

WOOD FUEL CHAIN

The Essential Components

A pull at one end of a chain should be felt at the other end, so a demand for wood fuel should result in a supply. There is a hook at one end of the chain, a ring at the other.

Wood fuel is not a “JIT” (Just In Time) item as it must be grown before it is available.

A large reserve of potential wood fuel does already exist in private and State woodlands as well as in urban trees

The essential components of the chain between the hook of demand and the ring of supply are :-

1. Existing wood	Continual supply coming from tree surgery etc Wood to be cut from woodlands, biomass etc
2. Organization	Owners and woodland managers Permissions, for felling, use of chip Rides, nesting, shooting, EPS rules etc Stacking ground
3. Labour and machinery	Contracting gangs Health and Safety Payment of contractors

THEN WE SPLIT INTO TWO LINES

The Main Line (Roundwood)	The Hot Line (Chipped on site)
Transport to chipping depot	Payment for chipped wood
Payment for wood	Delivery to user
Payment for delivery	Payment for delivery
Chipping	On-site reserve storage
Delivery to user	Burning
Payment for chips and delivery	
On-site reserve storage	
Burning	

Get each link in the chain right and wood fuel will be available

Bede Howell, Chartered Forester

My long experience is with existing woodland and labour and machinery. I doubt whether many people who ask about wood fuel supply know about felling restrictions. Even when a Licence has been obtained, or a Management Plan, problems arise resulting from bird nesting seasons, or from EPS (European Protected Species) legislation.

Ideally, most harvesting work should be carried out when the woodland and its rides are reasonably dry -- i.e. later summertime, but pheasants are released from mid-July on kept estates; then there's access from the wood to the hard loading area -- if across arable, it usually is a very short window between harvest & ploughing for the new crop.

Of course tops from a fall of big timber can also be used, but these are usually fairly muddy leading to chipper-blade problems. The best aid to the reliable supply of wood fuel is a good system of forest tracks so that the wood can readily be got out -- and as thinnings are repeated about every 5 - 10 years, the track's capital expenditure is re-used time & again.

At "our" (i.e. Forestry's) end of the business in the lowlands, a steady, well-known price for the material at lorry loading point is the ideal, with everyone cutting to one or two main specifications. That is how the (much lamented, no longer there) St. Regis paper mill at Sudbrook nr Chepstow kept going. Also, it paid by weight, and within a fortnight. Now the matter of wetness of timber raises its ugly head. The vendor of the wood, and the felling contractors wish to be paid for wood at maximum weight (obvious!) but the purchaser doesn't want wet wood. It is difficult to work out a satisfactory price differential and to apply it except where the purchaser has a big yard, chips the wood promptly (easier done when wet), stores it down to an acceptable chip moisture content & then sells at a suitable price, or uses it himself when suitably dry.

Then there's the matter of the actual fuel and its "boiler" (which is really its furnace). The efficient modern self-feed units clearly need a reliably regular feedstock -- chips of a certain profile, size and moisture content. This is the standard example of "have boiler, want fuel".

But what about the people who produce "Arb. chip" -- ie all the bits & pieces, often including green leaves & leyland cypress, which are the arisings from tree surgery work. This will all burn -- at a reduced efficiency -- but only where robust handling systems are installed.

At Oscott College (Chester Rd., Sutton Coldfield) they installed a not-too-big furnace which can take anything from fairly large round or split logs (as big old trees in the grounds have to be felled for safety reasons) right down to chip, which comes from the smaller ends of the above trees plus thinnings etc. from younger areas.

This chip is simply put into empty potato paper sacks (the College has its own catering department) and the bagsful of chip are thrown into the furnace. This is a good example of "have fuel, want heat".