

Seed to sapling

Newsletter



WELCOME

Hello! Welcome to the fourth edition of the Seed to Sapling Newsletter.

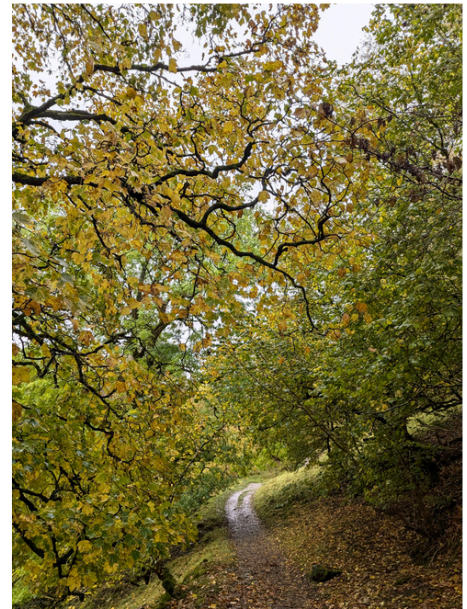
Autumn has well and truly arrived with the landscape turning its familiar shades of amber and orange. There are still plenty of seeds to collect, as well as cuttings to take. Keep reading for more information.

A few weeks ago we held a 'Growing Willows from cuttings' session at Gunnerside Village Hall. For anyone that came along and took willows home to root, please contact Margaret at [Sustainable Swaledale](#) if you haven't already, so that we can ensure all cuttings have been tracked. Track and trace is really important to prevent and potential issues with pests and diseases when planting out our trees.

We still have plenty of drawstring bags for tree seed gathering, if you are interested in collecting one, send me an [email](#).

As always, if you have any suggestions, questions or feedback please do get in touch and let me know. Happy reading!

Eva,
Community Conservation Officer



RECENT HIGHLIGHTS

A few weeks ago members of the Crosby Ravensworth Parish Tree Group spent a morning building an amazing 15 germination trays!



I took this photo of a sapling growing from a gate post near Keld. I thought it served as a nice reminder that although trees can sometimes prove tricky to grow, they really can be quite resilient!

We held a 'Growing Willows from Cuttings' talk and workshop, with Steven Heaton from Natural England. Thanks to all that came along to this really interesting and informative session. We managed to pot about 100 willow cuttings! Fingers crossed that they start developing roots over the winter.

This session was recorded and will be available on the YDMT website soon.





UPCOMING EVENTS

5th November, 2pm-4pm.

Tree Growing Workshop, Clapham Village Hall.

For this session, you will need to bring:

- Any seeds you have collected, ready to sow.
- Wooden germination box, if you have an empty one left over from a previous workshop.
- Recycled plastic or wooden containers that would be suitable to use as germination trays. For nuts, these can be something smaller, like an empty yoghurt pot. For most other seeds, larger containers will work better. For example, a standard plastic strawberry container would be too small, but a large strawberry container, Quality Street tub, or wooden wine box would be a better size!

During the session we will modify containers as needed, such as adding drainage holes and mesh lids. Then we will sow our seeds!

Refreshments will be available.

Email eva.irving@ydmtd.org to **book your place!**

We will be hosting a few tree planting days over the winter period, more details to follow!

All events are open to all residents from the local communities. If you are not able to make one of the events closer to you or are interested in any of the other events, get in touch to book a place or ask any questions!



SEEDS TO COLLECT

- Alder
- Blackthorn
- Hawthorn
- Holly
- Juniper
- Oak: Pendunculate & Sessile
- Rock Whitebeam
- Scots Pine
- Wild Service Tree

You can also have a go at growing **holly**, **willows** and **poplar** from cuttings at this time of year.

