

Making a Small Woodland Pay

From 2004 to 2014 **Patrick Mannix** concentrated on revenue generation to fund the operation of his woodland. Now concern about regeneration and tree health, essential for sustainability, have diverted his attention.

My interest in trees originated in the 1940s, when my elderly grandfather expected me to recite the names of trees on our afternoon walks near Lancaster, and later during summers spent on my uncle's smallholding on the edge of Bucklebury Common in Berkshire building barns, cutting logs, digging drains, etc.

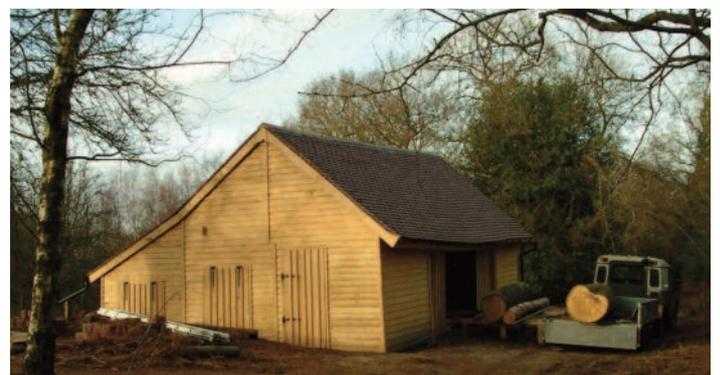
I purchased the 32ha Sandhurst Copse and Sheepwalk, part ancient, mixed broadleaf woodlands, between Shamley Green and Farley Green in the Surrey Hills AONB in 2000. The early stages involved getting to know the property and the neighbours, including establishing a system for managed access for local walkers. I regarded it as selfish to own such an amazing place and not to share and allow others access to it; but on (my) terms! The relationship with the local community proved invaluable in resolving later problems with the local Planning Authority regarding the sawmill and other barns.

At the time my thesis was that woodland of this type only existed because it had been worked in the past, to generate valuable product, and it needed to do so in the future to cover its costs. Giving permission to walkers necessitates insurance and the work to keep paths clear and safe; no mean feat with current weather-related growing conditions of bracken and bramble! I set about producing and selling product. My aim was to demonstrate the revenue streams that could be generated to support a woodsman working the wood on a sustainable basis. The latest growth of the sweet chestnut coppice was 20 to 25 years old. Initially I worked with Mick, an excellent old country hand, and learned how to fell and process the material. Mick worked sweet chestnut for fencing and needed material for his pheasant pens – he was

also gamekeeper for a local shoot. Early product was traditional split fencing rails, posts, tree stakes and firewood logs. Definitely not enough to live off!

The significant breakthrough came when I purchased a petrol driven Woodmizer LT15 sawmill. Capable of processing up to 30 inch diameter logs, this was the smallest model and fortunately without wheels. Anything mobile would be stolen! The immediate purpose was to cut timber for construction of barns, including the cladding for the sawmill itself. My earlier firewood barn was constructed from roundwood posts and split chestnut rafters.

Access to the saw immediately opened up a panoply of opportunities. An early conclusion was that, as a small woodland owner, you do not make enough money by selling timber, you must add value on site. Do not sell timber to the person who is going to make picnic tables to sell to the pub, make the tables on site and sell them to the pub. By adding value on site you generate more revenue and use less timber, which means that the area of woodland required for



Sawmill barn built by the author, clad in sweet chestnut cut on the LT15 Woodmizer.

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1.5m x 100mm sweet chestnut waymark posts for the local Council for use on bridlepaths and footpaths.

sustainable operation is reduced. If as woodland owner you do not have the skills, then join forces with someone who has. If the woodland is not large enough for long term sustainability then join forces with other woodland owners in the vicinity. The sawmill itself could be used on behalf of other local woodland owners.

My largest initial customer was the local council, I had the opportunity to quote for sweet chestnut hardwood waymark posts for bridlepaths and footpaths replacing treated softwood posts.

Other products made and sold included fence panels, picket fencing, oak beams for pergolas, fence posts and material for boardwalks.

Timber for revenue production is primarily sweet chestnut coppice. I have moved the coppice cycle to 30-35 years so that the material is large enough to process on the sawmill. Mature trees, 100 years or older (the oldest is c.320 years) are left to grow on, eventually to become veterans. Mature sweet chestnut of 80 years or less may be felled to provide timber and then to re-grow as coppice adding to that stock. All the barns and fencing on the site were constructed from this source. It is the ultimate sustainable resource, you do not even need to plant after felling!

