



tree/woodland management



what is it?

Woodland did just fine for millions of years before humans, so what's all this 'woodland management' about? Well, the UK used to be completely covered in woodland, so if there was any damage in one area (due to wind, fire, insect attack, disease or flood), then it would quickly regenerate from the surrounding woodland. Nowadays, woodland only exists in pockets, so local damage could mean the end of that particular woodland for a generation. Also, woodland today is often planted, not natural, so that all the trees reach maturity at the same time, without any regeneration. In nature, the occasional mature tree would fall, opening the canopy and letting light onto the forest floor, encouraging the germination of seeds for the next generation of trees.

Humans can now manage woodland, copying natural processes, and harvesting timber and firewood at the same time. The basis for any management is the cyclical process of fell, plant, nurture, thin and fell again. The assessment of a woodland area, or the species choice for any new planting depends on the expected goals. It's important to keep in mind future requirements. We should be looking decades into the future, and sometimes beyond our own lifetimes. Timber felled now can be between 20 and 200 years old, and we should seek to replace growing stock at a level in excess of that being cut. There are different systems of management, including rotation coppicing (see below), and gradual thinning to produce mature high forest of valuable sawlogs in 200 years time. The re-stocking of felled areas and the selection of species is always vitally important though.



One-hectare clearance, re-planted with oak, ash and alder; tubes make maintenance easy and prevent rabbit and vole damage.



Beech on the (chalk) Chiltern hills; beech do well on alkaline, chalky soil.

what are the benefits?

With good management of a small woodland, we can actually improve on nature by producing more 'edge' habitat (or 'ecotone'). There is more biodiversity (number of species) where two habitats meet, for example grassland and woodland, than in each of those habitats themselves. A small woodland often contains trees all of the same age, so there is a canopy of the same height, casting a shadow that prevents ground flora or re-growth. A management regime consisting of felling, thinning and re-planting creates an edge ecosystem from high canopy right down to grass. Management can also improve the health of individual trees, via thinning and the digging of drainage ditches.

Other benefits include:

- local, renewable production of building materials and firewood (reducing transport distances)
- reducing carbon emissions from building materials and heating fuel
- the planting of new woodland provides totally new habitats for wildlife
- opening paths through existing woods, and planting new ones improves amenities and awareness of the natural world



Lightweight, 8-wheel drive 'forwarder' – it forwards timber from the felling site out to the stack; this can also be done by horses.

what can I do?

You don't have to own woodland to learn about them – but many people are buying small pockets of land to plant trees these days, or coming together with others to increase their buying power – and number of people for tree planting. Also, individuals and groups are buying small woodlands, or lots in woodland. If you're looking to buy land, contact a local land agent (as opposed to estate agent). You can train in Woodland Management and Forestry, from short introductory courses to degrees.

You can plant trees on agricultural land in the UK. You might be able to get a woodland creation grant from the Forestry Commission and the Woodland Trust. The species you plant will depend on soil, topography, aspect and hydrology. Alternatively, you can volunteer to plant trees & manage woodland for the Woodland Trust or Trees for Life.

Producing firewood: coppicing is probably the best way to produce firewood. This means cutting through the tree about 15cm above the ground, allowing the rootstock to re-shoot. From then on the tree will have several stems, which makes coppiced woodland easy to spot. Most broadleaf species will coppice, but best is probably hazel and ash (ash is excellent firewood, even when green). You'll need a chainsaw – or possibly a bowsaw.

Coppicing is done on a rotation – maybe 15 or 25 years (i.e. each tree will be coppiced every 15 or 25 years, and you coppice different trees

every year). For space and water heating, plus cooking, you would need at least 10 tonnes of firewood per year (5 tonnes just for space heating). A hectare of woodland will produce around 3 tonnes of firewood per year this way, and so you'll need just over 3 hectares of forest for your needs. Most people would use wood only for some of their needs, however.

Producing timber: a newly-planted woodland will produce about 250 tonnes of timber per hectare in 50 years. If you don't know how to fell a mature tree, don't attempt it – get someone in who does or get training. To plank felled timber you could use a chainsaw in a jig or contact someone with a wood-mizer (mobile bandsaw) – see the Small Woods Association, or maybe the divisional rep of the Royal Forestry Society. To sell your timber or firewood, you could try Coppice-Products, or approach local joiners.

resources

- lowimpact.org/woodland for more info, courses, links, books, including:
- Andy Reynolds, *Timber for Building*
- Peter Wohlleben, *the Secret Life of Trees*
- Rebecca Oaks & Edward Mills, *Coppicing & Coppice Crafts*
- trees.org.uk – info and advice about the planting and care of trees
- woodlands.co.uk – tree identification
- coppice-products.co.uk – coppice workers and products
- smallwoods.org.uk – supporting small woodland owners



Short-rotation coppice stools - each tree has several stems; these were coppiced 15 years previously, and are ready for coppicing again.

Feel free to upload, print and distribute this sheet as you see fit. 230+ topics on our website, each with introduction, books, courses, products, services, magazines, links, advice, articles, videos and tutorials. Let's build a sustainable, non-corporate system.

facebook.com/lowimpactorg

Lowimpact.org

twitter.com/lowimpactorg

Registered in England. Company Ltd. by Guarantee no: 420502