



Saving
Devon's
Treescapes

It's time to grow!

Find out how you and your
community group can start
growing trees from seed



Devon
Wildlife Trust



ONETREEPLANTED

Devon Ash Dieback
Resilience Forum



About Saving Devon's Treescapes



Devon's treescapes are stunning and crucial habitats for our wealth of wildlife, but they face many threats and have been in decline for many decades. Our treescapes now face a new danger – Ash Dieback – which is estimated to kill at least 90% of Devon's ash trees in the coming years. It will affect everyone, and everyone can be part of the solution. We're working with communities to help Devon's treescapes thrive again. Every tree planted or encouraged to grow is vital to restore our treasured treescapes.

The Saving Devon's Treescapes project is supporting communities to plant and nurture 250,000 trees. Saving Devon's Treescapes is a partnership project led by Devon Wildlife Trust on behalf of the Devon Ash Dieback Resilience Forum. It is funded by The National Lottery Heritage Fund, One Tree Planted and other funders.

Find out more about the project and ways to get involved at www.devonwildlifetrust.org/saving-devons-treescapes, or contact the team by email on savedevonstrees@devonwildlifetrust.org

Growing trees from seed

Anyone can grow a tree from seed – a simple acorn in a pot with some compost will grow. This guide is designed for those who would like to grow wild seeds on a slightly larger scale, perhaps a couple of hundred trees and a variety of species. The steps will help you increase the likelihood of germination and seedling success rate.

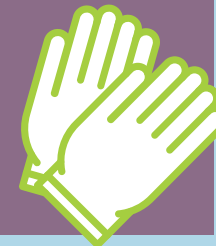


When to collect wild seeds, how to process them, plus tips on successful growing

Autumn is the best time to harvest your wild seeds. Most seed collection is done through September and October. A few are better collected in spring.

Some general guidance for all tree seeds:

- Please always make sure you have permission from the landowner before you collect any tree seeds.
- Try to collect seeds from trees that look healthy
- Collect from lots of trees, don't get all your seed from just one tree
- Please be aware that some berries are poisonous and should be treated with care. Wear gloves or wash your hands well after processing. Label clearly and do not place next to food in a fridge.



Kit list: what you'll need to get growing

Seed collection:

- Paper bags or buckets
- Secateurs

Seed processing:

- Sieves – you can use a metal kitchen sieve or a garden sieve
- Access to water
- Wooden rod – something like the end of a broom or rolling pin
- Kitchen paper
- Knife and chopping board (for crab apples)

Stratification:

- Coir or compost and horticultural sharp sand
- Small plastic tubs or sandwich bags
- Spray bottle

Seedlings:

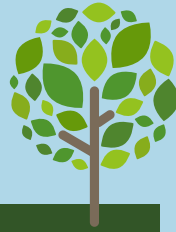
- Newspaper (optional)
- Propagators
- Seed trays
- Dibber/lollipop stick or similar
- Watering can
- Peat free compost
- Vermiculite

Pricking out:

- Root trainers or pots
- Peat free compost
- Biochar (recommended)
- Seaweed liquid feed

A species-by-species guide to growing native trees for planting

Tree seeds to collect in autumn



Rowan

Collect: end of August/ beginning of September when the berries turn red. Use secateurs to take off clumps of berries but make sure you don't cut off the bud slightly lower down. Collect in a bucket or paper bags.

Processing: Try to process the berries within a week of collecting. Each berry has a few seeds inside and you need to remove the fleshy berry and extract the seeds. The berry inhibits germination so although this is a time-consuming task, it is well worth it.

There are several ways to remove the flesh:

- 1 Mash the berries and push/wash them through a sieve then pick out the tiny seeds from the flesh left
- 2 Mash the berries between two planks of wood and then rub the planks back and forth which allows the seeds to easily be removed from the flesh
- 3 Squash each berry separately using your fingers and remove the seeds

Give the seeds a rinse if needed and allow to dry for a short while. Mix the seeds with either a 50:50 mix of compost and sharp sand or you can use coir. For each handful of seeds, add two or three handfuls of compost mixture. Make sure the mixture is moist and place it into a plastic bag with a loose tie or sealable container with breathing holes. If it is a zip-lock bag, half close the zip. Label the bag.

