

Harvesting in north-west Devon

David Chudleigh, Tilhill Forestry's harvesting manager for south-west England, waits outside Exeter train station in his Toyota Hilux Invincible works vehicle. Keeping one eye on his mobile devices, monitoring calls from contractors and researching tender opportunities, with the other, he watches for writer Carlyne Locher, who is to accompany him to almost the furthest westerly point of North Devon, Maids Moor, between Woolfardisworthy and Hartland, on his weekly site visit to see the single largest harvesting contract he has had this year.

TODAY has taken time to organise, with two dates postponed due to standing timber tender deadlines. The drive from Exeter to the other side of Devon turns out to be a good time to receive a crash course in what it means to be a successful harvesting manager.

"Buying timber is a hand-to-mouth existence," David explains. "You are constantly trying to buy it. The Forestry Commission puts out tenders every two months. Tilhill clients (generally) put them out during the summer months and private sales come in as and when throughout the year. This year (and last year to an extent) has been absolutely manic, with tender invitations up by about 40%. With the price of timber rising so rapidly, everyone is trying to sell their standing volumes."

David has to secure approximately 50,000 harvestable timber tonnes a year. "Earlier this year, for the first time in four years, the FC put out five Long-Term Contracts (LTC), nearly 60,000 tonnes to be thinned or clearfelled over five years. They invited offers which were based 50% on price and

50% on the works benefit to the contracts." Of the four FC LTC's tendered for, David won two (Exeter and Cornwall) and an additional three-year LTC from a Tilhill client that also went out to tender. "We have security of work for (average) three years, 50,000-60,000 tonnes guaranteed. With half secured, I need to secure in excess of 20,000 tonnes per year. It's pretty much a normal year." Working from the District Office in Cullompton one day a week, David is fairly autonomous, getting on with the job but always keeping his boss Tim Dicker informed. "It is important to have face-to-face contact with peers, have them see the whites of your eyes occasionally. We meet every couple of weeks. I see the rest of my harvesting colleagues at regional quarterly meetings." At the time of our meeting, the next was scheduled to coincide with the APF.

At the APF itself, David and colleagues represent Tilhill Forestry. "Standing in a marquee, if anyone approaches, you have a chat, saying what you can do for them as a business. In a way it is 'sales' and the thing about sales is you have to have an idea in



Mid Devon Forestry with Aaron, Stephen and Callum in front of their Komatsu 860.4 forwarder.

Tilhill's Harvesting Manager for the south-west, David Chudleigh, with dog Molly.



THE MARSHY, PEATY MOORLAND WORKSITE CAME WITH CHALLENGES: ELECTRICITY, WATER AND A PUBLIC HIGHWAY.

your head of what things are worth and then work from that basis."

Originally from Cornwall, David, now 43, began his forestry career as a hand cutter, but migrated to arboriculture because he enjoyed climbing. At 21, he spent a year hitchhiking across Africa, travelling from Kenya to South Africa and back again on a different route. Eventually, he gained passage on a yacht, and sailed from Kenya to Egypt via Yemen, Eritrea and Sudan. On his return, he later gained an HND in Arboriculture from Houghall Agricultural College, Durham.

In 2004, he graduated with a forestry degree from Bangor University, his favourite part of the course being a study visit to the Harz Mountains in Germany. "We saw a harvester for the first time doing real forestry across thousands of hectares of woodland. It was incredible." His industry placement, at the Geographical Information Systems Department at CATIE Agricultural Research Station in Costa Rica, saw him mapping and creating polygons of ownership for the city of Turrialba, which was also the springboard to see more of Central and South America before graduation.

Working first for the Charlesworth Group managing an arb contract for Wirral Metropolitan Borough Council, in 2005 he speculatively applied for a job with Tilhill. Offered the position of assistant harvesting manager to two peers in North Wales, he

accidentally found his métier. "That was my training ground; three years of looking after contracts, contractors, health and safety and stocks of timber, and practicing perseverance and patience."

