

Farming for a Better Climate



Rumbletonrig

Owned and run by John and Rhona Mitchell with help from son Steven, his father John and tractorman Sandy Baxter, Rumbletonrig covers 327 ha in the Scottish Borders.

The main enterprise is beef production; there are currently 300 spring calving suckler cows (closed herd) with all progeny finished or retained as replacements. A flock of 250 Suffolk cross ewes are housed prior to lambing in the first week of March with prime lambs are sold fat in June and July.

Crops include spring barley and winter barley, wheat and rotational grass. A proportion of the grass area is used for silage production, which is clamped and used for winter feeding. In recent years whole crop cereals have also been

ensiled in a pit. Straw is retained for bedding with some extra tonnes bought in.

John and Rhona are working with SAC Consulting as volunteer climate change focus farmers.

This case study highlights some of the areas to investigate to identify further efficiency savings and develop practical ideas to boost profits.



Name	John and Rhona Mitchell
Farm	Rumbletonrig
Locality	Scottish Borders
Farm	Lowland beef and sheep
Size	327 ha
Staff	1 full time

Protecting soils and optimising nutrient use

Rumbletonrig has predominantly sandy loam soils with some poorly draining sites. Drainage installation and maintenance is on-going. John and Rhona are in the process of GPS mapping the pH and major nutrient status of their soils with a third of the farm being mapped each year. Tractors have navigation equipment to improve accuracy of fertiliser and agro-chemical applications; this could also be utilised to support variable rate spreading of fertilisers. Slurry goes to silage ground and arable crops with FYM going predominantly to winter cereal ground.

Case Study

Find out what other farmers are doing to improve profitability and adapt to a changing climate in our series of case studies.

There are five sets of Practical Guides covering :

Use energy and fuels efficiently

Develop renewable energy

Lock carbon into soils and vegetation

Optimise the application of fertilisers and manures

Optimise livestock management and the storage of manure and slurry

Find further information, including links to other Practical Guides and Case Studies, at



www.farmingforabetterclimate.org

Funded by the Scottish Government as part of their Climate Change Advisory Activity

Websites

www.farmingforabetterclimate.org

www.agrecalc.com

www.scotland.gov.uk/

www.planet4farmers.co.uk/

<http://ukclimateprojections.defra.gov.uk/>



Rumbletonrig

How might climate change affect Rumbletonrig?

Rainfall at Rumbletonrig averages around 676mm (27 inches) per year. Recent years have seen more extreme weather and climate change predictions suggest heavy downpours or drier periods could become more frequent. Some of the soil type is poorly draining, so more rainfall could make this harder for John and Rhona to deal with.

As livestock farmers, emergence of new or increases in established diseases will always be a concern. Running a closed herds helps to minimise these risks in the future.



"We are hoping that by being involved in the climate change focus farm project we can compare our performance with like units and look at other ways we can control costs and improve profit. We are looking forward to investigating practical ways that we can become more efficient, and reduce our carbon footprint here at the farm." - John and Rhona Mitchell.

Scope for renewables

Not only does using power generated from renewables cut the fuel bill, it can also help to reduce the farm carbon footprint. John has recently installed a wood pellet biomass boiler to heat the farmhouse and provide hot water. Other renewables have been investigated, such as solar photovoltaic (PV) panels and a wind turbine.



Focus on cropping

Around 37% of the farm is under arable production. Varieties are already chosen for resistance to disease, reducing inputs and giving some degree of yield protection. Crop rotation is five to six year grass leys with 4 to six years in cereals.

The business owns a range of machinery meaning most of the work can be done in-house. John also does some local contracting including tractor work at silage and potato harvest.

Optimising livestock management

Calving starts in April through to June, with home bred heifers calving at 24 months. Cows are housed on slats up to a month before calving and are then swapped with the young stock into the straw bedded courts. EBV's are already used when selecting the Saler and Simmental bulls which are also routinely tested for fertility in advance of the mating period.

Profiting from 'locking up' carbon

With well managed soils and over 300 ha of grass and crops, carbon is being routinely locked up on the farm. John and Rhona are considering the future management of the mature shelterbelts. Future tree and hedge planting could benefit livestock production, providing shelter, improve farm biodiversity and lock up of carbon, cutting the farm carbon footprint.

How can you benefit from activities at Rumbletonrig?

Greenhouse gas emissions can be viewed as a waste - this waste can reduce business profits. By benchmarking farm efficiency, you can quickly see areas which could be costing you money. Over the next three years and with support from SAC Consulting, Rumbletonrig will look at a range of practical efficiency measures - farmers are invited to suggest and share ideas through regular discussion group meetings. For more information, contact farm facilitator Donald Dunbar on

01835 823 322 or via donald.dunbar@sac.co.uk or see our website, Facebook and Twitter pages [@SACFarm4Climate](https://www.facebook.com/SACFarm4Climate) for details.

