



Tree and hedge planting

A step-by-step guide

**NATIONAL
TREE WEEK**

the
**tree
council**
Working together for the love of trees

Planting a new tree and hedge – of the right kind and in the right place – is something we can all do to grow a greener future. In this guide, you'll find lots of helpful tips and information about the main things to think about when planting trees and hedges, including guidance on:

- Choosing your site.
- Which species to buy.
- Where to buy.
- How to plant.
- Caring for your tree or hedgerow.



Choosing your site

For many of us, the easiest option when thinking about where to plant a tree or hedge is a front or back garden. If you own your garden, you won't need to ask permission from anyone to plant there and you'll be able to make sure your new trees are looked after properly too.

If you're living in a rented property, you'll need permission from the landowner before you're able to plant a tree or hedge in your garden and you should think about what might happen to the garden (and your plants) in the future. For example, if you were to move out, would the landlord or next tenants be able to take care of the tree or hedgerow?

Don't forget that you can also plant a tree in a pot! This is a great option if you aren't able to plant in your garden or don't have access to a private outdoor space. Many species of tree will thrive in a pot and you'll be able to take it with you if you move.

You might also want to think about planting trees or a hedge in a public space near you like your local park, alongside a public footpath, in the grounds of a school or college, at a local nature reserve or even on a development site. To do this, you'll need permission from the landowner and will likely have to work with them and possibly contractors to carry out the planting in the right way.



Why does 'right tree, right place matter?

Making sure that you're planting the right tree in the right place for the right reasons is vital. We all know that growing more trees is good for us and for our planet – but growing more trees isn't always as simple as it sounds. Different species of tree are suited to different soil types, weather conditions or areas and we want every tree planted to be able to thrive and play a positive role in its ecosystem.

Important things to consider:

- **Who owns the land and who will carry out the planting?** You must have the landowner's permission before planting and they may not want you to carry out any planting as an individual.
- **How much space is there?** Ideally, you want your tree to be able to fully mature without needing to be cut or pruned (tree surgery). Mature trees don't necessarily take up lots of space, but it's important to consider whether your tree will at some point (even in the distant future) grow too large for the space you've chosen. Trees grow in height and spread over 100 years or more and can impact shade, light and building foundations. Remember too that over time the roots can extend outwards as much as twice the ultimate height of the tree. The amount of space below ground for the roots is important for the tree's long-term health and stability, so make sure you take this into account. The shape and branching of the tree and the size and density of its leaves will affect light and shade, and how vigorously it grows and how much water it takes in from the ground could affect nearby buildings.
- **How much space is needed for my hedge?** Hedges can be managed to allow them to fit into a wide range of spaces. However, it is still best to choose species for your hedge that are suitable for the available space. For example, hawthorn or privet can be cut regularly to allow it to be shaped to a space, but a beech or hazel hedge will not thrive so well if it is continually cut.



- **Who will look after the tree or hedgerow?** If you're planting in your garden, you'll be able to make sure that your tree or hedgerow grows healthy and strong, but if, for example, you're asking your local council to plant in your nearby park, you'll need to work with them to think about who will care for them over their lifetime.
- **Are there any safety concerns?** Check with your local utility company to see whether there are any underground or overhead services running beneath or above your chosen site that might be affected by your tree planting. There are often guidelines from utility companies setting out planting distances and sometimes they have species requirements too. You shouldn't plant anywhere that will obscure road sight lines, road signs or street or security lighting and you should avoid planting under any overhead services like electricity cables to avoid causing damage.

Choosing your trees or hedge

It's important to choose the right species of tree or hedgerow to plant so that it can thrive and benefit the surrounding area. Think about:

- **Copying nature:** Tree species that are already thriving in your area are likely to be a good choice!
- **Going native:** Native species are really important and by planting more of them we can help these amazing trees thrive in the future.
- **Non-natives in the right place:** As our climate warms, it is worth considering planting non-native trees which may better tolerate the new climate. In the right places like streets and urban parks, non-native species can also add colour and diversity to a landscape.
- **Pollution:** In urban areas, it's important to choose trees that can tolerate pollution in the atmosphere and chemicals in the soil, like road salt, and trees that don't grow so big that they create 'pollution canyons,' trapping pollution at ground level.
- **Fruit and leaves:** Will your tree drop fruit, like rowan berries, onto pavements and make them slippery? Large leaves can also cause this problem.
- **Health:** Don't plant any trees that produce poisonous fruits (like yew) or that can cause sickness (like crab apples) near areas where children play or animals graze.
- **Height and spread:** How big will this species grow and how will that impact nearby roads, buildings and services? Species like oak and beech might eventually shade windows and gardens, for example.
- **Soil type and water availability:** If you're planting in a very dry area, for example, you'll want to choose a tree species that is able to thrive in those conditions.

