



Farming Matters

Issue 2 Autumn 2017

Welcome to the second edition of 'Farming Matters', a newsletter to update our Countryside Stewardship Facilitation Fund farmer groups and stakeholders on recent and forthcoming events and meetings, relevant projects and news and tips of topical interest.

This edition has a 'precision' theme spun through it, with articles on soil analysis, nutrient planning, specialised equipment and rotational grazing.

With costs of fertiliser and bought-in feed ever increasing, and precision technology becoming more affordable, it makes business sense to maximise utilisation of slurries and manures through targeted application and implement grazing strategies to maximise quality home-grown feed.

The benefits are clear – to the farm business AND the environment.

Alice & Matt



Events

Countryside Stewardship Mid Tier and Water Capital Grant Clinics: pre-submission checks

Tues 26 September

Venue tbc - contact Alice

Unlocking the secrets of soil: aeration

Thurs 28 September, 6-7.30 pm

Widewath Farm, Helton,

Speaker - James Bretherton

Making quality silage to reduce quantity of bought in concentrate

Wed 10 October, 1-3pm

Shap Abbey

Speaker – Charlie Morgan,

Grassmaster

Cattle lameness: cause, prevention and cure in dairy and beef systems

Wed 08 November

Venue to be confirmed

Speaker – Richard Spooner,

Pendragon Vets

Book your place

01768 866788

office@edenrt.org



The Facilitation Fund in Eden

Eden Rivers Trust facilitates two catchment-scale Facilitation Fund groups in the Eden; the Rivers Lowther & Leith, and the River Petteril. Here's our quick guide to the groups

The River Petteril Countryside Stewardship (CS) Facilitation Fund application was accepted in the first round of the Fund back in 2015, with the Rivers Lowther and Leith following soon afterwards. Since then, support for such collaborative, landscape-scale 'farmer-led' projects to achieve CS objectives has gained momentum and there are now a growing number of groups throughout England.

The aim of the Facilitation Fund groups is to deliver Countryside Stewardship priorities in the catchments, including Water (surface and groundwater), Biodiversity and Landscape.

As Facilitator, Eden Rivers Trust co-ordinates the two groups, bringing farmers together to share best practice, explore ways of working together, and access expert advice. This is possible thanks to EU funding administered by Natural England.

River Petteril

The River Petteril begins close to the villages of Penruddock and Greystoke. It then follows north towards Carlisle, where it joins the River Eden.

Farming in the catchment is predominantly dairy and beef, with maize grown to support dairy herds.

Water quality is the primary concern here, with the river coming under pressure from diffuse pollution and the presence of both the M6 motorway and the West Coast Mainline railway, which run close to the Petteril for much of its length.

This Facilitation Fund is now in year three, and currently has 26 farmer members, farming an area of around 5,100 ha.

Matt's focus with the group over the last year has been on discussing ways to address diffuse pollution and gearing them up to applying for Mid Tier Countryside Stewardship grants.

The group is engaging with United Utilities through stakeholder meetings to discuss opportunities and potential farm investment.

