

HOW TO COLLECT SEEDS OR TAKE CUTTINGS

Our handy guide to getting out into your local area and collecting the seeds you'll grow into new trees

Collecting holly berries
– mind the prickles!

Tree seeds come in a huge range of sizes, shapes and colours designed to maximise the tree's chances of survival. They are living things that, if treated with care throughout the collection, processing, storage and dormancy periods, will germinate and grow into strong, healthy trees.

All trees have different growth rates and germination characteristics, and need individual treatments and processes to enable a consistent successful germination rate.

Where to collect seed

When collecting native tree seeds, look for areas of ancient woodland and old hedgerows that harbour mature specimens. You can also harvest seeds from orchards, parks and arboretums, in fact anywhere that trees grow and have plentiful seeds. Don't forget to ask for the landowner's permission before collecting any seeds.

Visit the site a few weeks before you plan to collect the seeds, in order to check on their quality and quantity. You'll find the most tree seeds where there is plenty of light, and this is also where flowers are most likely to be in bloom. This includes around open areas, woodland edges, glades, woodland clearings and old hedges.

When collecting seeds, avoid trees that look diseased. Indicators that a tree may not be healthy include stained bark, the appearance of 'bleeding', large areas of dead branches or bark falling away. Leaves may also be withered or an unusual colour. Compare the tree to one of the same species nearby to see if one looks healthier. If in doubt, find another tree to collect seeds from.

How much seed to collect

Collect seeds from as many trees of the same species as possible (between 20 and 50+ trees is ideal) to achieve maximum genetic diversity.

Seeds must be fertile to germinate, so the best place to harvest them is places where there are groups of trees, and therefore cross pollination and fertilisation are likely.

Very few trees produce good crops of seeds every year. Keep an eye on the quality and quantity of seeds developing on the parent trees. Check the seeds are ripe before you collect them.

When to collect seed

When ripe, seeds should be picked directly from the tree or gathered from the ground. You can use any suitable container to take your seeds home, but don't store them in plastic bags as the seeds become too moist, and this reduces their chances ►



Collecting spindle
seed capsules

of germination. Put the seeds from different species of trees in separate bags, labelled clearly.

The ideal situation is to collect seeds from trees that are growing well in your area, and are therefore obviously suited to local conditions. Think carefully before collecting seeds from trees that are hundreds of miles away from where you will be planting. Trees adapt to the local conditions, so seeds collected in Sussex may not produce healthy trees in Perthshire, for example.

Timing is everything

Don't collect the first seeds to fall from a tree, as later seeds are more likely to be of better quality. Watch carefully and be ready to act promptly when the seeds ripen – delaying too long may mean squirrels, jays and other wildlife beat you to the harvest! That said, always leave some seeds behind, as they are an important winter food source for wildlife.

Climbing trees can be dangerous, so only collect seeds you can reach from the ground. Use gloves if you are collecting seeds from spiny trees or bushes. If you want to collect seeds from the lower branches of trees, pick them by hand or use a hooked stick to carefully pull branches down to within reach.

It's a good idea to create a seed collection calendar, and site cards detailing the seeds' location and landowner's contact details for future years.

Taking cuttings

Trees such as willows and poplars grow better from cuttings than from seeds. When seeds are difficult to obtain, cuttings can also be taken from alders, elders, hazels, hollies and mulberries. Generally, cuttings should be taken in late autumn or early winter.

These cuttings should be set upright in moist, well-drained soils. Poplars and willows root so readily that anyone can plant them with a good chance of success.



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HOW TO TAKE CUTTINGS

1. Generally cuttings should be taken in late autumn or early winter.
2. Find a new branch that is about as thick as a pencil and has lots of buds on it.
3. Take your cutting from the branch just above a fork, using a pair of secateurs.
4. Cut the branch into 20cm lengths, each containing at least two buds.
5. Make the lower cut square-on to the branch, just below a bud. The top cut should be made at an angle about 1cm above the top bud.
6. Store the cuttings by burying them in moist sand or peat-free compost, in a cool, dark place such as a garage or shed.
7. Dig a hole with a trowel or spade and plant the cutting, so that only 5cm of it remains above the ground. The best time to do this is between mid-January and March.
8. By late spring, the cutting should have produced at least two or more sprouts. Cut off all but the strongest sprout on each plant. In the autumn, it can be transplanted to its final destination.



