

CONTINUOUS TIMBER PRODUCTION

Commercial acumen at Bolfracks Estate

Bolfracks Estate nestles in a scenic Perthshire valley close to Aberfeldy. Its 1600 hectares are given over to organic farming, fishing, holiday accommodation, hydro-electric generation, and it also has renowned gardens which are open to the public. The major land use is, however, the practice of sustainable forestry with over 1150 hectares being used for this purpose.

Athel Price took over the running of the estate in 1985 from his uncle, J Douglas Hutchison. At the time he inherited woodlands that had been planted in the mid 1960s to early 1970s, as a restock of Breadalbine plantations. The problem he faced then was that there was too much single-age growth as a result of this planting strategy. As Athel said, he had, "Nothing to look forward to for 10 to 15 years."

He recognised almost immediately that there was a need to break up the age group of the trees. This meant coming up with a 20-year forest plan under the Woodland Grant Scheme for the management of the woods to ensure that, by early and late harvesting combined with restock and new planting, the estate would be able to more or less have a thinning or clearfell every year.

He was very clear that the main aim of this timber production was to produce high quality carcassing timber in a sustainable manner. He told me that the forests had to be both financially sustainable, generating a cash flow and profit over the long period, as well as being able to be grown over and over again without depleting the soil resource.

Athel, in effect, moved the estate from batch production to continuous production to ensure that he

could maintain a return on capital that would allow reinvestment and development of the forestry aspect of the estate on an ongoing basis. Today the efforts of all this work are plain to see in an estate that has 250 hectares of native pinewoods, 50 hectares of hardwoods and 700 hectares of commercial yield conifers, producing 1500 tons of thinnings and clearfell on an annual basis.

Instrumental in assisting him in this project over the last 20 years have been his estate forester, Andy McKerchar, and Colin MacBrayne of Woodland Consulting, who has been the estate forestry adviser. Andy, who told me he started in forestry to avoid following his father and brother into panel beating, had worked with Tilhill and Forestry Commission Scotland before teaming up with Athel. Colin has his own business specialising in the management of private sector woodlands, something that he has nearly 30 years' experience in.

The plan has always been about restructuring the forests in as natural a way as possible to benefit the landscape of this highland area, as well as helping to preserve and enhance the habitat of the wildlife of the area.

On touring the estate with Andy the first stop was the Newhall Wood of Sitka spruce, larch and Douglas fir which holds special memories for him. This was one of the first woodlands he was involved in back in 1992 when the original trees were felled and restocked. This project was one of the first steps in changing the way the forests of the estate were managed. Growth has been slow due to poorer river gravel soils and frost pockets; to date no thin-



The Bolfracks woodlands.

nings have been carried out here.

Athel was keen that I should see the Anderson Wood, again of Sitka, which was planted in 1963 but harvested and restocked in 2006. Andy told me that the hardwoods had been left in place during the harvesting process and that he predicted he would be carrying out the first thinnings in this wood ten years from now, such was the success of this project. The Lochan wood which I saw next had just been clearfelled prematurely in the last year, to help with the whole age restructuring process of the estate forest.

It became very clear just what a process of planning and implementation had taken place at Bolfracks Estate. Perhaps the most stunning example of this was evidenced in the Alder Field, where the first thinnings of around 350 tons were carried out in the summer of 2009. This wood of genetically improved Sitka was only planted in 1996 and according to Athel, offered 30-40% more growth than normal.

Both Athel and Andy believe that hard work and effort needs to be put into thinning woods. Athel told me, "Without doubt you get better quality timber with thinnings." Andy confirmed that view, saying there was nothing better than seeing a wood that had been thinned well.

The estate is conscious of the need to manage the woodlands with a view to allowing public access, as

well as fostering wildlife development. When I caught up with Colin MacBrayne, he told me that the Kenmore Hill Wood of native Scots pine had been developed with this in mind.

Colin said, "This area is managed primarily for conservation, being one of the strongholds of the black grouse and also for local recreation – a network of footpaths was created through the area back in 2001."

The national Rob Roy Way passes through major parts of Bolfracks and at Kenmore Hill Wood. Information boards and well maintained established walkways help to allow the balance between access for the public and estate operations.

Another strand of the forest plan has been the planting of 50 hectares of hardwoods; Colin told me that the aim of planting up some of the slightly better areas of farmland with mixed broadleaves was to create quality hardwood timber within the next 40 years. He said, "Most of the plantations are now 14 years old and are doing well." That was certainly clear to see and it wasn't difficult to see why these particular stands were awarded the Hunter Blair Trophy for 'Silvicultural Excellence' at Scotland's Finest Woods Awards in 2008.

These plantations of ash, sycamore, cherry and birch being highly visible on the estate also meet the landscape considerations required under the plan. Athel is rightly proud



(Left) The Eschlböck Biber is an integral part of the new wood chipping operation. (Right) Andy McKerchar and the Wood-Mizer LT 20 mobile sawmill.

of this achievement but he stressed that he felt the success was due to the right ground preparation, early pruning and thinning work that they have carried out to date. These hardwood plantations are used also as demonstration plots of best practice and are frequently visited by interested forestry groups.