- **Purpose:** For a rural site, you should choose species in keeping with existing habitat types but in an urban area you might be planting ornamental species or to create a new 'natural' area. You can check with your local authority's tree or landscape officer or look for your area's local landscape character assessment to get an idea of the species that are thriving in your area.
- **Aesthetics:** Trees add character to your area, adding different benefits throughout the seasons - think about the height and shape of the tree, the number and shape of the branches, bark texture and colour, leaf size and shape, autumn colour, flowers and fruit.

Recommended species

There are many resources available to help you choose the right species to plant. A few good starting points include:

- The [Woodland Trust website](#) for native trees.
- The [RHS website](#) for species for your garden.
- Experts at your local garden centre.
- Tree nursery websites which may have some online species selection information.

Why are native trees important?

Because native species have adapted to live in particular ecosystems, they play a crucial role in their local environment. They are better able to support local wildlife, like birds, bees and butterflies, as they have evolved side by side for centuries. There are 60 or more native trees and shrubs in the UK including English oak, beech, alder and blackthorn.



Choosing your stock

There are four main tree stock categories to consider, with a range of sizes and forms in each. If you're planting a tree yourself in your garden, it's best to choose a small stock type that you can handle easily like a seedling, transplant or whip.

- **Transplants and whips:** These are cheap and easy to plant, so are a great option for any individual who wants to plant a tree or hedge themselves or for projects like school or community planting. They are typically between 0.4m and 2.5m tall.
- **Short, half or light standards:** These are more expensive and more preparation is needed for planting. They're a good way to achieve immediate impact, so can be a good option for planting in a long length of hedge, parks or public open spaces, for example. They are typically between 1.8m and 3.6m tall.
- **Heavy and extra heavy standards:** This is an expensive option but good for achieving impact in streets and pedestrianised areas, or where there is a risk of smaller trees being vandalised, for example. They are typically between 3.6m and 6 m tall.
- **Semi-mature trees:** This is the most expensive option but needs very careful planting and requires more intensive establishment maintenance than smaller trees. They are typically between 6m and 15m tall.

As well as being available in different sizes, trees are often available with different root conditions. For example, you can buy trees '**root-balled**,' which means they're sold with a covering of soil on their roots and wrapped in hessian for transportation. This is usual for larger trees in the standard, heavy standard and semi-mature stock categories. Some trees, typically younger nursery stock, are available '**bare root**'. This means that they will not have any soil on their roots and are only available in winter when trees are dormant. The most common type of stock you'll see in garden centres is '**container-grown**,' trees which have been grown in the container they're sold in and are ready for you to plant.

Tree stock categories

- **Transplants** are young trees that have been moved from one place to another. For example, seedlings may be grown at a tree nursery then dug up when they're ready and moved to be planted in their final growing position.
- A **whip** refers to a very young tree that hasn't yet got any branches.
- A **standard** is a larger tree, typically over two metres, and with a head of branches.
- A **heavy standard** is simply a larger standard, typically above three metres in height.
- A **semi-mature** tree is over four metres tall and is likely to be more than 10-15 years old.

Buying your tree or hedge

You can buy trees and hedgerow plants of different species from most garden centres. Tree nurseries are another option, and they will be able to help too if you need many trees for a bigger project. They are also usually cheaper than garden centres. For biosecurity reasons, it is important to consider buying trees grown in the UK which can be both native or non-native species – check the tree's origin before purchasing. It's estimated that over the next decade 150 million mature trees and two billion saplings will die because of exotic pests and diseases. Making sure that your tree has been sourced and grown in the UK is important in ensuring that nothing harmful is brought in from abroad. If the garden centre or nursery is unable to supply the information, be wary and look for alternatives.