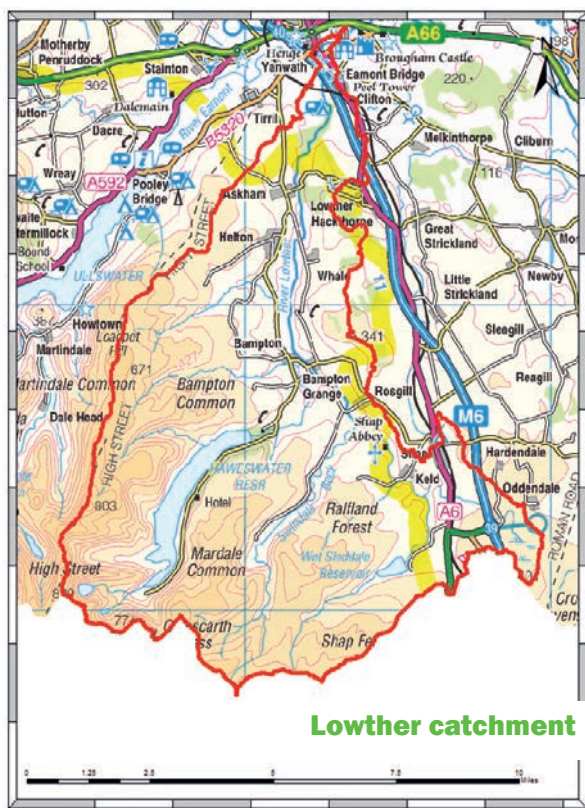


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Lowther / Leith

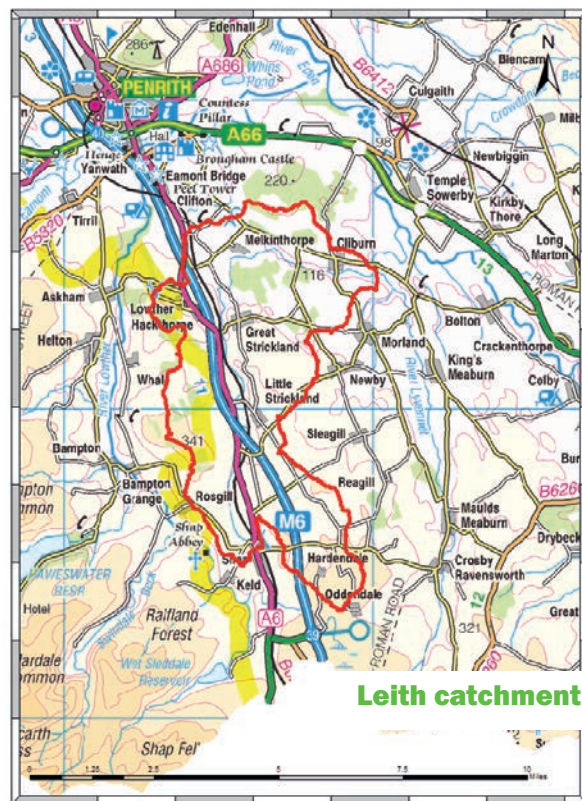
Both rivers are contiguous catchments with shared head waters and significant, shared land owners and tenants. The River Leith straddles the Eden Valley and Orton Fells landscape areas while the Lowther is situated in the Cumbria High Fells giving very different characteristics to both.

This Facilitation Fund is just entering year two of the five-year programme. To date, there are 18 farmer members in the group farming an area of around 5,300 ha.



Lowther catchment

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Leith catchment

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Farm enterprises include upland hill farms, more lowland mixed farms and dairy.

Some of the priority habitats which occur in these catchments include upland heathland, upland species rich hay meadows, ancient and native woodland, wood pasture and parkland with veteran trees, riparian habitat associated with priority rivers and arable field margins.

These habitats support priority species including freshwater species such as the white-clawed crayfish, breeding waders and woodland birds.

Member-led groups

With topics decided by group members, events and meetings aim to demonstrate how environmentally responsible farming can have a positive impact on the farm business whilst delivering Countryside Stewardship objectives.

Topics covered so far include: forage maize and soil management, soils and rotational grazing, nutrient management planning, and clinics to help farmers through the CS Mid Tier, Water Capital Grant and Hedgerow and Boundary Grant application process.

Looking ahead, you'll find forthcoming events on the front page of this newsletter. We are looking to bring in more livestock based issues and their relationship with our farmed environment.

Don't forget, these groups are member-led, please let us know of any ideas for future events and meetings!

Stakeholder meetings

Members are also invited to attend meetings with representatives from other stakeholders operating in the catchment including United Utilities, Natural England,

Network Rail, Lake District National Park, and District and County Councils, providing the opportunity for all to have an open exchange of views with regards issues such as flooding and investment into the catchments.

New members welcome!

If you farm in either of these areas, or know of anyone who might be interested, please get in touch with us to find out how to get involved!

Call Alice or Matt on 01768 866788

Rotational grazing systems: good for both your land and your pocket

In June, members of the Rivers Lowther and Leith farmer group enjoyed a visit to Rawfoot, Bampton, courtesy of Richard Carruthers, to learn more about the benefits of adopting a simple rotational grazing system.

They heard from **Rhidian Jones**, RJ Livestock Systems, how the system offers the potential for a profitable and sustainable business. From an environmental perspective, it can result in an improved soil structure: increasing its ability to hold water and nutrients and reducing the use of fertiliser and bought-in feed, which in turn could reduce phosphate input into rivers.

Rhidian outlined the key benefits of rotational grazing systems:

- More, better quality grass that is significantly cheaper than using concentrates to feed ruminants (£25-30/t DM as opposed to concentrates £120 upwards/t DM.)
- Stock fed on more, better quality grass can lead to improved weight gain, reducing days to slaughter.
- Increased usable yield. Set stocked systems typically utilise 50-60% of DM grown, so with a modest annual yield of 8.5 t/DM/ha, resulting usable yield is 4.3 t/DM/ha compared to a rotational grazing system, with utilisation of 65%, increasing the annual yield to 10.2 t/DM/ha, resulting in 6.6 t DM/ha usable yield.