Store in a cool dry place and then place in the fridge from October. They will stay in there until February when you can start looking for signs of germination.



Sliver and Downy Birch

Collect: Mid August/ beginning of September. Look for catkins which have turned brown. Catkins hold many seeds which are dispersed by the wind.

Processing: Break the catkins up and allow to dry if you have collected in wet weather. Store in a paper bag in a cool dry place. Put in the fridge Nov-March if possible. Make sure you label the bag!



Field Maple

Collect: The winged seeds in October when brown but still on the tree.

Processing: Store in paper bags in a cool dry place for about a month.

Sow outside in November. Put a layer of stones or gravel at the bottom of a large container then top with a compost/ sand mix. Sow the seeds ensuring they do not overlap. Cover with a thin layer of compost. These can be pricked out in the Spring.



Blackthorn

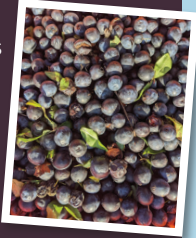
Collect: September/ October when the berries (sloes) are ripe and easily squashed. Be very careful when collecting as the thorns can cause 'blackthorn poisoning' if you get pricked. Wear thick gloves and if in any doubt seek medical advice. Collect in a bucket or paper bags.

Processing: Try to process the berries within a week of collecting. Each berry has one seed inside and you need to remove the fleshy berry around it as the berry inhibits germination and can cause the seed to go mouldy in storage if not removed.

Mash or squash each berry and remove the seed, give the seeds a rinse to remove any flesh.

Mix the seeds with either a 50:50 mix of compost and sharp sand or you can use coir. For each handful of seeds, add two or three handfuls of mixture. Make sure the mixture is moist and place it into a plastic bag with a loose tie or sealable container with breathing holes. If it is a zip-lock bag, half close the zip. Label the bag. Store in a cool dry place and then place in the fridge from November. They will stay in there until early February when you can start looking for signs of germination.

Each week, check the soil and, if needed, spray with a little water to keep moist.



Hawthorn

Collect: September/October when the berries are bright red.



Processing: Each berry has one seed in it. Remove the flesh by mashing with water, sieve and remove the seeds. Alternatively squash with your fingers to remove the seed then rinse. Allow to dry.

Mix the seeds with either a 50:50 mix of compost and sharp sand or you can use coir. For each handful of seeds, add two or three handfuls of mixture. Make sure the mixture is moist and place it into a plastic bag with a loose tie or sealable container with breathing holes. If it is a zip-lock bag, half close the zip. Label the bag. Store in a cool dry place and then place in the fridge from November. They will stay in there until March when you can start looking for signs of germination. Hawthorn can take 2 years to germinate so be patient! Each week, check the soil and, if needed, spray with a little water to keep moist.

Elder

Collect: September when berries are easily squashed, use secateurs to cut off bunches.



Processing: Remove the berries from their stalks, mash with water, sieve and extract the tiny seeds. Allow to dry.

Mix the seeds with either a 50:50 mix of compost and sharp sand or you can use coir. For each handful of seeds, add two or three handfuls of mixture. Make sure the mixture is moist and place it into a plastic bag with a loose tie or sealable container with breathing holes. If it is a zip-lock bag, half close the zip. Label the bag. Store in a cool dry place and then place in the fridge from November. They will stay in there until March when you can start looking for signs of germination. Each week, check the soil and, if needed, spray with a little water to keep moist.

Hazel

Collect: From August onwards, when ripe they should be brown and come away from their bracts easily. Hazelnuts are a favourite of squirrels, voles and mice so you need to get them before they're all gone! It is best to collect them from the tree rather than the ground.