In 2008, six months ahead of schedule, David relocated to Devon as harvesting manager for the South West. "I was thrown in at the deep end, responsible for five work gangs bringing to market 30,000 tonnes of timber a year from across Devon and into Cornwall and Somerset. It was a case of just getting stuck in."

Ten years on, harvesting targets have grown. Currently, "I have four or five

gangs working on live sites from Dorset to Cornwall, removing 300 to 12,000 tonnes per site. In addition, I won bids on around twelve jobs of around 3,000 tonnes each, taking us through to the end of the year."

The process of tendering for harvestable timber is fairly routine. "We begin tendering by looking at and pricing the work. You have to know how much it costs to produce that piece of wood, the timber's quality, what site issues there are and what potential issues there could be. Then you meet with timber buyers - parent company BSW and other customers - and engage contractors. Then we talk about prices and timing."

If a bid is successful, the job is set up on the company database (SHEILA), "species, prices, haulage rates, margins, and miscellaneous costs. We check the felling licences and generate a risk assessment (maps, location, volumes, health and safety documents). This takes several hours and then a day or two to authorise. We then organise a pre-start meeting between the client, contractor and buyer." Once everyone has signed the paperwork, the job begins.

The paperwork for a harvesting site that offers 250 tonnes takes as much time to organise as a site that offers 12,000 tonnes: sometimes weeks, sometimes months.



We arrive in time to see a lorry hauling 4.9 metre sawlogs to BSW Newbridge leaving.

Right: One woodland block, planted ditch and dollop style, has already been thinned. Oversize trunks awaiting trimming down with a chainsaw to 3.1 metre logs, 60 cm in diameter, to get into the mill.



TIMBER HARVESTING

David illustrates with one of his live sites. "For low-volume, technically challenging sites requiring hand-cutting and winching, I would use specialised contractors. To remove 300 tonnes of larch from beside a river on Dartmoor, we had to get planning permission to put in a track from Dartmoor National Park. We liaised with them, the contractor and digger driver for a temporary bridge (a temporary bridge can be installed without planning permission on an 'ordinary watercourse' if it is less than four metres wide and removed when finished). This involved considerable to-ing and fro-ing. I also had to set up several sets of goalposts below electricity pylons and liaise with English Nature for badger licences. This took a further six weeks. It is a lot easier to run big jobs. The more big jobs you can get, the better life is.

"Maids Moor, 12,000 tonnes, or 15,000 cubic metres, is the biggest site I have done for a while. The vendor is the FC. I bought standing three clearfells: 10,000 tonnes from two large sites and a smaller amount around a house and council road, and 2,000 tonnes of thinnings. The timber is good-quality Sitka spruce with a spattering of pine."

On high-volume harvesting sites, Mid Devon Forestry is David's preferred machinery contractor. They have worked together now for nine months. David says that they are very capable and very professional. "Two teams are running two harvesters and two forwarders working over a net area of 42.4 hectares."

This marshy, peaty moorland worksite came with challenges: electricity, water and a public highway. "The forest edge runs parallel to the 33 Kv power lines, but the trees were found not to breach the Red Zone, so we didn't need a shutdown." Standing and flowing water affects one section of the site. "We had to buy a lot of pipes for ditch crossings, laying them in the ditch and making sure they don't get filled with brash. This is an FC site, and they are responsible for the upkeep of the Cat 1 A road, the main haulage route, and it is a good site in that respect. We have felled the roadside trees in long sections, so that the slow production can be spread into the whole job. Everything has been done by the book."

We arrive at Maids Moor in time to see a lorry leaving, hauling 4.9 metre sawlogs to BSW Newbridge. David organises the weekly haulage schedules on Thursdays and 8,500 tonnes have been removed so far.



This image: The Valmet 931 harvester making to finish the last of the second clearfell.

Right: Komatsu 860.4 forwarder loading logs.

Right middle: The Valmet 931 harvester making short safe work of windblown Sitka spruce.