Rhidian demonstrates how to use a grazing plate meter

Rhidian suggested that the additional 2 t/DM/ha could be used to support a higher stocking rate, reduce the amount of rented grass, or reduce the amount of purchased feed with 1 t DM of high quality grass equivalent ME as 1 t barley with much higher protein.

Grazing at the 'right time' in the plant's life-cycle is critical to ensuring optimum grass growth, higher digestibility and thus DM intake.

In ryegrass, this is at the 2.5-3 leaf stage. Grazing at this stage will ensure that all three leaves are

replaced within two to three weeks.

It is key to gain an understanding of how the amount of available grass is changing from week to week by calculating, with a simple sward stick, the amount of grass available in kg DM ha.

The group were shown the different types of fencing used and how initial capital investment in terms of fencing and water has a quick payback, within 18 months.

Look out for similar events taking place in 2018.

Maximising on-farm nutrients to improve yields and crop quality

How sampling your soil to plan your nutrient management can save money and the river

Back in January, the group heard from independent consultant, **Joe Winstanley**, how nutrient planning on their own farms will allow them to make the most of the nutrient value of on-farm manures and slurry and potentially reduce their artificial fertiliser bill and minimise the application of excess nutrients (which can impact water quality).

He talked the group through steps to produce a simple nutrient plan:

1) Determine the nutrient value of the soil

Take a basic soil sample for P, K, Mg, pH.

P & K Target indices for grassland are P - 2 and K - 2.

Over-application of K is common grazing fields, however, K may be low on silage fields due to crop offtake.

N - soil nitrogen is usually measured using standard tables in RB209 (Fertiliser Manual) and

factoring in variables such as soil type, cropping history and rainfall.

pH is key in determining availability of various nutrients to the plant, with the ideal being 6.5 – 7 for grassland.

2) What does the crop require?

Once the soil nutrient indices are known, the requirements of the crop can be determined based on the standard recommendations in RB209 and by using computer programs such as PLANET or a FACTS advisor.

3) Manure Planning

Nutrient content of manures varies according to species and the farming system.

Standard manure nutrient values from RB209 can be used, or test on farm using a hydrometer.

Method of application affects nitrogen availability - if you use a splash plate to apply the slurry to the surface, only 35% of the N in

slurry will be available to the plant. Compare this over 45% available if the slurry is applied using shallow injection.

Target towards fields with the lowest P & K indices as it is cheaper to build up the indices using manure as opposed to artificial fertiliser. A 6% DM slurry applied at a rate of 7400 gallons/acre would be worth over £300.

When planning manure applications, particularly in NVZ's, regulations including closed periods and field limits must always be adhered to.

4) Calculate fertiliser requirements

Subtract the nutritive value of other sources (such as manure) from the total crop requirements.

Fertiliser needed = crop requirement minus nutrients from other sources

Soil analysis

Working together with Natural England's Catchment Sensitive Farming (CSF) Initiative, we are offering Facilitation Fund members soil sampling basic analysis (P, K, Mg, pH) and nutrient management planning advice.

Many of you have signed up for FREE or subsidised soil sampling, analysis and advice.

Our soil sampling is set to continue this Autumn. Once you have all received your analysis and reports we intend to run an event, early next year, to discuss the findings, help interpret the results and discuss any other topical soil related areas of interest!

E-mail us if you would like your soils sampled during October.



Taking precision farming to the X-Trem

Matt Jenkinson

Precision application of fertilisers and manures is becoming more and more of a hot topic in modern agriculture as it has a win-win effect on both your farmed area and the environment.

With this in mind, we may well see more restrictions to the amounts of these materials that we, as farmers, can spread on the land.

Machinery manufacturers are always trying to come up with ways to make our lives easier, and Joskin has done just that. The Belgian firm has teamed up with John Deere to incorporate John Deere's NIR (near infrared) sensing kit to their new range of 'X-Trem' dribble bar slurry tankers.

Slurry flows from the tanker, through the sensor, where 40,000 readings are taken every second. Readings can be adjusted to pick up the minimum and maximum levels of either N, P or K.

After selecting which mineral to monitor, the sensor adjusts the

flow of slurry sent to the dribble bar to reduce the application rates of mineral rich slurries.

This kind of precision technology can be funded through the LEADER grant. For more information contact Matt.



Funding update

Countryside Stewardship Mid Tier

The final deadline for application submission is **30 September**.

'Clinic' style meetings were held at our offices during the summer with the aim of familiarising farmers with the requirements of the scheme and the application process as well as discussing options available to them in the hope that they can make a competitive application.

