Department of
Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

FAS news

Farm Advisory System newsletter

Summer 2018 Issue 11

Foreword

Eric Long,
Head of Development Service, CAFRE.

I am pleased to introduce the 11th edition of the 'Farm Advisory System' (FAS) newsletter. This issue focuses on key advisory messages to help you realise the benefits of area-based schemes and EU support while minimising the risk of penalties.

What is FAS?

The EU requires all member states to have a Farm Advisory System (FAS) to inform farmers on the following five areas:

1. Cross-Compliance;
2. Greening and Land Eligibility;
3. Rural Development Programme;
4. Water Framework Directive;
5. Sustainable Use of Pesticides Directive.

This issue contains articles on a range of FAS topics which focus on reducing agriculture's impact on our environment.

- Understanding and reducing ammonia emissions from NI agriculture
- Improving water quality, and reducing pesticide impact on waterways
- Improving nutrient efficiency through better soil management
- Promoting the Environmental Farming Scheme (EFS), Farm Family Key Skills, and Innovation training.

Forthcoming Events

Practical Rush Management Event

Thursday 30th August 2018:
Plumbridge Community Hall, Plumbridge, Co Tyrone.

Friday 7th September 2018:
Northern Counties Co-op Enterprises Ltd, 35 Garvagh Road, Swatragh.

Friday 14th September 2018:
CAFRE's Greenmount Hill Farm, 62C Glenhead Road, Glenwherry.

Thursday 20th September 2018:
CROM Estate, Newtownbutler, Co Fermanagh, BT92 8AP.

Sessions at 2pm and 6pm

Practical Heather Management Event

Friday 28th September 2018:
Cafre's Greenmount Hill Farm, 62c Glenhead Road, Glenwherry.

Dry Stone Walling Courses

Saturday 18th August 2018:
CAFRE's Greenmount Hill Farm, 62c Glenhead Road, Glenwherry.

Saturday 15th September 2018:
CAFRE's Greenmount Hill Farm, 62c Glenhead Road, Glenwherry.

To book your place on any of these courses please visit www.cafre.ac.uk/industry-support or call CAFRE admin on 028 94 426716

CAFRE Dry Stone Walling Courses – 2018

Graeme D Campbell, Sustainable Land Management Branch, CAFRE.

A dry stone wall also known as a 'dry stone dyke' is a wall constructed from stones without the use of mortar to bind them together. Many examples of dry stone walls can be found in the Mourne Mountains and in the Glens of Antrim.

Dry stone walls are an important component of the landscape. They are durable and attractive field boundary features which will last for many lifetimes if properly maintained. Dry stone walls also provide excellent shelter and homes for a wide range of small mammals, birds and insects.

While many dry stone walls have been well maintained and remain effective stockproof barriers, others are in need of rebuilding.

CAFRE are planning to hold two Dry Stone Walling training events on Saturday 18th August 2018 and on Saturday 15th September 2018 at CAFRE's Greenmount Hill Farm, Glenwherry.

The courses will give participants the skills and knowledge to repair and maintain dry stone walls to:

- be stockproof;
- maintain biosecurity with neighbouring farms;
- comply with Agri-environment Scheme agreements; and
- be of a type and style used in that locality.

Each training course will take place for one day and will include both a classroom session and on site practical. Course content will include, health and safety, types and styles of dry stone walls, site preparation, stone selection and wall building.

Participants are asked to bring strong work gloves, steel toe capped boots, warm outdoor clothing and a packed lunch. Safety spectacles may also be required.

If you would like to enrol for either of the Dry Stone Walling training events, please visit www.cafre.ac.uk/short-courses/dry-stone-walling.

Ammonia Emissions and Northern Ireland Agriculture

Paddy Savage, Ammonia Project Co-ordinator, DAERA.

Ammonia has become a very topical issue within agriculture in recent months with much concern around the assessment of farm development applications and any implications relating to ammonia emissions. In this article, we look at why ammonia is now considered one of the key environmental challenges for the agri-food industry and examine how farmers can play their part in reducing emissions and delivering a healthy environment.