If you're ordering trees to be delivered to you, rather than choosing them yourself at a garden centre or nursery, check them as soon as they arrive and return them if they can't be planted e.g. if they have dried out roots or damaged bark. Remember that you can also [grow a new tree from seed](#) or by taking cuttings or grafts. Some tree nurseries will grow trees from seed you have collected until they're ready to be planted out. Think carefully about when you will be able to plant your tree and whether you will need or be able to store it before planting.



What is biosecurity?

Biosecurity refers to the measures taken to stop potentially harmful organisms being introduced or spreading to animals and plants. Pests and diseases that originate in other countries can be incredibly dangerous for species in a different country that hasn't evolved or adapted to deal with it. For example, ash dieback originated in Asia and the ash trees in its native range can deal with it – but in Europe, it has devastated ash populations.

Planting your tree or hedge

When to plant

A great time to plant bare-root trees is during The Tree Council's [National Tree Week](#), which takes place annually at the end of November. This traditionally marks the beginning of the winter tree planting season. When to plant will depend on the stock you choose – for example, container-grown trees can be planted all year round – but you should avoid days when the ground is frozen and when the soil is too wet.

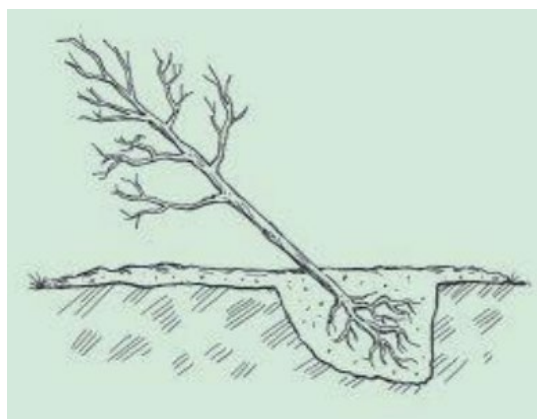
Planting over winter when the ground is moist allows bare root trees the best chance to establish before the spring when their leaves will begin to develop.

Ideally, trees should be lifted by the supplier, transported to you and replanted with as little interruption as possible. If you're planting bare root trees, you should plant them ideally within three days of their delivery. You can leave them in the bags they arrive in until then, in a cool, frost-free building. You need to keep the roots moist but not too wet and don't let them dry out. If you're not able to plant your trees in their final position within three days, they'll need to be taken out of their bags and 'heeled in.'

Heeling in

This is the best way of storing bare root trees if you're not able to plant them straight away.

1. Dig a trench in good, fresh, moist soil that won't dry out or become waterlogged. Alternatively, you could use a large pot.
2. Dig the trench with a sloping back, as pictured, deep enough for the tree roots to be completely covered.
3. If you have multiple trees in bundles, separate them out and space them along the trench. This is important to prevent the roots from drying out and, if you are planting an evergreen species, to stop the plants from heating up.
4. Put the trees in the trench with their roots completely covered but their tops out.
5. Cover the roots with soil up to the root collar and firm the soil lightly but treading it down to remove any big air pockets.



What is the root collar?

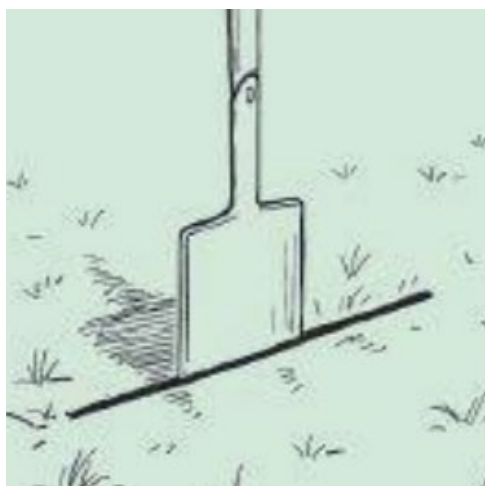
The root collar is the point where the tree roots and stem meet. Look for changes in texture and colour at the base of the tree stem.

