

PLANTING YOUR OWN TREES

Help and support for landowners



WOODLAND
TRUST

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Hazel sapling photographed at a MOREwoods site in 2011. WTPL/Emma Mayo

Introduction

Thank you for planting trees through the Woodland Trust's MOREwoods/MOREhedges project. Since MOREwoods began in 2008, we have helped landowners plant over 2000 hectares of new native woodland. We introduced our MOREhedges project in 2014 and have since planted over 160km of native hedgerow, making a real difference to landscapes across the UK for people and wildlife.

This guide is intended to help you through the process of creating your own woodland and hedgerows. It includes advice on everything from planning, preparation and design, to receiving and planting your trees. You can also find information on maintenance during the first five years plus advice on caring for your trees in the future.

You can contact us for further guidance by calling **0330 333 5303**.



Margaret and Maurice Phillips planted over 400 trees at their home in Dunloy, just outside Ballymena, in County Antrim.

“We have plans for the years ahead: we’re going to coppice some trees to produce sustainable supplies of fuel for our stove. We actually sell wood-burning stoves and we’re really excited by the prospect of having our own home-grown firewood.” Margaret Phillips

WTPL/Michael Cooper

Planning your woodland

There are certain responsibilities that you must be aware of before planting your woodland. Our advisers can offer guidance if potential issues have been identified at your site:

Archaeology: Archaeological features are an irreplaceable part of our cultural heritage. It is important to preserve such features and as the landowner, it is your responsibility to check with the appropriate bodies (as listed on page 5), regarding any archaeological remains on the site. You must follow any advice or statutory obligations regarding their protection.

Existing habitats: Not all locations are suitable for planting trees, especially when there is high biological value. Undisturbed areas may have become home to a complex mix of species, or there may be one or more rare species which rely on a specific habitat. We do not recommend planting on species rich grassland, wetland or heath.

Water courses: Woodland has the potential to change the way a water course behaves. When planting adjacent to a water course or on a floodplain, talk to the relevant government department listed on page 5 before you start and follow their guidance.

Buildings and services: You should be aware of any under or above ground services and if present, you will need to design your planting accordingly. As trees grow they can interfere with electricity cables, building structures or underground pipes so you'll need to leave plenty of space. In some cases you may be legally bound to do this as part of a wayleave agreement.



Heath spotted orchids support butterflies and bumblebees. Check your land is suitable before planting. WTPL/Richard Becker



Planting trees can help improve water quality and reduce flood risk. Planting along the River Leith in Cumbria. Eden Rivers Trust

The local community: Your new woodland will not just make an impact on your property but also the local landscape, so consider how it may affect other people in your area. You may want to talk to neighbours about your planting design to avoid future conflicts or consider holding a planting event for the community.

Planning permission: If your project is under 2ha and in a low risk area (as defined on <https://www.gov.uk/guidance/use-the-land-information-search>) then planning permission is not required.

If your project is in a low risk area and over 2ha you will need to go through the Environmental Impact Assessment (EIA) process with the Forestry Commission <https://www.gov.uk/guidance/environmental-impact-assessments-for-woodland-overview>

If your project is in a Sensitive Area you will need to complete an EIA Enquiry Form and Screening process with Forestry Commission; this is irrespective of its size except in an National Park or AONB where the 2ha limit applies.

