

Seed to sapling



YDMT's Guide to Growing Trees



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Seed to Sapling - Tree Growing Calendar

This calendar is a guide to growing trees over one or two calendar years.

Please note this is an approximate guide, timings may vary year on year due to fluctuations in the environmental conditions.

'GROW' refers to the period during which seeds are germinating in germination trays and are then potted on into individual containers once two sets of adult leaves have emerged and roots have begun to develop. Some species may also require an additional year for germination and growth before they can be planted out, extending the calendar to a three year period.

Category timings are successive and may vary or overlap, e.g. for Rowan, seeds collected in August can be stratified immediately after collecting and will therefore likely to need to be sown at the beginning of March.

See the Tree Growing Guide for more species specific information.

Common Name	Latin Name		JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Alder	<i>Alnus glutinosa</i>	Year 1											COLLECT	STRATIFY
		Year 2	STRATIFY		SOW	GROW							PLANT	
Aspen	<i>Populus tremula</i>	Year 1						COLLECT/SOW	GROW					
		Year 2	GROW											PLANT
Birch (Downy or Silver)	<i>Betular</i>	Year 1								COLLECT	STORE	STRATIFY		
		Year 2	STRATIFY		SOW		GROW							PLANT
Blackthorn	<i>Prunus Spinosa</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY		SOW	GROW							PLANT	
Cherry (Bird)	<i>Prunus padus</i>	Year 1							COLLECT	STRATIFY				
		Year 2	STRATIFY		SOW	GROW							PLANT	
Cherry (Wild)	<i>Prunus avium</i>	Year 1						COLLECT	STORE			STRATIFY		
		Year 2	STRATIFY		SOW	GROW							PLANT	
Crab apple	<i>Malus sylvestris</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY		SOW	GROW							PLANT	
Dog rose	<i>Rosa canina</i>	Year 1										COLLECT		
		Year 2	GROW											PLANT
Dogwood	<i>Cornus sanguinea</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY		SOW	GROW							PLANT	
Elder	<i>Sambucus nigra</i>	Year 1								COLLECT	STRATIFY			
		Year 2	STRATIFY		SOW	GROW							PLANT	
Guelder rose	<i>Viburnum opulus</i> <i>Crataegus</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY			SOW	GROW							
Hawthorn	<i>monogyna</i> <i>Corylus avellana</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY			SOW	GROW							PLANT
Hazel ♀		Year 1									COLLECT	STRATIFY OR STORE		
		Year 2	STRATIFY OR STORE			SOW	GROW							

Common Name	Latin Name		JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Holly: from seed	<i>Ilex aquifolium</i>	Year 1										COLLECT		
		Year 2	STRATIFY			SOW	GROW							PLANT
Holly: from cuttings	<i>Ilex aquifolium</i>	Year 1									TAKE CUTTINGS			
		Year 2	TAKE CUTTINGS		GROW							PLANT		
Lime (Common)	<i>Tilia x europaea</i>	Year 1										COLLECT	STRATIFY	
		Year 2	STRATIFY		SOW	GROW						PLANT		
Lime (large leaved)	<i>Tilia platyphyllos</i>	Year 1										COLLECT	STRATIFY	
		Year 2	STRATIFY		SOW	GROW						PLANT		
Lime (small-leaved)	<i>Tilia cordata</i>	Year 1										COLLECT	STRATIFY	
		Year 2	STRATIFY		SOW	GROW						PLANT		
Oak (pendunculate or sessile)	<i>Quercus</i>	Year 1									COLLECT	SOW		GROW
		Year 2	GROW											PLANT
Purging buckthorn	<i>Rhamnus cathartica</i>	Year 1										COLLECT	STRATIFY	
		Year 2	STRATIFY		SOW	GROW						PLANT		
Rock whitebeam	<i>Sorbus rupicola</i>	Year 1									COLLECT	STRATIFY		
		Year 2	STRATIFY			SOW	GROW						PLANT	
Rowan	<i>Sorbus aucuparia</i>	Year 1								COLLECT	STRATIFY			
		Year 2	STRATIFY		SOW	GROW						PLANT		
Scots pine	<i>Pinus sylvestris</i>	Year 1										COLLECT		
		Year 2	COLLECT	STRATIFY	SOW	GROW						PLANT		
Spindle	<i>Euonymus europaeus</i>	Year 1									COLLECT	STRATIFY OR STORE		
		Year 2	STRATIFY OR STORE		SOW	GROW						PLANT		
Wild Service	<i>Sorbus torminalis</i>	Year 1	STRATIFY			SOW	GROW						PLANT	
		Year 2									COLLECT	STRATIFY		
Willow: from seed	<i>Salix</i>	Year 1			COLLECT	SOW	GROW						PLANT	
Willow: from cuttings	<i>Salix</i>	Year 1	TAKE CUTTINGS		GROW							PLANT		
Wych elm	<i>Ulmus glabra</i>	Year 1					COLLECT	SOW	GROW					
		Year 2	GROW									PLANT		

CAUTION: Yew

Yew trees contain the highly poisonous taxane alkaloids. Eating just a few leaves can cause severe illness and there have been some deaths linked to yew poisoning. All parts of the tree are poisonous except for the flesh red arils that cover the seeds.