What is Ammonia?

Ammonia (NH_3) is a gas produced by many common farming activities such as the housing of livestock, the storage and spreading of manure and slurries and the application of fertiliser.

Why is Ammonia important?

Ammonia emitted into the air is subsequently deposited as nitrogen onto land and water surfaces. Nitrogen deposition occurs in gaseous form close to the source (dry deposition) or through rainfall (wet deposition), often many miles from the original ammonia source.

Where too much nitrogen is being deposited on habitats, sensitive plant life can be effectively out-competed by other species. Grasslands, heathlands, peat bogs and dune systems are particularly sensitive.

Slurry application by trailing shoe decreases ammonia emissions by 57% compared to using a downward facing splash plate.

For most of Northern Ireland, including our designated sites and priority habitats, ammonia emissions and associated nitrogen loading are significantly above critical levels, the concentration at which significant ecological damage occurs. Indeed, 95% of Northern Ireland's Special Areas of Conservation, amongst our most prized habitats have been reported as being under threat of damage from nitrogen deposition.

By 2020, the UK must reduce its ammonia emissions by 8% and by 2030, a 16% reduction must be achieved, both in comparison to 2005 levels.

Another rationale behind the drive to reduce ammonia is the potential impact on human health since ammonia is one of a number of components in the formation of particulate matter (PM).

How much ammonia does NI produce and where does it come from?

Northern Ireland is responsible for 12% of UK ammonia emissions, despite only having 3% of UK population and 6% of the land area. This reflects the importance of the agriculture sector to our economy and the nature of Northern Ireland as a food-exporting region in which agriculture is dominated by livestock

91% of NI ammonia emissions come from agriculture. Cattle are responsible for around 70% of ammonia emissions from agriculture with the pig and poultry sectors accounting for 20%. How livestock are housed and how the manure they produce is handled are key variables in the production of ammonia with the handling and storage of manure responsible for 44% of all emissions.

Reducing the surface area of applied slurry that is in contact with the air reduces ammonia emissions. This results in 20-25% more nitrogen being available to grass when using the trailing shoe compared to slurry being applied with a splash plate.

What is DAERA doing about ammonia?

In July 2016, the then DAERA Minister Michelle McIlveen asked the independent Expert Working Group on Sustainable Agricultural Land Management to examine the issue of ammonia in an annex to their report.

In December 2017, the Expert Working Group completed their report entitled "Making Ammonia Visible." It made a number of key recommendations to government and farmers and called for; a partnership approach to address ammonia, improved communication and education on ammonia, scientific research to address significant evidence gaps, adoption of guiding principles for planning applications, the implementation of ammonia mitigation measures on farms including an end to the use of both splash-plates for slurry spreading and non-stablised urea fertiliser, as well as the establishment of an Agri Emissions Partnership.

In December 2017, DAERA established a Project Board to lead the development of an Action Plan on Ammonia in partnership with the agriculture and environment sectors.

This Action Plan will aim to:

- achieve tangible and sustained reductions in ammonia emissions from Northern Ireland farms,
- reduce the impact of ammonia via nitrogen deposition on nature and habitats, and in particular, designated sites,
- respond to each of the recommendations of the Expert Working Group in their Ammonia Annex,
- encourage uptake of ammonia mitigation measures on-farm, and
- highlight the impact of ammonia on human health, while noting the relevant uncertainties.

The DAERA Action Plan will be developed during 2018.

What can farmers do to reduce ammonia emissions?

There are a number of measures which farmers can take to reduce the amount of ammonia their farming system emits. These mitigations include:

- Extending the grazing season for livestock
- Applying stabilised urea fertilisers
- Spreading slurries and manures using low emission techniques
- Improving the cleanliness of farmyards
- Reducing crude protein in livestock diets
- Incorporating feed efficiency within decisions on genetics and breeding
- Establishing well designed tree plantations downwind of livestock housing
- Covering above ground slurry stores
- Installing low emission flooring systems in livestock housing

The Ammonia Action Plan is likely to include a range of these techniques with various actions considered to encourage greater uptake by farmers.