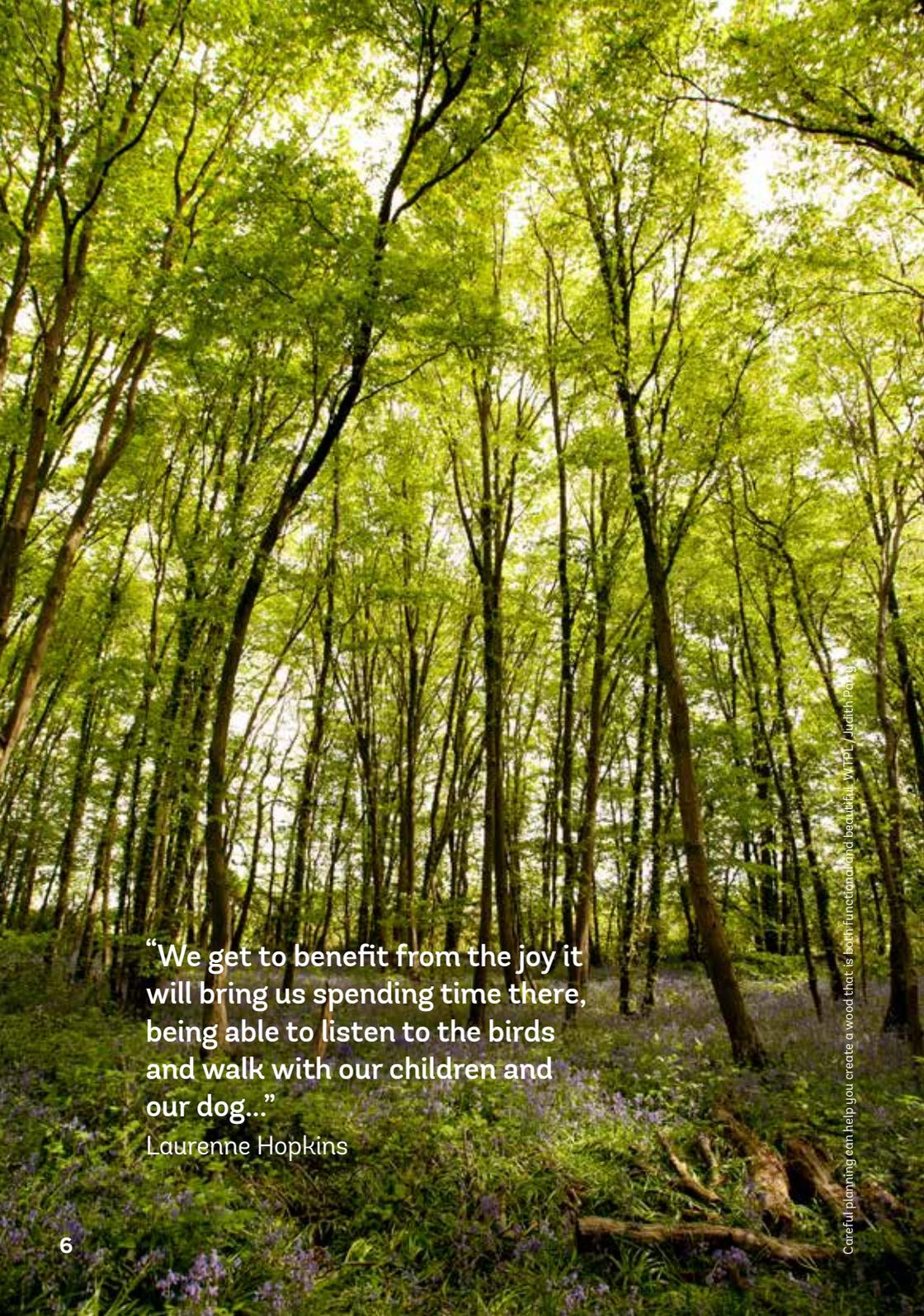
Fencing and stock: If livestock are near your planting areas, it is essential to fence them to prevent them reaching and damaging the trees.

Useful Contacts:

	Information on archaeology	Planting near watercourses	Government Forestry departments
England	Contact your council or check online: algao.org.uk English Heritage english-heritage.org.uk	Environment Agency in England. environment.agency.gov.uk	Forestry Commission in England and Scotland forestry.gov.uk
Wales	Contact your council or check online: algao.org.uk Wales Archaeological Trusts archwilio.org.uk	Natural Resources Wales in Wales enquiries@naturalresourceswales.gov.uk	Natural Resources Wales in Wales enquiries@naturalresourceswales.gov.uk
Scotland	Contact your council or check online: algao.org.uk Historic Scotland www.historicenvironment.scot/	Scottish Environment Protection Agency sepa.org.uk	
Northern Ireland	Contact your council or check online: algao.org.uk Northern Ireland Environment Agency doeni.gov.uk	Check with Rivers Agency or Loughs Agency infrastructure-ni.gov.uk/topics/riversandflooding	Forest Service daera-ni.gov.uk/topics/forestry

The following organisations also offer expert advice on biodiversity and species management:

- British Trust for Ornithology – bto.org
- Royal Society for the Protection of Birds – rspb.org.uk
- Freshwater Habitats Trust – freshwaterhabitats.org.uk
- Flora Locale – floralocale.org



“We get to benefit from the joy it will bring us spending time there, being able to listen to the birds and walk with our children and our dog..”