Planting your tree or hedge

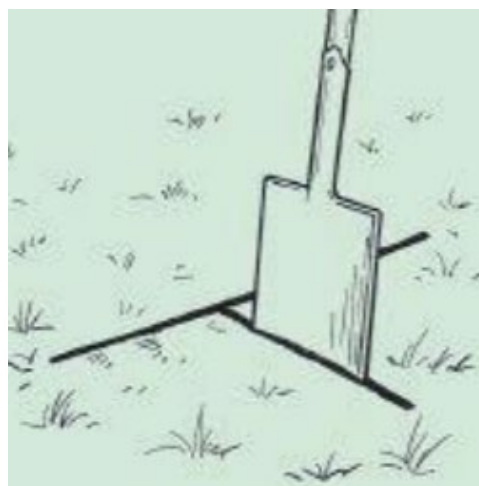
There are a variety of ways to plant trees and hedging.

Notch planting

Notch planting (also known as slit planting) using a garden spade is the quickest method for planting small trees. You should avoid this method if the soil is wet or if you're planting a larger or more expensive tree.



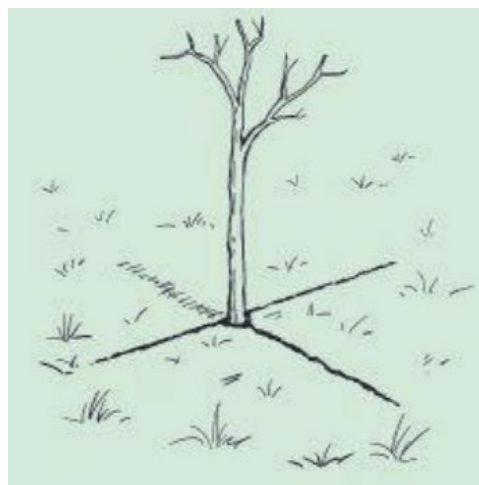
1. Clear a bare patch of soil about half a metre in diameter by scraping off any vegetation and the top inch or so of soil with your spade.



2. Use the spade to cut through the turf into the soil. Go as deep as the roots of the tree you're planting.



3. Push the spade backwards and forwards in the slot to create a hole big enough for the roots.



4. Hold the tree in place and firm the soil around the tree's stem with your heel. Make sure the roots are covered, that there are no air pockets and that the root collar is visible and level with the soil's surface.

Planting a hedge

Hedge plants will be around 60cm tall and will arrive bare-rooted. Keep the roots moist and plant within five days of arrival; otherwise the young trees will die.

To plant a double row, use six trees to every metre, in a zigzag pattern. Leave 50cm between trees in the same row and 40-45cm between two parallel rows. To plant a single row, leave 30cm between trees.

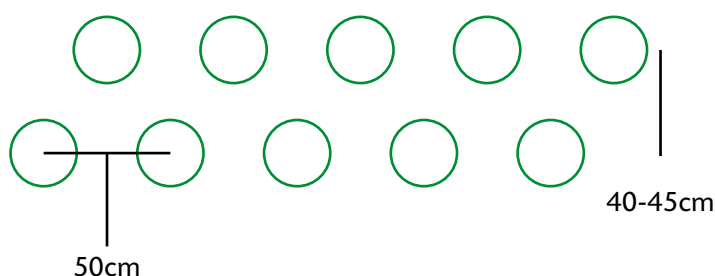
Remember good ground preparation is key and will give your hedge the best start. Avoid planting in areas prone to constant, heavy waterlogging.

1. Prepare the ground by rotavating (digging over) a strip 60-90cm wide and one spade blade deep. This should remove existing vegetation like grass and weeds which will compete with your young hedge plants for moisture and nutrients.
2. If you are planting a boundary hedge, position it about 75cm-1m from the boundary wall, fence or railings. This will allow the hedge to fill out.
3. On planting day, keep roots in their bags - exposure to the air will dry them out.
4. Take the whips directly from the bags and either plant in a straight line in a trench or in a staggered double row, depending on how dense you want your hedge to be.
5. When planting, push the spade fully into the ground and wiggle it backwards and forwards to create a slot. Carefully position the tree in the slot, spreading out the roots, ensuring the planting depth is correct. The point where the roots flare out from the stem should be level with the surrounding soil.
6. Once planted at the right level, make sure the soil is well-packed around the roots. Firm the soil lightly with your foot.
7. Apply a thick layer (around 7cm) of mulch around the base of your trees, but don't let the mulch touch the trunks as this may lead to decay. Mulch is vital as it conserves moisture and prevents weed growth.
8. If the soil is dry, water the plants with two or three large watering cans of water (20-30 litres) per metre.