Regulations for tree or seed sellers

If you plan to sell seeds you've gathered or trees you've grown, you need to know about the Forest Reproductive Material (Great Britain) Regulations. These regulations are a control system for seeds, cuttings and planting stock that is used for forestry purposes in Great Britain. They help to ensure biosecurity (security from pests and diseases) and genetic diversity and quality of tree stocks across the UK.

The regulations ensure that tree-planting stock is traceable throughout the collection and production process to a registered source of 'basic material'. For example, seeds must be traceable back to the tree from which they were collected so that buyers can have information about the trees

or seeds they buy and their genetic quality.

If you intend to sell your seeds or trees, you must register as a Forest Reproductive Material (FRM) supplier before you collect tree seeds, cuttings and grow trees.

If you are collecting seeds for sale from the 50 controlled species, which include alder, beech, birch, hornbeam, oak, poplar species including aspen, small and large-leaved lime and wild cherry, you'll need to notify the Forestry Commission of your intention to collect seeds at least 14 days before the collection date. 🌱

You can find out more here:

www.gov.uk/guidance/marketing-forest-reproductive-material-for-forestry-purposes

HOW TO PROCESS SEEDS

When handled with care, tree seeds will fulfil their potential to germinate, grow and develop into healthy plants

Most tree seeds are contained in some kind of fruit – good examples are apple pips and cherry stones – from which they need to be extracted and then cleaned. Different tree fruits require different processes to remove the seeds. The method you should use depends on the type of fruit or seeds you have collected – nuts, fleshy fruits, winged seeds, cones or pods.

Once you have separated your seeds into types, you need to know whether they should be either stratified for the winter or sown immediately into pots or seedbeds. All the information you need can be found in the guide from [page 32](#).

Don't be disappointed if not all your seeds germinate, but by manually processing the seeds you can optimise germination and reduce the time it takes for them to grow.



NUTS

- Many nuts have a hard or spiky green outer shell, inside which there may, or may not, be a seed. Examples include walnut, horse chestnut and sweet chestnut. If a hard or spiky outer casing exists, carefully remove it without damaging the nut inside.
- Other nuts, such as oak, beech and hazel, have a hard casing that does not need to be removed.
- You can identify viable seeds using the 'float test'. This involves putting the seeds in a bucket or bowl of water. Those that float are unlikely to have a viable seed inside and should be discarded.
- Nuts will produce a radicle, which is the first root. This process is called 'chitting'. Chitting can be encouraged by keeping the seeds in a bucket of leaf mould and gently turning them so they do not become too damp and start to rot. Once you see

the radicle start to sprout, gently remove the seed and plant it.

■ These seeds can be direct sown into a suitable mix of soil and compost– see [page 21](#) for an example mixture.

■ Remember, squirrels, jays, voles and other small mammals love nuts and will remove them from the earth and from pots. Always protect the seeds you've planted by covering your pots or troughs with wire mesh to keep unwanted guests out.

Sprouting acorn



Hazelnuts





FLESHY FRUITS

- Trees that produce fleshy fruits are the most time-consuming to process, as much of the fleshy material needs to be removed. In nature, animals, microorganisms and weathering will break down the surrounding flesh from the seed.
- Fleshy fruits or berries can have stones, like blackthorn, hawthorn and wild cherry, pips like crab apple and guelder rose, or tiny seeds like rowan.
- The stones, pips or seeds need to be extracted from the fruit, as this can inhibit germination or increase the likelihood of diseases affecting the storage and viability of the seed.
- To remove the flesh, place the fruits in a bowl of water and gently squash with a potato masher or similar equipment to break the flesh. Then a rotating motion can be used until the fruit is separated from the seed. Viable seeds will sink to the bottom and the residue of the fleshy fruit can be discarded.
- For rowan and mulberry, put the berries in a sieve and gently squeeze them with your fingers under running water to release the seeds.