Processing: Remove the bract (the leafy cup that the nut sits in) The seed is inside the shell but hazels produce many empty shells. You can use the float/sink test to discard unviable seed. Place the hazelnuts in a tub of water, those that sink are viable and have a seed within the shell, those that float are unlikely to have a seed inside and can be discarded. It is likely that the majority of the nuts will float so collect lots!

Mix the hazelnuts with either a 50:50 mix of compost and sharp sand or you can use coir. For each handful of nuts, add two or three handfuls of mixture. Make sure the mixture is moist and place it into a plastic bag with a loose tie or sealable container with breathing holes. If it is a zip-lock bag, half close the zip. Label the bag. Store in a cool dry place and then place in the fridge from November. After 1 month take the hazelnuts out of the fridge and place in a cool dry place for 1 month before returning to the fridge for a month. Repeat this until March, take the hazelnuts out and store outside until signs of germination appear. Each week, check the soil and, if needed, spray with a little water to keep moist.

Crab Apple

Collect: October when the seeds inside are brown.

Processing: Cut part way into the crab apples and break apart – this stops you damaging the pips with the knife. There will be 1-8 pips per crab apple. Rinse if needed and place them onto kitchen roll to dry a little.

Mix with a 50:50 compost/ sharp sand mix and put into a sandwich bag with the zip half open. Keep the bag in a cool dry place then store in the fridge from beg of Dec – end of Jan. Crab apple seeds are normally the first to germinate in the Spring.



Guelder Rose

Collect: September when the berries are bright red. Be very careful when collecting as the berries are poisonous. Wear gloves and wash your hands thoroughly afterwards.



Processing: Try to process the berries within a week of collecting. Again, be very careful, the berries are very squashy and can spit juice at you. Consider wearing goggles and gloves. Wash your hands thoroughly when finished. Each berry has one seed inside and you need to remove the fleshy berry around it as the berry inhibits germination. Mash or squash each berry and remove the seed, give the seeds a rinse to remove any flesh.

Mix with compost/sand or coir as with other berries and place in the fridge until spring. Sow into troughs or deep seed trays filled with compost in March. The seeds will grow roots but Guelder rose is a little unusual and you won't see any seedlings until the following spring.



Oak

Collect:

October and November from the ground.

Processing:

You can use the float/sink test for acorns – put in a bucket of water, those that float are less likely to be viable so can be discarded, those that sink are more likely to be viable seeds so keep these. Do not leave in the water for a long time. Check for signs of damage, holes and rot and discard these.

Mix the acorns with compost and store in a pot or seed tray (with drainage holes) outside. Keep an eye on the acorns for any sign of germination which can happen within days or weeks, but some take until Spring before they germinate! Once they germinate, individual acorns can be planted into root trainers/ pots. Place wire mesh over the pots as small mammals will find them and eat them! Make sure you label your pots.

If you prefer, you can skip the storage stage and just plant the acorns straight into their pots.



Spindle

Collect: October

Processing:

Break open the segments with your fingers (wear gloves as they are toxic). There are normally around 4 orange coated seeds in each cluster. The orange coat needs to be removed as otherwise they can go mouldy. If given a little squeeze, the orange coating comes off easily.

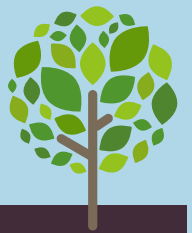
Mix the seed with 50:50 sharp sand/compost mix or coir and place in a ventilated container or sandwich bag half zipped up. Store in a cool dry place until December when you can move to a fridge if you have one available for seed storage!

Don't forget: keep an eye on all your seeds and spray with water if dry.



Tree seeds to collect in spring

Some seeds ripen in late spring, these can be collected and sown straight away.



Cherry

Collect: Mid – late July when the cherries turn red and are soft.

Sow: Remove the seeds from the flesh by mashing the cherries and picking out the seeds.

Mix with a 50:50 compost/ sharp sand mix (a couple of handfuls of the mix for every handful of seeds) and place in a trough or pot with adequate drainage (you may wish to put some gravel in the bottom to help with this). Store outside for warm and then cold stratification. You can move to a fridge for the winter if you wish (transfer to a zip-lock bag).