Oak is also used for product, in particular beams for pergolas, etc. There are c.550 mature oaks on site. The intention is to identify the most important 50 or so for preservation and to fell the rest on a 70 to 90 year cycle, i.e. about six per year. However, problems with regeneration currently preclude use of this resource, except in the short term for ones in terminal decline, where the canopy has declined to 5% or less. My policy is that there must be at least ten healthy three-year saplings in order to fell each mature oak.

Silver birch is used for firewood. There are differing views on silver birch; it is one of the highest in calorific content, burning under controlled conditions in a stove is no problem, but very dry in an open fire it can burn quickly. I used to season for two years under cover; but would in future reduce that to one year or less.

The RFS South East Division visited the woodland in June 2011 and in reporting the visit, it was described in the Surrey Advertiser, "as an example to all such wood owners".

In 2013 and 2014 I reached the stage where I could demonstrate the spectrum of what was possible. Revenue was approaching £10,000 pa, without any active marketing. The site could probably support 5-10 times that activity on a sustainable basis.

In addition to the timber products, revenues were also generated by fees from use of a site for Forest School Teacher Training, small fees for regular visits from a local specialist school for severely autistic children, small fees for presentations on the wood to local organisations and for organised tours of the wood and deer control.

The picture would not be complete without reference to costs. All work on site, including construction of barns, felling, conversion of timber and manufacture of products is carried out by the owner, with the assistance of a part time gap student, or similar, in winters with a heavy felling programme. Fuel, equipment maintenance and insurance are ongoing costs.

Essential equipment includes a vehicle (old Land Rover Defender 90), Ifor Williams 2 ton trailer, LT15 Woodmizer sawmill, manual Tirfor winch, cable and rope, chainsaw and cutters for bracken and bramble. The relatively low level of utilisation of costly equipment is a concern financially; but sharing equipment is not straightforward.



Sweet chestnut fence panels made from 0.5 and 1 inch offcuts in production of waymark posts.

Features



Vigorous; but distorted, growth of sweet chestnut following frost damage to the lead bud, the remains of which can be seen!

However, long-term sustainability of revenue generation is dependent on being able to grow timber trees. I have enough sweet chestnut coppice for 30 years and enough oak for 70 years; but beyond that is not certain. I have encountered serious problems with regeneration of both oak and sweet

chestnut to the extent that my efforts are now directed at this, and no longer, in the short term, revenue generation.

In six out of the last eight winters, sweet chestnut has lost its lead bud to frost. The form of older sweet chestnut coppice and trees on site demonstrates that this did not occur within the previous 25 or more years. If the lead bud is lost, nature does not care, it has many spare side buds! That is fine for seed; but not for timber. It appears to be the juxtaposition of the lead bud at a particular stage and a frost. The recent, more benign, winters may well exacerbate the problem, the bud reaches the critical stage earlier, there is more winter left and it only needs one frost. In a more severe winter the bud does not reach the critical stage until later. Currently all we can do is wait a few years and see what shape the growth adopts.

Regarding oak, although the location is not brilliant for oak (sand), 80-100 years ago oak of good form grew in the woodland. Now it is almost impossible. Leaf roller moth, frost, mildew and other causes result in successive loss of lead buds. What has changed?

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- Weather?
- Pest, pathogens and diseases?
- Depletion of nutrients?
- Soil microbiome?

All four are interrelated. Management of and potential depletion of nutrients in woodland is a very under researched area. I am working with Dr Glynn Percival, Bartlett Tree Research and Visiting Lecturer at Reading University on an assessment of this for the site and whether it may underly some aspects of the problems with oak health.

David Rose, the erstwhile head of Tree Health at the Forestry Commission Research at Alice Holt, said several years ago, when visiting the site, that "it was probably something in the ground"!



3-5 Year old oak struggling with continual loss of lead bud, and mildew.



Oak, 52cm dbh, c.100 years. On the 1846 tithe map this area is labelled as "poor arable field", raising the possibility of nutrient exhaustion.

Share your experiences of owning or managing a woodland via the QJF

If you would like to share your experiences of woodland ownership or management, as Patrick Mannix does in his article, the Editor would be interested in hearing from you. Whether this relates to a small woodland or a vast forest estate, constitutes a success story or remains a suite of ongoing challenges, there is value in sharing your story.

For guidance on making a submission, please contact the Editor at qjf@rfs.org.uk.

Patrick Mannix has owned, managed and worked Sandhurst Copse & Sheepwalk since acquiring the woodland in 2000. The overall objective is to leave the woodland in better condition in 30 years time, to maintain the character, to allow access, to use the woodland for the benefit of others, to generate revenue to support the woodland and to personally enjoy it!

The Court House, Shamley Green, GU5 0UB.
Email: pavm@globalnet.co.uk