

## **Harvesting – The Cutting Edge (2013)**

Even before reaching the wood, the first thing you notice is the hum of big machine engines. Walking closer, these intensify – the harvester with both the engine and the intermittent buzz of the high-speed chainsaw; the forwarder with its high and low revving as its grapple reaches out and back with loads. They are both hard at it.



Approaching the wood, I am pleased to see the extraction track is holding up well. We had to cross a rushy field to reach the wood and we had all expected the forwarder to wear two huge ruts as it drew out fifteen tonnes of timber at a time. There was a surprise downpour on the second day and I dreaded a mud-bath like last time. But since then we have had dry weather and the braided tracks crossing the field have barely broken the surface.

This is an ancient woodland planted over mostly with conifers in the 1960s and it has the characteristic ditch and bank surrounding it. Stepping into the wood, the next thing you notice is the sweet smell of tree resins and sawdust, each with its promise of produce – the dense, cloying larch; the grapefruit aroma of Douglas fir; the *Thuja* essential oil of cedar; the dull smell of suburban hedge-clippings from the Lawson's cypress.

There is brash all over the ground, side branches and tops stripped off the felled conifers. The fresher larch branches still have their tips of bright new growth and livid green cones. Last week's larch brash is already shedding its lank greying needles.

Bark lies in long strips, shorn off by the harvesting head as it strips the logs bare. This work used to be done by cutters with chainsaws.. Now the harvester stretches its hydraulic arm out, clamps the butt of the tree in its jaws, zips its chainsaw through the base and tips it over. Then rollers in the harvesting head run the tree trunk past fixed knives which strip off all the side branches. Sensors in the jaws relay stem diameter to the computer in the cab, programmed with the log sizes required. If the stem is fat enough, the rollers push the log on to, say, 16 feet, then stop for the chainsaw to cross-cut. The operator drops that log to one side, then runs out some 10 foot logs like a sausage machine and drops them in another pile. By now we are near the top of the tree - the branches are getting bigger and harder to strip off and the logs are getting rougher, so only good for chipwood. This stripping and cutting goes on directly in front of the machine, so it can now drive over the pile of branches, crushing it into a brash mat which protects the forest floor.

But I cannot help feeling this is a gross intrusion – these massive machines with their awesome power crashing around this once quiet woodland; an industrial process here amongst the flowers? Does it have to be like this? What if we just left it as it is? Or used axes and horses?

These woods were cleared of most broadleaf trees and planted with larch, Douglas fir, Scots pine and western red



cedar by the current owner's father according to the forest policy of the day – to improve yields of home-grown timber with exotic conifers. Quite a few oaks were left amongst the new crops and some new ones have grown up amongst them too.

In this wood the remaining oaks have allowed light in to sustain clumps of yellow archangel and bluebell, and the deciduous larch has a healthy understorey of hazel. The red cedar stand has some isolated oaks offering windows of light, but otherwise it is a gloomy canopy over a scorched forest floor devoid of any greenery at all. So there is a compelling case for removing conifers here.

The piles of logs lie scattered either side of the swathe cut by the harvester. It is June and the sap is in full flow, making the bark easy to peel off, like the outer layer of a leek. The exposed cambium, the growing outer layer of wood beneath the bark, is wet and slippery. “Like stacking eels this time of year” says Gary the forwarder driver. Some logs are also drenched in sticky aromatic resin, so tempting to touch.

The timing of this job has been problematic. I had originally hoped it would be done last autumn, but the persistent rain all summer meant we would have had a mud-bath both inside and outside the wood. Then there are the dormice – the adjacent part of this wood is a nature reserve with known colonies of dormice, now a European protected species. If we 'cause damage, disturbance or harm' we could be liable to prosecution. So I had been trying to get works started after the dormice wake up from hibernation but before they breed in mid-summer. But the contractors were busy on another job and were delayed by breakdowns, as always, so it looked like we would miss the window in May and have to wait till autumn. Luckily there was cold weather



well into April and the conservationists reckoned they would be breeding late this year, so we finally got going in early June and completed within a few weeks.

This first stand has had the larch thinned out, leaving some to grow on alongside the oaks. I look up and see the remaining trees have clear sky around them, but not too open, so my marking must have been about right. The contractors reckon we could have taken more, but that would open up the wood to damage by wind. Tracks left by the machines weave through the stand and brash lies all around, but some patches of ground are completely undisturbed by the mayhem. I take heart. I have been through this before – starting with a vision of the future forest, then the harsh reality of all this disturbance, then the gradual healing up of wounds.

The next stand of larch was very poor with skinny stems unlikely to benefit from thinning. So we are clearfelling this area of just over a hectare and replanting with mixed broadleaves next winter. With few remaining trees left standing and all the hazel bashed in some way, this really does look like a bomb site!

Some younger oaks have survived the deluge of falling timber. They look about the same age as the larch, but much smaller as they were soon overwhelmed by the fast-growing larch.

The glare and heat of the sun is soon blotted out as I step into the cool thick shade of the western red cedar and Lawson's cypress. The foliage is dense and fragrant; the forest floor is dusty earth; the trees are fat-buttled giants tapering upwards, with some dead sticks left standing in the unforgiving shade. These trees have never been



thinned and the original straight planting lines are still clear. I have marked one row in seven to be removed, so the machines can pass through easily. Next time we will thin out the worst trees either side. Some trees in the line are huge, but this is not necessarily a good thing. Cedar is prone to butt-rott at large dimensions, so these bottle-shaped butts are likely to have a cone of spongy rot up the centre, making the first few feet worthless. I can see where Terry the driver has progressively cut off butt ends looking for sound wood to start the logs.

But the results of this thin are the most gratifying. Talk about turning darkness to light! Even removing this small proportion of the canopy completely changes the mood. We have carefully worked round the oaks left standing in this rising tide of conifer and they now stand out, hopefully to serve as seed trees for regeneration. There is no hazel here to be crushed, so the stand looks much better than when we started, the oaks now prominent and the finest cedars left to grow on.

I have circled round the wood, saving the best till last – the fabulous mature Douglas fir. These are the largest and finest of the conifers by far, huge trees weighing several tonnes at best, their timber also the most valuable. A lorry-load of Douglas sawlogs can make marginal jobs like this financially viable. They have already removed the smaller logs here, leaving the 24' logs lying amidst the brash. Gary is finding it difficult to lift some of them – his crane can only manage one tonne and these logs are about a tonne and a half each. So he lifts up one end, plonks it on the bunk, then lifts the other end up and over.



Foresters have to understand what is before them, imagine how it could change, then apply fairly dramatic interventions to realise the vision. There is always a tension between how a job like this is envisaged and how it works out in reality. Much depends on the skill of the actual forest workers, their care and concern. On this occasion it has gone well – more log than expected has raised the income, the weather has been unusually good, the drivers have been careful, we have not disturbed the wildlife.

Looking forward to replanting that felled area...