

CALU on-farm energy management and production seminar

16th January 2008

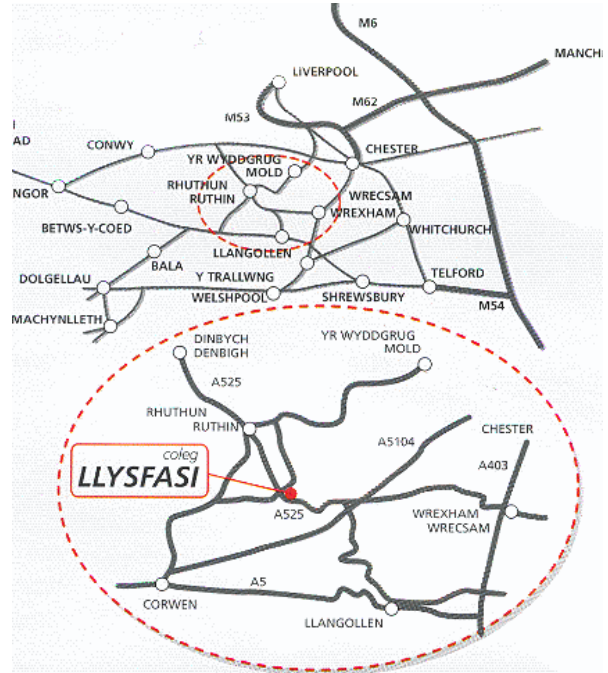
Coleg Llysfasi, Ruthin

The day started in the morning with an introductory session on energy usage and management on-farm by ADAS consultant Catherine Heywood. Cathy spoke about the general linkage between agriculture and global warming and introduced CALUs on-farm energy auditing guide.

This was followed by talks about on-farm energy production. Andy Stewart and Mike Hughes from Coed Cymru discussed possibilities and challenges of managing small farm woodlands to sustainably use their resources. Issues of what to consider if you want to use your woodland, the feasibility and the economics were addressed.

Mike introduced the possibilities and challenges for farmers if they consider using their woodlands. There are 13,000ha private woodland in Wales (with 9,000ha being broadleaved woods), mainly consisting of small patches with no clear access. The first step is to evaluate the situation of such a wood: how do I get access? Do I need a felling licence? Is it a protected site or a site of special interest? What is the species composition? How much can I sustainably harvest? Is there grant aid available? When these questions are answered, a farmer has to make the decision whether to do the work himself or by contractor. Once the harvesting is done, the resource wood has to be transformed into an end product. At this point, Andy Stewart took over to look at the different products made out of wood. He focused his presentation on the different forms of fuel wood, talking about advantages and disadvantages, and overall performance of wood chips, pellets and logs.

In the afternoon session, Richard Tomlinson and Chris Morris from Free (Farm Renewable Environmental Energy) addressed another form of energy production: Anaerobic digestion. As FREE is in the final planning stage of building a 2 stage digester on Loge Farm in Holt, nr. Wrexham, the attendees got first hand information about the political and also technical procedures. This technology is already well used in other parts of Europe, especially in Austria and Germany, but only few plants exist in the UK. The technology behind is fairly



straight forward: Through anaerobic fermentation, organic matter (which in FREE's case will be a mixture of cow slurry and food waste) gets transformed into methane which can be used for the generation of energy. The leftover, called "digestate" can be used as fertilizer. With this method, greenhouse gases get captured, waste which would be used at landfill gets reduced and the fertilizer developed by the process will be more odourless than fresh slurry. And, depending on the starting material used for the process, the nutrients in the fertilizer can be more easily available for the plants.

The implementation of such a plant on the political level is another matter. Richard Tomlinson pointed out the "3 P's": Politicians (there are no specific grants available at the moment), Planners (which tend to see anaerobic digestion as an industrial process and not an agricultural technique) and last the power companies, who indeed encourage the generation of renewable energy but charge very high fees to connect the digesters to the national grid. However, as the plans for Lodge Farm show, an anaerobic digester can be built with a good business plan and a lot of enthusiasm.

The event was promoted in the Daily Post, twice on Radio Cymru and personal invitations were sent out. Around 25 people attended at Coleg Llysfasi. The venue was well chosen the staff there is very helpful and working efficiently. The location for attendees to get there is also convenient.