Single row hedge



Double row hedge



Pit planting for larger trees

Although labour-intensive, pit planting is the best method for larger trees (over 90cm tall) because it ensures plenty of room for the roots.

1. In good soil, dig a hole big enough for all the roots to spread out. In poor soil, dig a hole wider and deeper than needed for the roots, and partly refill. Consider adding a soil improver.
2. Break up compacted soil to improve drainage and aerate the roots.
3. Gently tease out the roots that have wound around the inside of the pot.
4. Use a stake if the tree is over 1.5m tall. Drive the stake into the bottom of the pit and then place the tree on the downwind side (to avoid it banging against the stake every time the wind blows). Stakes should not be more than a third of the height of the tree.
5. Keep the top of the root ball level with the soil surface.
6. Backfill and gently shake the tree up and down to ensure a good contact between root and soil. Once the roots are covered, continue treading more firmly until the hole is over-filled, leaving the soil slightly above the surrounding ground. 'Treading in' is most important when pit planting. Many failures are due to lack of firming. In heavy soils, do not firm so much that the soil becomes compacted.
7. Clear grass and weeds for an area of approximately 1m in diameter around the tree and apply a layer of mulch.
8. Water the tree. Drench the soil with at least five litres of water. The amount will depend on the size of the tree being planted.



Caring for your tree

It's crucial that your tree gets the care it needs to thrive. You should check on your tree at least once a year and carry out any simple maintenance needed.

- **Watering:** As long as you plant at the right time of year and have mulched and weeded well, you usually won't need to water unless there is a very dry spell of more than a few weeks. In drought conditions or if you're planting somewhere with poor soil quality or that's exposed to the wind or full sun, it's best to water regularly in the summer to help the young trees establish successfully.
- **Weeds:** Young trees need moisture, nutrients, light and space and weeds can compete with them for these. It's important to keep an area of about one square metre around the growing tree weed-free for at least the first three years. You can do this by hand, uprooting grasses and other weeds or ensuring there is a thick layer of mulch. Don't be tempted to cut the weeds back or mow them as this encourages growth!
- **Mulching:** Mulching is a simple, effective way to control weeds, protect the tree's roots from extreme temperatures and keep the ground moist and cool. It means you can avoid using chemicals on any weeds and there's no need to use a lawn mower or strimmer near the tree, which can risk damaging the bark. Organic mulches include things like leaf litter, lawn clippings and composted bark. You should spread it around the base of the tree just after planting – a layer 50mm thick in a circle about 1m in diameter. Leave a space around the stem to avoid rot! You should top up your mulch every year to maintain its effectiveness. You can also buy mulch mats or, if it's a small tree, leftover roofing felt or old carpet will work too.
- **Weather:** Exposure to a cold wind can kill the roots of a young tree so check on your tree after storms or hard frosts and in the early spring and make sure roots are covered. Adjust trees to upright and heel them back in if they have moved after any storms.
- **Guards:** If you're planting a young tree, a guard (also known as tree shelters, spirals or tree tubes) may be necessary if it is in an area where animals like deer or rabbits could damage it by eating the tree. If you're planting in a pot or your back garden, it's likely that the risk of this will be minimal so you may not need tree protection. See guidance on [The Tree Council's website](#) for tree protection measures most suitable for your planting.

What is mulch?

Mulch helps stop weeds growing, improves the soil around your plants and saves you water. Non-biodegradable mulches like pebbles, gravel or slate look decorative and prevent weed growth and competition, but won't help your soil, while biodegradable ones like wood chippings release nutrients into the soil as they break down.

FAQs

Can I plant a tree in my garden?

If you own your garden, you can plant as many trees as you like in it! If you rent your home or want to plant in a public or shared space, you'll need the landowner's permission before planting. A good alternative if you're not able to plant in your garden or don't have a garden is to plant a tree in a pot. This could live by your front door or even on a balcony and you can take it with you when you move.

Can I plant a tree in a pot?