Right bottom: This site is part of future thinning works, David illustrating why it needs it, with more light let in by windblown timber to the right of the picture.



Left: Stephen Hooper in the cab of the Valmet 931 harvester, whose 65 cm head will take stems two feet in diameter, cutting dry chipwood biomass from the last stand of Sitka spruce in the second clearfell.

Far left: The last of the Sitka spruce stand in the second clearfell will go for dry chipwood biomass.

"We did the first clearfell straight off. We are finishing the second. There is one more block of 800 tonnes and the thinnings to do. We started here in February and expect to finish in six more weeks (end of June)."

Mid Devon Forestry's teams are owner and operator Stephen Hooper, Callum, Ross (not present during this visit) and Aaron, a 19-year old trainee who (in the last six months) has been trained in how to use a chainsaw and drive the forwarder. "All are fully certified, including in Chapter 8 training – an investment by Tilhill specifically for this job – and first-aid trained with refreshers on their first-aid tickets."

Mid Devon's Valmet 931 harvester, usually Callum's machine, is operated today by Stephen Hooper who is cutting the last of the dry chipwood volumes from a stand of

18-metre-high Sitka. The John Deere 1270E is resting. The forwarders, a Valmet 840.3 (operated by Aaron) and a Komatsu 860.4 (operated by Callum) are removing the logs. Stephen says, "The work is relatively easy going. It is a flat, straightforward site, with good tree sizes. I need to get out seven lorry-loads per day. We try to cut (on average) 80–100 tonnes per day per harvester on thinnings and 150 tonnes a day (average) on clearfell. Much of this stand has suffered windblow, which will be cleared using the Valmet harvester. The stumps will be tidied with a chainsaw. It is safer that way."

One woodland block has already been thinned. Callum says, "The FC planted 'ditch and dollop' style, cutting out a ditch every 15 metres, and putting down dollops of soil/clay, to plant the trees in." David

adds, "When the trees were small, the uneven ground would have been hard to work. As they have grown, it's easier. We are removing every third or fourth row, but nothing from the matrix. If we did, it would blow over."

Timber products stacked in the loading area include: 3.1 metre sawlogs; 2.5 metre shaver bars (animal bedding); 1.7 and 1.9 metre fencing stakes; 2.5 metre dry chipwood biomass and oversize butts awaiting trimming down with a chainsaw to 3.1 metre logs, 60 cm in diameter, to get into the mill.

David says, "We have achieved the log volume 72%. Biomass accounts for 10%, plus other products. One customer (buyer) shut down their production line mid-contract, which, given the current timber sales climate, offered an opportunity to remarket the products. Because of this, we have also been able to renegotiate some better prices for some of the timber."

At the current time, the home market for timber shows no sign of diminishing, although where future supplies will come from remains to be seen. "We have a situation where the demand is strong, but trees are not growing any faster. The FC are getting good prices for their standing sales, partly because it is a diminishing resource, and people can see that."

"Between around 1960 to the late '80s, there was a huge drive towards afforestation, encouraged through tax incentives. However, since the early 2000s, when these crops started to reach maturity, there has been a significant amount of deforestation occurring, with a lot of hectares not being replanted with conifers due to heathland restoration, delayed planting and promotion of broadleaved species. Diseases such as

Phytophthora ramorum have also had a significant impact on future volumes. There was a particular emphasis on replanting with broadleaves, and conifer grants were reduced and eventually removed. Fortunately, the recent high prices in timber have allowed enough money to fund replanting of conifer. All these factors have an effect on the current timber availability.

"We are currently harvesting crops that were planted with tax incentives from the 1970s. I'm not worried about supplies for the

next three or four years, but I am worried about where timber will come from in ten years. There is a significant gap in the growing cycle, and it will be felt very soon. If we import timber, what will happen to the jobs and the rural economy? The challenges of today such as climate change, Brexit, plastic waste, all could present us with new opportunities in the future. Businesses will be forced to change, because if they don't adapt, they die."

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