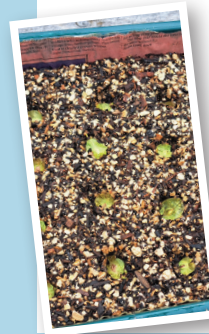
In mid-February spread the seed mix out onto a seed tray or planter filled with compost and lightly cover with compost. Prick out once the seedlings have their second set of leaves (see 'pricking out' below).



Wych Elm

Collect: End of May just as they are turning brown. Pull bunches of seeds off the lower branches.

Sow: Pull the seeds off the bunches and sow onto a compost/ vermiculite mix as soon as you can as the seeds dry out quickly. Cover with a thin layer of compost. Prick out when large enough.



Next steps



1. Germination

- From January check your bags/tubs for seeds starting to germinate. Ideally, you're looking for 10% of the seeds germinated. If seeds are germinating then you can get them out to plant.
- Mix 50:50 peat-free compost and vermiculite and place into a propagator lined with newspaper, gently firm down.
- Spread the seed mixture on top and then cover with a thin layer of the compost/vermiculite mix.
- Water them then place the propagator lid on top and label. We recommend watering bottom up- place in a tray of water and wait until the water has soaked all the way up, or spray them with water (ideally rainwater).
- Keep an eye on the compost over the next couple of weeks and spray with rainwater if looking dry. Place in a polytunnel/window sill/sheltered position.



2. Pricking out

- The seedlings will start to come up – the first pair of leaves are the seed leaves, or cotyledons, and then the true leaves will grow (they look like tiny versions of the tree leaves). Once the first set of true leaves have grown you can prick them out.
- Fill a root trainer or pot with peat-free compost (you can add a teaspoon of biochar if you wish to each cell or pot). Using a lollipop stick or something similar, ease the seedling out holding the seed leaves, not the stem and plant into the cells/pots.
- Label the root trainer. Water your root trainers or cells and keep in a sheltered position. Some seeds start germinating in February when frosts are still possible (crab apples and blackthorn tend to be the first ones) so these root trainers or cells need to be covered, or in a cold frame or polytunnel. Once the chance of frost is over, harden them off by putting out in the day and bringing them in at night if possible.

2. Pricking out *continued*

- If you are planning on growing bare root trees (in the ground rather than in root trainers or pots) you can follow the steps above but prick out into plug trays. Once the seedlings are larger and stronger (a few weeks) plant them out into a prepared bed about 15cm apart.

Hazelnuts and acorns

Hazelnuts and acorns that are sprouting can go straight into the root trainers. Fill the root trainers with compost (you can add a spoonful of biochar if you wish). Nuts should be planted into the root trainers about 2-3cm deep. The first part of the nut to grow is the root so plant them with the root pointing down. Protect the root trainers with mesh.



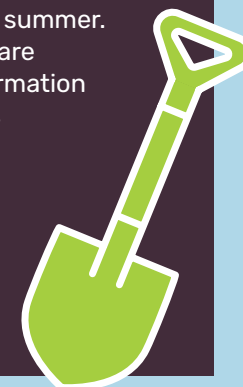
Birch seeds

Birch seeds need to be soaked before being sown into troughs. Soak them in shallow bowls of rain water. The seeds are hydrophobic so will float. Spray to wet the top a little. Soak for 24 hours before spreading onto compost in a propagator as above and cover with a thin layer of compost. Prick out into root trainers or beds when big enough to handle.



3. Caring for your saplings

- Water and weed the saplings throughout the summer as needed. You may also wish to use a seaweed fertiliser as needed over the summer. Trees can be planted out into their final locations when they are around 20 – 40cm tall which is normally 2 years old. For information on planting please see our guide: Saving Devon's Treescapes Planting Leaflet.pdf (devonwildlifetrust.org).
- Please keep biosecurity in mind** to prevent the spread of pests and diseases – you may wish to install boot washing equipment at the site of your tree growing and ensure you clean any tree planting equipment between sites for example.





Saving Devon's Treescapes

Contact us

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