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# NEWSLETTER

## DECEMBER 2008



### Chairman's Message

2008 A wet year which gave us high fuel prices and the start of a recession.

The DWOS Ltd has had a busy first year compiling information on members' forests, field inventory work, felling licences and harvesting plans, cutting brash paths, processing and selling timber and firewood. Issues regarding forestry insurance and fire plans are being examined as are the costs of the various services on offer to the woodland owner. Good progress is being made.

The Society now has a firewood processor, a 13.5 ton timber trailer and grab, a 2 ton tipping trailer and a timber winch for hire along with trained operators. All of these machines and services will be of great benefit to the woodland owner to extract and add value to their timber. In a recession we need to watch costs and maximise value.

Please find attached your complimentary copy of the Forest Link Directory Second Edition 2008 and a leaflet on FBD's Personal Accident Insurance for our members.

2009 Will be challenging for woodland owners, but there is strength in numbers. New members always welcome.

Wishing you all a Happy Christmas and a peaceful New Year.

John J Jackson

### Budget 2009: Extract from Minister's comments

The Minister of State at the Department of Agriculture, Fisheries and Food, Tony Killeen TD, pointed out that the estimate for Forestry for 2009 has increased by 6% over the 2008 estimate. Almost €128 million is being earmarked for this sector next year. This commitment reflects the Government's wish to maintain an active and substantial forestry-planting programme including the very successful Forestry Environmental Protection Scheme (FEPS).

The Minister said that *"This continued support for Forestry recognises the increasing need to respond to the demands of climate change, to ensure a substantial alternative to fossil fuels and to preserve the long-term value of trees and the intermediate value of thinnings. The allocation allows substantial Forestry Programmes to continue in 2009, and for the most important of the support programmes, including Forest Road construction to be promoted"*.

He added that the value for money in all of the support programmes will need to be demonstrated, and the allocation of funding will be on a basis of strict prioritisation of programmes. The Minister also pointed out that in excess of €80 million of this estimate was in the continuing payment of the annual Forestry premiums, the bulk of which are paid, and constitute an important source of income to, the almost 15,000 farmers already engaged in commercial forestry in the country.

15th October 2008

## Firewood for profit and heat

By John Jackson, Stranorlar

With 22,000 hectares of Private Forestry in Donegal, some of which is approaching first thinnings, we have a definite home-grown, sustainable, firewood supply. Can we make money from producing and selling firewood is the next big question, or are we going to be busy, loss making fools?

In stable forests the usual thinning pattern in Ireland is the 7<sup>th</sup> line of trees extracted and a light selected thinning of the remaining six rows (removing of up to 1/3 of the inferior quality in the crop). In unstable sites, with low productivity, where there is fear of wind blow, a no thin policy could well be the best practice. An inventory of the area to be thinned is needed, consult with your Forester and make sure you have a Felling Licence and where necessary, a harvesting plan in place for your particular site, before you start felling.

If you decide to supply the firewood market then it is best to have the timber stacked and covered securely in the proper location, in the correct sizes for the firewood processor. By stacking the timber with care, in order of size, your throughput from the firewood processor will be greatly increased, processing costs kept to a minimum and the drying process advanced.

The Donegal Woodland Owners Society Limited has a Hakki Pilke 37 Firewood processor which can split logs up to 37 cm in diameter. It can block up to 4 tons per hour and is available for hire along with a skilled and insured operator. A timber trailer (13.5tons) with a 6.5 metre grab is also available for hire.

The method of handling will depend on the length of the log, whether manual or mechanical. The log table for the processor is 215 cm (7ft) wide, so 3 metre (10ft) logs are ideal if you are using a timber grab to load the table. If you are using manual labour 180 cm (6ft) logs might be as heavy as is safe to lift, depending on the diameter of the log and available assistance.

The following is a guide to the different diameter sizes of timber to be stacked separately for firewood processing:

From 4cm up to 10cm, these are small lengths of timber that are best cut by using a saw horse and chainsaw. They are so low in volume that the throughput in tons through the Hakki Pilke 37 firewood processor will be small and costly.

From 10cm to 20cm, this timber can be processed and split into 2 or 4 blocks.

From 20cm to 37cm, this timber can be processed and split into 4 or 6 blocks.

The length of the firewood block depends on the customer. A lot of firewood is sold at 20cm (8"), this is a small size and the firewood processor will do a lot of cutting to produce these blocks. The average open fire can easily take firewood at 25cm (10"). With today's modern, closed timber burning stoves, blocks measuring 33cms (13") can be ideal. In wood gasifiers logs or blocks of 59 cm (23") can be used. So get to know what your customer needs, the firewood processor can meet all requirements.



In order to produce quality, low moisture clean firewood, the handling, storage, processing, drying, packaging and delivery systems need to be carried out as efficiently and economically as possible. The reward will be in securing a price per ton, delivered, from €120 for conifer firewood in bulk, to over €300 and above, at the top end of the seasoned and bagged hardwood firewood market. Or the woodland owner can sell his first thinning timber standing in the forest from €1.50 to €10 per ton. It is all about the in between costs and your profit margin.

Further firewood processing demonstrations and field days will be arranged in 2009.

### Timber: Producer and End-user - from planting trees to building houses

By Thomas Becht, Glenties in conjunction with Steven Meyen, Teagasc

#### The Forest:

Back in 1992 we planted our first 5 acres of trees at the back of our house. The plan was a small but productive, multi-purpose type of mixed species forest to satisfy our interest in recreation activities but also to supply wood fuel for the wood gasifying house heating system.