Laurenne Hopkins

Careful planning can help you create a wood that is both functional and beautiful. WYPL / Judith Parry

Woodland design

Spacing: The planting density of your trees will depend on what is best for the site and how you intend to use your wood in the future. MOREwoods is offered at a density of between 1,000 and 1,600 trees per hectare, and we recommend you plant in wavy lines and vary the spacing across your site. This will enable you to balance more densely planted sections with open areas for a natural look and feel. Plant small groups of the same species together to help to reduce competition between different species as they grow. There may be occasions when a higher density is needed and our team can advise you if this is the case. Typical planting densities include:

- Planted every 3 metres – 1,100 trees per hectare
- Planted every 2.5 metres – 1,600 trees per hectare
- Planted every 2 metres – 2,500 trees per hectare

Shrubs: It is likely your species mix will contain 20-30 per cent shrubs such as hazel, hawthorn and blackthorn. We recommend most shrubs are planted around the edge of your planting site, with some shrubs also mixed in among the trees. By mainly planting these species around the perimeter of your site, you can create a graded woodland edge, which will act as a windbreak and help encourage wildlife.

Glades: Leaving some open spaces within your woodland will enhance its biodiversity value by encouraging different habitats. A glade is an ideal place for wildflowers, while planting shrubs around the edge will benefit species such as butterflies, bats and birds.

Footpaths: Including a footpath as part of the design of your new woodland will allow you to easily enjoy the trees as they grow and develop. To create a winding footpath through your trees, miss out a row whilst planting. Depending on how frequent use is, footpaths will sometimes need mowing to keep them open. If planting for woodfuel, it is important to consider routes for extracting materials.

Hedgerow Planting

Hedgerows planted through our MOREhedges project are helping to make woodland more resilient by linking and extending woodland habitats. We use a standard mix that provides maximum benefit to wildlife by including a tree species in a tube every 6 metres that is allowed to grow to full height.

Planting and maintaining your MOREhedges hedgerow plants

Our hedgerow plants should be planted at a density of five plants per metre in a double staggered row with 30-40cm between the two rows. Your tree choice should be planted in a 1.2m tube every six metres and allowed to grow to full height.

The newly planted hedge will need an initial trim within the first couple of years of growth to encourage dense bushy growth, especially from the base.

Trimming is an essential part of long-term hedgerow maintenance. The species present within a hedge and its location will affect the frequency of trimming. Hedges next to roads and footpaths may need trimming annually between November to February (when birds are not nesting) but it is better for wildlife if they can be cut in alternate years.

You can find out more about hedgerow creation and maintenance at hedgeline.org.uk



Our MOREhedges mix includes a tree species planted in a tube every six metres with the hedgerow species planted in spirals. - H Lynch

Delivery and storage of trees

Your trees and guards will arrive as a large heavy pallet delivery so it is important to be prepared.

We will agree a delivery date with you between mid-November and March (April in Scotland and Northern Ireland) and ask you to confirm a delivery address that includes a postcode. Delivery is usually on a six-wheeler lorry



Your trees will arrive packaged for their protection. - WTPL

with a tail lift which will need an area of hard standing for unloading. It will arrive between 8.30am and 5.30pm and someone needs to be there to receive it.

The guards will be nested together so make sure you take account of this when checking you have received the correct number. Your trees will be inside with the guards forming a protective outer shell to prevent damage to fragile roots and will be in single species bundles, usually of 25 or 15.



MOREwoods consignments ready to head out from the nursery for the day. Image: Richard Padgett, Thorpe Trees



Hedges and belts of woodland provide shade and shelter for livestock. CPRE

What size will the trees be? Your trees will be either bare root or cell grown 20 to 60cm whips depending on the nursery we have worked with for your project. Don't worry if they seem small - they'll grow lots in spring!

What should I do with the trees before planting? Store your trees somewhere cool, dry and frost-free like a shed or a garage for no more than 7 days. Bare root trees can be kept in their black lined tree bags and cell grown trees can be kept upright in a sheltered area with the root plugs kept moist. Take care to avoid dropping the trees or knocking them - root damage will severely limit tree growth.

What if I can't plant all the trees within seven days?

If adverse weather conditions prevent you from planting your trees within seven days, you will need to heel them in. You can do this by digging a trench, laying the roots of the trees into the trench, and then covering the roots over with soil. They can be stored like this for a few months, but the trees will need to be planted before spring or they will start to set roots in the trench.