How to Collect Seeds

- Only collect seeds if you have landowner permission to do so.
- For smaller fruits, pick seeds when they are ripe directly from the trees (where you can comfortably reach!)
- Larger fruits and nuts can be collected from the ground, but avoid any that have started to decay or look like they've been nibbled!
- The first seeds to drop often have limited success, so wait a few days for more to drop.
- Don't take too many seeds, they are an important food source for many animals.
- Take care not to disturb any wildlife, such as nesting birds.
- Collect different species in individual bags and label them with the location you have found them (what3words is useful for this), the date, and the species.
- Tree diseases and pests are now a serious threat to our woodlands, please ensure that you are aware of the risks and are thoroughly washing your footwear between different sites.
- Stratify your seeds as soon as you can.
- There are many different methods of seed stratification, so have a play around and see which method works for you! I have included some species-specific guidance below to help.

Alder

- Likes wet ground. Tolerant of soil with low nitrogen levels.
 - Cones will start to open when they are ready to collect.
1. Store the cones in a large paper bag or open tray/box. As the cones dry in the paper bag they will drop their seeds, you can give them a shake to dislodge them once they have started to drop.
 2. Store the seeds in paper bags in a cool dry place until the Spring!
 3. At beginning of March soak the seeds for 24 hours in cold water and then drain, mix with a small amount of moist sand and place in a loosely tied plastic bag in the fridge for 4-6 weeks, then sow.

Blackthorn

- Will grow almost anywhere, except waterlogged soils.
- Fruits will turn black when they are ready to collect.
- There are several methods for stratifying blackthorn seeds, here are a couple you can try:

Method 1:

Quicker and simpler but your seeds might take 2 years to grow and have lower germination success.

1. Prepare your germination tray by filling it 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
2. Scatter the berries over the soil and cover with another 2-4cm of soil.

Method 2:

Fiddly and will take a bit longer, but generally seeds will have higher germination success and start growing within the first year.

1. Mash the berries and then pass through a sieve to separate the seeds from the pulp. You can soak the seeds first to soften them, but be careful not to let them ferment.
 2. Blackthorn seeds need to be sown straight away, so fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the seeds over the soil and cover with another 2-4cm of soil.
 3. Water the tray well and leave in a shady spot until Spring!
- It can take two years to germinate, so be patient.
 - Blackthorn benefit from four weeks in a warm moist environment (e.g. indoors) before being sown in the spring.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Hawthorn

- Tolerant of most soils excluding very acid or wet sites.
- Berries will turn red when they are ready to collect.
- There are several methods for stratifying Hawthorn seeds, here are a couple you can try:

Method 1:

Quicker and simpler but your seeds might take longer to grow and have lower germination success.

1. Prepare your germination tray by filling it 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
2. Scatter the berries over the soil and cover with another 2-4cm of soil.

Method 2:

Fiddly and will take a bit longer, but generally seeds will have higher germination success.

1. Mash the berries and then pass through a sieve to separate the seeds from the pulp. You can soak the seeds first to soften them, but be careful not to let them ferment.
 2. Hawthorn seeds need to be sown straight away, so fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the seeds over the soil and cover with another 2-4cm of soil.
 3. Water the tray well and leave in a shady spot until the second Spring!
- It will take two years to germinate, so be patient.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Holly: Seeds

- Generally a very hardy species, prefers neutral to acidic, peaty soils.
- Berries will turn red when they are ready to collect.
- There are several methods for stratifying Holly seeds, here are a couple you can try:

Method 1:

Quicker and simpler but your seeds might take longer to grow and have lower germination success.

1. Prepare your germination tray by filling it 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
2. Scatter the berries over the soil and cover with another 2-4cm of soil.

Method 2:

Fiddly and will take a bit longer, but generally seeds will have higher germination success.

1. Mash the berries and then pass through a sieve to separate the seeds from the pulp. You can soak the seeds first to soften them, but be careful not to let them ferment.
 2. Holly seeds need to be sown straight away, so fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the seeds over the soil and cover with another 2-4cm of soil.
 3. Water the tray well and leave in a shady spot until the second Spring!
- It will take two years to germinate, so be patient.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Holly: Cuttings

Two different kinds of cuttings can be used to grow trees from; hardwood and softwood.