Crab apples should be cut open with a knife to remove the seeds. Rinse the seeds and then dry



Guelder rose berries need to be mashed then the flesh and seeds can be separated through the sieve

- Crab apples are easily scored around with a sharp knife. The apple can then be broken in half and the pips removed. Do not cut through the pips!
- For spindle seeds, you need to remove the pink outer shell. Inside there can be multiple seeds. These are covered in a bright orange skin, which needs to be removed and can be gently peeled off.
- For many fleshy fruits, using a rough surface such as a paving slab or purpose-made scarifying board (a wire mesh attached to a wooden block) can speed up the seed-cleaning process significantly.
- The seeds should be rinsed to remove any remaining flesh and reduce the likelihood of pests and diseases affecting them during storage. The seeds can then be surface dried and stored dry or stored in slightly moist coir (coconut husk compost), or in an equal mixture of compost and sand. The best methods for different tree species are covered on [page 32](#) onwards.
- The seeds of all fleshy fruits need to be stratified over the winter. For our easy-to-follow guide to stratification, see [page 22](#).



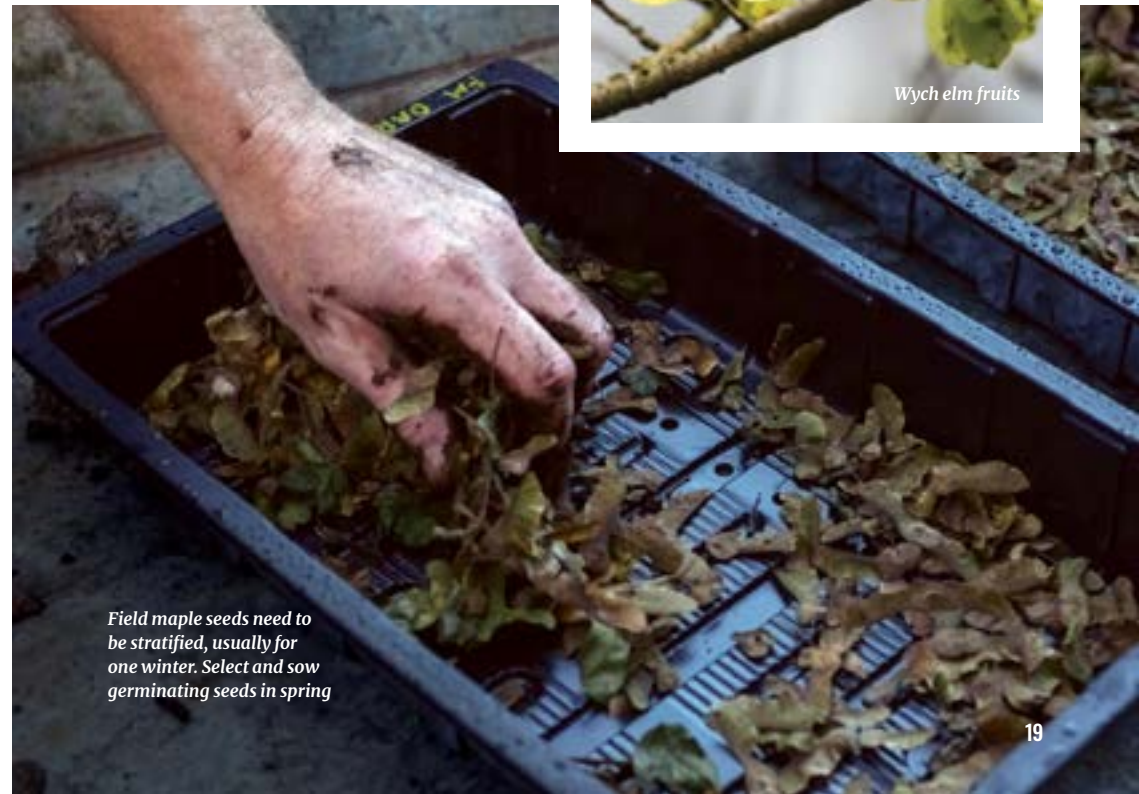
WINGED SEEDS

- Winged seeds are usually collected from the tree when they are still slightly green. These include the seeds of field maple, sycamore, ash, lime, hornbeam and wych elm.
- They need to be dry before they are stored, especially if they are collected when damp from morning dew or rain.
- To dry them, the seeds should be laid out and turned every two days until they are dry.
- Store them in paper bags and check them every week until you are ready to stratify them. How long you wait to stratify will vary from year to year, depending on the temperature and the species of tree. For guidance on this, see the relevant tree Seed Guide from [page 32](#) onwards.