Yes! Growing a tree in a container is possible if you only have a limited space, or don't own your garden. They bring greenery and nature in, attract wildlife and store carbon. Choose a container with drainage holes and make sure it's the right size for your tree. It needs to be big enough for your tree's roots, but don't put a small tree in a very big container. Instead, transfer the tree to a bigger pot as it grows.

Frost-proof terracotta pots can be a good option, helping to stop a young tree being blown over in the wind, but they can be difficult to move around. Adding some pieces of broken terracotta pot in before your compost will stop the compost washing out of the drainage holes. You'll need to water your tree regularly – make sure it's moist (not wet), even during winter. Species that grow well in pots include citrus trees, dogwood, star magnolia and apples grown on dwarfing root-stock.

Where do I buy a tree?

You can buy trees from garden centres and tree nurseries. Before you buy, you should think carefully about the species you want and the stock you need. If you can, check the tree's roots before you buy it by lifting the tree from the pot. Reject any tree with roots heavily spiralled around the pot, or showing signs of white mildew. Also look out for any signs of pests or diseases like wounds to bark or dead foliage.

Do a tree's origins matter?

Ask the garden centre or tree nursery for information on the tree's origins. Importing tree saplings from abroad is a biosecurity risk, as pests and diseases from other countries can travel on the saplings and then spread. Check whether there are any guarantees or specific planting instructions. When transporting your tree home, don't put it on a roof rack or similar unless it is wrapped securely in a protective material as they can be damaged. Once you're home, plant your tree as soon as possible!

Can I get a grant for my tree or hedge planting?

It depends! The Tree Council has grants available for tree and hedge planting on public land especially where young people are involved in the planting. Free fruit tree and hedge packs are also available for planting in schools. Find out more [here](#).

What species should I choose?

Choosing a native species is often important. [There are 60 or more native trees and shrubs in the UK](#) which have evolved alongside our wildlife, including butterflies, bees and birds, and provide vital habitats and food sources for a huge range of species. These include:

- **Alder** will grow to a maximum of 25m and can grow in most conditions. It's a great source of food for bees and birds like goldfinches.
- **Silver birch** grows to around 15m to 20m tall and attracts insects and birds like long-tailed tits. It grows best on sandy or acidic soils.
- **Blackthorn** is a great option for smaller gardens as it typically grows between 6m and 7m high and is a good hedging plant. You can pick its sloe berries in autumn too!
- **Crab apple** grows between 7m and 9m tall and likes to be in the sun. Its flowers attract bees and its fruit is great for birds and mammals like voles and badgers.
- **Dog rose** is good for smaller gardens, growing between 1m and 5m tall. Dog rose flowers are a brilliant source of nectar for insects and they'll add colour to your garden.
- **Hawthorn** trees can grow up to 15m tall if they're not pruned and will grow in most soils. Hawthorn can support more than 300 species of insect and dormice eat its flowers.
- **Rowan** grows up to between 8m and 15m tall but is very narrow, so can still be a good choice for a smaller garden. It attracts bees and other pollinating insects, as well as birds like blackbirds and thrushes.



Can I grow a tree from seed?

Yes, you can! [The Tree Council's website](#) has more information on seed gathering and growing trees from seed.

My neighbour doesn't want me to plant a tree. Can I go ahead?

If you own the land you want to plant on, your neighbour can't stop you from proceeding. However, you should think carefully about whether the tree will affect their home or land as it grows (for example, by shading their garden or windows). No one wants to get involved in a neighbourly dispute, so be considerate when planting and think about how it will affect others in both the long- and short-term. You might also consider planting a hedge of lower growing species.

Do I need permission to plant a tree?

Only if you don't own the land. If you want to plant in a shared garden, for example, that you own along with your neighbours you'll need their permission first. It's a good idea to check property boundaries if you're unsure and if you're in any doubt then think about whether there are any alternative options.

I'm planting at a school. Do you have any resources to help?

Yes! Through our Orchards for Schools and Young Tree Champions programmes, schools can apply for free orchard tree and hedgerow packs to plant on their grounds and a whole host of resources to help make planting as fun and straightforward as possible. The [Young Tree Champions website](#) has more information, including a 'Let's Get Planting' webinar which tells you everything you need to know about planting and caring for your trees.





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