The site faces North West, is sloped with a wet mineral soil and small patches of limestone. The site was previously used for over wintering mountain sheep. Forest preparation consisted of fencing and mounding. No drainage took place as the sod for the mound was cut out and turned over.

The overall plan was to plant 70% conifers and 30% broadleaves. The idea behind it was that financial revenue from the planted 70% conifers will be as much as it would be from a 100% monoculture conifer plantation, as the 30% broadleaf mix will improve the fertility of the conifers over time. We hope that the 30% less conifers will produce the same volume of timber as the 100% conifer monoculture. The free side effect is an aesthetic better looking forest, better habitat for wildlife and not as much subject to hazards like diseases and wind blow.



The following number of trees was planted in late winter, locating the more nutrient-demanding species to the more fertile patches of the site:

- 2100 Lodgepole Pine BC
- 1000 Sitka Spruce
- 400 Ash
- 300 Birch
- 400 Lodgepole Pine Alaska
- 400 Sycamore
- 300 Alder
- 100 Oak

The only form of weed control was tramping down the grass once a year. Failure rate in year 3 with the conifers was between 15% and 25%. Failures were replaced. Nearly 40% of the broadleaves had failed by year 5. These trees were not replaced as we noticed many naturally occurring saplings of sycamore, ash, willow and especially mountain ash and birch.

#### Christmas trees:

From 1997 on, we started to sell about 50 Christmas trees (Lodgepole Pine Alaska) annually at €10 per tree. This gave us a turnover of €100/acre/year. Not bad if we compare it with the turnover from our mountain sheep enterprise.



#### Firewood:

In the winter 2004/05, we started to take firewood out of the plantation to heat our own farmhouse and holiday accommodation. Our heat demand is equivalent to approximately 20m<sup>3</sup>/year. We remove selectively mainly Lodgepole Pine BC and Willow. Trees are cut with the chainsaw into lengths of 1 metre and removed from the site with a small, low impact, rubber-tracked 12 hp vehicle. These logs are stacked for 8 to 10 months close to the farmhouse, where they dry down to approx 30% moisture content and are ready for burning from October onwards in our HERLT log wood burner with an efficiency of approx. 86%.

Assuming that the 20m<sup>3</sup> of firewood is the equivalent of 15 tonnes of timber with a heat value of 63,000 kW and a litre of oil is valued at €0.80 with 10 kW heat value, then we save approx. 6,300 litres of oil or €5,040. Never mind the carbon footprint.

#### Sawlogs:

During the selective thinning process of the Lodgepole Pine over the last 3 seasons, we realised that a certain amount of the trees taken out for firewood, do have a DBH of more than 20 cm, which makes them suitable for small saw log (2 to 4 pieces of 2x4 inch cuttings per stem at 3 metre length).

As our quantities are too small to be of interest to the local sawmill and the demand of construction timber on our farm is increasing, we decided to invest into the smallest Woodmizer band sawmill, to process our own round logs of timber into cuts suitable to build sheds, lean-to's and other types of small buildings. We have so far cut approx. 25m<sup>3</sup> of construction timber, representing a market value of approx. €8,500. As the investment for the sawmill plus the accommodating building is approximately €12,000, we expect that the machine has paid for itself after this year's season.



## Nutrient deficiencies and foliar sampling

By Steven Meyen, Teagasc

Trees can develop certain nutrient deficiencies for numerous reasons and this can lead to slow growth rates which will reduce the potential timber yields.

Detecting the symptoms of nutrient deficiencies early is very important. Signs to watch out for are: yellow/shorter needles and slower growth. Especially the presence of heather may indicate a need for some fertiliser.

A foliage analysis is the best way to determine exactly what suspected nutrients are missing and a recommended remedy will be advised.

The appropriate time to take samples is December for conifers and August for broadleaves and larch.

Teagasc Farm Forestry Series No. 14 "Nutrient Deficiencies in Forest Crops" has been recently updated and the leaflet provides detailed information and is available from your local forestry development officer Steven Meyen or as a download from Teagasc's forestry website: [www.teagasc.ie/forestry](http://www.teagasc.ie/forestry).

Here are guidelines how to collect needles for foliar analysis:

1. Collect needles in December (approximately 4 inches long) from branches from the top half of the tree (never collect main shoot)
2. Collect 1 branch per tree from 25-30 different trees: do not mix different species (do not mix Norway spruce with Sitka spruce for instance) and take samples from trees with the same symptoms (e.g.: all branch tips are yellowish)
3. Put all 25-30 branches in a clean freezer bag punctured with numerous small holes for aeration
4. Clearly label the bag with date, location and surname and keep the samples cool (at bottom of fridge) and make a note for yourself where that sample was taken
5. Fill in a foliar sampling form available from your local Teagasc forestry development officer
6. Pack bags with completely filled-in form and cheque in a strong envelope
7. Send off immediately to a laboratory (avoid holidays / weekends). There are 2 choices:
  - Coillte Research Laboratory, Newtownmountkennedy, Co. Wicklow, 01-2819493, [labservices@coillte.ie](mailto:labservices@coillte.ie)
  - Dept. of Environmental Resource Management, University College Dublin, Belfield, Dublin 2, 01-7067721

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