This was the first meeting at Rumbletonrig by kind permission of John Mitchell and Family to introduce the project and consider what practical and profitable ideas we could explore to benefit both the host farm and discussion group.

**Key points:**

- Get soils tested - knowing nutrient values and soil pH will help you make the most of applied lime and nutrients

- Know feed value of silage to accurately put together a winter ration - a good quality silage can help to save money on the feed bill

- Test slurry and manures - knowing nutrient value could help you make better use of bought in fertilisers

- Could you benefit from farm woodlands?

**Maximising farm profits**

Farmers attending the first event at Rumbletonrig discussed ideas ranging from making the most of fertiliser value in slurry and manures, to livestock feed and fertility. The aim of the day was to give an introduction to the Climate Change Focus Farm initiative and highlight a range of ideas to look at in future meetings which could lead to improved profitability for both Rumbletonrig and visiting farmers. By being more efficient with inputs or making tweaks to current practices, the aim is to improve profits whilst also demonstrating a reduction greenhouse gas emissions.

Guest speakers included former NFUS President and local farmer Nigel Miller, and Robert Neill from Upper Nisbet, a previous Climate Change Focus Farm.

Here we look at some of the topics covered at the introductory meeting - see the back page for details about how you can get involved. There is more information on our website and Farming for a Better Climate Facebook page.

**Photo** - (L-R) Robert Neill, John Mitchell, Nigel Miller.
Financial value in slurry and FYM
Equivalent nutrient value of over £14k in farm slurry and manure at Rumbletonrig

Housed on slats, John’s 300 cow herd produces around 400m³ slurry/month. According to SRUC’s Chris McDonald, this equals around 1,500m³ (330,000 gallons) of slurry per year. Applied at the right time for the growing crop, analysis has shown that this has an equivalent fertiliser value of £4,488 at current prices.

Based on a spring application of 28m³ per ha (around 2,500 gallons per acre) gives approximately 34kg N, 34kg P and 90kg of K, meaning no additional potash will be required for cereal ground.

Straw bedded courts are used for young stock and at caving time. Annual FYM production is estimated at 1,625 tonnes with analysis revealing an equivalent fertiliser value of £9,753. FYM is applied to winter cereals within NVZ regulations at a rate of 30t/ha which again will cover all winter cereal land without the need for additional potash.

Know what you’ve got
Knowing silage feed value will help you to accurately tailor a winter ration. That was one of the key points from SRUC’s Moira Gallagher. The poorer the silage, the less cattle will eat and diets will need to be supplemented to maintain animal performance. Based on a 180 day winter, concentrate requirements could be increased 2 to 3 fold in the absence of a good quality silage. For a finishing animal, the difference between poor and good silage can be 2t and 450kg of cereals respectively. Conversely if your silage is good then cattle can be pushed harder and finished quicker.
Productive farm soils

Soil pH will affect farm productivity and profits

Scottish soils have been mapped and classified into different soil associations and series. SRUC’s Donald Dunbar explained that having access to a soil map for your farm provides useful information about the soil make up, helping to highlight potential limitations and explain field variations in productivity.

A cornerstone for a productive soil is maintaining the soil at a pH level appropriate to the crops being grown. For a rotational field it is desirable to maintain a level above 6.0pH. When using a conventional W-pattern sampling approach the target pH is 6.5 because pH varies across a field (a range of half a pH is common).

At Rumbletonrig John has recently started to soil sample fields using GPS technology. The field area is divided into 1/4ha grids with multiple samples taken from within each grid. The results map pH variation across the field and allow a targeted approach to be used to variably apply lime only where it is needed. Because a more targeted approach has been taken, a lower pH of 6.2 can be targeted.

Taking many more samples for analysis per field does increase the cost. However because of the targeted approach, a saving is made in the total lime requirement for the field in most cases.

This saving can cover the extra cost - in two of the three fields discussed at the meeting only one field resulted in a higher total cost than the conventional W-pattern approach.
Well planned woodlands
Funding opportunities and benefits of farm woodlands.

Woodlands can bring many benefits to the farm business, but the numbers also need to stack up. SRUC’s Stephen Adlard explained about a range of SRDP funding options depending on your woodland objectives.

Small farm woodlands have not always been viable in the Borders due to management and harvesting costs limiting the woodlands economic value, however the biomass market is helping improve the economics especially where fuel is used on farm.

Small woodlands can still provide big benefits - funding is available through the Borders Tree Planting Grant administered by the Tweed Forum and Borders Forest Trust (tel. 01835 830750) for planting in areas less than 0.25 ha.

<table>
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<tr>
<th>On Farm Benefits</th>
<th>Wider benefits</th>
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<tbody>
<tr>
<td>Provide shelter and or shade for livestock, improving productivity</td>
<td>Lock up carbon - in wood and soil, and timber products</td>
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<tr>
<td>Provide a source of wood for fuel for sale or home supply</td>
<td>Forest biomass replacing fossil fuel use</td>
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<tr>
<td>Generate income from timber on otherwise unproductive/inefficient areas?</td>
<td>Improved resilience to climate change – flood control, wildlife networks</td>
</tr>
<tr>
<td>Secure carbon credits, approximately £600/ha available for plantations over 10 ha.</td>
<td>Promote water quality/temperature through leaf litter and dappled shade</td>
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<tr>
<td>Multifunctional - act as screening, either visually or to reduce noise, provide a biosecurity buffer from neighbours herds, game cover, reduce soil erosion; slow runoff/flood control</td>
<td>Link wildlife habitats/ native woodland networks – increase their resilience to climate change, improve and enhance landscape (colour, features, screens, framing a view/feature)</td>
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What’s next?
Livestock management will be the topic for our next meeting 4th November 2015. All farmers welcome; meeting will be advertised by flyer and on Facebook.

Meetings are free to attend and all farmers are welcome.

For Rumbletonrig, contact farm facilitator Donald Dunbar on 01835 823322 or via email at donald.dunbar@sac.co.uk for more information.

Funded by the Scottish Government as part of its Climate Change Advisory activity

www.farmingforabetterclimate.org

There are nine climate change focus farms in Scotland. Keep up to date with their activities at