Maintaining Soil Health

Bryan Irvine, Sustainable Land Management Branch, CAFRE.

Digging several soil pits allows you to assess if there is any soil compaction or drainage issues, and to check for soil life.

Arable and grassland yields are directly related to soil health. Soils with a good soil structure, high soil organic matter levels, and the correct pH will support a healthy and extensive micro-biome. Soil should be open with a crumb structure, or have porous soil blocks including plenty of vertical cracks and fissures. Digging several soil pits allows you to check for the extent and depth of the root system, the quantity of earthworms, and the presence of pans or compaction which impede drainage. Grassland rooting should be extensive, down to a depth of 0.3m and beyond. Shallow, weak roots often going across rather than down indicate problems. Where a pan or compaction exists sub-soiling can be used to break it up to allow water to access the drainage system again. If there is no pan but limited root growth with little space for air or drainage, then it is either a field drainage issue or compaction. Soils saturated for long periods of time have poorer structure and lower levels of micro-organisms which reduces organic matter break-down and nutrient release resulting in poor root growth and significantly lower yield.

What can you do to maintain soil health?

- Maintain & repair drainage systems - check and clean outfalls, and dig down to pipes to check they are working and not silted up;
- Dig soil pits and investigate if the soil structure is allowing water to get to the drains;
- Check for soil life - is there evidence of worms, particularly the large reddish brown deep burrowing anecic type;
- Test soil every 4 years and apply lime as required;
- Avoid compacting soils;
- Sub-soil where you have identified that soil compaction is not letting water through to the drains but be aware that sub-soiling can weaken a soil and increase the risk of compaction from machinery and stock over the next few months if later management is not careful;
- Apply organic manures to increase soil organic carbon levels.

An anecic earthworm (black headed) which processes organic matter to release nutrients and makes vertical burrows to 60cm depth.

For further information please see the booklet “Improving Soil and Sward Performance” via the search function on the DAERA website. The booklet was prepared to support the sustainable Soil Management Events recently held at CAFRE’s Greenmount and Enniskillen campuses.

What's New in Farm Family Key Skills Training?

Dr Alice Robson, CAFRE Lecturer, Farm Family Key Skills, DAERA.

Farm Family Key Skills (FFKS) is a scheme under the Farm Business Improvement Scheme (FBIS) part of the Rural Development Programme 2014 – 2020 which receives co-financing from the European Agricultural Fund for Rural Development (EAFRD). FFKS training is for farmers, farm family members and employees associated with both the agricultural and horticultural sectors. Since 2016 up to 3000 farm family members and employees have attended training across Northern Ireland on Farm Health & Safety, First Aid, Farm Business Taxation, Succession Planning and Risk Management, Pig Health, Biosecurity and Interpretation of Soil Analysis.

Farm Family First Aid Awareness

The most recent Farm Family First Aid awareness initiative, launched in March 2018 in partnership with the NFU Mutual, is proving to be particularly popular. Many rural community groups across Northern Ireland have already hosted this training. The three hour course has been specifically tailored to the farming sector and covers a wide range of first aid emergencies encountered on farm. People attending this workshop receive a complimentary First Aid kit with training focused on using its contents to treat minor injuries. Workshops also provide an awareness of tools and technologies available to aid lone farm workers in emergency situations. The wider farm family and employees are encouraged to attend a Farm Family First Aid Awareness course which will provide critical skills that could save a life or help reduce the impact of a farm accident.

The Farm Family First Aid Awareness course provides a complimentary first aid kit and critical skills that could save a life and/or help reduce the impact of a farm accident.

Antimicrobial Resistance

During winter 2018 the FFKS scheme will also launch Antimicrobial Resistance Awareness training for livestock farmers. Workshops will include the responsible use of anti – microbial medicines and methods to reduce their use in livestock farming. In addition there will be further pig health training courses focusing on tail biting.

Who can attend this training?