How to Collect Seeds

- Only collect seeds if you have landowner permission to do so.
- Take care not to disturb any wildlife, such as nesting birds.
- 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.
- 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.
- Stratify or sow 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!



Individual Species Information



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.
 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.
 5. Water the tray well and leave in a shady spot to germinate.
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Aspen

- Generally a very hardy species, prefers poor, dry soils.
 - Seed pods will start to open when they are ready to collect.
1. Collect the seed pods as they start to open and place them in a paper bag. Leave the bag in a warm dry place for a few days until the pods rupture and the seeds drop out.
 2. Once extracted the seeds will deteriorate quickly, so sow them as soon as possible.
 3. 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.
 4. Water the tray well and leave in a shady spot until the seeds germinate.
- Aspen can have quite a poor success rate, but successful seeds will germinate very quickly! They might even be ready to plant out the following year.
 - Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

Birch: silver and downy

- **Downy Birch** likes infertile soil, particularly poorly-drained peat.
 - **Silver birch** like well-drained soils.
 - 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. Store the seeds in paper bags in a cool dry place until the Spring!
 3. 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.
 4. Water the tray well and leave in a shady spot to germinate.
- Seedlings can be potted on once two sets of adult leaves have grown and the root has begun to appear.

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. 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 they germinate.
- 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.

Cherry: bird and wild

- Likes fertile woodland soils, but will also tolerate clay soils too.
 - Cherries will turn black or dark red when they are ripe.
1. You will need to extract the seed from the fruit, to do this you can cut the cherries in half and remove the seeds, or use a cherry pitter if you have one. Try to remove as much flesh as possible 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 in a shady spot until they germinate, hopefully in the 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.

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 they germinate.
- 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 germinated.
- Seedlings can be potted on once around 10% of the seeds are showing signs of germination.
 - Seeds probably won't germinate until the second Spring, so be patient.

Dogwood

- Tolerant of most soils, but prefers some sun and well drained soil.
- Collect berries when they have ripened, turning black.
- Collect seeds during September
- There are several methods for stratifying Dogwood 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. 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 they germinate.
- 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.

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 Guelder rose 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 they germinate.
- 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 they germinate.
- 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.

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 they have germinated.
- It will likely 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 and Winter, 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 the roots have developed. Buds should have started to form once the roots are developed.

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 they have germinated.
- 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 they have germinated.
- 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 to 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.

Rowan

- Likes poor, thin, acidic soils and is hardy, so is tolerant of very exposed sites.
- Berries will turn red when they are ripe.
- There are several methods for stratifying rowan 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. Rowan 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 they have germinated.
- 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.

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 they have germinated.
- 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

- Prefers chalk and lime-rich soils but is tolerant of other soil types.
- Collect berries when they are bright red.
- 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.

Willow: from seeds

- Prefers wet sites and moist soils.
 - Collect seeds when the seed pods have just opened. Willow seeds are very light and willow blow away quickly once open!
 - Timeline: Collect seeds from May to June.
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. Separate out the individual seeds from their bunches and sow immediately after collecting.
 3. 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 grow very quickly and usually germinate within their first year after sowing.

Willow: from cuttings

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](#).

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 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 them well and leave in a shady spot until roots have developed.
Buds should have started to form once the roots are developed.

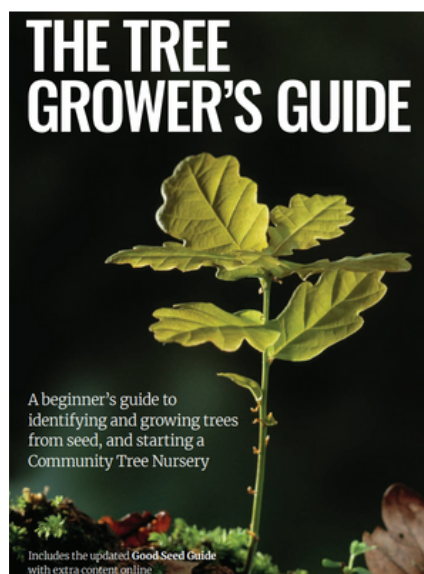
Wych elm

- Prefers rich and damp soils.
 - Collect seeds when they are starting to turn brown.
 - Timeline: Collect seeds from May to June.
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. Separate out the individual seeds from their bunches and sow immediately after collecting.
 3. 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.
 - Wych elm grow very quickly and usually germinate within their first year after sowing.

Additional resources

In this guide, we have aimed to provide some key information and methods for growing trees. But seed collection and tree growing is a huge topic with lots of information out there!

For even more information, check out some of the fantastic additional resources linked below from The Tree Council, The Woodland Trust, The Conservation Volunteers and more!



With thanks

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The Seed to Sapling project is also kindly supported by Beyondly's [Fund for Change](#).



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.