A further 'clinic' style meeting will be held on **26 September** (see events) in conjunction with Chris Turner, Natural England's Catchment Sensitive Farming Officer, to check that application paperwork has been correctly completed, all the necessary evidence has been gathered and that the scheme and option requirements and restrictions have been fully understood before the application is submitted.

The number of applications to this year's Countryside Stewardship Scheme is expected to almost double on last year so the emphasis on 'value for money' is key to a successful application. Facilitation Fund members can benefit from an uplift of 20% on your basic score. **Contact us to get the required endorsement.**

Remember: planning permissions or consents may be required and land parcels, including farmyards, may need to be registered. ACT NOW as this takes time!



Project update

A flavour of some of our agricultural-related projects that we're working on within the trust

PhD study

As part of a collaborative project with Lancaster University, Eden Rivers Trust is undertaking a study to quantify the value of farm woodlands, hedges and soil improvement practices such as soil aeration, in reducing the amount of overland water flow and nutrient loss in the Lowther and Leith catchment.

Ethan Wallace, a PhD student at the university, will be working with us to gather the scientific evidence for this study. Several group members have offered to host the experiments on their farm. Ethan is keen to introduce the project to the group and share his

findings with the group as the study develops.

Project Hedgerow

On a similar theme to the PhD, this new project, launched in July, aims to identify locations in the Lowther and Leith catchment where there might be the potential to create or restore hedgerows along field boundaries in places where it could benefit rivers and wildlife.

Hedgerows provide habitat for wildlife such as insects, mammals and birds as well as providing benefits for farmers too, such as offering shelter for livestock and reducing loss of soil through surface water runoff.

Working with volunteers, we are undertaking a desk study using a computer programme and Environment Agency published data to identify suitable places for hedgerow creation or restoration.

If potential for hedgerows is identified on your farm, we'll be in touch to see if you are interested in restoring or creating hedgerows. We'll work with you to identify appropriate funding schemes.

In the meantime, please call us if you have already identified hedgerows you wish to restore or boundaries where you'd like to plant new hedgerows.

Borrow an aerator

Well aerated soils are key to improving yields, increasing nutrient utilisation and trace element availability and encouraging spring growth and sward recovery.

The ERT 'soil aeration roadshow' dropped into Patterdale at the end August. It's due in the Rivers Lowther and Leith catchment on 28 Sept! (see events)

We have sward aerators and subsoilers to borrow.

Book by emailing office@edenrt.org or call **01768 866788**



Lie of the land

Each time, we'll bring you a personal view from folk who farm the land - and we've got quite a few at ERT!

This time: Alice Robinson Farming and Conservation Coordinator, who farms with her husband and sons at Helton, nr Askham.



As usual the summer started full of optimism, "We're going to get as much crop as possible to use as hay!" Managed to secure plenty of good quality silage, but no hay!

We're busy now sorting lambs to sell and getting the ewe flock ready for tupping. The fell sheep are to gather soon and sort.

The Animal Health Department has undertaken a badger survey on the Farm. Plenty of evidence of badgers rooting but no setts. They need to survey the fell!

You'll be glad to know that we've been practising what I preach - sheep are happily moving around the farm in a rotational fashion!

It's been such a grassy year that it's been hard to keep on top of it and two additional fields were shut off for silage and let to a neighbour.

We're looking forward to the delivery of the soil aerator next week and, if the weather allows, we're going to target areas where we've identified some compaction, mainly the headlands of silage fields.

As other FF group members have done, we took advantage of the offer of soil analysis on some of our fields. One thing that surprised us is how the pH can differ so dramatically from field to field, even with the same management. It just shows the importance of soil analysis to get liming rate correct.

The new Countryside Stewardship (CS) Mid Tier didn't suit our farm so we are making the most of a CS Hedges and Boundary grant, steadily restoring walls across the farm. If we get ahead, we may apply again once the window opens in February.

Like many farms, we have diversified (I also work for ERT and manage a holiday let) and as a result, farming is turning into a real family affair.

As my sons are getting older, they are becoming increasingly useful around the farm (but only if I manage to prise their phones out of their hands first!) It's a juggling act, but it's the only way to secure our future.

That's all for this issue

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If you are interested in exploring ways that you can bring water-friendly farming onto your farm, or would like some advice about potential funds and grants that you can apply for then please get in touch with us.

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The European Agricultural Fund for Rural Development:
Europe investing in rural areas. This project has
received European Union funding under the
Countryside Stewardship Scheme's Facilitation Fund

