

## **FIREWOOD BUNDLING PROJECT REPORT - May 2006**

### **Background**

Firewood has an image problem. This derives from the perception, often justified, of poor quality and unsightly presentation. This project attempts to find a solution for the top end of the firewood market supplying bagged logs through garage forecourts and supermarkets. Ten years ago Coed Cymru undertook a trial for Menter Powys which used various types of binding to bundle logs in a neat, visible form which was easy to handle and easy to label. The most successful was baler twine but the process was slow. The purchaser was impressed but not the producer!



*Logs and kindling bound with baler twine*

### **The Trial**

Since then we have continued to look for better ways of bundling firewood and this led us to consider automatic and semi-automatic banding systems. For practical purposes the two are the same. Both use lightweight polypropylene strapping and welded joints. The machine used in the trial was a TMS 300 semi-automatic machine supplied by Maxpack of Shrewsbury. It costs £800 + VAT.



*TMS 300 semi-automatic bander*

The machine is not designed for bundling but after a considerable amount of trial and error involving changing the geometry of the bundles and the setting of the tension and stops on the machine a very satisfactory outcome was achieved.



*Bundle of splits with wooden handle*

The geometry of the bundles is crucial, the best being a triangular section involving rounds or splits. Attempts to bundle larger numbers of small rounds were less satisfactory.



*Bundle of rounds with no handle*

Log lengths of 20-30cms were tried and found to be equally suitable. Tension on the machine is infinitely variable within non-defined limits. The best results were obtained in the middle range.

Various stop settings were tried but the best results were obtained by removing the stops that allowed the pack to alight itself as the tension was applied. The resulting bundles would weigh 7-10 kilos depending on the length and diameter of wood selected. Bundles were tried with and without handles.



*Bundles, rounds, splits and quarters showing ease of stacking*

The trial was conducted with the help of Dave Manual of Heartwood a very experienced and reputable firewood merchant. He also showed the product to his wholesaler, G. Owen of Newtown.

Dave made the following comparison with nets:

**Speed**

The process is quicker than filling nets

**Cost**

Nets cost 10p, bands 1.6p

**Selection**

More selection of product is required for bands

**Fiddle**

Handles need to be proven otherwise the banding is easier

## **Stack**

Easier

## **Appearance**

Better

Mr Owen's reaction was reserved but positive.

## **Next Steps**

This may be the method we need to sell high quality firewood (seasoned hardwood from FSC/Welsh sources) into this niche market. The bands can be printed with web links or whatever and a livery chosen to suit the product. When this was done a significant quantity (over 20cu metres) could be prepared and tried at a number of outlets. Dave Manuel has said that he is willing to collaborate in such a trial next winter.

