



## Sustainable fuel from sustainable woodlands

**T**he UK has just experienced its warmest ever October since records began. So at first sight this may not seem the best time to be talking about using wood for heating, but think again! The stark reality is that the record temperatures of October are just the latest statistics in an ever-increasing tally of extreme weather events, all pointing to the reality of global warming caused by our profligate use of fossil fuels.

But it's an ill wind that blows no good and combating global warming may also provide an important boost to our neglected woodlands. The locking up of carbon dioxide by growing trees is widely reported, and this carbon sequestration in new plantations may be an important boost to new woodland planting in some areas. However, in relatively densely wooded areas, such as the Chilterns, a more significant factor may be the promotion of wood as a sustainable fuel.

Burning wood releases no more carbon than the growing trees absorbed. As replacements grow, the released carbon is recycled as new growth, with no nett build up of CO<sub>2</sub>. Wood can rightly be called a 'green' fuel and, as such, will increasingly be favoured by national fuel policies and taxation.

Wood fuel may be green, but it is also economical and convenient. In the Chilterns we are expecting to see rapid growth in the wood fuel market, based on the technology which, whilst novel here, is commonplace to our German colleagues and other northern European countries. Considerable local authority interest has already been expressed for wood fuelled boilers for schools, and combined heat and power plants for a sports and arts complex in Oxfordshire. These fully automated and computer controlled units will burn wood as chips or pellets, and this is where the real benefit for local woodlands comes in.

As our woodlands increasingly lie unmanaged, the quality of their standing timber deteriorates, with increasing amounts of twisted, small diameter material that is of little use to traditional wood using industries. But this *low-grade* wood is perfectly suitable for chipping for fuel.

As the market for wood fuel develops more and more will be supplied from previously under-managed woodlands, providing



the cash return necessary for thinning operations. If thinning is viable, we can begin to once more increase our production of high quality timber from the Chilterns.

A key aspect to building confidence for investing in wood fuelled heating and wood fuel supply, is a realistic assessment of how much wood is actually available from the Chilterns. For example, we know that the annual amount of extra wood put on by trees across the Chilterns is about 100,000 cubic metres per annum, but we do not know how much of this is actually available to the market. Location, extraction difficulties and owners' priorities will reduce this gross figure. But we are also uncertain as to how much woody material might be available from sources other than forestry. For example, timber using industries create 'waste' which may be available, and an enormous quantity of tree surgery chippings are generated, with much of it being sent for landfill.

To provide firm answers to these key questions, TWIG has commissioned the Forest Products Research Centre at Bucks Chilterns University College to carry out an in-depth evaluation of supply potential, and to assess the impact that a wood fuel market will have on the economic sustainability of our woodlands. The results of this research will be available early in the new year and could herald the start of a 'win,win,win' situation! Lower CO<sub>2</sub> emissions, less 'waste' to landfill, and improved woodland management.