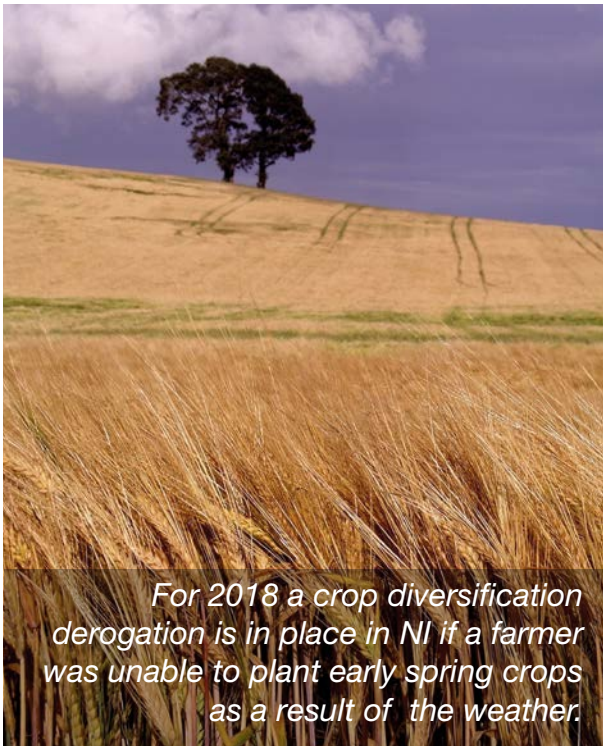
- Farmers
- Member of farm family
- Farm employees

If you would like further information on how to enrol on any of the short courses within the FFKS programme, please go to www.cafre.ac.uk/industry-support/farm-family-key-skills/ or email kt.admin@daera-ni.gov.uk or call CAFRE Knowledge Transfer Administration on 028 9442 6790.

2018 Greening Derogation

Glynis Colhoun, Area Based Schemes Operational Policy Branch, DAERA.

The European Commission has agreed a derogation from EU rules on crop diversification in Northern Ireland in 2018. This follows the Department's submission of a formal request to the EU Commission in April 2018. Commissioner Hogan's announcement will help to allay some of the concerns expressed by our arable farmers. It provides them with reassurance that, subject to them meeting all other greening requirements, if they were unable to meet crop-diversification requirements in 2018 due to the inability to plant early spring crops as a result of the weather, it will not impact on their Greening payment. The Department has been contacting all those businesses concerned.



For 2018 a crop diversification derogation is in place in NI if a farmer was unable to plant early spring crops as a result of the weather.

The crop diversification requirement places obligations on farmers with between 10 and 30 ha of arable land to grow 2 crops, with the main crop not exceeding 75% of the total eligible arable land on the holding. For farmers with more than 30 ha, 3 crops must be sown and the main crop cannot exceed 75% of the total eligible arable land on the holding and the 2 main crops cannot exceed 95% of the arable land.

This derogation applies to the 2018 scheme year only.

EFS Training Reminder

If you have an Agreement for the Environmental Farming Scheme (EFS) Wider then you need to do the training that relates to the Options you have selected. Your payment under the EFS **depends on you successfully completing this training**.

Training is carried out online.

- Log on to www.learn.cafre.ac.uk
- Click on Moodle which is found on the top bar.
- Your username is your Business Number.
- Your password is "Password" followed by the last three digits of your Postcode.

Each of the lessons you are allocated must be completed. Be sure to click on the final button for each module once you have answered all the questions.

Please note - Completion of online training is essential to allow your payment to be processed.

Prepare now - EFS Wider Level opens for applications in August.

Terence Henry, Countryside Management Unit, DAERA

Another application period for the Environmental Farming Scheme (EFS) Wider will open in August/September 2018. This agri-environment scheme provides grant aid to carry out environmental works on your farm that will help to enhance biodiversity, improve water quality and sequester carbon.

A range of 20 general options is available to select from and you can apply for up to 4 general options in total. Options include tree and hedge planting, creation of riparian buffer strips along watercourses, agroforestry and arable options. In addition, you can also choose stand-alone options for woodland planting, organic farming and Irish Moiled Cattle where payment is in addition to the maximum allowed under the general options.