He also told me of an experiment that he had been carrying out in terms of hardwood planting of ash and sycamore in sheep pastures on the estate, the thought being that the trees can offer shelter to the sheep and the sheep fertilisation to the trees! This idea, which he has copied from New Zealand, is in its infancy and it's too early to assess its success or otherwise at the moment. Athel rationalised this experiment by telling me that at Bolfracks they, "Were more inclined than most people to try things that others hadn't tried before!"

There has been some interest in these hardwoods for the production of hurling sticks and with a booming firewood market there are perhaps opportunities there, but Athel was quite unequivocal in telling me that he saw these plantations eventually producing high quality hardwood for furniture, flooring and construction.

Having seen the woodlands of Bolfracks, I wondered what the future planning was going to involve. Colin summarised the plan. "In the next 20 years there will be the usual cycle of selective thinning, which is designed to improve the quality and value of the main crops, and there will continue to be some felling and replanting, working to a detailed landscape plan."

The woodlands and timber from Bolfracks will continue to be FSC certified and approved; a process that Colin will continue to manage and oversee. It seems that the success of the previous 20 years has convinced Athel that what is required is more of the same. The hardwoods will receive some high pruning and there will be the usual care and maintenance required to ensure success, both with the recently planted trees as well as the long established woodlands.

One major new strategic addition to the estate plan has been the move, in the last two years, into developing a woodchip operation to supply the best quality chips to the local market. Andy showed me round the specially built wood drying building. He said that the logs are air dried for between six months and a year, to reduce the moisture content to around 30%. They are

then mechanically air dried to lessen this to 25% or less.

At this stage the estate's most recent purchase, an Eschlböck Biber 7 chipper, takes over. Tractor driven and crane loaded, its large feed opening and chain belt feeding system, not to mention its eight pairs of chopping knives, means that it is equally capable of dealing with whole trees or short logs, such is its robustness and power.

Athel told me that this machine helps them to produce the best, consistent quality woodchips. As a commitment to this new project he has also converted his own house to a woodchip boiler system and he tells me that he has never had a problem with it. He uses his own boiler and experiences to demonstrate to prospective customers just how good woodburning boilers are.

He intends developing this market locally to large houses, industrial premises and hotels and already supplies another house in the area. The operation, when scaled up, is capable of producing 1500 to 2000 tons of dry chips per year and will allow the use of 1500 wet tons of the estate's thinnings each year. With the current movement towards biomass operations and the concern over carbon footprints this seems a logical move for the estate.

Bolfracks also has its own mobile sawmill and this offers a potential in the future for more business development, although perhaps after the recovery of the housing market. Andy is one of three Lantra-trained operators of the Wood-Mizer LT 20. He told me how its cantilevered head means it can be set up quickly even on uneven ground, and it has a high level of productivity, making it ideally suited to the estate's smaller scale operations.

Currently the sawmill is being used to produce all of the estate's fencing and building requirements. The louvres used in the new wood drying shed were made using the sawmill, and any offcuts are used for firewood. Athel told me that the sawmill is not used as much as it should be, but this may change in the future.

Andy told me that the first forwarder they used on the estate was a Kockums 83-35, which he said "Was good enough at the time." He described the Valmet 828 that followed as being quicker on the forest floor. Their last forwarder was a Timberjack 810, which compared to the one they had previously used but had greater climbing ability.

While on the subject of machin-



Picture courtesy Colin MacBrayne

The hardwood stand that won the Hunter Blair Trophy.

ery, Athel, in conversation earlier, told me that he is currently considering the purchase of a harvester and forwarder once more, to allow the estate to carry out its own thinnings and movement 'in-house' as they have done in the past. Currently they have a Valmet tractor and Mowi trailer which only allow them to do tree surgery and basic care and maintenance work.

Before I left Bolfracks Estate, I was anxious to seek Athel's views on how he saw the estate and industry developing over the coming years. He was adamant that it was very likely that the estate would develop differently to others in the industry. He passionately told me, "I believe in commercial forestry!"

He was equally bullish in telling

me that he felt that there would be a recovery in the price of small roundwood due to the many competing markets of energy, wood pulp, chipwood and paper industries. Athel feels that there is 'a very rosy future for small roundwood and sawn timber products as long as the pound stays relatively weak!'

As I left, I couldn't help thinking that the future of the estate was very much assured after having spoken to the three men who have managed this traditional estate into an innovative and commercially viable operation. Their enthusiasm for forestry in particular was evident, not only in their conversations, but also is there for all to see in the woodlands of the estate itself.

James Hendrie



Picture courtesy Colin MacBrayne

The Farochill experiment of hardwood planting in sheep pastures.