

Horses make their mark when going gets tough

by David Crawford, Education and Providence Fund awardee

Continuous cover forestry is a management method that has recently been introduced to Northern Ireland. Predominantly, the stands of woods consist of Sitka spruce, larch and smaller pockets of other conifers and mixed hardwoods. These woods are typically managed in the common way of planting, thinning and clearfell. The importance of hardwoods has increased with the rising demand for woodfuel. This has raised interest in thinning small woodlands that are too small for a harvester and forwarder.

I was first introduced to CCF during my placement year from Newton Rigg, by forestry contractor Ross Jamieson of RJ Woodland Services, with whom I have been working for just over 19 months, mostly as a saw man. The bulk of our work is at Baronscourt Estate, in Northern Ireland.

In recent years, the entire forested area of Baronscourt Estate was converted to CCF. The majority of the large-scale thinning is carried out by a harvester and forwarder team. The smaller areas of woodland were not financially viable to thin using hand-cutters and tractor/winch/grapple skidder, with many areas often inaccessible to machinery because of wet/steep ground conditions. Therefore, a method of extraction was needed that proved efficient, quick and environmentally sensitive. The horse was the answer. Ross has a number of years of experience in forestry and, in recent years, horse-logging extraction, with two horses called Bob (Irish Cob) and Chinch (Mountain Ardenne).

An area of mixed conifers and broadleaves was due for thinning (age 30 years), consisting of Sitka spruce, larch, birch, lodge pole pine, yew, birch and western hemlock. The site, along with the majority of Baronscourt, sits in wind class 5 and thus, sensitive thinning every five years is undertaken to stabilise the rest of the wood.

Why use the horse?

The ground conditions vary greatly with sandy, dry sections of brown earths to wet hollows of deep peat. Horse extraction minimises damage to the remaining stock, because of not requiring to squeeze a large machine between standing trees. Natural regeneration is important in the management of CCF stands and that must be protected. The horse is important as it can go into smaller places a traditional tractor would



Bob and David in a recent Scots Pine thinning operation

not be able to go without damaging adjacent trees.

The site was worked with a combination of tractor and grapple skidder grab alongside horse. The tractor was kept on a pre-planned hard rack though the wood to prevent compaction and bogging, while the horse bundled up lengths of timber on the edge of the rack, where the tractor extracted and stacked at the roadside. The benefits of this method over using solely tractor with grapple skidder/winch were less ground compaction, less damage to standing trees, and quicker removal of timber over the distance. In some situations, it is better to remove the timber to the roadside by horse, but in this instance it was more productive due to the site dimensions (narrow and long).

Can a horse extract all logs from the woods?

In most instances, the horse should be fit to remove all cut timber, as long as it is cut appropriately. The timber is sometimes cut to length in the wood, left double length or even full length and cross-cut at roadside. This method speeds up the extraction time, as only one log needs to be hooked up, although, weight must be judged correctly for the pulling power of the horse: if it can pull 500kg on the flat, it can pull a little more downhill and a less on the uphill stretches. For large diameter logs, specialist horse-logging equipment can be used, an arch that lifts the front off the ground to ease the dragging force on the horse.

How is timber stacked once at roadside?

As with winching, skidding and horse-logging, it is impossible to get a large stack without as-

sistance; a timber trailer or similar ensures neat stacks are presented for hauliers. We use a telehandler fitted with a specialist Botex rotating grab, as we find it useful for stacking the extracted products into appropriate piles.

In conclusion, this experience has proved invaluable and I would personally say a must-do if you want to learn the most about the woods. I have understood woodlands particularly suited to horse extraction are hardwoods, because of the need to protect the current standing trees, which in future could be highly priced sawlogs. This is by no means ruling out the need for machine, or vice versa, but for both to work together in doing what is best for the wood and owner.

David Crawford wrote the article in 2013 and is currently just completing a thinning job at James Hamilton Stubbers' (NI) estate, using horse extraction.

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