Go to www.daera-ni.gov.uk and check out the Environmental Farming Scheme (EFS) Wider Level pages for further information. Before the Scheme opens for applications, think carefully and decide which options will best suit your farm and where they will be sited. The application system will help to guide your final selection.

If you have a Category 1 or Category 2 Business ID and have management control of at least 3 hectares of eligible land for the five year duration of the Scheme (1 January 2019 to 31 December 2023) you can apply for the scheme. Remember that EFS is an online application so you must have access to your DAERA Online Services account or use an agent who can represent your business online.

Telephone 0300 200 7848 or email efs@daera-ni.gov.uk if you need further advice.

Water Framework Directive (WFD) supported by the Environmental Farming Scheme (EFS) Water Quality Measures

Siobhan Bowers, Environmental Farming Branch, DAERA.

Pollution from agriculture is causing almost 40% NI river water bodies to fail "good" WFD status. This is primarily due to high levels of phosphorus in the water which leads to excessive algae and aquatic plant growth, in a process called eutrophication. Eutrophication can lead to critically low levels of oxygen in the water, with the potential for fish kills.

Phosphorus from manures and chemical fertilisers can enter rivers and lakes directly through run off and sub surface flow, or indirectly, when attached to silt and sediment through soil erosion.

Cattle accessing watercourses can also cause water pollution from direct contamination by manure and from sediment caused by erosion and poaching of banks.

Creating riparian buffer strips and fencing of watercourses can reduce these nutrient and sediment inputs. The vegetation that grows in buffer strips and on banks, helps prevent run off of nutrients and sediment reaching the watercourse. It also provides habitat to support biodiversity.

EFS Grant Support

You can apply for grant support to protect watercourses on your farm through the EFS. There are five Water Quality options available. These have been popular in Tranche 1, with over half of farmers including water quality options in their EFS agreement.

- **Creation of ungrazed riparian buffer strips** - 2 metre wide or 10 metre wide. These options involve fencing off a strip of land along the watercourse and allowing vegetation to grow. This buffer strip reduces the risk of nutrient, manure, sediment and pesticide run off and prevents livestock accessing the watercourse. It will also stabilise the banks and enhance biodiversity.

- **Creation of riparian buffer strips** - 2 metre or 10 metre planted with native trees. These two options include funding for planting native trees and shrubs. They provide additional benefits to the ungrazed options including more biodiversity, reduced peak flood flow and carbon sequestration.

- **Watercourse fencing** - prevents livestock accessing the watercourse and reduces poaching, bank damage and sedimentation.

You can also apply for funding for additional capital items associated with these options:

- Drinking trough;
- Drinking trough base;
- Drinking trough pipe work;
- Pasture pump and associated pipe work.

Cattle accessing rivers can cause water pollution

For riparian buffer strips, funding is also available for gates and gate posts.

It is important to note that land used for riparian buffer strips still remains eligible for the Basic Payment Scheme, as it contributes to meeting the Water Framework Directive objective of achieving "good" water quality status.

These water quality measures will have the greatest impact in areas of intensive grassland where the level of farming activity, soil type and ground conditions are most likely to lead to nutrient run off.

You can apply for financial support to protect watercourses on your farm through EFS

Tranche 2 of the EFS Wider level will open for applications in August – see the other article in this issue for more information and how to apply.

Avoiding Drift During Spraying

The Voluntary Initiative. Promoting responsible pesticide use.

The Voluntary Initiative
Promoting responsible pesticide use

Spray drift can cause problems when using pesticides. It not only leads to poor control due to under-dosing, but can result in pesticides reaching water, damage sensitive crops, upset neighbours and harm the environment. Pesticide legislation requires that all spray is confined to the land, crop, structure or material that is treated. Follow the advice below and minimise the risk of spray drift, to protect crops, the public and the environment.

