

Boilers and Chips?

By Keith Robertson

A VERY WELL attended meeting at the Auchrannie last Monday heard presentations from a number of experts on use of woodchips as a fuel. Tommy Loudon from Farming and Wildlife Awareness Group (FWAG) opened the meeting and thanked The Arran Voice for its publicity of the event. Tommy's presentation was on peak oil, a subject we will hear more and more of as oil prices continue to rise. Farmers as a profession are not generally known for alarmist language so quite a few people sat up when he announced that "peak oil will hit us like a tidal wave if we are not prepared."

Nick Quick of Langside B&B, Dalry discussed his own installation of a woodchip boiler which has gained him the gold award in the Green Tourism Scheme.



The boiler is a Heizomat 50 kW model. The feed auger can be seen coming through the hatchway.

The cost was £27,500 with generous grant aid. It has an operating

efficiency of 92%, so Nick expects to see some significant savings on his heating bills; it will also reduce his B&B's carbon dioxide emissions by at least 12 tonnes per annum. See www.langsidefarm.co.uk. Nick also recommended the Efergy smart meter at £50 to monitor your electricity use.

Nick has experienced problems with the moisture content of mainland-supplied woodchips and so the Arran team are pre-warned about this crucial specification. Angus Smith of Arran Woodfuels stated that there is an EU directive to regulate this at 35% max. This will be achieved on Arran by stacking small roundwood under a membrane before it is chipped. Angus quoted £70 per tonne for the woodchips and any further drying, if required, would obviously add to this cost; so it is a balancing act. From an environmental point of view it was confirmed that the brash containing the pine needles will still be left on site to return much-needed fertility back to the soil.

Dan Gates of Wood Energy Ltd in Fife confirmed that woodchips are best suited for systems greater than 45KW. It is not called biomass for nothing and a sizeable storage hopper is required, although they can offer a complete unit in a 30ft container which can basically fit onto the side of any building. For domestic systems wood pellets are advised. These are produced

by heating and compressing sawdust and are much easier to deliver as they can be blown into the hopper. Arran Woodfuels will be importing these from a factory in Invergordon which has replaced the aluminium smelter there — a real sign of the times.

Pellets are more expensive to buy but produce more heat, so it was left to Carola Menzel of the Energy Agency to help us compare 'apples and oranges'.

This is done by a price per kilowatt hour: woodchips come in at 2.3p and compare favourably to heating oil at 4.4p. Wood pellets are 3.8p and will certainly come into their own as oil prices rise. You also have to consider the capital investment, which is initially high but is offset by lower running costs, and the Energy Agency are well placed to give good independent advice. All in all it was an information-rich day with the right balance of independent and commercial advice. Along the way we heard about chimney balloons to stop heat loss from unused open fires (only 15% efficient!); kids generating heat in a building (5 kW each?!) and boilers that can text you if they need help. So with the NHS in Dumfries replacing 400,000 litres of oil with 3,000 tonnes of woodchip in a facility, they look like a serious player in the heating game.

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