



Forestry Commission Project Report 8 - Extended summary Woodfuel supply chain case study - small scale log supply

To identify and promote good practice in terms of woodfuel supply chain organisation, Technical Development studied the operations of Edistone Ltd., a small scale firewood supply business based in Wales, and some of its customers. This business sources material from its own woodland, managed with the support of a Woodland Grant, and supplies woodfuel within a 20 miles radius of its location.

Hardwood logs are supplied as part of a 12 months contract, which guarantees customers a continuous supply of firewood throughout the winter season (from October to March inclusive), and that logs will be cut and seasoned ready to burn on delivery. The logs are delivered:

- split to end use cross-section (7–12cm)
- cut to length (25 cm)
- seasoned
- as a Forest Stewardship Council certified product
- stacked and boxed logs, delivered to the grounds of each customer's house and in a position specified by the customer
- in 0.3m3 loads



Logs and log stores built and delivered by the supplier

The study of this woodfuel supply chain showed that:

- Maintaining a happy customer base is dependent on supplying fuel of consistent and high quality.
- Listening to and acting on customer requests and suggestions on improving the service helps maintain customer loyalty.
- At all stages of the supply chain, simple steps can be taken to ensure efficient use of resources and time, and limit the physical strain on operators. These can include:
- spatial organisation of activities limiting handling, transport and strenuous movements
- timing of operations so as to concentrate them on short periods of time
- choice or adaptation of equipment and methods best suited to serve a given purpose specifically the scale or size, ergonomics and versatility of equipment can make an important difference to efficiency, cost and physical strain of operations
- Especially for small scale operations, managing efficiently the successive links in the supply chain is best achieved if the number of parties involved is minimised,.
- Transport distance (from woodland to processing site, from processing site to drying site, to end delivery points) is one of the most variable and critical factors influencing the economic viability of woodfuel supply businesses. Because the added value of the products is comparatively low, delivery radius, logistics, and vehicle choice should be carefully considered to ensure transport costs are kept to a minimum.

Other related work

The work summarised here is part of an ongoing programme of research funded by the Forestry Commission aimed at improving the efficiency with which fuel is produced from sustainably managed forests in the UK. For further information on this project and related work:

Contact: stephanie.roux@forestry.gsi.gov.uk
Telephone 01606 324 955 - 07771 810 122

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Empty postpallets Fell trees, extract to roadside, Log cut to length stacked on postpallets

Empty wooden pallets

Contact customers (fortnightly) to plan deliveries



cross cut, stack on pallets

and take to yard

Split and cross-stack onto drying pallets and take to stack yard for drying

Split logs crossstacked onto wooden pallets

> Empty log stores

> > **←**



Air dry with cover in stack yard

Check moisture content Bring pallets into cutting shed, cut to length and pack into log stores

Split logs cross-

stacked onto

wooden pallets

Seasoned logs in log store



Deliver full boxes to customer and bring empty boxes back to yard



Two days to a week

Twelve months

Two weeks