm's potential contribution towards contaminating water courses with Faecal Indicator Organisms (FIOs). **B4**

Whole Farm Nitrogen & Phosphorus Planning

Calculating a nutrient budget for nitrogen and phosphorus brought onto and taken off the farm. **B4**

Standard Soil Sampling and Analysis

Soil sampling and analysis for P, K, Mg, pH, soil texture and Soil Organic Matter. (Either standalone, including recommendations or in support of another activity).

Standard Soil Sampling and Analysis with Assessment of Soil Nitrogen Supply (SNS)

The above soil sampling and analysis, plus the estimation of SNS, using the field assessment method and crop nutrient recommendations.

Soil Mineral Nitrogen (SMN) Sampling and Analysis with Estimation of Soil Nitrogen Supply (SNS)

Soil Mineral Nitrogen (SMN) sampling and analysis with estimation of Soil Nitrogen Supply (SNS).

Slurry / Manure Sampling and Analysis

Organic manure analysis for pH, dry matter, total N, Nitrate-N, Ammonium-N, Uric Acid-N, total P, K, Mg, Ca, S, Cu, Zn, with recommendations.

Ammonia Reduction

Conserving Nitrogen through Reducing Ammonia Emissions

Reducing ammonia emissions and nitrate losses from livestock housing, yard management, fertiliser spreading and slurry storage/application. **B4**

Livestock Nutrition Planning

Review of livestock nutrition with the aim of reducing losses of ammonia, N and P. **B3**

Sampling and Mineral Analysis of Livestock Feed and Conserved Forage

Analysis of livestock feed and conserved forage to measure its phosphorous content to support the above where not already available.

Farm Infrastructure & Machinery

Catchment Sensitive Farm Review
Review of farm business focussing on CSF objectives. **B4**

Farm Infrastructure Appraisal
Review of farm infrastructure with recommendations to deliver CSF objectives. **B4**

Farm Infrastructure Appraisal Follow-Up
Review whether previous recommendations from the above have been implemented. **B3**

Specific Sector Based Advice
Specialist advice focusing on a specific sector(s). **B4**

Farm Machinery Management
Recommendations by a farm machinery specialist for setting up and operating farm machinery. **B4**

Machinery Testing and Calibration
Testing and calibration of fertiliser or manure spreaders to improve accuracy of application. **B4**

Managing Land Drainage to Reduce Diffuse Pollution
Identify the effects of land drainage on water quality using sustainable engineering, biological or management techniques. **B4**

Free-Range Poultry
Recommendations to address specific issues as identified by CSF. **B4**

Pesticides Advice

Keeping Pesticides Out of Water
Practical guidance on the storage, handling, application and disposal of pesticides. **N2 B4**

Pesticide Handling Facilities and Biobed / Biofilter Design

Advice on the design, use, maintenance and management of biobeds, biofilters and associated facilities. **N4 B4**

Water Resources & Flood

Water Flow Management
Reducing the main sources and pathways of farm pollutants to water. **B4**

Water-Holding Structures
Guidance on the placement, design, cost, construction and management of farm wetlands or water holding features. **B4**

Natural Flood Management
Guidance on the suitable placement, design, construction, management and cost of appropriate measures to reduce flood risk. **B4**

Sustainable Water Usage
Practical training and information to effectively source, store and use water on farm. **B4**

Land Management

Delivering CSF Objectives through Countryside Stewardship (CS)
Advice on CS options which help deliver CSF objectives. **B3**

Woodland for Water and Air
Advice on woodland, shelterbelt and tree planting to reduce flooding, protect water courses and intercept ammonia. **B4**

Making the Most of Funding Opportunities
The assessment of funding opportunities to help deliver CSF objectives. **B2**

CSF Specialist Advice

Nutrient Management Planning

Advice on the production and implementation of a Nutrient Management Plan

Includes soil sampling and analysis on selected fields for demonstration purposes

Example of Specialist Advice (1)



Soil Health Visit

Training on field & soil examination techniques, and 'kitchen science' tests

Includes standard soil analysis plus B, Cu, Zn, Organic Matter and CO2 burst

Example of Specialist Advice (2)



Whole Farm N & P Planning

Balance of N and P moved onto the farm and taken off as produce

Surplus = excess nutrients which are lost to the environment

Deficit = possible negative impact on yield, quality and soil indices

Example of Specialist Advice (3)





CSF

Minimising losses to the air

- Nitrogen can also be lost to the air as Ammonia (NH₃) and Nitrous Oxide (N₂O).
- Management options include:
 - Reviewing livestock diets
 - Managing yards and stores
 - Low emission spreading technology
 - Managing use of urea
 - Optimising soil conditions and rate/ timing of application