- Winged seeds can be planted with the wings left on.
- It can speed up germination if the seed is removed from the outer casing, especially for hornbeams.
- Wych elm is best collected in summer and should be sown immediately after collection.



Wych elm fruits



Field maple seeds need to be stratified, usually for one winter. Select and sow germinating seeds in spring



CONES

- Trees that have cones include Scots pine, redwood, alder and birch.
- Put ripe cones in a paper bag to dry out naturally for a few days – but avoid direct heat from, for example, direct sunlight, a radiator or a fire.
- When the cones are dry, they will open up and release their seeds, which are then ready to be sown.
- Alder seeds are contained in cones, which should be harvested once they turn from green to black. The seeds can be shaken from the cones and stored dry in paper bags until you are ready to sow them.
- Though technically not a cone, the catkins of birch are easy to process. Collect them during dry weather when they are brown and ripe. They can simply be rubbed gently to get them to separate,

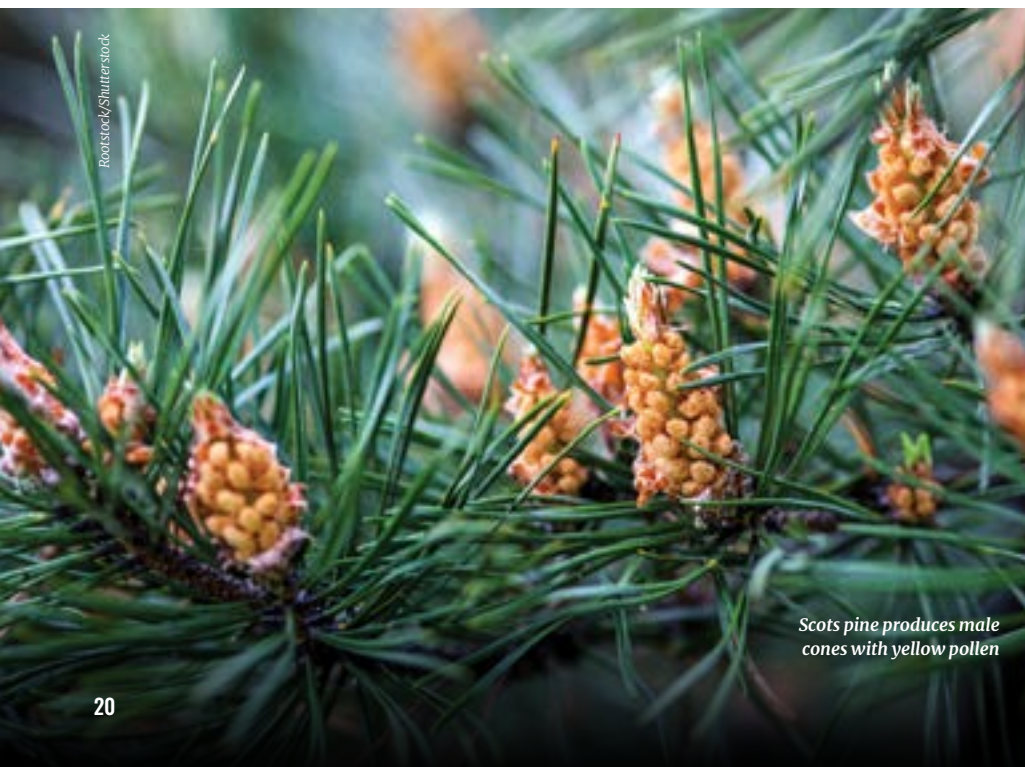


Alder produces catkins and cones

Kroyl025/Shutterstock

and the seeds stored in paper bags.

- Alder and birch seeds can be stored dry. Four weeks before sowing, soak them in cold water for 24 to 48 hours and leave them to surface dry. Then place them in a plastic bag, mixed with some moist horticulture sand, and place them in a fridge. 🌱



Scots pine produces male cones with yellow pollen



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PODS

- Trees that have seed pods include laburnum, Indian bean tree and false acacia.
- Collect the seed pods when they are ripe, and place them in a paper bag, out of direct sunlight, to dry out naturally for a few days.
- When the pods are dry, simply break them open to remove the seeds.

Indian bean tree seed pods are slim, almost perfectly cylindrical and can grow up to 41cm long