- Softwood cuttings are the trees recent growth from the last year usually. They are the greener, bendy ends of stems and branches
- Hardwood cuttings are taken from the previous years' growth and are harder and more woody.

During the Autumn, you can grow holly from hardwood cuttings.

1. Measure a hardwood section of the stem, approximately 20cm in length.
2. At the bottom of the segment cut horizontally, 0.5cm below a leaf node.
At the top of the segment cut 0.5cm above a leaf node diagonally, so that any water runs away from the node and doesn't pool
3. Remove any leaves from the cutting.
4. Fill a tall pot e.g. a plant pot or large yogurt container with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
5. Push the cutting into the soil at least halfway.
6. Water the well and leave in a shady spot until Spring!

Juniper

Please note that juniper is susceptible to several diseases so be extra vigilant and ensure you have clean footwear, only collect from healthy plants and accurately record and monitor any seeds you grow.

- Likes dry, chalky and sandy soils, and they're unusual in their ability to tolerate both acid and alkaline conditions.
 - The berries (which are actually cones) turn blue when ready to be collected. Avoid picking when they are green. Cones are not always produced every year as they may take two seasons to ripen completely.
 - It can be difficult to grow juniper from seed so for more detailed information visit: [Growing Juniper](#)
1. The cones, holding one to three seeds, are very resinous and extraction of the seeds can be very difficult.
 2. One method is to use a blender with plenty of warm water to break up the cones but be careful not to damage the seeds.
 3. Leave the mixture to stand for a few minutes and the debris should float and any good seeds sink to the bottom.
 4. Then wash the seeds with detergent and take off any further debris and then leave the seed to dry before storing in paper bags.
 5. Before sowing the seed should be soaked for two days and mixed with equal parts of sand and compost, one part seed to two parts compost mix. Add a layer of stones to your germination tray, followed by a layer of sand, then the seed-compost mix, then a layer of sand 2-3cm thick.
 6. Leave in a shady spot outdoors, keep moist and protect from wildlife until spring!
- It can take one-two years to germinate, so be patient.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Oak: Pendunculate and Sessile

- **Pendunculate** (also known as English Oak) prefers deep, fertile, clay soils and damp lowlands but is generally tolerant of most conditions.
 - **Sessile** tolerates poorer, lighter, more acid soils and is also more shade and frost tolerant.
 - Acorns will drop from the tree when they are ready to collect.
1. Acorns require no pre-treatment and can be sown immediately or can be stored for a week or two but ensure they do not dry out as this will kill them.
 2. If the acorns are kept damp and covered with leaves, moss or some light soil the roots will soon begin to grow and they can then be planted into individual pots.
- Oaks are one of the easiest trees to grow!
 - Avoid the acorns that are first to fall as they are often damaged or diseased.

Poplar

During the winter when the tree is dormant, cuttings can be taken from Poplars.

Two different kinds of cuttings can be used to grow trees from; hardwood and softwood.

- Softwood cuttings are the trees recent growth from the last year usually. They are the greener, bendy ends of stems and branches
- Hardwood cuttings are taken from the previous years' growth and are harder and more woody.

During the Autumn, you can grow poplar from hardwood cuttings.

1. Measure a hardwood section of the stem, approximately 20cm in length.
2. At the bottom of the segment cut horizontally, 0.5cm below a leaf node.
At the top of the segment cut 0.5cm above a leaf node diagonally, so that any water runs away from the node and doesn't pool
3. Remove any leaves from the cutting.
4. Fill a tall pot e.g. a plant pot or large yogurt container with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
5. Push the cutting into the soil at least halfway.
6. Water the well and leave in a shady spot until Spring!