Barry Davison planted 4,500 broadleaf trees at his farm near Dedham.

"We'll manage our new wood sustainably, coppicing trees in a traditional style to create bespoke furniture and produce firewood."
Barry Davison

WTPL/Douglas Blanks

How to plant your trees

Planting trees is rewarding but it's important that it's done properly to give your trees the best start. The recommended method is pit planting as it is most thorough but also most time consuming. Other methods which are faster and less labour intensive include slit and T-notch planting, which are described below.

If you're using a mixture of tubes and spiral protection, put the tree species in tubes and use the spirals to protect the shrubs. **If you are unsure please contact us.**

Site preparation and marking out



Start by marking out the planting positions for your trees. This can be done with stones, spray paint or just use the stakes/canes when they arrive.



Keep trees in their bags on the planting day so the roots don't dry out in the wind. If they do dry out, soak them in a bucket of water prior to planting.



Some sites may require 'topping' if overgrown with tall weeds. This involves cutting the vegetation short to make planting easier.

Pit planting

Pit planting is the most thorough but time consuming method suitable for all ground types but can be difficult in areas with stony soils. This is the recommended planting method for areas that are susceptible to drought.



1. Each tree requires a pit to be dug with a spade which is several centimetres wider and deeper than the tree's roots.



2. The grass you have dug up can be cut into pieces and placed upside down in the bottom of the pit to provide extra nutrients.



3. Place the tree into the pit and check that all the roots will be below ground level.



4. Now carefully backfill the soil around the tree while holding it upright. Firm the top layer of soil around the tree with your heel.



5 & 6. Now push the cane/stake into the ground next to the tree, making sure it is stable. If using a spiral guard, wrap this around both the tree and cane. If using a tube, place it over the tree the right way up with the stake on the outside. The tube can then be fixed to the stake using the nylon ties. Press the tube into the soil.



Slit planting

Slit planting is a simple method that is suitable for bare soil and grass, and can be an easier method than pit planting for stony soils. We don't advise using this method if you are planting in an area susceptible to drought or with clay soils because in dry conditions the slit can re-open exposing the tree roots.



1. First, fully insert a spade into the ground and push it forwards to create a slit. Ensure the slit is deep enough for the tree roots.



2. When the slit is open, insert the roots into the slit, keeping the roots straight and ensuring they're all below ground.



3. Then simply remove the spade and push the soil back firmly down around the tree.

T-notch planting

T-notch planting is another quick method suitable for grass covered ground but not bare soil. This method is an alternative to pit planting in areas susceptible to drought but again not recommended for sites with clay soils.



1. Push the spade fully into the ground.



2. At a right angle to the first cut, repeat step 1 to create an inverted T-shape.



3. Take the spade to the original cut and lever it upwards parting the turf.



4. Place the tree carefully in between the sections of turf.



5. Lever the spade back out and the turf will fall into place. Ensure all roots are taken into the hole.



6. Adjust the tree to ensure it is at ground level, and thoroughly firm down soil around the tree.

Get growing: the first three years

It is important to care for your new wood to help your trees thrive, particularly in the first few years when the trees are still establishing.

Guidance is given below, but you should also consult the UK's Forestry Practice guides at: www.forestry.gov.uk/publications which provides an overview of the expected quality of new and existing woodland in the UK.

Weeding is essential in the first couple of years after planting to reduce competition for moisture and nutrients. **This is THE most important step you can take to give your trees the right start.**

Weeding each spring in the first couple of years after planting will reduce competition for moisture and nutrients, helping your trees establish more successfully.

You can suppress weeds by using mulch, such as bark chips or straw, around each tree. Spread to a depth of around 10cm to prevent it from being blown away or dispersed, and top it up annually.

You can also buy mulch mats which can be pegged into the ground. Aim to keep a 1m diameter area around the tree clear of weeds and grass for the first 2-3 years.

Alternatively, kill weeds with chemical-based products such as glyphosate. Spray around the base of each tree to create a weed-free ring approximately 1m in diameter. As with all pesticides, take care when applying, be careful not to touch the tree with the chemical and read instructions carefully.



