

Seed to sapling

Newsletter



WELCOME

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

October is another busy month for collecting, stratifying and sowing seeds. Keep reading for more info!

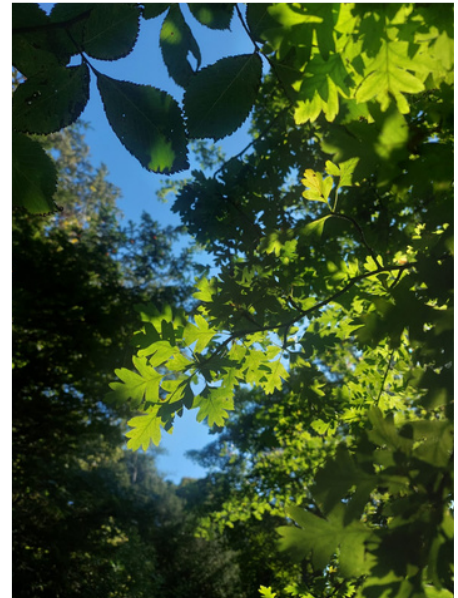
This month we have had a delivery of wood for making germination boxes, kindly donated by JT Atkinson.

If anyone is not able to attend one of the box building sessions but would like a go at making one on their own, get in touch and we can supply you with the materials and instructions needed, so that you can take them away and make one yourself! For those involved in the Sustainable Swaledale group, you may be able to collect some ready made boxes later in the year, contact the group directly via email at rob@muddhouse.uk for more info!

We have also taken delivery of various sizes 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



Josh and his team have been doing a brilliant job at the new Clapham tree nursery site. The main ground preparation works and fencing have now been completed.

Next up is building the tree growing tables, installing a shed and water bowser and laying the hedge.

We shall be inviting you all to a grand opening of the site early next spring!



Carol has given myself, Aila and Olivia a germination box masterclass! And we have spent some time tweaking and perfecting the measurements for the instruction guide.

Aila and Olivia have been out and about checking which seeds are ready to collect. Here are a couple of photos Aila took last week along Ingleton Nature Trail.





UPCOMING EVENTS

The Tree Council

There are two online events during October on the 2nd and the 9th hosted by The Tree Council, as well some great resources covering all things tree growing!

Take a look via the link [here](#).

2nd October, 10am-3pm.

Germination Box Building Workshop, Crosby Ravensworth.

Join us for a germination box building session.

Booking is essential as lunch is included.

Email eva.irving@ydmtd.org for more details and to **book your place!**

16th October, 6pm-8pm.

Growing Willows from Cuttings, Gunnerside Village Hall.

Join us for this facinating talk from Steven Heaton (Natural England Advisor) about the importance of willows in the Dales and how to grow from cuttings. During the second half of the session we will be potting willow cuttings into root trainers.

Refreshments will be available.

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

More events on the next page...



UPCOMING EVENTS

31st October, 10am-3pm.

Tree Growing Workshop, Kirkby Malham Parish Hall.

Join us at Kirkby Malham Village Hall for a seed collection walk (weather dependant) and germination box building session.

Booking is essential as lunch is included.

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

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!**

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
- Crab Apple
- Dog Rose
- Elder
- Guelder Rose
- Hawthorn
- Hazel
- Juniper
- Lime: Small Leaved, Large Leaved & Common
- Oak: Pendunculate & Sessile
- Purging Buckthorn
- Rock Whitebeam
- Scots Pine
- Spindle
- Wild Service Tree

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.

Crab Apple

- Likes fertile soils, particularly alkaline or neutral.
 - Apples will turn yellow and feel ripe when they are ready to collect.
1. You will need to extract the seed from the fruit, to do this you can cut the apples in half and remove the seeds. Rinse any flesh off the fruit to avoid fermentation.
 2. 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 inside at room temperature for two weeks, then move outside to a cool spot until Spring!
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Dog Rose

- Tolerant of most soil types, but prefers heavy, neutral soils.
 - Rosehips turn red when they are ready to collect.
 - The seeds can be time consuming to extract from the fruits, there are different methods for extracting and sowing, the most common method is outlined below.
1. Cut open the fruit and remove the seeds by hand. You can use a knife to help tease them out.
 2. Mix together a few handfuls of soil and sand at a 1:1 ratio. Then mix together 1-part seeds to 2 or 3 parts of the soil/sand mix.
 3. Then, 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/sand/compost mix over the soil and cover with another 2-4cm of sand or soil.
 4. Water and label the tray and leave in a shady spot outside, keeping moist for 12-18 months until spring!
- Seedlings can be potted on once 10% of the seeds are showing signs of germination.
 - Seeds won't germinate until the second Spring, so be patient.

Elder

- Likes nutrient rich soil.
- Berries will turn black when they are ready to collect.
- There are several methods for stratifying Elder 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. Elder 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. If about 10% are showing signs of germination, they are ready to sow.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Guelder Rose

- Likes damp, neutral or chalky soils.
- Berries turn red when they are ready to collect.
- There are several methods for stratifying Purging Buckthorn 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. Guelder Rose 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 will 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.

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.

Hazel

- Grows well in most soils except water logged or very infertile soil and will tolerate some shade.
 - Nuts will turn from green to brown when they are ready to collect.
1. Fill your germination tray 1/3 with equal quantities of compost and a coarse material such as coarse sand or fine gravel. Spread the nuts over the soil and cover with another 2-4cm of soil. Alternatively, you can sow immediately into individual pots.
 2. Make sure they are protected from frost and predators.
- In the spring sow the nuts that have germinated.

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.

Lime: Small Leaved, Large Leaved, and Common

- **Small Leaved:** likes nutrient-rich, moist but well drained soils. Usually, bracts are ready to collect slightly earlier than common and large leaved.
 - **Large Leaved:** prefers moist, loamy alkaline to neutral soils but will also tolerate slightly acidic soil.
 - **Common:** thought to be a hybrid between small and large leaved lime. Prefers moist, loamy alkaline to neutral soils but will also tolerate slightly acidic soil.
 - Bracts will turn from green to brown when they are ready to collect.
1. Store the bracts in a large paper bag or open tray/box. As the seeds 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. 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 cool, frost-free place such as a garage and keep moist until Spring!
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.
 - Germination can take two years, so be patient.

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.

Purging Buckthorn

- Likes chalky soils near to water.
- Berries turn black when they are ready to collect.
- There are several methods for stratifying Purging Buckthorn 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. Purging Buckthorn 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.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

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.

Spindle

- Likes heavy shade and is tolerant of a wide range of non-acidic soils.
 - The four-lobed fruits will turn pink when they are ready to collect.
 - Spindle seeds can be time consuming to extract from the fruits, there are different methods for extracting and sowing, the most common method is outlined below.
1. Cut open the fruit, each lobe usually contains up to four seeds, remove them by hand. You can use a knife to help tease them out.
 2. Store the seeds in a paper bag for a day or two.
 3. Mix together a few handfuls of soil and sand at a 1:1 ratio. Then mix together 1-part seeds to 2 or 3 parts of the soil/sand mix and store in a plastic bag tied loosely at the top. Store somewhere warm for two or three months.
 4. After two or three months, around the new year, 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/sand/compost mix over the soil and cover with another 2-4cm of sand or soil.
 5. Water and label the tray and leave in a shady spot outside, keeping moist until spring!
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.
 - It can take two years to germinate, so be patient.

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.

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.