

Torr Climate Change Focus Farm meeting



Discussion group meeting held at Torr Farm on Monday 12th March 2012 from 10.45 until 15.00

Meeting Theme – Opportunities for renewables; woodfuel boilers

The theme for this meeting was to discuss the opportunities for renewable energy generation on the farm with a focus on woodfuel boilers and support under the Renewable Heat Incentive (RHI). Gillian Reid chaired the meeting.

Gillian introduced the initiative and the morning speakers. The group then moved to the mixed woodland at Torr, where Ross and Patrick Higgins (Scottish Woodlands; see photo) gave an overview of the history of the woodlands on Torr.

The woodlands were originally planted in the 1960's, 70's and 80's on rougher ground, primarily for amenity and wildlife value. In 1990's Ross started a felling programme, now the woodlands are approximately 50% conifer and 50% broadleaved with the more commercial species kept to one end of the forest for ease of management. This summer the woodlands on Torr will have been organic for two years.



Patrick and Ross highlighted some of the financial issues and changes over the years; these included reduction of available farm labour and grant support plus the need for weed and pest control during establishment. Although woodland management at Torr has primarily focused on amenity, landscape and wildlife benefits, Ross would like to get a rotation going to provide wood fuel.

Bill Tyre (Scottish Woodlands) gave an overview of harvesting of woodlands; they tend to operate on a larger scale i.e. 30-40 ha blocks, however there is still money to be made from selling wood fuel from the farm or using it for home supply. Haulage isn't getting any cheaper and there is an increased demand for fire wood. In two years the price of logs has risen from around £36 to £56 per tonne delivered; well seasoned logs can cost up to £150/tonne. Bill highlighted that there was good access here at Torr for getting wood out, something you need to consider when thinking about establishing woodlands.

John (Jas P Wilson) supplies wood processing machinery but noted that you don't need much more than a chainsaw to process wood for firewood on the farm, but machinery can make for a quicker, easier job.

John had brought three machines along to demonstrate to the group; a wood fuel processor, a splitter and a saw bench. The wood fuel processor was about £10,000; the splitter was around £3,000 plus £1,500 for the saw bench. The wood fuel processor is unlikely to be used on a farm; it's more for frequent use on an estate. If farmers didn't want to invest in equipment, hire was always an option if you are only dealing with small amounts of wood for home use (positioning costs could be further reduced by going for joint hire with a neighbour).

The logs produced in the demonstration could be sold for use in a wood burning stove (not RHI eligible); the longer sections being produced by the splitter could be fed into a log fuelled boiler (eligible for RHI). Logs for use in stoves can make £150/tonne.

Ideally, wood needs to be dried to 20% moisture content for use as fire wood or in a log boiler and woodchip usually needs to be below 35%, but this will depend on the boiler or stove. John noted that sycamore, birch and ash dry quicker, beech and oak take longer to dry. There are more calories in a cubic metre of hardwood logs than soft wood so this will give a bigger heat output. Now is a good time to be felling timber, before the sap rises. Timber dries better outside, log piles should be stacked so as the prevailing wind will go through the woodpile and ideally need to be raised off the ground. The top could be covered with a tarpaulin to keep water off, but the sides should be left open to allow air through the woodpile and remove the moisture. It could take 12 to 18 months before timber is dry enough to use, depending on the species.



After lunch SAC's Kate Hutchinson gave an overview of the RHI and its aims. It's similar to the Feed in Tariff (FIT) in that you get paid per kWh of energy generated. On average, the RHI is designed to deliver a 12% rate of return to offset the higher capital investment costs.

At present the scheme is open to non-domestic renewable heat installations, which means installations heating anything other than a single domestic premises; a non-domestic installation could mean the farmhouse plus another other building with a demand for heat.

Boilers installed since 15th July 2009 are eligible for the RHI which is administered by Ofgem. Small commercial biomass boilers less than 200 kWh receive 7.9 p/kwh. There have been reports of some people going to the extent of taking a relatively new boiler out to install a new one just to be eligible for the RHI payments. It was noted that Ofgem may clamp down on this if it becomes widespread.

Wood fuel and RHI creates an opportunity for individuals, businesses, neighbours working together or even communities or co-operatives; there is lots of scope. A key point to remember is that to be eligible for RHI the boiler needs to heat water and the heating system then draws from the hot water.

Renewable heat payments can provide a new income stream and lead to savings on the fuel bill, if wood is for home use then you can protect the business from fuel price rises or sell wood fuel from the farm. Uses on farm include:

- Heating the farmhouse
- Heating holiday cottages
- Washdown water for dairy
- Grain drying
- Heating poultry sheds
- Glasshouses

Kate also mentioned that there were pro's and cons with each system. For example, logs would need to be manually loaded on a daily basis and should be at 20% or below moisture content; woodchips are the cheapest automatable fuel but they are difficult to handle and consequently the capital cost of the boiler is high; pellets are only produced in 5 or 6 places around Scotland (on farm pellet production is not an option) but they are a high quality fuel. So it was important to pick the right system for your circumstances. Matching your boiler to available fuel supply is vital, and careful design of the woodfuel store and delivery are critical to a successful project.

The final speaker for the day was Steve Jones from Brockloch firewood. Steve talked about his experiences of wood fuel, his boiler system and why he chose the type of boiler he did.

Steve bought an 11 acre plantation, built a house on the site and utilises the wood for fuel. Steve opted for a 35kW woodchip boiler for ease of use; Steve and his wife do not need to fill the boiler every morning. Steve purchased a chipper to ensure the chips produced on site were the standard and quality he needed for his boiler.

Although Steve does not qualify for RHI payments at present, he estimates that at current use, the plantation can supply him around 75 years worth of fuel. Unfortunately some of the trees are now too big for the chipper, so these are being sold on as wood fuel. The key point

from Steve was to ensure you get a system that suits your needs, Kate seconded this, and she also stressed the importance of having a structured plan and doing your research on the installer's track record.

After a few questions and some discussion, Gillian closed the meeting and thanked Ross, the invited speakers and the group for their participation



Do you farm and would you like to attend to future meetings?

The meetings provide sensible ideas for the farm business, from invited speakers and other farmers, to improve efficiency whilst reducing the loss of greenhouse gases. It's free to come along and you will be able to influence the topics, speakers and location of future meetings.

Torr has two farm facilitators. You can contact either Gillian Reid at SAC Bush Office on 0131 535 3435 email gillian.reid@sac.co.uk or David Keiley at SAC Dumfries office on 01387 261172 email david.keiley@sac.co.uk for details of the next Torr meetings.

If you want to keep up to speed with what's happening at Torr but don't want to attend all the meetings, ask to be added to the Torr email list; you will receive notification of future event and meeting notes.

Visit the website at www.farmingforabetterclimate.org or email a general enquiry to climatechange@sac.co.uk