Before Spraying

- Listen to the local weather forecast and adjust work accordingly. Do not spray if wind speed and direction would cause drift onto sensitive areas.
- Ideal spraying conditions are a Force 2 light breeze (3.2 – 6.5 km/h) blowing away from sensitive areas. This would be a breeze strong enough to be felt on the face and to rustle leaves (see table on next page).
- Check each product label for spray quality recommendations and adjust your applicator and work programme accordingly. Where practical choose coarser sprays as they reduce the risk of drift.
- Check and follow statutory product label advice on "no spray zones".
- Consider leaving a 2m unsprayed strip close to the field margin or sensitive areas (such as watercourses, ponds, gardens and wildlife conservation areas).

- Ensure that the sprayer is correctly maintained and calibrated for the job in hand.
- In the field, check wind speed and direction and if necessary amend your plans.
- Consult the BCPC booklets on “Field Scale Spraying” or “Small Scale Spraying” for further advice. Booklets available at www.bcpcbookshop.co.uk

During Spraying

- Set the spray boom at the correct height and keep as low as possible without compromising the evenness of spray deposition. Check spray angles and adjust the height accordingly.
- Watch for changes in the wind speed and direction; if necessary change your spray programme to avoid drift onto non-target areas or stop spraying until suitable conditions return.
- Stay alert: ensure that spray is not allowed to drift onto non-target areas.
- Maintain a constant speed and pressure, particularly if the sprayer is fitted with an automatic volume regulator: small increases in the speed result in large increases in pressure.
- When using a boom sprayer, reduce the operating pressure and forward speed but keep the dose, volume and spray quality within label recommendations.
- Take advantage of the latest techniques to reduce spray drift. Use low pressure, low drift, angled nozzles, rotary atomisers, twin fluid atomisers and air assisted sleeve-boom sprayers where these are appropriate to the product being applied.

More Advice

- Refer to the Code of Practice for Using Plant Protection Products.
- Check information supplied by your sprayer, nozzle manufacturer and AHDB.
- Discuss spray quality and nozzle types with your agronomist.

Wind Speed Guide

Approx Airspeed at Boom Height	Beaufort Scale (at height of 10m)	Description	Visible Signs	Spraying
Less than 2 km/h (Less than 1.2mph)	Force 0	Calm	Smoke rises vertically	Use only medium or coarse spray quality
2-3.2 km/h (1.2-2mph)	Force 1	Light Air	Direction shown by smoke drift	Acceptable spraying conditions
3.2-6.5 km/h (2-4mph)	Force 2	Light Breeze	Leaves rustle, wind felt on face	Ideal spraying conditions
6.5-9.6 km/h (4-6mph)	Force 3	Gentle breeze	Leaves and twigs in constant motion	Increased risk of spray drift; take special care
9.6-14.5 km/h (6-9 mph)	Force 4	Moderate	Small branches moved, raises dust or loose paper	Spraying inadvisable

Rush solution without pollution - Working together with the community to protect our drinking water supplies

Rebecca Allen, NI Water.

