

# SUPPLYING WOOD FUEL FROM THE FOREST

## Fact Sheet 2

Wood fuel is a new market for forest products along side traditional markets.

[www.woodenergybusiness.co.uk](http://www.woodenergybusiness.co.uk)

### **What is a Wood Fuel supplier?**

A wood fuel supplier will be someone who sources wood fuel, either from their own woodlands or through collaborating with other woodland owners. Suppliers will not necessarily become involved with the end-use, such as boiler installation and marketing. In the case of a “self-supply” system the wood fuel may be used to heat estate buildings. Other systems may involve selling the fuel to a wood energy business who use it to produce heat or electricity which they then sell on to an end-user.

### **Sources of wood fuel directly from the forest include:**

**Small roundwood:** from clearfell operations or early thinnings of soft wood plantations which would otherwise not be economically viable

**Brush:** Tops and branches from soft wood clearfell or thinning operations

### **Wood from under-managed broadleaf and farm woodland**

### **Encouraging sustainable woodland management**

Many woodland's, such as small farm woodlands or woodlands with long haulage distances to markets, are not currently managed at all.

Local wood fuel markets could provide a new source of income, bringing these woodlands back into production.

The extraction of wood fuel from all woodlands and forest systems must be undertaken with care. Dead and rotting wood can provide an important ecosystem for many species and it is important to leave some of these materials for ecological reasons. Equally, a poor management can have detrimental effects on ecosystems and bio-diversity, and the overall economic sustainability of a woodland. It is important that anyone considering extracting wood fuel follows The UK Forest Standard and associated guidelines.

### **A new market and a new product**

The amount of energy available from wood is dependant on its calorific value, which is related to moisture content. Generally the higher the moisture content the lower the calorific (energy) value of the wood. Some customers may wish to pay for wood fuel based on its energy content, that is an amount per Giga Joule (GJ), so selling drier wood may earn you a bonus. Stacking wood at road side, particularly a windy sunny slope can dry it down to about 30-35% moisture content producing a more premium product.

Another method to reduce moisture content practised in Scandinavia is to fell the trees and leave them in the forest for 6-18 months. The trees then lose moisture through needles and leaves.

Some customers may also wish to buy chipped wood, this is discussed in fact sheet 6.

## **What is the Forestry Commission Wales doing to kick-start the industry?**

Allocating approximately 100,000 green tonnes of small round wood per year to wood fuel projects over the next ten years.

Providing flexible contracts, which will encourage the buyer to source timber from private growers.

Giving fuel supply guarantees to help Wood Energy Businesses get finance for their projects.

Setting a sustainable price which will allow the private sector to supply wood fuel.

Managing the Wood Energy Business Scheme assists with capital costs of equipment purchase, plant installation and fuel processing (chippers, drying sheds etc)

## Benefits of increased forest thinning,

Increased management can add increment and value to your timber resource

The sporting value of the woodland could be increased

More light on the forest floor increases ground flora and biodiversity

Well managed forests are much more pleasant for people to enjoy.

## A. Woodlands Area by Ownership

- National Assembly Woodlands
- Private woodland

## A. Woodlands Area by Ownership



## Potential green wood resource available from Forestry Commission woodlands;

There is currently a total of 286,770 hectares of woodland in Wales of which 16,735 ha are below 2.0 ha in size. 44% of the total woodland area is owned or leased by the National Assembly and managed by Forest Enterprise.

## B. Broadleaf Woodland in Wales

There are approximately 100,000 hectares of broadleaf woodland in Wales

- Assembly woodland managed by the Forestry Commission 13%
- Privately owned and managed under the woodland Grant Scheme 15%
- Privately owned, and typically unmanaged 72%

## B. Broadleaf Woodland in Wales



## Terminology of products from woodlands

### Top

This is the very top of the main stem. The diameter of the main stem will be 7cm or less. The branches are not normally removed from this product. In the UK this product is usually left on site for environmental and logistical reasons.

TOP

### Brash

This is the side branches which are removed from the main stem by the harvester's knives. It is made up of needles, side branches and may include the 'Top'. In the UK this product is usually left on site for environmental and logistical reasons.

### Small round wood

This is the top of the main stem, which is usually between 14cm and 7cm diameter. The side branches will be removed from this product by the harvester knives. Currently this product is used for fencing, chipboard manufacture and pulp for paper making.

BRASH

SMALL ROUND WOOD

### Log

This product is the lower part of the main stem usually above 14cm diameter. This is a high value product which is currently used for joinery and construction.

LOG

### Stump and Root

This part of the main stem is that which is left above the ground after the tree is harvested. The removal of stumps and roots is a costly business.

STUMP

ROOT