Rock Whitebeam

- This tree is specially adapted to grow on rocky and dry soils.
 - It is becoming increasingly rare and is often found clinging to areas of rocky woodland and fissures in limestone cliffs.
 - Not to be confused with Common Whitebeam that is native to the South of England but rarely found wild in the North.
 - Berries turn red when they are ripe. However this will depend on consistent warm weather at the time of pollination, fertilisation and during seed development. If the seed appears flat or thin it is not fully developed.
1. Fruits should be mashed and soaked in clean water for a week to 10 days to allow natural yeasts to grow that will help break down and soften the fruit.
 2. The fruit can then be further macerated to free the seeds from the flesh. Poor or undeveloped seeds float and those that sink are likely to be more viable.
 3. The fully developed seeds can be sown directly after washing and must not be dried out or stored as this dramatically reduces viability.
 4. Fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the seeds over the soil and cover with another 2-4cm of soil.
- It can take one-two years to germinate, so be patient.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Scots Pine

- Thrives in light, well-drained or gravelly soil
 - Cones can be collected from the lower branches of trees when they have turned from green to brown
1. Store the cones in a large paper bag or open tray/box. As the cones dry in the paper bag they will drop their seeds, you can give them a shake to dislodge them once they have started to drop.
 2. Store the seeds in paper bags in a cool dry place until the Spring!
 3. In the Spring, soak the seeds for 24 hours in cold water.
 4. Drain the water and mix the seeds with some moist sand in a plastic bag tied loosely. Leave the bag in the fridge for 4 to 6 weeks.
 5. Fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the seeds over the soil and cover with another 2-4cm of soil.
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Wild Service Tree

- Prefers chalk and lime-rich soils but is tolerant of other soil types.
- Collect berries when they are crimson.
- Timeline: Collect seeds in September, Stratify seeds from October until the end of February, Sow the germinating seeds from March.

To prepare:

1. To remove the flesh from the berries, put the berries in a sieve and gently squeeze them with your fingers under running water to release the seeds.

To stratify (artificial stratification):

1. Soak seeds in water for 24-48 hours. This is to remove germination inhibitors in the seeds and help them take up water.
2. Place the seeds on a kitchen towel and put them in the fridge for 12 weeks.
3. After 12 weeks, seal them in a plastic bag and move them to room temperature.

To sow:

1. Fill your germination tray 1/3 with with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
 2. Spread the seeds over the soil and cover with another 2-4cm of soil.
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Willows

Willows grow very readily from cuttings, in fact some rooting hormones are made from willows.

There are lots of varieties of willow that grow in the Yorkshire Dales. If you are going to grow willows, focus on the native and rare species, for example:

- Bay willow
- Purple willow
- Eared willow
- Creeping willow
- Dark leaved willow
- Tea leaved willow

For more information about willows in the Dales, and how to grow them from cuttings, watch the video from our recent event on our webpage, [here](#).

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- Hardwood cuttings are taken from the previous years' growth and are harder and more woody.

During the winter, you can grow willow from hardwood cuttings.

1. Measure a hardwood section of the stem, approximately 20cm in length.
2. At the bottom of the segment cut horizontally, 0.5cm below a leaf node. At the top of the segment cut 0.5cm above a leaf node diagonally, so that any water runs away from the node and doesn't pool
3. Remove any leaves from the cutting.
4. Fill a tall pot e.g. a plant pot or large yogurt container with equal quantities of compost and a coarse material such as coarse sand or fine gravel.
5. Push the cutting into the soil at least halfway.
6. Water the well and leave in a shady spot until Spring!

WITH THANKS

This project is supported by donations from our supporters and funding from the Yorkshire Dales National Park Authority Sustainable Development Fund and the Defra Trees Call to Action Fund. This fund was developed by Defra in partnership with the Forestry Commission and is being delivered by the Heritage Fund.

Visit the [Tree Growing Community webpage](#) on our website for more information about the Seed to Sapling project, growing trees and previous editions of this newsletter.