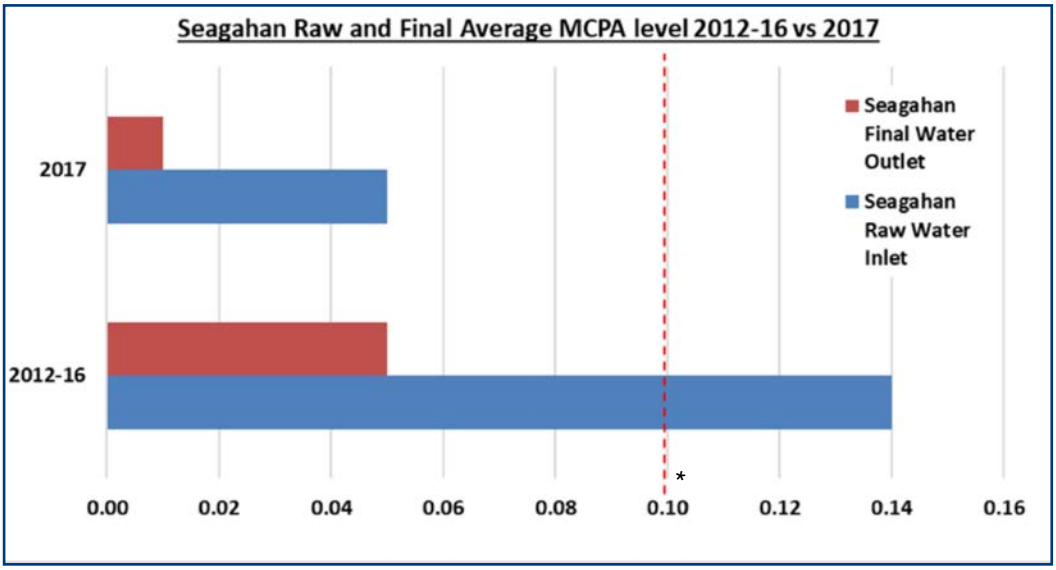
As many readers are aware, the broadleaf herbicide MCPA, commonly used for the control of stubborn rush growth in grassland, has become a significant water quality problem. MCPA can linger in surface water for up to 6 weeks and is difficult and very costly for NI Water to remove at treatment stage. NI Water must remove this substance to provide consumers with safe and wholesome drinking water in compliance with EU Drinking Water Standards.

In spring 2017, NI Water established the 'Rush solution without pollution' weed-wiping trial, working in conjunction with The Water Catchment Partnership and the farming industry as part of an exciting and innovative campaign to help reduce levels of MCPA in the Seagahan Reservoir catchment area in Co. Armagh.

This free weed-wiping service uses Glyphosate in a weed-wiper instead of spraying with MCPA, to demonstrate an alternative effective rush control method which causes less pollution. The overall aim of the project is to show that weed-wiping is proven to be more effective for killing rushes than boom spraying and that pesticide levels can be reduced in the reservoir without the need for expensive water treatment processes. By providing the weed-wiping service free, NI Water allowed farmers and landowners the chance to gain experience and knowledge of effective rush control. A certified contractor provided the weed-wiping service, and so protected the water environment from grassland herbicides.

NI Water are happy to announce that the first phase of the trial in 2017 has produced very positive results, both in terms of farmer engagement and rush control, but also in a **marked improvement** in water quality in the Seagahan Reservoir!

- **Water Quality benefits** - Water sampling of the reservoir throughout 2017 showed a marked decrease in MCPA found in raw water. Analysis of the results demonstrated a MCPA residual reduction of more than 50% in the 2017 period, in comparison with the average for the previous 2 years. The graph below demonstrates how 2017 MCPA detections were greatly reduced;



**EU drinking water limit of 0.1µg/l MCPA*

- **Rush Reduction** - Across the 400 acres of rush treated in the Seagahan catchment there has been a successful rush reduction estimated as being up to 90% rush kill by NI Water's Farm Liaison Officer, Dominic McCann. Feedback from farmers has been very positive and demonstrated that weed-wiping with glyphosate is a very effective rush control method, benefiting both the farmer and water quality.

- **Pesticide choice** - Many products containing the active ingredient Glyphosate are approved in the UK, but they are not all approved for use in a wide wiper. Before use or purchase it is important that the label is consulted to ensure it is recommended for use in a weed wiper. With our unpredictable weather "rainfastness" is also very important and Glyphosate products vary in how quickly this occurs. Using a product that will become rainfast more quickly reduces the likelihood of the product being washed off the plants.

Providing the free weed-wiping service prevented farmers spraying MCPA across 630 acres of their land.

426 acres were treated effectively by the weed-wiper, preventing 535 litres of MCPA from being sprayed on the catchment area. Phase 2 of the trial is now underway and will run from May - October 2018, weather permitting.

Due to the success of the Seagahan trial, a similar scheme has been rolled-out this year in the Glenhordial catchment area near Omagh, Co Tyrone. NI Water are hoping this scheme will be as successful in reducing MCPA levels in raw water and also help the farmers with good rush control.