Ammonia Reduction

Conserving Nitrogen through Reducing Ammonia Emissions

Reducing ammonia emissions and nitrate losses from livestock housing, yard management, fertiliser spreading and slurry storage/application. **B4**

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Review of livestock nutrition with the aim of reducing losses of ammonia, N and P. **B3**

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CSF advice on ammonia reduction



Farming for the Future Campaign

- Buffer strips
- Soil Management
- Integrated Pest Management



Lower input costs, higher margins

Improved nutrient-retention: Cut reliance on costly fertilisers and pesticides

Reduced soil erosion

Buffer strips reduce erosion, and safeguarding watercourses

Improved farm productivity

Healthy soil retains more water and nutrients and build resilience to extreme weather events

Access to premium markets

Farmers adopting sustainable practices can tap into premium markets with higher prices

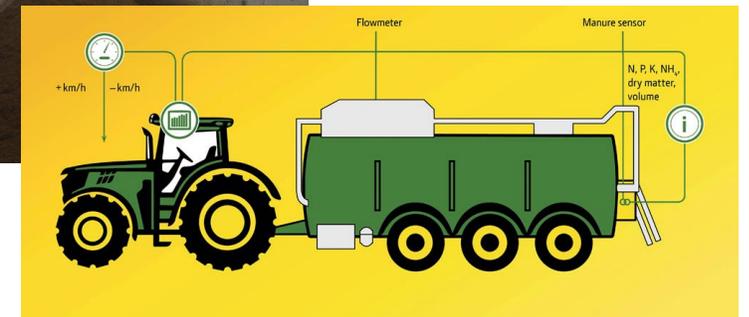
- Details, events and advice: <https://farming.campaign.gov.uk/>

Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission.



Farming Equipment Technology Fund (FETF)

- Opened 17th March
- Deadline for applications 28th April
- Nutrient management items Include:
 - Soil health monitors
 - N sensors
 - Variable rate controllers
 - Slurry items including, robotic slurry pushers, dribble bars/ trailing shoe/ slurry injections systems, real-time in-line nutrient analysis
- Up to £25,000 available per farm





CSF

Capital Grants 2026

- New round announced
 - £225m budget
 - Opens July
- Similar format to last year's round
- Range of items, CSF Support needed for some
- Four categories:
 - Water Quality (£25k cap)
 - Air Quality (£25k cap)
 - Natural Flood Management (£25k cap)
 - Boundaries (£35k cap)



See the Defra Farming Blog for More
Details

<https://defrafarming.blog.gov.uk/>

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CSF

CSF Supported Items

- Many CSF supported items need careful planning and a long lead-in time:
 - 'Right advice, right item, right investment'
- No guarantee that new requests for support will be processed for the 2026 round
 - CSF advisers are prioritising requests already received
 - CSF will notify you of their availability and continue to help you to plan for future opportunities
 - CSF support remains valid for two years
- CSF Support **must** be submitted with the application



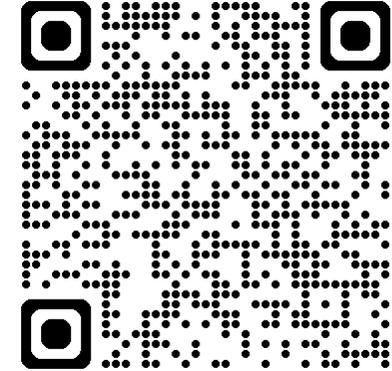
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Farm Resilience & Capital Grants

- Most items in Capital Grants do not require CSF support
- Can still be used to good effect for farm and environment management
- Examples include:
 - Rainwater Goods (RP16 £11.55/m)
 - Fencing (FG2 £7.47/m)
 - Hedgerow planting (BN11 £22.97/m)
 - Hard bases for feeders (LV4 £290.63)
 - Gateway resurfacing (RP1 £136.95/gate)



Contact CSF



Search 'CSF England' for our websites and links to local CSF mailboxes

Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission

Search 'Catchment Sensitive Farming'



Catchment Sensitive Farming

Working together for a healthy environment

Advice for farmers and land managers

Catchment Sensitive Farming (CSF) is led by Natural England, in partnership with Defra, the Environment Agency and the Forestry Commission

Search 'Catchment Sensitive Farming'



Farming Advice Service

The logo for the Farming Advice Service, featuring the text "Farming Advice Service" in a green serif font, with "Farming" on the top line and "Advice Service" on the bottom line, all contained within a white speech bubble shape.

- Technical advice line: 03000 200 301
- Email: advice@farmingadvice.org.uk
- Website: farmingadvice.org.uk

The Farming Advice Service is funded by the Department for Environment, Food and Rural Affairs (Defra). We provide free, confidential advice to help farmers and land managers in England understand and meet the legal requirements in English law around certain farming activities to protect people, livestock and the environment.



Department
for Environment
Food & Rural Affairs