

Timber Products from Conifer Forests

Fact Sheet

3

Ireland's conifer forests are primarily grown and managed to produce timber that can be cut to size for use in a range of timber markets. These include construction materials, the manufacture of pallets, fencing and panel board or for energy production as firewood and biomass. When conifer trees are harvested during thinning and clearfelling operations, the timber is generally cut into categories or assortments based on the diameter and length of the logs.

Product types

The quantity (and value) of each category depends on the size, age and quality of the trees being harvested. For example a younger forest with smaller trees at first thinning stage will produce a higher proportion of smaller, lower value assortments such as pulpwood. In general, older forests, especially those that have been thinned a number of times, will produce larger diameter logs which often include higher value assortments including sawlog.

Main timber products

- Sawlog
- Palletwood
- Stakewood
- Pulpwood
- Energywood
- Brash

Sawlog

This product is cut from the lower part of older trees and is the most valuable commercial timber log. The standard sawlog length is 4.9m with a minimum small end diameter of 20cm. However log length and minimum small end diameter may vary depending on purchaser specification.

Sawlog is used to produce sawn timber for the construction industry and is the most valuable assortment. In general, first and second thinnings will not include trees large enough to produce sawlog.

Proactive forest management including well executed thinning operations will really help to maximise the percentage of sawlog timber in your forest.

Palletwood

Logs in this category also produce valuable commercial timber which is used to manufacture a wide range of products including packaging, pallets, garden furniture and fencing. The length of palletwood logs can vary from 3.7m to 2.5m depending on purchaser specification with a minimum small end diameter of 14cm. With shorter lengths and smaller diameters, palletwood is generally unsuitable for use in construction and usually has a mid-range value compared with other assortments.

Stakewood

Fencing stakes may be an important market for better quality trees or sections of trees with straight stems and small dimensions with standard small end diameters of 7-13cm. During harvesting the logs can be cut to several lengths for stake production. Increasingly fencing buyers are looking for lengths of 3.4m to 3.7m which provide flexibility to produce a wide ranges of fencing stakes and straining posts.

Stakewood production may be possible at both thinning and clearfell stage depending on timber quality and market opportunities.





Brash

This is the term used to describe the green residue e.g. branches, tree tops, log offcuts etc left behind on the forest site following harvesting.

In recent years a new market for the recovery of brash from clearfell sites has developed where it is collected and dried on-site and then chipped for biomass energy generation.

The removal of the brash leaves a tidier site and maximises the replanting area compared to the traditional windrowing of the brash.

However because brash can be an important source of nutrient recycling, the advantages or otherwise of its removal from less fertile sites should be carefully considered.



Pulpwood

Pulpwood is derived from small diameter trees or the top section of larger trees. Larger very poor quality trees may also be cut as pulpwood. In both cases their poor quality prevents cutting to commercial timber or stakewood specifications. Most pulpwood is produced during first and second thinnings with smaller volumes also produced in later thinnings and clearfell.

Pulpwood has a minimum small end diameter range of 7-13cm and is cut to standard 3m lengths. It is sold into a number of timber markets where it is broken down and reconstituted into a range of products including door panels, oriented strand board (OSB), medium-density fibreboard (MDF), and other products.

Energywood

Pulpwood can also be sold to energy markets for renewable energy production. Timber may be used for firewood manufacture or chipped and used for energy biomass in the renewable heat sector. The seasoning of the timber is a critical element in maximising the heat output from both firewood and woodchip.

