

Extracting slash and logging residues from our forests

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In a recent survey of some 8000 private forest owners in Sweden, 74% of respondents intend to extract logging residue during their next final felling with a further 15% saying maybe according to Skogforsk (the Forestry Research Institute of Sweden). The two main factors motivating forest owners in this were generating additional income and also because it would make subsequent site replanting and silvicultural work easier.

In Ireland we have the opportunity to utilise more of our forests to the benefit of timber growers, biomass users and the rural economy. At present we do not utilise our logging residues, lop and top and slash from fellings. In Sweden in 2009, bioenergy passed oil as the biggest energy source when measuring final energy use. Bioenergy accounted for 31.7 percent of the final energy use, compared to 30.8 percent oil. Biomass is also the primary energy source in the district heating sector, which supplies more than half of the total heat demand in the residential sector in Sweden. This is a trend that Ireland could follow to make the optimum use of our national forest resource.

In Sweden the slash/lop and top is now collected after final felling in a high proportion of forest sites. Normally 20% of the slash is retained on a site after harvesting. To view a brief video of slash harvesting operations in Sweden see www.forestry.ie/slash_harvesting.htm

The slash is collected after final felling (see photo 1) and left on the forest roadside (see photo 2) to dry for a year or more so as the needles, which have a high concentration of nutrients, fall and are therefore retained and recycled within the forest ecosystem. A paper based material is then used to cover the slash heaps on site which speeds up the drying process (see photo 3). After a year or more the slash is chipped on site (see photos 4 & 5) and sold into the biomass industry.

At the World Bioenergy 2010 Conference in Elmia Sweden, Rolf Björheden of Skogforsk, outlined the following trends in Sweden in harvesting forest residues including brash, stumps and small trees:

- _ Increased interest in slash harvesting - led by forest owners
- _ Increased integration with other operations in the forest and in transport operations
- _ Less chipping, more crushing is becoming the trend
- _ Small trees and stumps are now needed to satisfy demand from the bioenergy sector
- _ This demand is leading to increased competition and higher prices for biomass in Sweden
- _ Export markets are now a possibility for biomass wood products

The potential to harvest slash from our Irish forests is worth investigating further. It is a trend that is now becoming part of normal forest practice in Sweden and other Scandinavian countries.



Photo 1



Photo 2



Photo 3

Photo 4



Photo 5



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