Weed free ring created using glyphosate. WTP/L

Watering: Your trees will adapt to the natural conditions of your site so watering shouldn't be necessary; especially as it encourages the roots to grow towards the soil surface rather than down towards groundwater. If there is a particularly long dry spell and you feel watering is necessary, saturate the ground thoroughly to ensure the water soaks deep into the soil.

Mowing: Cutting the grass regularly is not advised as it actually invigorates grass growth and increases competition for moisture. If you do want to mow, take care to avoid damaging the guards and trees.

Check your tree guards: Strong winds can blow trees over so make sure your guards, canes or stakes are upright and pushed firmly into the soil. Remove grass growing inside the guard by pulling it up and replacing the guard once the grass is cleared.

Pests: Pests can also cause damage inside the tube – check the tree stems and guards for damage by animals. Keeping the tree guards firmly pressed into the soil and a weed-free area around your trees will help.

Keep your tree tubes: If trees have died, remove the guards and store for re-use next winter.



Fencing will help protect young trees from livestock. Geograph-Jonathan Kingston

Long-term management

Once your trees have established, there are still things you can do that will enhance the appearance of your new wood and help it develop.

When to remove tree guards: Tree guards left too long can hamper your trees' growth so remove them as soon as they split and before they begin to disintegrate, usually 5-10 years after planting.

They can be re-used if still in reasonable condition and in some areas can be recycled using specialist firms. Check with your local authority or consult a company such as Agricycle. It's vital tree guards are disposed of responsibly to protect wildlife on your planting site.

Pruning: This is not essential but it will encourage trees to grow upwards rather than outwards once they're established. By pruning up to 25 per cent of the trees, you can create a diverse canopy structure and keep paths clear of overhanging branches.

Invest in a good pruning saw and make a clean cut close to the main trunk of the tree. The cut should be made square to the branch and preserve the bulge at the base of the branch, known as the branch collar. To prevent disease and decay, it is important not to damage the bark of the tree and never cut the branch flush with the main stem as this creates a larger wound. If unsure, always seek expert advice.

Most native trees are best pruned in winter when dormant, but be aware of species such as field maple, cherry and walnut which need pruning in summer to reduce risk of disease and sap bleeding.

Coppicing: This involves cutting a tree at its base to encourage new growth. Coppicing also gives light a chance to reach the woodland floor, helping flowers to flourish. Your trees could be ready to coppice after seven to ten years, depending on species and growth rate. You can find practical guidance about coppicing in the publication 'Coppiced woodlands - their management for wildlife' which is freely available by searching online.



Hegel coppice woodland, WTP/L/Robin Weaver

Disease: Depending on the species you have planted, your trees may be affected by a variety of common diseases, but in the majority of cases these diseases won't kill young trees. A particularly cold winter may result in frost damage but your trees should recover. If concerned, do get in touch with us for advice.



Bullfinches have been seen at woodland creation sites, North East Wildlife

Thinning: This involves the felling of some of your planted trees to reduce the competition for light, water and nutrients. By giving the remaining trees more room, they develop a better shape, grow stronger and are less likely to blow over in adverse weather. Thinning wouldn't usually occur until year ten at the earliest but it depends on how close together the trees were planted.

When your trees reach around 7m in height it's time to give them more room to develop. Identify the most established trees and remove those growing nearby which could compete. You should aim to thin a fifth of your trees every five to eight years, but once their diameter is greater than a baked bean tin at chest height, you might need to apply for a Forestry Commission felling licence.

Attracting wildlife: There are many ways to attract wildlife – you could install bird boxes, bat boxes, or perhaps even bee hives. If you have space, creating a pond will help attract a wonderful array of species to your wood. You could also plant a mix of grasses and wildflowers in an open area of your site. Remember that any open spaces will need ongoing management to avoid them becoming scrubbed over.



Bat boxes can help attract wildlife to your woodland, WTP/L/Geoff Sinclair



Hedges that include open crown trees along their length are better for wildlife.
CPRE



WTPL/Graham Fudger

We've already helped thousands of landowners to get planting. See how we can help you. Get in touch:



0330 333 5303



plant@woodlandtrust.org.uk



woodlandtrust.org.uk/plant

Find out more

The Woodland Trust is the UK's largest woodland conservation charity. We care for over 1,000 woods on our own estate and plant millions of trees every year.

You can help support our vital work by becoming a member from just £4 a month.



woodlandtrust.org.uk/join

MOREwoods is funded by our partners:



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