If you are in a designated site or Agri-Environment scheme, remember to check if there are any restrictions on timing or method for rush control.

If you have any questions about weed-wiping or the trials, please contact us at weedwiping@niwater.com.

NI Water would like to thank the farmers who are participating in the weed-wiping trial, as well as The Water Catchment Partnership for their ongoing support!

Department of Agriculture, Environment and Rural Affairs www.daera-ni.gov.uk

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The Voluntary Initiative

northern ireland water

Ulster Farmers' Union

cafre College of Agriculture, Food & Rural Enterprise

When to Lime

Bryan Irvine, Sustainable Land Management Branch, CAFRE.

Take action on your latest soil analysis report by using the late summer through to autumn period to lime grassland soils. With difficult ground conditions and low margins in recent years many farms have not kept up with the regular need for liming. Letting the soil pH drop in grassland reduces the availability of the major plant nutrients for grass uptake with a resulting hit to yield.

A further impact is a reduced earthworm population which has knock-on consequences for soil aeration, organic matter breakdown and drainage. Weed grasses, buttercup and rush all have an increased competitive edge over ryegrass and clover with poorer soil drainage and lower pH.

The coarser the limestone the slower the reaction time, but applying at the back end of the season allows ample time for the pH to be corrected for the next season. If there are to be slurry applications on the field then apply the slurry first, at least 10 days before liming. Applying slurry within 3 months after a lime application can lead to excessive N loss. There is no N loss issue with chemical applications of CAN or NPK compounds. Liming at the back end avoids issues with excess N losses in the Spring when slurry or urea applications are being made, and where it is hoped to reseed in the future the pH balance will be closer to the pH 6.0 target for mineral soils. Regular soil testing to enable accurate applications of organic manures and fertilisers including lime remains the cornerstone of maintaining healthy soils.

The pH and liming requirement based on ground limestone is given in your soil analysis report

Could you help AFBI Soil Carbon Research?

We need 100 farmers who could provide field records for grassland for 50 years of reseeding and lime/fertiliser/manure applications to test a hypothesis that NI soils may sequester carbon for longer than previously thought.
Contact Bryan Irvine at CAFRE **028 9442 6825.**

Two New Innovation Schemes

Nigel Murphy, Agri-Business Development Branch, DAERA.

Two new innovation schemes are being launched later this year as part of the Farm Business Improvement Scheme. Both schemes are being delivered by CAFRE and have been designed to help farmers see at first-hand innovative practices on other farms and explore their potential application on their own farms.

Technology Demonstration Farms (TDFs)

In this scheme, CAFRE will be establishing a network of Technology Demonstration Farms (TDFs) in Northern Ireland to demonstrate innovative technologies. Visitors will be able to see the technologies demonstrated, hear the experience of host farmers and question them about the financial impact of adopting the technologies. There will be TDFs across all the main enterprises of dairying, beef, sheep, pigs, crops and commercial horticulture. They will cover a wide range of themes including livestock housing, slurry management, breeding and feeding.

Farm Innovation Visits (FIVs)

In this scheme, Farm Innovation Visits (FIV), will provide farmers with the opportunity to visit farms in other parts of the UK or Europe to learn about new innovations. Each visit will a have a specific theme and visits will be organised and led by a CAFRE adviser or technologist. Individual farmers can apply to be part of an FIV trip and if successful, will travel with other farmers who have been selected. On returning home participants will be expected to share what they have learnt with a group of other farmers.

CAFRE is forming the team to run these schemes and they plan to select the first group of Technology Demonstration Farms by the end of the year. The College also intends to pilot the first Farm Innovation Visits at the same time.

For further information on these schemes please contact the Knowledge Transfer Administration Team at Greenmount Campus, CAFRE on 028 9442 6790. Further scheme details will also be available in the local press in due course.

These schemes are part of the Rural Development Programme 2014-2020, contributing to the Knowledge and Information actions (Measure 1), and are part funded by the European Union.

ISBN: 978-1-84807-902-1

DMS: 18.19.063